IP Office	Application	Applicant	Title	Application Date	Priority Number	Publication Number	Publication Date
US	12803732			07/01/2010	US 60583169 US 60725896 US 11546685 US 60787850 US 60846150 US 10964011 US 12803732 US 60725999 US 11183256 US 60647826 US 60527565 US 60509631 US 60562798 US 60620238 US 60618107 US 60605191 US 60592045 US 60647836	US 20110102734 A1 US 8434863 B2	05/05/2011 05/07/2013
US	12806312			08/10/2010	US 60583169 US 60725896 US 60787850 US 10822218 US 11891411 US 60647826 US 60527565 US 12214435 US 60605191 US 12462286 US 60592045 US 60647836 US 11183269 US 11183276 US 60846150 US 10964011 US 12806312 US 60725999 US 12317043 US 60509631 US 60562798 US 60620238 US 11580222 US 60618107 US 60462591	US 20100309426 A1 US 8465151 B2	12/09/2010 06/18/2013
US	12987018			01/07/2011	US 12987018 US 11497651 US 12074961 US 11006343 US 60527565	US 8112104 B1	02/07/2012
US	13085402			04/12/2011	US 60583169 US 11183269 US 10964011 US 13085402 US 60647826 US 60527565 US 60509631 US 60562798 US 60620238 US 60618107 US 60605191 US 60592045 US 60647836	US 20110187990 A1 US 8500271 B2	08/04/2011 08/06/2013

IP Office	Application	Applicant	Title	Application Date	Priority Number	Publication Number	Publication Date
US	13291020			11/07/2011	US 60583169 US 60725896 US 11546685 US 60787850 US 60846150 US 10964011 US 12803732 US 60725999 US 11183256 US 60647826 US 60527565 US 60509631 US 60562798 US 60620238 US 60618107 US 13291020 US 60605191 US 60592045 US 60647836	US 20120050668 A1 US 8430507 B2	03/01/2012 04/30/2013
US	13363360			01/31/2012	US 12987018 US 11497651 US 12074961 US 11006343 US 60527565 US 13363360	US 8280419 B1	10/02/2012
US	13367346			02/06/2012	US 60583169 US 60725896 US 11078855 US 60787850 US 13367346 US 10822218 US 60647826 US 60527565 US 60605191 US 12462286 US 60592045 US 60647836 US 11183269 US 11183276 US 11546685 US 60846150 US 10964011 US 60725999 US 11183256 US 11006343 US 60509631 US 11183283 US 60562798 US 11183262 US 60620238 US 11580222 US 60618107 US 11078857 US 11183263	US 20120133885 A1 US 9033493 B2	05/31/2012 05/19/2015
US	13593483			08/23/2012	US 12987018 US 11497651 US 13593483 US 11006343 US 60527565 US 13363360 US 12074961	US 8737978 B1	05/27/2014

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US	13831445			03/14/2013	US 60583169 US 60725896 US 11078855 US 60787850 US 10822218 US 60647826 US 60527565 US 60605191 US 60592045 US 60647836 US 11183269 US 11183276 US 11546685 US 60846150 US 10964011 US 12803732 US 60725999 US 11183256 US 11006343 US 60509631 US 11183283 US 60562798 US 11183262 US 60620238 US 60618107 US 13831445 US 11078857 US 11183263	US 20140268013 A1 US 20170068117 A9 US 10310296 B2	09/18/2014 03/09/2017 06/04/2019
US	13831512			03/14/2013	US 60583169 US 60725896 US 11078855 US 60787850 US 10822218 US 11891411 US 60647826 US 60527565 US 12214435 US 60605191 US 13831512 US 12462286 US 60592045 US 60647836 US 11183269 US 11183276 US 11546685 US 60846150 US 10964011 US 12806312 US 60725999 US 11183256 US 12317043 US 11006343 US 60509631 US 11183283 US 60562798 US 11183262 US 60620238 US 11580222 US 60618107 US 60462591 US 11078857 US 11183263	US 20130201440 A1 US 9690121 B2	08/08/2013 06/27/2017
US	13831455			03/14/2013	US 13831455	US 20140278782 A1	09/18/2014

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US	13831419			03/14/2013	US 60583169 US 60725896 US 11078855 US 60787850 US 10822218 US 60647826 US 60527565 US 13291020 US 60605191 US 13831419 US 60592045 US 60647836 US 11183269 US 11183276 US 11546685 US 60846150 US 10964011 US 12803732 US 60725999 US 11183256 US 11006343 US 60509631 US 11183283 US 60562798 US 11183262 US 60620238 US 11580222 US 60618107 US 11078857 US 11183263	US 20140268008 A1 US 20160246075 A9 US 10345625 B2	09/18/2014 08/25/2016 07/09/2019
US	13955336			07/31/2013	US 60583169 US 11078855 US 11183269 US 11183276 US 10964011 US 13955336 US 10822218 US 13085402 US 11183256 US 60647826 US 11006343 US 60527565 US 60509631 US 11183283 US 60562798 US 11183262 US 60620238 US 60618107 US 60605191 US 11078857 US 11183263 US 60592045 US 60647836	US 20130308089 A1 US 8905542 B2	11/21/2013 12/09/2014
EP	14158720			03/11/2014	US 13831455	EP 2779074 A1	09/17/2014
CA	2845503			03/11/2014	US 13831455	CA 2845503 A1	09/14/2014
CN	201410096316			03/14/2014	US 13831455	CN 104050228 A	09/17/2014

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US	14272632			05/08/2014	US 11452115 US 60689686 US 11006343 US 60527565 US 12798995 US 14272632	US 20140242956 A1 US 9204268 B2	08/28/2014 12/01/2015
US	14286976			05/23/2014	US 12987018 US 11497651 US 13593483 US 11006343 US 60527565 US 13363360 US 14286976 US 12074961	US 20140256293 A1 US 11019199 B2	09/11/2014 05/25/2021
US	14313989			06/24/2014	US 14313989 US 60583169 US 12322377 US 11078855 US 10964011 US 10822218 US 60647826 US 11006343 US 60562798 US 60620238 US 60618107 US 60605191 US 11078857 US 60592045 US 60647836	US 20140361185 A1 US 9488520 B2	12/11/2014 11/08/2016
US	14557409			12/01/2014	US 60583169 US 11078855 US 11183269 US 11183276 US 10964011 US 13955336 US 10822218 US 13085402 US 11183256 US 14557409 US 60647826 US 11006343 US 60527565 US 60509631 US 11183283 US 60562798 US 11183262 US 60620238 US 60618107 US 60605191 US 11078857 US 11183263 US 60592045 US 60647836	US 20150085245 A1 US 9547184 B2	03/26/2015 01/17/2017
HK	14112801			12/22/2014	US 13831455	HK 1199316 A1	06/26/2015

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US	14715501			05/18/2015	US 14715501 US 60583169 US 60725896 US 11078855 US 60787850 US 13367346 US 10822218 US 60647826 US 60527565 US 60605191 US 12462286 US 60592045 US 60647836 US 11183269 US 11183276 US 11546685 US 60846150 US 10964011 US 60725999 US 11183256 US 11006343 US 60509631 US 11183283 US 60562798 US 11183262 US 60620238 US 11580222 US 60618107 US 11078857 US 11183263	US 20150253590 A1 US 10330956 B2	09/10/2015 06/25/2019
US	14922344			10/26/2015	US 14922344 US 11006343 US 60527565 US 14272632 US 11452115 US 60689686 US 12798995	US 20160044474 A1 US 9736664 B2	02/11/2016 08/15/2017
US	15343472			11/04/2016	US 14313989 US 60583169 US 12322377 US 11078855 US 10964011 US 10822218 US 60647826 US 15343472 US 11006343 US 60562798 US 60620238 US 60618107 US 60605191 US 11078857 US 60592045 US 60647836	US 20170074721 A1 US 10060790 B2	03/16/2017 08/28/2018

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US	15375423			12/12/2016	US 60583169 US 11078855 US 10822218 US 13085402 US 60647826 US 60527565 US 15375423 US 60605191 US 60592045 US 60647836 US 11183269 US 11183276 US 10964011 US 13955336 US 11183256 US 14557409 US 11006343 US 60509631 US 11183283 US 60562798 US 11183262 US 60620238 US 60618107 US 11078857 US 11183263	US 20170090219 A1 US 10061144 B2	03/30/2017 08/28/2018
US	15396428			12/31/2016	US 60583169 US 60725896 US 11078855 US 60787850 US 10822218 US 11891411 US 15396428 US 60647826 US 60527565 US 12214435 US 60605191 US 13831512 US 12462286 US 60592045 US 60647836 US 11183269 US 11183276 US 11546685 US 60846150 US 10964011 US 12806312 US 60725999 US 11183256 US 12317043 US 11006343 US 60509631 US 11183283 US 60562798 US 11183262 US 60620238 US 11580222 US 60618107 US 60462591 US 11078857 US 11183263	US 20170146829 A1	05/25/2017

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US	15409723			01/19/2017	US 60583169 US 60725896 US 11078855 US 60787850 US 10822218 US 11891411 US 60647826 US 15409723 US 60527565 US 12214435 US 60605191 US 13831512 US 12462286 US 60592045 US 60647836 US 11183269 US 11183276 US 11546685 US 60846150 US 10964011 US 12806312 US 60725999 US 11183256 US 12317043 US 11006343 US 60509631 US 11183283 US 60562798 US 11183262 US 60620238 US 11580222 US 60618107 US 60462591 US 11078857 US 11183263	US 20170131575 A1	05/11/2017
US	15469440			03/24/2017	US 14922344 US 11006343 US 60527565 US 14272632 US 15469440 US 11452115 US 60689686 US 12798995	US 20170201872 A1 US 10142810 B2	07/13/2017 11/27/2018
US	15704181			09/14/2017	US 14922344 US 11006343 US 60527565 US 14272632 US 15469440 US 11452115 US 60689686 US 15704181 US 12798995	US 20180014169 A1 US 10492038 B2	01/11/2018 11/26/2019

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US	16049120			07/30/2018	US 60583169 US 11183269 US 10964011 US 13955336 US 13085402 US 16049120 US 14557409 US 60647826 US 60527565 US 60509631 US 15375423 US 60562798 US 60620238 US 60618107 US 60605191 US 60592045 US 60647836	US 20180335650 A1 US 11243416 B2	11/22/2018 02/08/2022
US	16102859			08/14/2018	US 14313989 US 60583169 US 12322377 US 11078855 US 16102859 US 60647826 US 15343472 US 60562798 US 60620238 US 60618107 US 60605191 US 60592045 US 60647836	US 20180348050 A1 US 10359311 B2	12/06/2018 07/23/2019
US	16127957			09/11/2018	US 14715501 US 60583169 US 60725896 US 11183269 US 60787850 US 60846150 US 10964011 US 13367346 US 60725999 US 16127957 US 60647826 US 60527565 US 60509631 US 60562798 US 60620238 US 11580222 US 60618107 US 60605191 US 12462286 US 60592045 US 60647836	US 20190033623 A1 US 11086147 B2	01/31/2019 08/10/2021

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US	16182969			11/07/2018	US 14715501 US 60583169 US 60725896 US 60787850 US 13367346 US 10822218 US 13085402 US 11891411 US 60647826 US 15409723 US 60527565 US 15375423 US 12214435 US 60605191 US 13831512 US 12462286 US 60592045 US 60647836 US 16182969 US 11183269 US 11183276 US 60846150 US 10964011 US 13955336 US 12806312 US 16049120 US 60725999 US 16127957 US 12317043 US 14557409 US 60509631 US 60562798 US 60620238 US 11580222 US 60618107 US 60462591	US 20190187492 A1 US 20210364827 A9	06/20/2019 11/25/2021
US	16424018			05/28/2019	US 60583169 US 60725896 US 11546685 US 60787850 US 60846150 US 10964011 US 12803732 US 60725999 US 11183256 US 60647826 US 60527565 US 16424018 US 60509631 US 60562798 US 60620238 US 60618107 US 13291020 US 60605191 US 13831419 US 60592045 US 60647836	US 20190278110 A1 US 11630331 B2	09/12/2019 04/18/2023

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US	16426351			05/30/2019	US 14313989 US 60583169 US 12322377 US 11078855 US 16102859 US 16426351 US 60647826 US 15343472 US 60562798 US 60620238 US 60618107 US 60605191 US 60592045 US 60647836	US 20190310132 A1 US 10539459 B2	10/10/2019 01/21/2020
US	16429181			06/03/2019	US 60583169 US 60725896 US 11546685 US 60787850 US 60846150 US 10964011 US 13831455 US 12803732 US 60725999 US 11183256 US 60647826 US 60527565 US 60509631 US 16429181 US 60562798 US 60620238 US 60618107 US 60605191 US 60592045 US 60647836	US 20190285913 A1 US 11513371 B2	09/19/2019 11/29/2022
US	16445452			06/19/2019	US 12987018 US 11497651 US 13593483 US 11006343 US 60527565 US 13363360 US 14286976 US 12074961 US 16445452	US 20190306304 A1 US 11792316 B2	10/03/2019 10/17/2023
US	16446710			06/20/2019	US 12987018 US 11497651 US 13593483 US 11006343 US 60527565 US 13363360 US 14286976 US 12074961 US 16446710	US 20190306305 A1 US 11711459 B2	10/03/2019 07/25/2023
US	16556205			08/29/2019	US 14922344 US 11006343 US 60527565 US 14272632 US 15469440 US 11452115 US 60689686 US 15704181 US 12798995 US 16556205	US 20190387371 A1 US 10708727 B2	12/19/2019 07/07/2020

IP Office	Application	Applicant	Title	Application Date	Priority Number	Publication Number	Publication Date
US	16574254			09/18/2019	US 60583169 US 11183269 US 10964011 US 13955336 US 13085402 US 16049120 US 14557409 US 60647826 US 60527565 US 60509631 US 15375423 US 60562798 US 60620238 US 60618107 US 16574254 US 60605191 US 60592045 US 60647836	US 20200012127 A1 US 11204512 B2	01/09/2020 12/21/2021
US	16703805			12/04/2019	US 14313989 US 60583169 US 12322377 US 11078855 US 16102859 US 16426351 US 16703805 US 60647826 US 15343472 US 60562798 US 60620238 US 60618107 US 60605191 US 60592045 US 60647836	US 20200109986 A1 US 11326941 B2	04/09/2020 05/10/2022
US	16794458			02/19/2020	US 14922344 US 11006343 US 60527565 US 14272632 US 16794458 US 15469440 US 11452115 US 60689686 US 15704181 US 12798995 US 16556205	US 20200186975 A1 US 11800329 B2	06/11/2020 10/24/2023
US	16821810			03/17/2020	US 60583169 US 16821810 US 11183269 US 10964011 US 13955336 US 13085402 US 16049120 US 14557409 US 60647826 US 60527565 US 60509631 US 15375423 US 60562798 US 60620238 US 60618107 US 16574254 US 60605191 US 60592045 US 60647836	US 20200218094 A1 US 11536988 B2	07/09/2020 12/27/2022

IP Office	Application	Applicant	Title	Application Date	Priority Number	Publication Number	Publication Date
US	17395509			08/06/2021	US 14715501 US 60583169 US 60725896 US 11183269 US 60787850 US 60846150 US 10964011 US 13367346 US 17395509 US 60725999 US 16127957 US 60647826 US 60527565 US 60509631 US 60562798 US 60620238 US 11580222 US 60618107 US 60605191 US 12462286 US 60592045 US 60647836	US 20210364828 A1 US 11762224 B2	11/25/2021 09/19/2023
US	17484080			09/24/2021	US 17484080 US 60583169 US 11183269 US 10964011 US 13955336 US 13085402 US 16049120 US 14557409 US 60647826 US 60527565 US 60509631 US 15375423 US 60562798 US 60620238 US 60618107 US 16574254 US 60605191 US 60592045 US 60647836	US 20220011603 A1	01/13/2022
US	17681593			02/25/2022	US 14313989 US 60583169 US 12322377 US 11078855 US 16102859 US 16426351 US 16703805 US 17681593 US 60647826 US 15343472 US 60562798 US 60620238 US 60618107 US 60605191 US 60592045 US 60647836	US 20220178743 A1 US 11644361 B2	06/09/2022 05/09/2023

IP Office	Application	Applicant	Title	Application Date	Priority Number	Publication Number	Publication Date
US	17737866			05/05/2022	US 14715501 US 60725896 US 17737866 US 60787850 US 60846150 US 13367346 US 11580222 US 17395509 US 12462286 US 60725999 US 16127957	US 20220260859 A1 US 11733549 B2	08/18/2022 08/22/2023
US	17873104			07/25/2022	US 17484080 US 11183269 US 13955336 US 13085402 US 16049120 US 14557409 US 60647826 US 15375423 US 17873104 US 60620238 US 60618107 US 16574254 US 60605191 US 60592045 US 60647836	US 20220357599 A1 US 11644693 B2	11/10/2022 05/09/2023
US	17942347			09/12/2022	US 60725896 US 11546685 US 60787850 US 60846150 US 17942347 US 12803732 US 60725999 US 11183256 US 60647826 US 16429181 US 60620238 US 60618107 US 13831445 US 60647836	US 20230057654 A1 US 11852901 B2	02/23/2023 12/26/2023
US	17949029			09/20/2022	US 17949029 US 17484080 US 11183269 US 13955336 US 13085402 US 16049120 US 14557409 US 60647826 US 15375423 US 60620238 US 60618107 US 16574254 US 60605191 US 60592045 US 60647836	US 20230017635 A1 US 12025855 B2	01/19/2023 07/02/2024

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US	17964853			10/12/2022	US 60583169 US 60725896 US 11546685 US 60787850 US 60846150 US 10964011 US 12803732 US 60725999 US 17964853 US 11183256 US 60647826 US 60527565 US 60509631 US 16429181 US 60562798 US 60620238 US 60618107 US 13831445 US 60605191 US 60592045 US 60647836	US 20230033660 A1	02/02/2023
US	18129660			03/31/2023	US 60583169 US 60725896 US 11546685 US 60787850 US 60846150 US 10964011 US 12803732 US 60725999 US 11183256 US 60647826 US 18129660 US 60527565 US 16424018 US 60509631 US 60562798 US 60620238 US 60618107 US 13291020 US 60605191 US 13831419 US 60592045 US 60647836	US 20230236444 A1 US 11803069 B2	07/27/2023 10/31/2023
US	18144557			05/08/2023	US 17484080 US 18144557 US 11183269 US 13955336 US 13085402 US 16049120 US 14557409 US 60647826 US 15375423 US 17873104 US 60620238 US 60618107 US 16574254 US 60605191 US 60592045 US 60647836	US 20230273464 A1 US 11921355 B2	08/31/2023 03/05/2024

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US	18224793			07/21/2023	US 60725896 US 11546685 US 60787850 US 60846150 US 12803732 US 60725999 US 18224793 US 11183256 US 60647826 US 18129660 US 16424018 US 60620238 US 60618107 US 13291020 US 60605191 US 13831419 US 60592045 US 60647836	US 20230359266 A1 US 11829518 B1	11/09/2023 11/28/2023
US	18238467			08/26/2023	US 14715501 US 60725896 US 60787850 US 60846150 US 13367346 US 11580222 US 17395509 US 12462286 US 60725999 US 18238467 US 16127957	US 20230408850 A1	12/21/2023
US	18375893	1)Howell, Thomas A., 2)Chao, David ,3)Thomas, C. Douglass,4)Tong, Peter P.	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS	10/02/2023	US 14715501 US 18375893 US 16182969 US 60725896 US 60787850 US 60846150 US 13955336 US 12806312 US 13367346 US 13085402 US 16049120 US 60725999 US 11891411 US 16127957 US 12317043 US 14557409 US 15409723 US 15375423 US 11580222 US 12214435 US 13831512 US 12462286	US 20240036361 A1 US 12044901 B2	02/01/2024 07/23/2024
US	18377911			10/09/2023	US 14922344 US 11006343 US 60527565 US 14272632 US 16794458 US 15469440 US 11452115 US 60689686 US 15704181 US 12798995 US 16556205 US 18377911	US 20240040345 A1	02/01/2024

IP Office	Application	Applicant	Title	Application Date	Priority Number	Publication Number	Publication Date
US	18519802			11/27/2023	US 60725896 US 11546685 US 60787850 US 60846150 US 12803732 US 60725999 US 18224793 US 11183256 US 60647826 US 18129660 US 16424018 US 60620238 US 60618107 US 13291020 US 60605191 US 13831419 US 18519802 US 60592045 US 60647836	US 20240094800 A1 US 12001599 B2	03/21/2024 06/04/2024

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	1	"18594662"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 09:39 AM
L1	1	"18597874"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 08:33 AM
L2	5	"18375893"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 08:34 AM
L4	1	"89665263".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2024/05/15 08:34 AM

			CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)				
L4	3	"18144557"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 09:42 AM
L5	5	"83901364".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/05/14 09:42 AM
L7	2	"37803583".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/05/15 08:36 AM
L10	12	"46332221".fmid.	(US-PGPUB; USPAT;	OR	ON	ON	2024/05/15

			USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)				08:37 AM
L10	6	"46326291".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/05/14 09:50 AM
L13	10	"48951410".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/05/14 10:06 AM
L14	4	"17949029"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM

L16	5	"16821810"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L18	17	"46304853".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/02/05 01:07 PM
L19	1	"27539742".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/05/14 10:07 AM
L20	8	"17484080"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA,	OR	ON	ON	2024/02/05 01:07 PM

			VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L22	11	"16574254"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L23	103494	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L24	82071	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L25	77662	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/02/05 01:07 PM

		control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L26	49408	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L27	46211	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND (communicat$4 near10 wireless$4) AND (audio OR speak$4) AND embed$4	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L28	20279	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L29	144	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG")	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4					
L30	129	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4)	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L31	125	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L32	125	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND (communicat$4 near10 wireless$4) AND (audio OR speak$4) AND embed$4					
L33	103	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L34	84	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L35	84	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second					
L36	84	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L37	79	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

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		(memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4					
L43	4184	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND speaker$2 AND (sound WITH guid$4)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L44	1509	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND (speaker$2 SAME (sound WITH guid$4))	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L45	622	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND temple AND ((speaker$2 OR audio) SAME (sound WITH guid$4))	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2024/02/05 01:07 PM

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			JPO; DERWENT; IBM_TDB)				
L46	296	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND ((temples SAME speakers) AND (sound WITH guid$4))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L47	13637	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND temple AND (speakers AND audio)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L48	1282	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND (temple SAME (speakers WITH audio))	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L49	316	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND impair$4					
L50	302	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND impair$4 AND compensat$4 AND amplif$6	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L51	302	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND impair$4 AND compensat$4 AND	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

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		amplif$6 AND customiz$4					
L52	3	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND impair$4 AND compensat$4 AND (amplif$6 WITH customiz$4)	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L53	17	"46304853".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/02/05 01:07 PM
L54	103494	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L55	82071	(eyewear$4 OR	(US-PGPUB; USPAT;	OR	ON	ON	2024/02/05

		glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4)	USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				01:07 PM
L56	77662	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L57	49408	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L58	46211	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND (communicat$4 near10	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO,	OR	ON	ON	2024/02/05 01:07 PM

		wireless$4) AND (audio OR speak$4) AND embed$4	NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L59	17504	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L60	11615	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L61	3610	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L62	1920	(eyewear$4 OR glasses$4 OR spetacl$4 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		eyegalss$4) AND frame AND (circuit near10 board) AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4					
L63	1402	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L64	722	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND rechargeable	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L65	710	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4					
L66	12657	L1 AND ((G02B27/017 OR G02B2027/0178 OR G02B27/0172 OR G02B2027/014 OR G02B2027/0138 OR G02B2027/0187 OR G02B27/0093 OR G02B27/0176 OR G02B2027/0118 OR G02B2027/0134 OR G02B27/0179 OR G02B2027/0141 OR G02B2027/0174 OR G02B27/0101 OR G02B27/01 OR G02B2027/0132 OR G02B2027/0127 OR G02B2027/0123 OR G02B30/24 OR G02B2027/0156 OR G02B2027/0112 OR G02B2027/0147 OR G02B27/0081 OR G02B3/14 OR G02B2027/011 OR G02B2027/0185 OR G02B6/005 OR G02B30/34 OR G02B2027/0154 OR G02B6/34 OR G02B26/101 OR G02B5/32 OR G02B2027/0125 OR G02B7/28 OR G02B2027/0181 OR G02B27/30 OR G02B27/646 OR G02B2027/015 OR G02B27/02 OR G02B6/0016 OR G02B26/0833 OR G02B30/00 OR G02B5/30 OR G02B27/4205 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM

		G02B6/0038 OR G02B30/25 OR G02B26/001 OR G02B13/0045 OR G02B26/10 OR G02B5/208 OR G02B2027/0159 OR G02B6/0036 OR G02B6/0076 OR G02B27/0075 OR G02B7/09 OR G02B2027/0152 OR G02B27/022 OR G02B2027/0116 OR G02B27/0149 OR G02B3/0081 OR G02B2027/0169 OR G02B6/0035 OR G02B27/283 OR G02B7/285 OR G02B13/06 OR G02B6/0065 OR G02B7/08 OR G02B5/3025 OR G02B2027/012 OR G02B27/0103 OR G02B5/1857 OR G02B6/00 OR G02B2027/013 OR G02B6/0023 OR G02B30/27 OR G02B27/00 OR G02B6/0068 OR G02B6/0055 OR G02B27/028 OR G02B7/023 OR G02B2027/0114 OR G02B26/005 OR G02B2027/0161 OR G02B26/105 OR G02B7/04 OR G02B7/102 OR G02B27/4272 OR G02B6/0011 OR G02B2027/0105 OR G02B5/23 OR G02B6/0088 OR G02B7/12 OR G02B7/02 OR G02B6/003 OR G02B3/0056 OR G02B5/08 OR G02B2027/0163 OR G02B21/365 OR G02B30/23 OR G02B5/20 OR G02B27/286 OR G02B6/006 OR					

		G02B6/10 OR G02B7/021 OR G02B27/1086 OR G02B6/0001 OR G02B6/0018 OR G02B3/0006 OR G02B5/005 OR G02B2027/0194 OR G02B2027/0198 OR G02B26/0816 OR G02B27/42 OR G02B6/0028 OR G02B13/009 OR G02B27/0018 OR G02B30/40 OR G02B6/0053 OR G02B5/1866 OR G02B9/64 OR G02B13/004 OR G02B19/0057 OR G02B21/0012 OR G02B26/004 OR G02B27/4227 OR G02B7/008 OR G02B3/0062 OR G02B5/1871 OR G02B13/18 OR G02B26/02 OR G02B5/18 OR G02B27/141 OR G02B26/0875 OR G02B27/0006 OR G02B6/002 OR G02B6/1226 OR G02B9/60 OR G02B2027/0158 OR G02B3/12 OR G02B5/223 OR G02B6/0051 OR G02B13/0035 OR G02B2027/0107 OR G02B21/06 OR G02B5/1823 OR G02B5/201 OR G02B5/3083 OR G02B6/29325 OR G02B9/62 OR G02B13/02 OR G02B2027/0136 OR G02B26/06 OR G02B2027/0143 OR G02B1/002 OR G02B1/11 OR G02B2027/0129 OR G02B26/00 OR G02B6/124 OR G02B26/0841 OR G02B30/36 OR					

		G02B3/0075 OR G02B5/0252 OR G02B6/4206 OR G02B19/0014 OR G02B27/0955 OR G02B5/1842 OR G02B27/1026 OR G02B6/0031 OR G02B1/041 OR G02B6/0026 OR G02B7/002 OR G02B13/0065 OR G02B26/0808 OR G02B26/0825 OR G02B27/0189 OR G02B27/106 OR G02B30/52 OR G02B13/14 OR G02B23/18 OR G02B27/0905 OR G02B30/33 OR G02B5/3016 OR G02B1/02 OR G02B2006/12107 OR G02B25/02 OR G02B26/026 OR G02B9/34 OR G02B27/0977 OR G02B27/145 OR G02B3/0043 OR G02B9/12 OR G02B2027/0183 OR G02B27/0988 OR G02B27/1066 OR G02B30/35 OR G02B6/0056 OR G02B6/4204 OR G02B13/00 OR G02B17/086 OR G02B25/001 OR G02B25/004 OR G02B27/0025 OR G02B27/48 OR G02B30/56 OR G02B6/0061 OR G02B6/1221 OR G02B27/102 OR G02B6/1225 OR G02B6/42 OR G02B13/001 OR G02B2006/12164 OR G02B3/0037 OR G02B6/0025 OR G02B6/0045 OR G02B6/0078 OR G02B6/0083 OR G02B6/12004 OR G02B6/12007 OR					

		G02B7/06 OR G02B27/44 OR G02B30/30 OR G02B6/0021 OR G02B21/362 OR G02B27/0994 OR G02B27/10 OR G02B6/0085 OR G02B9/04 OR G02B26/007 OR G02B27/20 OR G02B27/64 OR G02B3/00 OR G02B3/0031 OR G02B3/02 OR G02B3/08 OR G02B30/31 OR G02B7/003 OR G02B2006/12147 OR G02B21/025 OR G02B23/125 OR G02B6/13 OR G02B6/32 OR G02B13/0015 OR G02B19/0042 OR G02B27/0916 OR G02B27/0972 OR G02B30/26 OR G02B5/1809 OR G02B6/4214 OR G02B1/045 OR G02B2027/0109 OR G02B2027/0196 OR G02B27/0037 OR G02B27/0068 OR G02B27/1006 OR G02B5/04 OR G02B5/3058 OR G02B6/0046 OR G02B6/2848 OR G02B7/34 OR G02B13/007 OR G02B2003/0093 OR G02B26/08 OR G02B27/18 OR G02B3/04 OR G02B5/1861 OR G02B6/2706 OR G02B19/0028 OR G02B2027/0145 OR G02B27/143 OR G02B27/58 OR G02B27/62 OR G02B3/0068 OR G02B3/0087 OR G02B5/10 OR G02B5/28 OR G02B6/0015 OR				

		G02B6/0073 OR G02B6/122 OR G02B6/125 OR G02B6/4215 OR G02B7/022 OR G02B7/36 OR G02B1/10 OR G02B13/0075 OR G02B17/08 OR G02B19/0066 OR G02B21/36 OR G02B23/00 OR G02B27/0961 OR G02B27/144 OR G02B30/10 OR G02B5/00 OR G02B5/1847 OR G02B5/1852 OR G02B6/0006 OR G02B7/10 OR G02B13/008 OR G02B15/00 OR G02B19/0023 OR G02B19/0076 OR G02B21/22 OR G02B2207/101 OR G02B3/005 OR G02B6/001 OR G02B6/0033 OR G02B6/0058 OR G02B6/02 OR G02B7/028).cpc.)					
L67	4141	L1 AND ((G02C11/10 OR G02C7/101 OR G02C7/083 OR G02C11/06 OR G02C7/04 OR G02C11/00 OR G02C11/04 OR G02C5/143 OR G02C7/02 OR G02C5/14 OR G02C7/06 OR G02C7/08 OR G02C7/102 OR G02C5/146 OR G02C2202/16 OR G02C2202/20 OR G02C7/049 OR G02C7/022 OR G02C5/22 OR G02C2202/18 OR G02C5/001 OR G02C2202/22 OR G02C7/081 OR G02C2200/08 OR G02C7/085 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM

		G02C7/061 OR G02C7/16 OR G02C2200/02 OR G02C5/16 OR G02C7/066 OR G02C7/12 OR G02C2202/12 OR G02C3/003 OR G02C7/086 OR G02C2202/24 OR G02C9/00 OR G02C5/02 OR G02C5/12 OR G02C7/10 OR G02C7/041 OR G02C7/104 OR G02C11/08 OR G02C13/003 OR G02C7/088 OR G02C1/00 OR G02C5/20 OR G02C9/04 OR G02C7/00 OR G02C2202/10 OR G02C5/008 OR G02C1/06 OR G02C5/2209 OR G02C5/124 OR G02C11/02 OR G02C13/001 OR G02C5/10 OR G02C5/2227 OR G02C7/105 OR G02C13/005 OR G02C2200/10 OR G02C13/00 OR G02C2200/06 OR G02C5/2254 OR G02C5/006 OR G02C5/126 OR G02C1/10 OR G02C5/04 OR G02C5/2218 OR G02C5/2272 OR G02C9/02 OR G02C2200/18 OR G02C5/122 OR G02C7/108 OR G02C3/04 OR G02C5/00 OR G02C7/021 OR G02C5/08 OR G02C7/027).cpc.)					
L68	9842	L2 AND ((G02B27/017 OR G02B2027/0178 OR G02B27/0172 OR G02B2027/014 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/02/05 01:07 PM

		G02B2027/0138 OR G02B2027/0187 OR G02B27/0093 OR G02B27/0176 OR G02B2027/0118 OR G02B2027/0134 OR G02B2027/0141 OR G02B27/0179 OR G02B27/0101 OR G02B27/01 OR G02B2027/0127 OR G02B2027/0174 OR G02B2027/0132 OR G02B2027/0123 OR G02B2027/0156 OR G02B2027/0147 OR G02B27/0081 OR G02B2027/0185 OR G02B2027/0112 OR G02B2027/011 OR G02B6/34 OR G02B6/005 OR G02B2027/0154 OR G02B26/101 OR G02B27/646 OR G02B3/14 OR G02B2027/0125 OR G02B2027/0181 OR G02B13/0045 OR G02B26/001 OR G02B6/0016 OR G02B27/30 OR G02B30/34 OR G02B5/30 OR G02B6/0038 OR G02B6/0036 OR G02B7/09 OR G02B2027/015 OR G02B27/0075 OR G02B27/4205 OR G02B5/208 OR G02B27/022 OR G02B7/08 OR G02B6/0035 OR G02B2027/012 OR G02B5/1857 OR G02B6/0076 OR G02B2027/0169 OR G02B2027/0152 OR G02B27/283 OR G02B2027/0159 OR G02B26/0833 OR G02B13/06 OR G02B26/10 OR G02B5/3025 OR G02B27/02 OR G02B27/028 OR G02B30/24 OR	CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				

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		G02B27/4272 OR G02B5/32 OR G02B6/0065 OR G02B27/0149 OR G02B2027/0114 OR G02B6/00 OR G02B7/04 OR G02B6/0068 OR G02B27/286 OR G02B6/10 OR G02B2027/0116 OR G02B26/105 OR G02B6/0088 OR G02B2027/0161 OR G02B30/27 OR G02B5/08 OR G02B6/0001 OR G02B2027/0105 OR G02B21/365 OR G02B6/0011 OR G02B6/0023 OR G02B5/1866 OR G02B7/023 OR G02B27/42 OR G02B30/40 OR G02B27/00 OR G02B27/0018 OR G02B7/021 OR G02B7/102 OR G02B7/12 OR G02B9/64 OR G02B2027/0198 OR G02B27/4227 OR G02B6/0053 OR G02B6/0055 OR G02B7/02 OR G02B3/0006 OR G02B5/1871 OR G02B6/003 OR G02B13/009 OR G02B13/18 OR G02B2027/0163 OR G02B13/004 OR G02B26/005 OR G02B7/008 OR G02B3/0062 OR G02B9/60 OR G02B3/0056 OR G02B6/0028 OR G02B27/1086 OR G02B5/1823 OR G02B6/29325 OR G02B9/62 OR G02B13/0035 OR G02B13/02 OR G02B21/06 OR G02B26/0875 OR G02B30/00 OR					

		G02B6/0018 OR G02B6/006 OR G02B2027/0136 OR G02B5/18 OR G02B5/3083 OR G02B26/004 OR G02B30/23 OR G02B5/005 OR G02B6/0051 OR G02B7/28 OR G02B3/0075 OR G02B2027/0107 OR G02B2027/013 OR G02B2027/0194 OR G02B5/1842 OR G02B5/20 OR G02B6/002 OR G02B21/0012 OR G02B26/06 OR G02B27/0103 OR G02B2027/0129 OR G02B26/0841 OR G02B3/12 OR G02B1/002 OR G02B1/11 OR G02B30/25 OR G02B5/201 OR G02B2027/0143 OR G02B27/0955 OR G02B6/0026 OR G02B9/34 OR G02B1/041 OR G02B13/14 OR G02B26/026 OR G02B26/0825 OR G02B27/0977 OR G02B3/0043 OR G02B5/223 OR G02B9/12 OR G02B2027/0183 OR G02B26/02 OR G02B30/56 OR G02B2027/0158 OR G02B26/00 OR G02B6/0031 OR G02B6/0056 OR G02B6/4204 OR G02B13/00 OR G02B27/0025 OR G02B5/3016 OR G02B6/0078 OR G02B19/0057 OR G02B6/0083 OR G02B6/0085 OR G02B9/04 OR G02B13/0065 OR G02B17/086 OR G02B26/007 OR					

		G02B27/10 OR G02B30/52 OR G02B6/0021 OR G02B21/025 OR G02B3/0031 OR G02B30/31 OR G02B30/35 OR G02B30/36 OR G02B7/002 OR G02B26/0816 OR G02B27/0916 OR G02B3/08 OR G02B7/003 OR G02B27/0037 OR G02B27/44 OR G02B3/0037 OR G02B6/0025 OR G02B6/0061 OR G02B13/001 OR G02B13/0015 OR G02B13/007 OR G02B27/0006 OR G02B27/48 OR G02B3/02 OR G02B30/33 OR G02B6/2706 OR G02B6/32 OR G02B2027/0145 OR G02B26/08 OR G02B27/64 OR G02B5/04 OR G02B6/0045 OR G02B6/124 OR G02B19/0066 OR G02B21/36 OR G02B21/362 OR G02B27/102 OR G02B3/00 OR G02B3/0068 OR G02B5/1847 OR G02B5/1852 OR G02B6/12007 OR G02B6/122 OR G02B13/008 OR G02B19/0076 OR G02B23/18 OR G02B27/0189 OR G02B27/20 OR G02B27/62 OR G02B3/04 OR G02B30/10 OR G02B5/1861 OR G02B5/23 OR G02B6/0033 OR G02B6/0046 OR G02B7/34 OR G02B13/003 OR G02B15/142 OR					

		G02B19/009 OR G02B2003/0093 OR G02B2027/0196 OR G02B25/001 OR G02B27/0972 OR G02B27/1033 OR G02B27/141 OR G02B27/425 OR G02B30/30 OR G02B6/0006 OR G02B6/0008 OR G02B6/0073 OR G02B6/009 OR G02B6/02085 OR G02B6/29316 OR G02B6/29328 OR G02B6/4206 OR G02B6/443 OR G02B6/4471 OR G02B7/028 OR G02B9/36 OR G02B1/10 OR G02B13/002 OR G02B13/006 OR G02B15/00 OR G02B15/10 OR G02B15/20 OR G02B17/0605 OR G02B19/0028 OR G02B19/0047 OR G02B2027/0109 OR G02B27/04 OR G02B27/144 OR G02B3/0087 OR G02B30/50 OR G02B5/10 OR G02B7/10 OR G02B13/0055 OR G02B13/04 OR G02B17/06 OR G02B17/08 OR G02B27/0961 OR G02B27/281 OR G02B5/0252 OR G02B5/12 OR G02B5/1809 OR G02B5/26 OR G02B5/281 OR G02B6/001 OR G02B6/02 OR G02B6/105 OR G02B7/182 OR G02B7/36).cpc.)					
L69	2404	L2 AND ((G02C11/10 OR G02C11/06 OR G02C7/04 OR G02C7/101 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/02/05 01:07 PM

		G02C11/00 OR G02C5/143 OR G02C5/14 OR G02C7/083 OR G02C11/04 OR G02C5/001 OR G02C5/146 OR G02C2200/02 OR G02C3/003 OR G02C5/16 OR G02C5/22 OR G02C7/086 OR G02C5/02 OR G02C7/06 OR G02C2200/08 OR G02C7/16 OR G02C7/02 OR G02C5/20 OR G02C9/00 OR G02C5/12 OR G02C7/00 OR G02C7/085 OR G02C13/003 OR G02C9/04 OR G02C7/08 OR G02C7/081 OR G02C2202/10 OR G02C7/12 OR G02C2200/10 OR G02C2202/24 OR G02C7/049 OR G02C5/124 OR G02C5/2227 OR G02C5/2254 OR G02C1/00 OR G02C1/06 OR G02C1/10 OR G02C2200/06 OR G02C2200/18 OR G02C7/102 OR G02C11/08 OR G02C7/104 OR G02C2202/22 OR G02C5/2209 OR G02C5/2218 OR G02C7/088 OR G02C7/105 OR G02C3/006 OR G02C7/021 OR G02C9/02 OR G02C11/02 OR G02C5/2263 OR G02C2200/26 OR G02C5/122 OR G02C7/10).cpc.)	CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L70	5079	L4 AND ((G02B27/017 OR G02B2027/0178	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2024/02/05 01:07 PM

		OR G02B27/0172 OR G02B2027/014 OR G02B2027/0138 OR G02B2027/0187 OR G02B27/0093 OR G02B27/0176 OR G02B2027/0134 OR G02B2027/0141 OR G02B27/01 OR G02B2027/0118 OR G02B27/0179 OR G02B27/0101 OR G02B2027/0127 OR G02B2027/0174 OR G02B2027/0132 OR G02B2027/0123 OR G02B2027/0156 OR G02B2027/0185 OR G02B2027/0147 OR G02B6/34 OR G02B26/001 OR G02B13/0045 OR G02B27/0081 OR G02B26/101 OR G02B27/646 OR G02B6/005 OR G02B2027/0112 OR G02B2027/0125 OR G02B27/022 OR G02B30/34 OR G02B27/0075 OR G02B2027/0169 OR G02B7/09 OR G02B2027/0181 OR G02B13/06 OR G02B27/028 OR G02B2027/0154 OR G02B5/208 OR G02B27/4205 OR G02B5/30 OR G02B6/0035 OR G02B26/0833 OR G02B5/3025 OR G02B27/283 OR G02B6/0036 OR G02B6/0038 OR G02B6/0076 OR G02B6/10 OR G02B6/0001 OR G02B2027/012 OR G02B2027/011 OR G02B27/286 OR G02B2027/0114 OR G02B27/42 OR G02B5/32 OR G02B7/023 OR G02B2027/0105 OR G02B27/4227 OR	AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				

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		G02B3/14 OR G02B9/64 OR G02B30/24 OR G02B6/0016 OR G02B6/0023 OR G02B7/08 OR G02B13/004 OR G02B27/0018 OR G02B27/30 OR G02B7/021 OR G02B5/08 OR G02B6/0068 OR G02B9/60 OR G02B7/02 OR G02B27/02 OR G02B27/00 OR G02B30/40 OR G02B7/008 OR G02B6/0053 OR G02B26/10 OR G02B26/105 OR G02B27/1086 OR G02B5/1823 OR G02B5/1857 OR G02B5/1866 OR G02B5/1871 OR G02B6/29325 OR G02B9/62 OR G02B2027/0161 OR G02B5/005 OR G02B13/02 OR G02B13/009 OR G02B7/102 OR G02B2027/0159 OR G02B30/00 OR G02B2027/015 OR G02B3/0006 OR G02B6/0055 OR G02B6/0088 OR G02B2027/0136 OR G02B21/365 OR G02B6/003 OR G02B2027/0194 OR G02B2027/0198 OR G02B6/0011 OR G02B6/0065 OR G02B7/04 OR G02B2027/0163 OR G02B21/06 OR G02B5/3083 OR G02B9/34 OR G02B13/18 OR G02B27/0977 OR G02B6/00 OR G02B2027/013 OR G02B27/0149 OR G02B27/4272 OR G02B2027/0152 OR					

		G02B5/201 OR G02B6/0051 OR G02B1/002 OR G02B5/20 OR G02B7/12 OR G02B26/0841 OR G02B27/0025 OR G02B27/0955 OR G02B1/041 OR G02B26/005 OR G02B30/56 OR G02B2027/0183 OR G02B27/0103 OR G02B13/0065 OR G02B26/00 OR G02B26/007 OR G02B26/026 OR G02B30/23 OR G02B30/52 OR G02B7/28 OR G02B2027/0116 OR G02B6/0018 OR G02B6/002 OR G02B6/0028 OR G02B6/0078 OR G02B9/04 OR G02B19/0057 OR G02B27/0916 OR G02B5/3016 OR G02B2027/0107 OR G02B2027/0129 OR G02B3/02 OR G02B5/223 OR G02B6/0056 OR G02B6/2706 OR G02B13/00 OR G02B13/001 OR G02B13/0035 OR G02B26/004 OR G02B30/27 OR G02B6/0021 OR G02B2027/0143 OR G02B26/0825 OR G02B3/00 OR G02B3/08 OR G02B6/32 OR G02B7/002 OR G02B13/0015 OR G02B13/008 OR G02B27/0037 OR G02B30/35 OR G02B6/0031 OR G02B6/0033 OR G02B1/11 OR G02B13/003 OR G02B13/14 OR G02B19/009 OR G02B26/0816 OR					

		G02B27/0006 OR G02B27/10 OR G02B27/102 OR G02B3/0037 OR G02B3/0056 OR G02B30/36 OR G02B5/04 OR G02B5/18 OR G02B6/0006 OR G02B6/0008 OR G02B6/0025 OR G02B6/009 OR G02B6/12007 OR G02B6/29316 OR G02B6/29328 OR G02B6/4204 OR G02B6/443 OR G02B6/4471 OR G02B9/36 OR G02B13/002 OR G02B13/006 OR G02B15/142 OR G02B17/0605 OR G02B2027/0145 OR G02B27/141 OR G02B27/64 OR G02B3/0068 OR G02B6/0073 OR G02B7/10 OR G02B9/12 OR G02B17/086 OR G02B27/425 OR G02B27/48 OR G02B3/12 OR G02B30/25 OR G02B5/26 OR G02B6/006 OR G02B6/0083 OR G02B6/105 OR G02B6/124 OR G02B7/003 OR G02B7/182 OR G02B27/0068 OR G02B27/0972 OR G02B27/144 OR G02B5/23 OR G02B6/001 OR G02B6/0046 OR G02B13/04 OR G02B15/10 OR G02B17/08 OR G02B2027/0196 OR G02B26/08 OR G02B27/0961 OR G02B27/1033 OR G02B27/281 OR G02B3/0087 OR G02B30/10 OR					

		G02B5/124 OR G02B6/0015 OR G02B6/0086 OR G02B6/02066 OR G02B6/29356 OR G02B6/325 OR G02B6/4206 OR G02B7/285 OR G02B13/0005 OR G02B13/0055 OR G02B2003/0093 OR G02B2027/0109 OR G02B23/00 OR G02B25/001 OR G02B27/005 OR G02B27/04 OR G02B27/149 OR G02B27/62 OR G02B30/31 OR G02B5/1809 OR G02B5/1842 OR G02B5/1847 OR G02B5/206 OR G02B6/0026 OR G02B6/0045 OR G02B6/122 OR G02B6/1221 OR G02B6/274 OR G02B6/2766 OR G02B6/42).cpc.)					
L71	1210	L4 AND ((G02C11/10 OR G02C11/06 OR G02C7/04 OR G02C11/00 OR G02C7/101 OR G02C5/14 OR G02C5/143 OR G02C5/001 OR G02C5/146 OR G02C2200/02 OR G02C3/003 OR G02C5/22 OR G02C11/04 OR G02C7/083 OR G02C5/16 OR G02C2200/08 OR G02C5/12 OR G02C7/00 OR G02C9/00 OR G02C7/081 OR G02C5/02 OR G02C7/02 OR G02C2200/10 OR G02C7/049 OR G02C7/086 OR G02C7/12 OR G02C7/08 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM

		G02C9/04 OR G02C7/16 OR G02C1/00 OR G02C1/10 OR G02C7/06 OR G02C1/06 OR G02C7/104 OR G02C5/20 OR G02C2202/10 OR G02C7/021 OR G02C7/085 OR G02C9/02 OR G02C7/105 OR G02C5/006 OR G02C5/045 OR G02C7/022 OR G02C7/041 OR G02C7/10).cpc.)					
L72	9435	L17 AND ((G02B27/017 OR G02B2027/0178 OR G02B27/0172 OR G02B2027/014 OR G02B2027/0138 OR G02B2027/0187 OR G02B27/0093 OR G02B27/0176 OR G02B2027/0141 OR G02B2027/0134 OR G02B27/01 OR G02B27/0179 OR G02B27/0101 OR G02B2027/0127 OR G02B2027/0118 OR G02B2027/0174 OR G02B2027/0132 OR G02B2027/0185 OR G02B2027/0156 OR G02B2027/0123 OR G02B26/001 OR G02B13/0045 OR G02B6/34 OR G02B27/0081 OR G02B2027/0147 OR G02B26/101 OR G02B6/005 OR G02B2027/0112 OR G02B27/646 OR G02B27/022 OR G02B30/34 OR G02B2027/0125 OR G02B2027/0169 OR G02B7/09 OR G02B13/06 OR G02B2027/0181 OR G02B27/028 OR G02B2027/0154 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM

		G02B27/0075 OR G02B5/208 OR G02B27/4205 OR G02B6/0036 OR G02B6/0038 OR G02B27/283 OR G02B6/0076 OR G02B5/3025 OR G02B6/10 OR G02B6/0001 OR G02B2027/012 OR G02B2027/0114 OR G02B27/42 OR G02B5/32 OR G02B7/023 OR G02B26/0833 OR G02B27/4227 OR G02B2027/0105 OR G02B6/0035 OR G02B9/64 OR G02B5/30 OR G02B13/004 OR G02B27/0018 OR G02B27/30 OR G02B30/24 OR G02B5/08 OR G02B6/0016 OR G02B6/0023 OR G02B6/0068 OR G02B9/60 OR G02B27/286 OR G02B7/02 OR G02B7/021 OR G02B2027/011 OR G02B27/02 OR G02B30/40 OR G02B7/008 OR G02B26/10 OR G02B26/105 OR G02B27/1086 OR G02B5/1823 OR G02B5/1857 OR G02B5/1866 OR G02B5/1871 OR G02B6/0053 OR G02B6/29325 OR G02B7/08 OR G02B9/62 OR G02B5/005 OR G02B13/02 OR G02B7/102 OR G02B2027/0161 OR G02B3/14 OR G02B2027/0159 OR G02B27/00 OR G02B30/00 OR G02B2027/015 OR G02B21/365 OR					

		G02B6/0055 OR G02B6/0088 OR G02B13/009 OR G02B2027/0198 OR G02B7/04 OR G02B2027/0136 OR G02B2027/0163 OR G02B2027/0194 OR G02B21/06 OR G02B6/0011 OR G02B6/0065 OR G02B9/34 OR G02B13/18 OR G02B2027/013 OR G02B27/0149 OR G02B27/0977 OR G02B5/3083 OR G02B5/201 OR G02B6/0051 OR G02B1/002 OR G02B3/0006 OR G02B5/20 OR G02B26/0841 OR G02B27/0955 OR G02B7/12 OR G02B1/041 OR G02B2027/0152 OR G02B27/0025 OR G02B2027/0183 OR G02B26/005 OR G02B27/0103 OR G02B27/4272 OR G02B6/00 OR G02B13/0065 OR G02B26/00 OR G02B26/007 OR G02B26/026 OR G02B30/23 OR G02B30/52 OR G02B2027/0116 OR G02B30/56 OR G02B6/0078 OR G02B9/04 OR G02B19/0057 OR G02B27/0916 OR G02B6/0028 OR G02B6/003 OR G02B2027/0107 OR G02B6/0018 OR G02B6/002 OR G02B2027/0129 OR G02B3/02 OR G02B5/3016 OR G02B6/0056 OR G02B13/0035 OR G02B6/0021 OR G02B6/2706 OR G02B13/00 OR					

		G02B26/004 OR G02B3/08 OR G02B13/0015 OR G02B13/008 OR G02B2027/0143 OR G02B27/0037 OR G02B6/0031 OR G02B6/0033 OR G02B7/002 OR G02B7/28 OR G02B13/003 OR G02B13/14 OR G02B19/009 OR G02B27/0006 OR G02B27/102 OR G02B3/00 OR G02B3/0037 OR G02B3/0056 OR G02B30/36 OR G02B5/04 OR G02B5/223 OR G02B6/0025 OR G02B6/009 OR G02B6/12007 OR G02B6/29316 OR G02B6/29328 OR G02B9/36 OR G02B1/11 OR G02B13/002 OR G02B15/142 OR G02B2027/0145 OR G02B27/141 OR G02B3/0068 OR G02B6/0073 OR G02B9/12 OR G02B13/001 OR G02B13/006 OR G02B17/086 OR G02B27/425 OR G02B27/48 OR G02B27/64 OR G02B3/12 OR G02B30/25 OR G02B30/35 OR G02B5/18 OR G02B6/0083 OR G02B6/124 OR G02B6/32 OR G02B7/10 OR G02B7/182 OR G02B26/0816 OR G02B27/0068 OR G02B27/0972 OR G02B27/10 OR G02B5/26 OR G02B6/001 OR G02B6/006 OR G02B7/003 OR				

		G02B13/04 OR G02B15/10 OR G02B17/08 OR G02B26/08 OR G02B27/0961 OR G02B27/281 OR G02B3/0087 OR G02B5/124 OR G02B6/0015 OR G02B6/0046 OR G02B6/0086 OR G02B6/29356 OR G02B6/4206 OR G02B13/0055 OR G02B17/0605 OR G02B2003/0093 OR G02B2027/0109 OR G02B23/00 OR G02B25/001 OR G02B27/005 OR G02B27/62 OR G02B30/27 OR G02B30/31 OR G02B5/1809 OR G02B5/1842 OR G02B5/1847 OR G02B5/206 OR G02B5/23 OR G02B6/0026 OR G02B6/0045 OR G02B6/122 OR G02B6/1221 OR G02B6/42 OR G02B7/285).cpc.)					
L73	2195	L17 AND ((G02C11/10 OR G02C11/06 OR G02C7/04 OR G02C11/00 OR G02C5/14 OR G02C7/101 OR G02C5/143 OR G02C5/001 OR G02C3/003 OR G02C5/146 OR G02C2200/02 OR G02C5/22 OR G02C11/04 OR G02C5/16 OR G02C7/083 OR G02C2200/08 OR G02C5/12 OR G02C9/00 OR G02C5/02 OR G02C2200/10 OR G02C7/081 OR G02C7/086 OR G02C7/00 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM

		G02C7/02 OR G02C9/04 OR G02C7/16 OR G02C7/049 OR G02C1/00 OR G02C1/10 OR G02C7/06 OR G02C7/08 OR G02C1/06 OR G02C5/20 OR G02C7/021 OR G02C7/12 OR G02C2202/10 OR G02C7/085 OR G02C5/006 OR G02C9/02 OR G02C5/045 OR G02C7/10 OR G02C7/104).cpc.)					
L74	2462	L30 AND ((G02B27/017 OR G02B2027/0178 OR G02B27/0172 OR G02B2027/014 OR G02B2027/0138 OR G02B27/0093 OR G02B2027/0187 OR G02B27/0176 OR G02B2027/0127 OR G02B27/0101 OR G02B2027/0118 OR G02B2027/0134 OR G02B2027/0141 OR G02B27/0179 OR G02B2027/0156 OR G02B2027/0174 OR G02B2027/0132 OR G02B6/34 OR G02B2027/0123 OR G02B2027/0185 OR G02B27/01 OR G02B2027/0147 OR G02B27/4205 OR G02B26/101 OR G02B27/4227 OR G02B6/10 OR G02B2027/0105 OR G02B27/42 OR G02B26/001 OR G02B27/0081 OR G02B2027/0112 OR G02B13/0045 OR G02B2027/0169 OR G02B6/0001 OR G02B27/0075 OR G02B2027/0125 OR G02B27/028 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		G02B27/646 OR G02B6/0035 OR G02B27/022 OR G02B5/30 OR G02B6/005 OR G02B2027/0181 OR G02B2027/012 OR G02B26/0833 OR G02B27/283 OR G02B6/0038 OR G02B13/06 OR G02B6/0036 OR G02B2027/011 OR G02B3/14 OR G02B5/3025 OR G02B2027/0161 OR G02B7/09 OR G02B2027/0114 OR G02B27/286 OR G02B27/30 OR G02B5/32 OR G02B6/0016 OR G02B2027/0154 OR G02B27/0018 OR G02B6/0023 OR G02B6/0076 OR G02B5/3083 OR G02B6/003 OR G02B26/105 OR G02B5/208 OR G02B7/008 OR G02B2027/0194 OR G02B6/0068 OR G02B9/60 OR G02B9/64 OR G02B27/1086 OR G02B30/34 OR G02B5/005 OR G02B5/1823 OR G02B5/1857 OR G02B5/1866 OR G02B5/1871 OR G02B6/0055 OR G02B6/29325 OR G02B7/08 OR G02B13/004 OR G02B13/009 OR G02B2027/015 OR G02B27/0977 OR G02B5/08 OR G02B19/0057 OR G02B27/0916 OR G02B6/00 OR G02B6/0053 OR G02B7/102 OR G02B13/02 OR G02B2027/013 OR G02B2027/0136 OR					

		G02B26/10 OR G02B27/0103 OR G02B27/0149 OR G02B30/56 OR G02B27/0025 OR G02B27/4272 OR G02B30/27 OR G02B30/52 OR G02B6/0088 OR G02B9/62 OR G02B13/0065 OR G02B30/00 OR G02B6/0006 OR G02B6/0008 OR G02B6/4204 OR G02B6/443 OR G02B6/4471 OR G02B7/023 OR G02B2027/0145 OR G02B2027/0159 OR G02B2027/0163 OR G02B3/0006 OR G02B6/0065 OR G02B7/02 OR G02B7/04 OR G02B7/12 OR G02B1/002 OR G02B17/086 OR G02B2027/0152 OR G02B21/365 OR G02B26/0816 OR G02B27/02 OR G02B30/35 OR G02B5/04 OR G02B5/3016 OR G02B6/0018 OR G02B6/0031 OR G02B6/0078 OR G02B6/105 OR G02B7/003 OR G02B7/021 OR G02B9/34 OR G02B1/041 OR G02B15/10 OR G02B26/005 OR G02B27/00 OR G02B27/0955 OR G02B27/10 OR G02B27/1033 OR G02B6/002 OR G02B6/0051 OR G02B6/124 OR G02B13/001 OR G02B13/0035 OR G02B2027/0109 OR G02B2027/0183 OR G02B21/06 OR G02B26/00 OR					

		G02B26/0841 OR G02B27/141 OR G02B27/425 OR G02B3/0087 OR G02B5/1809 OR G02B5/1847 OR G02B6/0026 OR G02B6/02066 OR G02B6/122 OR G02B6/1221 OR G02B6/274 OR G02B6/2766 OR G02B9/04 OR G02B13/008 OR G02B13/14 OR G02B2027/0107 OR G02B2027/0143 OR G02B26/004 OR G02B26/007 OR G02B27/0037 OR G02B5/18 OR G02B5/20 OR G02B5/201 OR G02B6/0021 OR G02B6/0056 OR G02B6/32 OR G02B7/002 OR G02B9/36 OR G02B13/00 OR G02B13/0015 OR G02B13/003 OR G02B13/04 OR G02B13/18 OR G02B15/142 OR G02B19/009 OR G02B2027/0116 OR G02B27/0972 OR G02B27/281 OR G02B27/64 OR G02B3/00 OR G02B30/10 OR G02B30/24 OR G02B30/26 OR G02B5/26 OR G02B6/0028 OR G02B6/0045 OR G02B6/0046 OR G02B6/0073 OR G02B6/0083 OR G02B6/009 OR G02B9/12 OR G02B13/006 OR G02B17/0605 OR G02B2003/0093 OR G02B2027/0198 OR G02B2207/113 OR G02B25/001 OR G02B26/103 OR					

		G02B27/0944 OR G02B27/1046 OR G02B27/4294 OR G02B27/58 OR G02B3/0056 OR G02B3/08 OR G02B3/12 OR G02B5/124 OR G02B5/223 OR G02B5/3058 OR G02B6/0025 OR G02B6/0033 OR G02B6/0061 OR G02B6/12009 OR G02B6/29356 OR G02B7/10 OR G02B1/00 OR G02B1/10 OR G02B1/11 OR G02B13/002 OR G02B13/007 OR G02B15/1421 OR G02B15/143503 OR G02B15/144105 OR G02B15/144113 OR G02B15/1451 OR G02B15/26 OR G02B19/0014 OR G02B19/0076 OR G02B2027/0129 OR G02B2027/019 OR G02B2027/0196 OR G02B21/0012 OR G02B2207/115 OR G02B23/00 OR G02B23/18 OR G02B26/023 OR G02B26/0808 OR G02B26/085 OR G02B26/0858 OR G02B26/0875 OR G02B27/0189 OR G02B27/024 OR G02B27/144 OR G02B27/149 OR G02B27/28 OR G02B27/288 OR G02B27/44 OR G02B27/48 OR G02B3/005 OR G02B30/22 OR G02B30/36 OR G02B30/50 OR G02B5/0284 OR G02B5/1842 OR G02B5/1876 OR G02B5/22 OR G02B5/23 OR					

		G02B6/0011 OR G02B6/0015 OR G02B6/0048 OR G02B6/0058 OR G02B6/006 OR G02B6/0086 OR G02B6/02 OR G02B6/06 OR G02B6/12019 OR G02B6/27 OR G02B6/4206 OR G02B7/005 OR G02B7/028 OR G02B7/105 OR G02B7/1821 OR G02B7/1822 OR G02B7/1824 OR G02B7/28 OR G02B7/285 OR G02B7/346 OR G02B7/38 OR G02B9/18).cpc.)					
L75	622	L30 AND ((G02C11/10 OR G02C11/06 OR G02C7/04 OR G02C5/143 OR G02C11/00 OR G02C5/146 OR G02C5/001 OR G02C5/14 OR G02C7/101 OR G02C3/003 OR G02C2200/08 OR G02C2200/02 OR G02C7/083 OR G02C7/12 OR G02C5/16 OR G02C5/22 OR G02C7/16 OR G02C7/086 OR G02C9/04 OR G02C11/04 OR G02C2200/10 OR G02C5/12 OR G02C9/00 OR G02C7/06 OR G02C7/081 OR G02C7/104 OR G02C5/02 OR G02C7/105 OR G02C7/08 OR G02C5/006 OR G02C7/00 OR G02C1/10 OR G02C5/20 OR G02C5/045 OR G02C7/021 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		G02C1/06 OR G02C2202/06 OR G02C3/006 OR G02C5/08 OR G02C5/2209 OR G02C5/2272 OR G02C9/02 OR G02C2200/26 OR G02C3/04 OR G02C5/2236 OR G02C5/2254 OR G02C5/2263 OR G02C7/02).cpc.)					
L76	2091	L31 AND ((G02B27/017 OR G02B2027/0178 OR G02B27/0172 OR G02B2027/014 OR G02B2027/0138 OR G02B27/0093 OR G02B2027/0187 OR G02B27/0176 OR G02B2027/0127 OR G02B2027/0118 OR G02B2027/0134 OR G02B27/0101 OR G02B27/0179 OR G02B2027/0141 OR G02B2027/0156 OR G02B6/34 OR G02B2027/0132 OR G02B2027/0174 OR G02B2027/0185 OR G02B2027/0123 OR G02B2027/0147 OR G02B27/01 OR G02B27/4205 OR G02B6/10 OR G02B2027/0105 OR G02B26/101 OR G02B27/42 OR G02B27/4227 OR G02B26/001 OR G02B2027/0169 OR G02B27/0081 OR G02B27/0075 OR G02B27/028 OR G02B2027/0112 OR G02B2027/0125 OR G02B6/0001 OR G02B6/0035 OR G02B27/022 OR G02B6/005 OR G02B2027/012 OR G02B27/283 OR G02B5/30 OR G02B6/0038 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		G02B6/0036 OR G02B13/0045 OR G02B2027/0181 OR G02B5/3025 OR G02B2027/0161 OR G02B2027/011 OR G02B2027/0114 OR G02B27/30 OR G02B6/0016 OR G02B2027/0154 OR G02B27/286 OR G02B3/14 OR G02B6/0023 OR G02B5/3083 OR G02B6/003 OR G02B6/0076 OR G02B27/0018 OR G02B7/008 OR G02B26/0833 OR G02B13/06 OR G02B2027/0194 OR G02B27/1086 OR G02B5/1823 OR G02B5/1857 OR G02B5/1866 OR G02B5/1871 OR G02B6/0055 OR G02B6/29325 OR G02B2027/015 OR G02B30/34 OR G02B26/105 OR G02B6/0053 OR G02B26/10 OR G02B27/0103 OR G02B27/646 OR G02B5/08 OR G02B9/60 OR G02B2027/0136 OR G02B30/27 OR G02B30/52 OR G02B5/208 OR G02B6/0068 OR G02B6/0088 OR G02B7/09 OR G02B9/62 OR G02B13/009 OR G02B2027/013 OR G02B30/56 OR G02B5/32 OR G02B6/0006 OR G02B6/0008 OR G02B6/4204 OR G02B6/443 OR G02B6/4471 OR G02B9/64 OR G02B2027/0163 OR G02B27/0977 OR G02B6/0065 OR					

		G02B13/004 OR G02B2027/0159 OR G02B30/00 OR G02B6/00 OR G02B7/023 OR G02B7/12 OR G02B1/002 OR G02B17/086 OR G02B2027/0145 OR G02B21/365 OR G02B27/0025 OR G02B27/02 OR G02B5/04 OR G02B5/3016 OR G02B6/0018 OR G02B6/0031 OR G02B6/105 OR G02B7/003 OR G02B13/02 OR G02B2027/0152 OR G02B27/00 OR G02B27/0149 OR G02B27/10 OR G02B27/1033 OR G02B27/4272 OR G02B6/002 OR G02B6/0051 OR G02B6/124 OR G02B13/001 OR G02B13/0035 OR G02B15/10 OR G02B2027/0109 OR G02B2027/0183 OR G02B21/06 OR G02B26/00 OR G02B27/141 OR G02B27/425 OR G02B3/0006 OR G02B30/35 OR G02B5/005 OR G02B5/1809 OR G02B5/1847 OR G02B6/0026 OR G02B6/02066 OR G02B6/122 OR G02B6/1221 OR G02B6/274 OR G02B6/2766 OR G02B7/021 OR G02B7/04 OR G02B7/08 OR G02B1/041 OR G02B13/0065 OR G02B13/008 OR G02B13/14 OR G02B2027/0107 OR G02B2027/0143 OR G02B26/005 OR					

		G02B26/007 OR G02B5/20 OR G02B6/0056 OR G02B6/32 OR G02B7/002 OR G02B9/36 OR G02B13/003 OR G02B13/18 OR G02B15/142 OR G02B19/009 OR G02B2027/0116 OR G02B26/0816 OR G02B27/0972 OR G02B27/281 OR G02B27/64 OR G02B3/00 OR G02B30/10 OR G02B30/24 OR G02B30/26 OR G02B5/18 OR G02B5/26 OR G02B6/0045 OR G02B6/0046 OR G02B6/0073 OR G02B6/0083 OR G02B6/009 OR G02B7/02 OR G02B7/102 OR G02B9/04 OR G02B9/12 OR G02B9/34 OR G02B17/0605 OR G02B2027/0198 OR G02B2207/113 OR G02B25/001 OR G02B26/0841 OR G02B26/103 OR G02B27/0037 OR G02B27/0944 OR G02B27/0955 OR G02B27/1046 OR G02B27/4294 OR G02B27/58 OR G02B5/124 OR G02B5/201 OR G02B5/223 OR G02B6/0025 OR G02B6/0028 OR G02B6/0033 OR G02B6/0061 OR G02B6/0078 OR G02B6/12009 OR G02B6/29356 OR G02B1/00 OR G02B1/10 OR G02B13/007 OR G02B13/04 OR G02B15/1421 OR					

		G02B2027/0129 OR G02B2027/019 OR G02B2027/0196 OR G02B21/0012 OR G02B2207/115 OR G02B23/00 OR G02B23/18 OR G02B26/004 OR G02B26/0808 OR G02B26/085 OR G02B26/0858 OR G02B26/0875 OR G02B27/0189 OR G02B27/024 OR G02B27/144 OR G02B27/149 OR G02B27/44 OR G02B27/48 OR G02B3/005 OR G02B30/22 OR G02B30/36 OR G02B30/50 OR G02B5/0284 OR G02B5/1842 OR G02B5/1876 OR G02B5/22 OR G02B5/23 OR G02B5/3058 OR G02B6/0011 OR G02B6/0015 OR G02B6/0048 OR G02B6/0058 OR G02B6/006 OR G02B6/0086 OR G02B6/02 OR G02B6/06 OR G02B6/12019 OR G02B6/27 OR G02B7/005 OR G02B7/105 OR G02B7/1824 OR G02B7/28 OR G02B7/285 OR G02B7/346 OR G02B1/007 OR G02B1/04 OR G02B1/115 OR G02B1/118 OR G02B13/0055 OR G02B13/006 OR G02B13/0075 OR G02B15/06 OR G02B17/08 OR G02B19/0047 OR G02B2003/0093 OR G02B2027/0158 OR G02B2027/0192 OR G02B21/00 OR					

		G02B2207/101 OR G02B2207/123 OR G02B27/0068 OR G02B27/0938 OR G02B27/0961 OR G02B27/108 OR G02B27/142 OR G02B27/28 OR G02B27/285 OR G02B27/62 OR G02B3/0037 OR G02B3/0056 OR G02B3/0068 OR G02B3/02 OR G02B3/04 OR G02B3/08 OR G02B30/29 OR G02B30/31 OR G02B5/0252 OR G02B5/045 OR G02B5/0841 OR G02B5/10 OR G02B5/12 OR G02B5/122 OR G02B5/128 OR G02B5/136 OR G02B5/1861 OR G02B5/28 OR G02B6/0085 OR G02B6/2706 OR G02B6/276 OR G02B6/29311 OR G02B6/3512 OR G02B6/3522 OR G02B6/4214 OR G02B7/10 OR G02B7/287).cpc.)					
L77	580	L31 AND ((G02C11/10 OR G02C11/06 OR G02C7/04 OR G02C5/143 OR G02C5/146 OR G02C11/00 OR G02C5/14 OR G02C7/101 OR G02C5/001 OR G02C3/003 OR G02C2200/08 OR G02C7/083 OR G02C2200/02 OR G02C7/12 OR G02C5/16 OR G02C7/16 OR G02C7/086 OR G02C9/04 OR G02C2200/10 OR G02C5/22 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		G02C11/04 OR G02C9/00 OR G02C7/06 OR G02C7/081 OR G02C5/02 OR G02C5/12 OR G02C7/104 OR G02C7/105 OR G02C7/08 OR G02C5/006 OR G02C7/00 OR G02C5/20 OR G02C5/045 OR G02C7/021 OR G02C2202/06 OR G02C3/006 OR G02C5/08 OR G02C5/2209 OR G02C5/2272 OR G02C9/02 OR G02C1/10 OR G02C2200/26 OR G02C3/04 OR G02C5/2236 OR G02C5/2254 OR G02C5/2263 OR G02C7/02 OR G02C11/08 OR G02C13/005 OR G02C2202/10 OR G02C5/003 OR G02C5/126 OR G02C5/2227 OR G02C5/2281 OR G02C7/022 OR G02C7/085).cpc.)					
L78	785	L32 AND ((G02B27/017 OR G02B2027/0178 OR G02B2027/014 OR G02B27/0172 OR G02B2027/0138 OR G02B27/0093 OR G02B2027/0187 OR G02B2027/0118 OR G02B27/0176 OR G02B27/0101 OR G02B2027/0134 OR G02B2027/0127 OR G02B6/34 OR G02B2027/0123 OR G02B2027/0147 OR G02B5/30 OR G02B27/0081 OR G02B27/0179 OR G02B2027/0185 OR G02B27/4205 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		G02B6/005 OR G02B2027/0105 OR G02B27/01 OR G02B27/42 OR G02B27/4227 OR G02B6/10 OR G02B2027/0174 OR G02B6/0038 OR G02B6/0076 OR G02B7/008 OR G02B27/283 OR G02B2027/0114 OR G02B2027/012 OR G02B2027/0125 OR G02B2027/0132 OR G02B27/0018 OR G02B27/1086 OR G02B27/30 OR G02B5/1823 OR G02B5/1857 OR G02B5/1866 OR G02B5/1871 OR G02B5/3025 OR G02B6/0016 OR G02B6/0023 OR G02B6/0035 OR G02B6/0036 OR G02B6/29325 OR G02B2027/0156 OR G02B2027/0141 OR G02B27/0103 OR G02B26/001 OR G02B7/12 OR G02B30/52 OR G02B1/002 OR G02B2027/0161 OR G02B21/06 OR G02B21/365 OR G02B26/00 OR G02B27/02 OR G02B27/10 OR G02B27/286 OR G02B30/34 OR G02B30/56 OR G02B5/08 OR G02B5/1809 OR G02B5/1847 OR G02B5/3083 OR G02B6/0026 OR G02B6/122 OR G02B6/1221 OR G02B6/124 OR G02B7/04 OR G02B2027/0109 OR G02B2027/0136 OR G02B26/101 OR G02B6/0018 OR G02B6/002 OR					

		G02B19/009 OR G02B2027/0116 OR G02B2027/013 OR G02B2027/015 OR G02B2027/0152 OR G02B2027/0163 OR G02B2027/0181 OR G02B26/105 OR G02B27/0075 OR G02B27/0149 OR G02B6/0053 OR G02B2027/011 OR G02B2027/0112 OR G02B2027/0154 OR G02B2027/0194 OR G02B27/00 OR G02B27/141 OR G02B5/04 OR G02B5/18 OR G02B6/00 OR G02B6/12009 OR G02B2027/0159 OR G02B2207/113 OR G02B2207/115 OR G02B26/0816 OR G02B26/103 OR G02B3/005 OR G02B30/35 OR G02B30/36 OR G02B5/23 OR G02B5/3058 OR G02B6/0028 OR G02B6/003 OR G02B6/0045 OR G02B6/0055 OR G02B6/0056 OR G02B6/006 OR G02B6/0065 OR G02B6/0068 OR G02B6/0088 OR G02B6/12019 OR G02B1/041 OR G02B19/0047 OR G02B2003/0093 OR G02B2027/019 OR G02B2027/0192 OR G02B21/0012 OR G02B27/0025 OR G02B27/0189 OR G02B27/0961 OR G02B27/0972 OR G02B3/00 OR G02B3/0068 OR G02B3/08 OR G02B3/14 OR G02B30/26 OR G02B5/045 OR G02B5/1842 OR					

		G02B5/28 OR G02B6/32 OR G02B6/3512 OR G02B7/287).cpc.)					
L79	397	L32 AND ((G02C11/10 OR G02C11/06 OR G02C5/143 OR G02C5/14 OR G02C7/101 OR G02C3/003 OR G02C7/04 OR G02C5/001 OR G02C5/146 OR G02C7/083 OR G02C2200/08 OR G02C11/00 OR G02C5/16 OR G02C2200/10 OR G02C11/04 OR G02C7/12 OR G02C7/081 OR G02C7/06 OR G02C7/104 OR G02C7/16 OR G02C7/08 OR G02C2200/02 OR G02C7/00 OR G02C7/105 OR G02C9/00 OR G02C7/086 OR G02C9/04 OR G02C5/20 OR G02C7/021 OR G02C2202/06 OR G02C5/006 OR G02C5/045 OR G02C5/08 OR G02C5/2209 OR G02C5/2272 OR G02C1/10 OR G02C5/12 OR G02C5/22 OR G02C5/2236 OR G02C5/2254 OR G02C7/02 OR G02C11/08 OR G02C13/005 OR G02C5/02 OR G02C5/2227 OR G02C5/2263 OR G02C5/2281 OR G02C7/022 OR G02C9/02).cpc.)	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L80	152	L34 AND ((G02B2027/0178 OR G02B27/017 OR G02B2027/014 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		G02B27/0172 OR G02B27/0093 OR G02B2027/0138 OR G02B2027/0187 OR G02B6/34 OR G02B27/0176 OR G02B2027/0118 OR G02B2027/0127 OR G02B27/0101 OR G02B27/0081 OR G02B27/4205 OR G02B2027/0105 OR G02B2027/0185 OR G02B27/0179 OR G02B27/42 OR G02B27/4227 OR G02B6/10 OR G02B6/0038 OR G02B6/005 OR G02B6/0076 OR G02B7/008 OR G02B27/283 OR G02B2027/0114 OR G02B2027/012 OR G02B2027/0125 OR G02B2027/0174 OR G02B27/0018 OR G02B27/1086 OR G02B27/30 OR G02B5/1823 OR G02B5/1857 OR G02B5/1866 OR G02B5/1871 OR G02B5/3025 OR G02B6/0016 OR G02B6/0023 OR G02B6/0035 OR G02B6/0036 OR G02B6/29325 OR G02B5/30 OR G02B2027/0132 OR G02B2027/0134 OR G02B2027/0156 OR G02B2027/0123 OR G02B21/06 OR G02B21/365 OR G02B27/286 OR G02B30/52 OR G02B27/01 OR G02B6/0018 OR G02B6/002 OR G02B2027/0147 OR G02B2027/015 OR G02B27/0149 OR G02B6/0053 OR G02B2027/0112 OR G02B2027/0141 OR G02B2027/0152 OR					

		G02B2027/0161 OR G02B5/18 OR G02B6/00 OR G02B6/12009 OR G02B7/12 OR G02B2027/011 OR G02B2027/0154 OR G02B2207/113 OR G02B2207/115 OR G02B27/0075 OR G02B5/23 OR G02B5/3058 OR G02B6/0028 OR G02B6/003 OR G02B6/0045 OR G02B6/0056 OR G02B6/006 OR G02B6/0065 OR G02B6/0068 OR G02B6/0088 OR G02B6/12019 OR G02B2027/013 OR G02B2027/0163 OR G02B2027/0181 OR G02B2027/019 OR G02B27/0189 OR G02B30/26 OR G02B5/04 OR G02B5/1842 OR G02B5/28 OR G02B6/32 OR G02B6/3512).cpc.)					
L81	151	L34 AND ((G02C11/10 OR G02C11/06 OR G02C5/143 OR G02C5/14 OR G02C3/003 OR G02C5/001 OR G02C5/146 OR G02C2200/08 OR G02C5/16 OR G02C11/00 OR G02C11/04 OR G02C7/08 OR G02C7/081 OR G02C7/086 OR G02C9/00 OR G02C9/04 OR G02C2200/02 OR G02C2202/06 OR G02C5/045 OR G02C5/2209 OR G02C7/083 OR G02C7/101 OR G02C5/12 OR G02C13/005 OR G02C5/22 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		G02C5/2254 OR G02C5/2281 OR G02C7/022 OR G02C7/04 OR G02C9/02).cpc.)					
L82	108	L35 AND ((G02B2027/0178 OR G02B27/017 OR G02B27/0093 OR G02B2027/014 OR G02B27/0172 OR G02B2027/0138 OR G02B2027/0187 OR G02B2027/0118 OR G02B5/30 OR G02B27/0176 OR G02B21/06 OR G02B21/365 OR G02B27/286 OR G02B2027/0134 OR G02B2027/0132 OR G02B2027/0147 OR G02B6/0053 OR G02B2027/0112 OR G02B2027/0127 OR G02B27/0149 OR G02B5/18 OR G02B6/12009 OR G02B2027/011 OR G02B2027/0123 OR G02B2027/0141 OR G02B2027/0156 OR G02B2207/113 OR G02B2207/115 OR G02B27/0075 OR G02B27/01 OR G02B27/0101 OR G02B5/23 OR G02B5/3058 OR G02B6/0018 OR G02B6/002 OR G02B6/0028 OR G02B6/003 OR G02B6/0038 OR G02B6/0045 OR G02B6/005 OR G02B6/0056 OR G02B6/006 OR G02B6/0065 OR G02B6/0068 OR G02B6/0076 OR G02B6/0088 OR G02B6/12019 OR G02B7/008 OR G02B27/0081 OR G02B5/04 OR G02B5/1842 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		G02B5/28).cpc.)					
L83	95	L35 AND ((G02C11/10 OR G02C11/06 OR G02C5/143 OR G02C5/14 OR G02C3/003 OR G02C5/146 OR G02C5/001 OR G02C2200/08 OR G02C11/04 OR G02C11/00 OR G02C7/081 OR G02C7/08 OR G02C7/086 OR G02C9/00 OR G02C2202/06 OR G02C5/2209 OR G02C7/083 OR G02C7/101 OR G02C9/04 OR G02C5/12 OR G02C5/22 OR G02C5/2254 OR G02C5/2281).cpc.)	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L84	10	L37 AND ((G02B2027/0178 OR G02B27/017 OR G02B27/0093 OR G02B2027/014 OR G02B27/0172 OR G02B2027/0138 OR G02B2027/0187 OR G02B2027/0118 OR G02B5/30 OR G02B27/0176 OR G02B2027/0134 OR G02B2027/0147 OR G02B2027/0112 OR G02B2027/0127 OR G02B2027/0132 OR G02B27/0149 OR G02B5/18 OR G02B6/12009 OR G02B2027/011 OR G02B2027/0123 OR G02B2207/113 OR G02B2207/115 OR G02B5/23 OR G02B5/3058 OR G02B6/0038 OR G02B6/0045 OR G02B6/0053 OR G02B6/0056 OR G02B6/12019 OR G02B7/008 OR G02B5/04 OR G02B5/1842 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

		G02B5/28).cpc.)					
L85	7	L37 AND ((G02C11/10 OR G02C11/06 OR G02C5/146 OR G02C5/143 OR G02C2200/08 OR G02C5/001 OR G02C11/04 OR G02C5/14 OR G02C7/081 OR G02C7/08 OR G02C7/086 OR G02C9/00 OR G02C2202/06 OR G02C5/2209 OR G02C7/083 OR G02C7/101).cpc.)	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L86	6	L37 AND ((351/158 OR 351/121 OR 351/41 OR 351/116 OR 351/119 OR 359/630 OR 359/13 OR 359/554 OR 359/567 OR 381/327 OR 381/381).ccls.)	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L87	1	"25484714".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/02/05 02:24 PM
L88	6	"34435134".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/02/05 02:26 PM
L89	22	"27496316".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/02/05 02:27 PM

			CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)				
L90	34	(Artificial Intelligence) More like doc: US-11243416-B2 Text: (US-10061144-B2 OR US-9547184-B2 OR US-8905542-B2 OR US-11204512-B2 OR US-20220011603-A1 OR US-8500271-B2 OR US-20050264752-A1 OR US-11536988-B2 OR US-9690121-B2 OR US-7922321-B2 OR US-11086147-B2 OR US-8109629-B2 OR US-20180335650-A1 OR US-11762224-B2 OR US-20110187990-A1 OR US-20200218094-A1 OR US-20170090219-A1 OR US-20150085245-A1 OR US-20230017635-A1 OR US-20130308089-A1).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/27 12:02 PM
L91	29	(Artificial Intelligence) More like doc: US-6349001-B1 Text: (CA-2307877-C OR EP-1027627-A1 OR WO-9923524-A1 OR EP-1027627-A4 OR US-6091546-A OR JP-2001522063-A OR EP-1027627-B1 OR WO-9923524-A8 OR CA-2307877-A1 OR US-6204974-B1 OR US-6384982-B1 OR EP-1169663-A1 OR US-6356392-B1 OR WO-0055676-A1 OR EP-1169663-A4 OR JP-2002539498-A OR EP-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/27 12:02 PM

		1027626-A1 OR CA-2307869-C OR EP-1547434-B8 OR EP-1547434-A2).did.					
L92	33	(Artificial Intelligence) More like doc: US-7278734-B2 Text: (US-20050201585-A1 OR US-8020989-B2 OR US-20080089545-A1 OR AU-2005306412-B2 OR EP-1828833-B1 OR WO-2006055884-A2 OR EP-1828833-A2 OR AU-2005306412-A2 OR AU-2005306412-A1 OR CA-2932965-C OR CA-2932965-A1 OR AU-2013263854-A1 OR EP-1547434-A2 OR AU-2003254210-A1 OR CA-2494661-A1 OR US-20060203183-A1 OR US-20040160573-A1 OR US-7150526-B2 OR AU-2013263854-B2 OR CN-1720763-A).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/27 12:02 PM
L93	28	(Artificial Intelligence) More like doc: US-6911172-B2 Text: (US-20040000733-A1 OR US-20040239874-A1 OR US-20020159023-A1 OR EP-1485748-A2 OR WO-02089496-A2 OR US-9244292-B2 OR US-6929365-B2 OR US-20040029582-A1 OR CA-2445952-A1 OR US-20050239502-A1 OR US-7331666-B2 OR US-6769767-B2 OR US-20160109729-A1 OR JP-2005502902-A OR JP-4246500-B2 OR TW-I252005-B OR EP-1485748-B1 OR WO-02089496-A3 OR TH-61710-A OR US-20200064654-A1).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/27 12:03 PM
L94	7432	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/02/27 04:12 PM

		AND circuit AND speaker$2 AND (battery WITH (charge$4 OR recharge$4) WITH external)	CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L95	60	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND speaker$2 AND (battery WITH (charge$4 OR recharge$4) WITH external WITH cord)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/27 04:12 PM
L96	6529	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND speaker$2 AND (battery near10 (charge$4 OR recharge$4) near20 external)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/27 04:14 PM
L97	6529	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND speaker$2 AND ((battery near10 (charge$4 OR recharge$4)) near20 external)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA,	OR	ON	ON	2024/02/27 04:14 PM

			VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L115	3482	(351/158,121).ccls.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:00 PM
L116	2573	(351/41,111).ccls.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:00 PM
L117	1000	(351/123,124).ccls.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:01 PM
L118	3412	(359/13,629).ccls.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/05/14 12:01 PM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L119	5523	(359/630-633).ccls.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:01 PM
L120	3403	(381/381,327,328).ccls.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:01 PM
L121	4068	(381/380,370,381).ccls.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2024/05/14 12:01 PM

			JPO; DERWENT; IBM_TDB)				
L131	806	g02c1/00.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:08 PM
L132	17282	g02c11/10.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:08 PM
L133	3090	g02c11/06.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:09 PM
L134	3174	g02c5/001.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2024/05/14 12:09 PM

			HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L135	4012	g02c5/02.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:09 PM
L136	4853	g02c5/14.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:09 PM
L137	5010	g02c5/146.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2024/05/14 12:10 PM

			IBM_TDB)				
L138	5174	g02c5/22.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:10 PM
L139	35428	g02b27/01.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:10 PM
L140	71042	g02b27/017.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:10 PM
L141	27914	g02b27/0176.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2024/05/14 12:10 PM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L184	4	"27569502".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/05/14 01:18 PM
L2686	0	98 AND (button near5 piezo$6)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 09:02 AM
L2687	7	98 AND ((button OR switch) near5 piezo$6)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 09:02 AM
L2689	11	"49715056".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/05/15 09:04 AM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)				
L2691	147	142 AND ((button OR switch) near5 piezo$6)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 09:08 AM
L2692	9	122 AND ((button OR switch) near5 piezo$6)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 09:11 AM
L2693	174	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND ((button OR switch) near5 piezo$6)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 09:19 AM
L2695	174	(eyewear$4 OR glasses$4 OR spetacl$4 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2024/05/15 09:22 AM

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		eyegalss$4) AND frame AND circuit AND control$4 AND batter$4 AND connect$4 AND (audio OR speak$4) AND ((button OR switch) near5 piezo$6)	CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2696	195	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND batter$4 AND ((button OR switch) near5 piezo$6)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 09:22 AM
L2697	280	(eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND control$4 AND batter$4 AND ((button OR switch) near5 piezo$6)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 09:23 AM
L2699	3	"34225259".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2024/05/15 09:27 AM

			TH, TN, TR, TW, UA, VN); FPRS; JPO)				
L2784	50	(Artificial Intelligence) Similar to: 18/597,874 with 0 CPC Selections and 0 Text Selections Text: (US-20170131575-A1 OR US-20210364827-A9 OR US-20190187492-A1 OR US-20170146829-A1 OR US-20230273464-A1 OR US-20240036361-A1 OR US-11921355-B2 OR US-20230359266-A1 OR US-20130201440-A1 OR US-20110187990-A1 OR US-9690121-B2 OR US-8500271-B2 OR US-20120133885-A1 OR US-20150253590-A1 OR US-20170090219-A1 OR US-8905542-B2 OR US-20180335650-A1 OR US-20210364828-A1 OR US-11243416-B2 OR US-10061144-B2 OR US-20130308089-A1 OR US-20150085245-A1 OR US-20220357599-A1 OR US-20230017635-A1 OR US-20070046887-A1 OR US-7922321-B2 OR US-20230408850-A1 OR US-20200012127-A1 OR US-9547184-B2 OR US-7581833-B2 OR US-8465151-B2 OR US-11829518-B1 OR US-11733549-B2 OR US-20220260859-A1 OR US-9033493-B2 OR US-11086147-B2 OR US-8109629-B2 OR US-10330956-B2 OR US-20050264752-A1 OR US-11762224-B2 OR US-11513371-B2 OR US-20240094800-A1 OR EP-3134825-B1	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/09/04 01:05 PM

		OR US-20050078274-A1 OR US-20190278110-A1 OR US-20200218094-A1 OR US-20190285913-A1 OR US-20220011603-A1 OR US-11536988-B2 OR US-20230236444-A1).did.					
L2785	44	(Artificial Intelligence) Similar to: 18/597,874 with 0 CPC Selections and 3 Text Selections Text: (US-11921355-B2 OR US-20240036361-A1 OR US-20230273464-A1 OR US-20210314698-A1 OR JP-20220108194-A5 OR US-20180239413-A1 OR US-20170045928-A1 OR CN-108472686-B OR EP-3566468-B1 OR US-20170180863-A1 OR US-10146262-B1 OR US-10495885-B2 OR US-11829518-B1 OR US-20190064750-A1 OR US-20170322416-A1 OR EP-3345142-A1 OR WO-2017040397-A1 OR US-20170131575-A1 OR CA-2997538-A1 OR EP-3320832-A1 OR US-20160282628-A1 OR US-20180132031-A1 OR WO-2023194827-A1 OR US-20180113524-A1 OR US-20220361787-A1 OR AU-2016316932-B2 OR US-20180253159-A1 OR US-20180113504-A1 OR US-20180113590-A1 OR US-20220313089-A1 OR EP-3242153-A1 OR US-20210096372-A1 OR US-9690121-B2 OR US-10338394-B2 OR EP-3998946-A1 OR	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/09/04 01:05 PM

		WO-2021016094-A1 OR US-9977483-B2 OR US-20210364827-A9 OR US-20190187492-A1 OR EP-3625976-A1 OR WO-2018210974-A1 OR EP-2929405-A2 OR WO-2014089074-A2 OR US-10694299-B2 OR US-11778428-B2 OR US-20230127100-A1 OR JP-2020184692-A OR US-11144125-B2 OR US-20180185665-A1 OR WO-2021224497-A1).did.					
L2786	49	(Artificial Intelligence) Similar to: 18/597,874 with 2 CPC Selections and 3 Text Selections Text: (US-20240036361-A1 OR US-11921355-B2 OR US-20230273464-A1 OR US-20210314698-A1 OR US-11829518-B1 OR US-20170131575-A1 OR US-9690121-B2 OR US-20190187492-A1 OR US-20210364827-A9 OR US-20230359266-A1 OR US-20170146829-A1 OR US-20230412967-A1 OR US-20220167077-A1 OR WO-2022109190-A1 OR US-11653140-B2 OR US-20220011603-A1 OR JP-2023538681-A OR WO-2021222214-A1 OR EP-4144099-A1 OR US-20150253590-A1 OR US-10330956-B2 OR US-20210341762-A1 OR US-11086147-B2 OR US-11762224-B2 OR US-9033493-B2 OR US-20210364828-A1 OR US-20220260859-A1 OR US-8109629-B2 OR US-11733549-B2 OR US-8465151-B2 OR	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/09/04 01:05 PM

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		US-20230408850-A1 OR US-11500227-B2 OR US-20120133885-A1 OR US-20150085245-A1 OR US-20130201440-A1 OR US-20130308089-A1 OR US-20110187990-A1 OR US-20170090219-A1 OR US-20180335650-A1 OR US-20050264752-A1 OR US-7581833-B2 OR US-20070046887-A1 OR CN-108472686-B OR US-7922321-B2 OR EP-3242153-A1 OR US-20190364352-A1 OR US-10531173-B2 OR US-10338394-B2 OR EP-3320832-A1 OR US-11204512-B2).did.					
L2787	49	(Artificial Intelligence) Similar to: 18/597,874 with 2 CPC Selections and 3 Text Selections Text: (US-20240036361-A1 OR US-11921355-B2 OR US-20230273464-A1 OR US-20170131575-A1 OR US-9690121-B2 OR US-20210364827-A9 OR US-20190187492-A1 OR US-20170146829-A1 OR US-11829518-B1 OR US-20210314698-A1 OR US-20230359266-A1 OR US-20150253590-A1 OR US-20160370606-A1 OR CN-113330355-A OR US-8465151-B2 OR US-20220260859-A1 OR US-11733549-B2 OR US-10025119-B2 OR US-10330956-B2 OR US-20120133885-A1 OR US-20180143451-A1 OR US-11086147-B2 OR US-20230408850-A1 OR US-9033493-B2 OR	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/09/04 01:05 PM

		US-20130201440-A1 OR US-20210364828-A1 OR US-11762224-B2 OR US-8109629-B2 OR US-9897822-B2 OR US-20150346511-A1 OR US-20070046887-A1 OR US-7581833-B2 OR US-9158116-B1 OR US-20150309317-A1 OR WO-2016205601-A1 OR CN-113454521-A OR US-9423842-B2 OR WO-2021222214-A1 OR EP-4144099-A1 OR US-20210341762-A1 OR US-20230412967-A1 OR US-11500227-B2 OR US-20160085278-A1 OR US-20200249733-A1 OR US-20220167077-A1 OR CN-114222941-A OR WO-2022109190-A1 OR US-20170031395-A1 OR US-20150309534-A1 OR WO-2015031107-A1).did.					
L2788	48	(Artificial Intelligence) Similar to: 18/597,874 with 4 CPC Selections and 3 Text Selections Text: (US-20240036361-A1 OR US-11921355-B2 OR US-20230273464-A1 OR US-20170131575-A1 OR US-9690121-B2 OR US-20190187492-A1 OR US-20210364827-A9 OR US-20170146829-A1 OR US-11829518-B1 OR US-20210314698-A1 OR US-20230359266-A1 OR US-20150253590-A1 OR US-10330956-B2 OR US-11086147-B2 OR US-11762224-B2 OR US-9033493-B2 OR US-20220260859-A1 OR US-11733549-B2	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/09/04 01:05 PM

		OR US-8109629-B2 OR US-20210364828-A1 OR US-20230408850-A1 OR US-8465151-B2 OR US-20120133885-A1 OR US-20130201440-A1 OR US-7581833-B2 OR US-20070046887-A1 OR US-20230412967-A1 OR US-20220167077-A1 OR WO-2022109190-A1 OR US-11653140-B2 OR WO-2021222214-A1 OR US-20160370606-A1 OR EP-4144099-A1 OR US-20180143451-A1 OR CN-113330355-A OR US-20220011603-A1 OR US-9897822-B2 OR US-10025119-B2 OR US-20210341762-A1 OR US-9158116-B1 OR US-20150346511-A1 OR DE-202022101915-U1 OR US-20150309317-A1 OR US-11500227-B2 OR US-20240094800-A1 OR US-20110187990-A1 OR US-7806525-B2 OR WO-2021254359-A1 OR US-11668958-B2 OR JP-2023538681-A).did.					
L2789	47	(Artificial Intelligence) Similar to: 18/597,874 with 6 CPC Selections and 3 Text Selections Text: (US-20240036361-A1 OR US-11921355-B2 OR US-20170131575-A1 OR US-20230273464-A1 OR US-9690121-B2 OR US-20210364827-A9 OR US-20190187492-A1 OR US-20170146829-A1 OR US-20150253590-A1 OR US-10330956-B2 OR US-11762224-B2	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/09/04 01:05 PM

		OR US-11086147-B2 OR US-8109629-B2 OR US-20210364828-A1 OR US-9033493-B2 OR US-20120133885-A1 OR US-20230408850-A1 OR US-11733549-B2 OR US-20220260859-A1 OR US-20130201440-A1 OR US-8465151-B2 OR CN-113330355-A OR US-11829518-B1 OR US-7581833-B2 OR US-20070046887-A1 OR US-20210314698-A1 OR US-20230359266-A1 OR WO-2021222214-A1 OR EP-4144099-A1 OR DE-202022101915-U1 OR US-20210341762-A1 OR US-20190204617-A1 OR US-11500227-B2 OR FR-3126050-A3 OR ES-1289195-U OR CA-3149165-A1 OR US-11849273-B2 OR GB-2609686-A OR NL-2031025-A OR NL-2031025-B1 OR US-20230040338-A1 OR CH-718869-A2 OR US-20210191159-A1 OR JP-3237752-U OR US-11668958-B2 OR KR-20210080253-A OR AT-525342-B1 OR US-20220113562-A1 OR DE-102020102281-A1 OR CA-3103299-A1).did.					
L2862	42	(Artificial Intelligence) More like doc: US-20030045283-A1 Text: (WO-2023130105-A1 OR DK-2153693-T3 OR AU-2008261403-A1 OR AU-2008261403-B2 OR CA-2689257-A1 OR EP-2153693-A1 OR DE-102006049213-B4 OR US-8300864-B2 OR US-20090296967-A1 OR US-20080123865-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2024/09/04 02:03 PM

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		A1 OR EP-1643802-A2 OR CN-101682824-A OR DE-102004047759-B3 OR EP-1643801-A2 OR AU-2009231433-A1 OR EP-2107825-A1 OR EP-1915031-A2 OR DE-102006049213-A1 OR CN-101175342-B OR CN-101175342-A).did.	JPO; DERWENT; IBM_TDB)				
L2863	39	(Artificial Intelligence) More like doc: US-20050090295-A1 Text: (WO-2005036922-A1 OR EP-1673960-A4 OR EP-1673960-A1 OR CA-2542622-A1 OR EP-1949370-A1 OR WO-2007019702-A1 OR US-20070041589-A1 OR CA-2619268-A1 OR EP-1251715-B1 OR EP-1251715-B2 OR US-8121323-B2 OR US-7647077-B2 OR US-20030012392-A1 OR EP-1251715-A2 OR US-20070127752-A1 OR US-7181034-B2 OR CA-2382362-C OR US-20110136537-A1 OR CA-2420989-C OR WO-2010006707-A1).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/09/04 02:03 PM
L2864	22	(Artificial Intelligence) More like doc: US-20170289323-A1 Text: (US-8140658-B1 OR US-10757000-B2 OR US-20100201516-A1 OR US-20100148940-A1 OR US-20110035491-A1 OR US-20150046582-A1 OR US-8836503-B2 OR US-9628365-B2 OR US-7844687-B1 OR US-7797367-B1 OR US-8832244-B2 OR US-8812654-B2 OR US-7484008-B1 OR US-7891004-B1 OR US-8079118-B2 OR US-20110029644-A1	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/09/04 02:03 PM

		OR US-7904569-B1 OR US-8601595-B2 OR US-20120079149-A1 OR US-6859831-B1).did.					
L2865	39	(Artificial Intelligence) More like doc: JP-2005167902-A Text: (JP-2007318476-A OR JP-4887907-B2 OR JP-2009157290-A OR US-8174569-B2 OR JP-2004120154-A OR US-20070291966-A1 OR US-20030090439-A1 OR WO-03023756-A1 OR EP-1433160-A1 OR JP-2006209144-A OR WO-2018186062-A1 OR US-20200053449-A1 OR JP-2002539498-A OR US-20120268433-A1 OR US-6356392-B1 OR US-6204974-B1 OR JP-4411547-B2 OR EP-1169663-A4 OR WO-0055676-A1 OR EP-1169663-A1).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/09/04 02:03 PM
L2901	50	(Artificial Intelligence) Similar to: 18/597,874 with 0 CPC Selections and 7 Text Selections Text: (US-12044901-B2 OR US-20240036361-A1 OR US-12140819-B1 OR US-20230273464-A1 OR US-20170131575-A1 OR DE-102013222202-A1 OR US-20190187492-A1 OR US-20210364827-A9 OR US-12078870-B2 OR US-20170146829-A1 OR US-9690121-B2 OR US-20220011603-A1 OR US-20240019718-A1 OR US-20200092663-A1 OR US-10575106-B1 OR US-20190033621-A1 OR CN-110024416-B OR US-3665121-A OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN))	OR	ON	ON	2024/12/13 05:08 PM

		WO-2011083425-A2 OR US-20200081247-A1 OR US-20220099966-A1 OR US-20100177918-A1 OR US-20140003644-A1 OR US-10045133-B2 OR CN-213602833-U OR US-7729774-B1 OR US-8554350-B2 OR US-3883701-A OR CN-102804813-A OR EP-3629600-B1 OR WO-2007142520-A1 OR EP-4387275-A2 OR US-20230398354-A1 OR CN-212381404-U OR US-20110170722-A1 OR US-5553152-A OR DK-2412174-T3 OR CA-2537165-C OR EP-2408221-B1 OR EP-3439329-B1 OR US-5048090-A OR US-11638109-B2 OR US-11700495-B2 OR US-20230082717-A1 OR US-10979831-B2 OR US-20200367001-A1 OR US-20210168543-A1 OR US-11223918-B2 OR US-10897678-B2 OR US-20210099811-A1).did.					
L2902	50	(Artificial Intelligence) Similar to: 18/597,874 with 2 CPC Selections and 7 Text Selections Text: (US-12044901-B2 OR US-20240036361-A1 OR US-20230273464-A1 OR US-12140819-B1 OR US-20170131575-A1 OR US-20190187492-A1 OR US-20210364827-A9 OR US-12078870-B2 OR US-20170146829-A1 OR US-9690121-B2 OR DE-102013222202-A1 OR US-20220011603-A1 OR US-20240019718-A1 OR US-20190033621-A1	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN))	OR	ON	ON	2024/12/13 05:09 PM

		OR CN-212381404-U OR US-9033493-B2 OR US-20090296044-A1 OR US-11474375-B1 OR US-20150253590-A1 OR US-20130201440-A1 OR US-8465151-B2 OR US-20100309426-A1 OR US-20120133885-A1 OR US-10330956-B2 OR US-8109629-B2 OR US-11733549-B2 OR US-20200092663-A1 OR US-10575106-B1 OR US-11086147-B2 OR US-20230408850-A1 OR US-3665121-A OR US-20070046887-A1 OR US-7581833-B2 OR US-20190033623-A1 OR US-20220260859-A1 OR US-11762224-B2 OR US-20210364828-A1 OR US-20210247625-A1 OR WO-2013188805-A2 OR CN-110024416-B OR EP-2862021-B1 OR US-3883701-A OR WO-2007142520-A1 OR US-20120176579-A1 OR US-20220099966-A1 OR US-20200081247-A1 OR US-9039169-B2 OR US-20100177918-A1 OR JP-2022057677-A OR US-20140003644-A1).did.					
L2903	50	(Artificial Intelligence) Similar to: 18/597,874 with 4 CPC Selections and 7 Text Selections --- Text: (US-12044901-B2 OR US-20240036361-A1 OR US-20230273464-A1 OR US-12140819-B1 OR US-20170131575-A1 OR US-20190187492-A1 OR US-20210364827-A9 OR US-12078870-B2 OR US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN))	OR	ON	ON	2024/12/13 05:10 PM

		20170146829-A1 OR US-9690121-B2 OR US-20220011603-A1 OR US-20240019718-A1 OR US-9033493-B2 OR US-20090296044-A1 OR US-20150253590-A1 OR US-20130201440-A1 OR US-8465151-B2 OR US-20100309426-A1 OR US-20120133885-A1 OR US-10330956-B2 OR US-8109629-B2 OR US-11733549-B2 OR US-11086147-B2 OR US-20230408850-A1 OR US-20070046887-A1 OR US-7581833-B2 OR US-20220260859-A1 OR US-20190033623-A1 OR US-11762224-B2 OR US-20210364828-A1 OR US-11131865-B2 OR US-20210011307-A1 OR DE-102013222202-A1 OR US-20210082011-A1 OR WO-2019181150-A1 OR WO-2024182389-A1 OR US-11867981-B1 OR US-20240288710-A1 OR US-12025855-B2 OR US-20230017635-A1 OR CN-111684340-A OR US-3665121-A OR US-20220357599-A1 OR US-11644693-B2 OR US-20110102734-A1 OR WO-2013188805-A2 OR EP-2862021-B1 OR US-3883701-A OR US-20200012127-A1 OR US-8905542-B2).did.					
L2904	50	(Artificial Intelligence) Similar to: 18/597,874 with 6 CPC Selections and 7 Text Selections Text: (US-12044901-B2 OR US-20240036361-A1 OR US-20230273464-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO,	OR	ON	ON	2024/12/13 05:10 PM

		A1 OR US-12140819-B1 OR US-20170131575-A1 OR US-20190187492-A1 OR US-20210364827-A9 OR US-12078870-B2 OR US-20170146829-A1 OR US-9690121-B2 OR US-9033493-B2 OR US-20150253590-A1 OR US-20130201440-A1 OR US-20120133885-A1 OR US-10330956-B2 OR US-20090296044-A1 OR US-20100309426-A1 OR US-8465151-B2 OR US-11086147-B2 OR US-8109629-B2 OR US-11733549-B2 OR US-20190033623-A1 OR US-20210364828-A1 OR US-11762224-B2 OR US-20220260859-A1 OR US-20230408850-A1 OR US-20220011603-A1 OR US-20070046887-A1 OR US-7581833-B2 OR US-20240019718-A1 OR WO-2024182389-A1 OR US-20210082011-A1 OR US-11867981-B1 OR US-20240288710-A1 OR CN-113009715-A OR KR-20210080253-A OR WO-2013188805-A2 OR EP-2862021-B1 OR CA-3103299-A1 OR US-11131865-B2 OR US-20200233238-A1 OR US-20210011307-A1 OR US-20170108713-A1 OR US-10423011-B2 OR DE-102020102281-A1 OR US-20210191159-A1 OR JP-6475289-B2 OR US-10168551-B2 OR US-20170075141-A1 OR KR-20210110726-A).did.	MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN))				
L2911	15759	115 116 117 118 118 120 121	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2024/12/13 05:15 PM

			AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2912	287	2911 AND 54	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:15 PM
L2913	195	2911 AND 56	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:15 PM
L2914	102	2911 AND 60	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO,	OR	ON	ON	2024/12/13 05:15 PM

			RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2915	46	2911 AND 63	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:15 PM
L2916	7	2911 AND 49	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:16 PM
L2917	164903	131 132 133 134 135 136 137 138 139 140 141	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:26 PM
L2925	10784	2917 AND 54	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2024/12/13 05:26 PM

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			CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2926	8397	2917 AND 56	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:26 PM
L2927	3854	2917 AND 60	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:27 PM
L2928	1548	2917 AND 61	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2024/12/13 05:27 PM

			TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2929	392	2917 AND 63	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:27 PM
L2930	99	2917 AND 49	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:27 PM
L2931	3	2917 AND 52	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:27 PM
L2932	390	(US-0000347-$ | US-0000733-$ | US-0001827-$ | US-0003803-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/12/13 05:39 PM

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		0004325-$ | US- 0005069-$ | US- 0005230-$ | US- 0008763-$ | US- 0011603-$ | US- 0012127-$ | US- 0017635-$ | US- 0017997-$ | US- 0018274-$ | US- 0021407-$ | US- 0022690-$ | US- 0023158-$ | US- 0026146-$ | US- 0028309-$ | US- 0029582-$ | US- 0030442-$ | US- 0032449-$ | US- 0033061-$ | US- 0033622-$ | US- 0033623-$ | US- 0033660-$ | US- 0034478-$ | US- 0034542-$ | US- 0035830-$ | US- 0036103-$ | US- 0045283-$ | US- 0045928-$ | US- 0046887-$ | US- 0050668-$ | US- 0050754-$ | US- 0054092-$ | US- 0055888-$ | US- 0057654-$ | US- 0059159-$ | US- 0059212-$ | US- 0059381-$ | US- 0061579-$ | US- 0062046-$ | US- 0062338-$ | US- 0062357-$ | US- 0063378-$ | US- 0063763-$ | US- 0064746-$ | US- 0065257-$ | US- 0067580-$ | US- 0067585-$ | US- 0068057-$ | US- 0068559-$ | US- 0072828-$ | US- 0073375-$ | US- 0074721-$ | US- 0077175-$ | US- 0078274-$ | US- 0079356-$ | US- 0081982-$ | US- 0083591-$ | US- 0084990-$ | US- 0085245-$ | US-	CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				

		0088365-$ | US- 0089545-$ | US- 0089639-$ | US- 0090103-$ | US- 0090219-$ | US- 0090295-$ | US- 0091200-$ | US- 0096078-$ | US- 0098192-$ | US- 0098874-$ | US- 0098877-$ | US- 0100384-$ | US- 0100792-$ | US- 0101178-$ | US- 0101411-$ | US- 0101568-$ | US- 0102734-$ | US- 0104864-$ | US- 0105445-$ | US- 0107822-$ | US- 0109491-$ | US- 0109600-$ | US- 0110368-$ | US- 0114770-$ | US- 0117121-$ | US- 0122208-$ | US- 0128737-$ | US- 0131575-$ | US- 0132382-$ | US- 0132913-$ | US- 0133885-$ | US- 0136414-$ | US- 0140899-$ | US- 0141233-$ | US- 0143519-$ | US- 0144854-$ | US- 0146097-$ | US- 0146829-$ | US- 0147215-$ | US- 0150986-$ | US- 0151175-$ | US- 0151179-$ | US- 0156012-$ | US- 0156128-$ | US- 0157649-$ | US- 0158506-$ | US- 0159023-$ | US- 0160571-$ | US- 0160572-$ | US- 0160573-$ | US- 0164122-$ | US- 0172691-$ | US- 0176580-$ | US- 0176902-$ | US- 0178743-$ | US- 0186330-$ | US- 0187492-$ | US- 0187990-$ | US-					

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		0189548-$ | US- 0197002-$ | US- 0197961-$ | US- 0198293-$ | US- 0200927-$ | US- 0201440-$ | US- 0201585-$ | US- 0208531-$ | US- 0211574-$ | US- 0211921-$ | US- 0213026-$ | US- 0214630-$ | US- 0218094-$ | US- 0218684-$ | US- 0226838-$ | US- 0226978-$ | US- 0227219-$ | US- 0230596-$ | US- 0230988-$ | US- 0231293-$ | US- 0236444-$ | US- 0238194-$ | US- 0239502-$ | US- 0241976-$ | US- 0245754-$ | US- 0246075-$ | US- 0248238-$ | US- 0248717-$ | US- 0248718-$ | US- 0248719-$ | US- 0251660-$ | US- 0251661-$ | US- 0253590-$ | US- 0260859-$ | US- 0262392-$ | US- 0264752-$ | US- 0268008-$ | US- 0268013-$ | US- 0268017-$ | US- 0270663-$ | US- 0271065-$ | US- 0271116-$ | US- 0271387-$ | US- 0272800-$ | US- 0273365-$ | US- 0273464-$ | US- 0277123-$ | US- 0278110-$ | US- 0278446-$ | US- 0278678-$ | US- 0279584-$ | US- 0283894-$ | US- 0285913-$ | US- 0289323-$ | US- 0291667-$ | US- 0292333-$ | US- 0296044-$ | US- 0296045-$ | US-					

		0302992-$ | US- 0303187-$ | US- 0308089-$ | US- 0309426-$ | US- 0310132-$ | US- 0314079-$ | US- 0318589-$ | US- 0335650-$ | US- 0335792-$ | US- 0338677-$ | US- 0348050-$ | US- 0357599-$ | US- 0359266-$ | US- 0361185-$ | US- 0364827-$ | US- 0364828-$ | US- 0364992-$ | US- 0369402-$).DID.					
L2933	318	(US-0378493-$ | US- 0379425-$ | US- 0387351-$ | US- 0399691-$ | US- 0408850-$ | US- 0415338-$ | US- 1255265-$ | US- 1917745-$ | US- 10042186-$ | US- 10060790-$ | US- 10061144-$ | US- 10310296-$ | US- 10345625-$ | US- 10359311-$ | US- 10515623-$ | US- 10539459-$ | US- 10571715-$ | US- 10624790-$ | US- 10777048-$ | US- 10802582-$ | US- 10964190-$ | US- 11042045-$ | US- 11069358-$ | US- 11086147-$ | US- 11204512-$ | US- 11243416-$ | US- 11326941-$ | US- 11513371-$ | US- 11536988-$ | US- 11630331-$ | US- 11644361-$ | US- 11644693-$ | US- 11721183-$ | US- 11733549-$ | US- 11762224-$ | US- 11803069-$ | US- 11829518-$ | US- 2249572-$ | US- 2638532-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:39 PM

		2725462-$ | US- 2794085-$ | US- 2818511-$ | US- 2830132-$ | US- 2874230-$ | US- 2904670-$ | US- 20010005230-$ | US- 20010028309-$ | US- 20010050754-$ | US- 20020017997-$ | US- 20020021407-$ | US- 20020081982-$ | US- 20020084990-$ | US- 20020089639-$ | US- 20020090103-$ | US- 20020098877-$ | US- 20020101568-$ | US- 20020109600-$ | US- 20020136414-$ | US- 20020140899-$ | US- 20020146097-$ | US- 20020159023-$ | US- 20020197961-$ | US- 20030018274-$ | US- 20030022690-$ | US- 20030032449-$ | US- 20030045283-$ | US- 20030062046-$ | US- 20030063763-$ | US- 20030064746-$ | US- 20030065257-$ | US- 20030067585-$ | US- 20030068057-$ | US- 20030083591-$ | US- 20030091200-$ | US- 20030214630-$ | US- 20030226978-$ | US- 20030231293-$ | US- 20040000733-$ | US- 20040005069-$ | US- 20040029582-$ | US- 20040059212-$ | US- 20040063378-$ | US- 20040096078-$ | US- 20040100384-$ | US- 20040101178-$ | US- 20040104864-$ | US- 20040114770-$ | US- 20040128737-$ | US- 20040150986-$ | US- 20040156012-$ | US- 20040157649-$ | US- 20040160571-$ | US- 20040160572-$ | US- 20040160573-$ | US- 20040197002-$ | US- 20040227219-$ | US- 20050036103-$ | US-					

		20050067580-$ | US- 20050078274-$ | US- 20050088365-$ | US- 20050090295-$ | US- 20050201585-$ | US- 20050213026-$ | US- 20050230596-$ | US- 20050238194-$ | US- 20050239502-$ | US- 20050248717-$ | US- 20050248718-$ | US- 20050248719-$ | US- 20050264752-$ | US- 20050278446-$ | US- 20060001827-$ | US- 20060003803-$ | US- 20060023158-$ | US- 20060034478-$ | US- 20060107822-$ | US- 20060132382-$ | US- 20060291667-$ | US- 20070030442-$ | US- 20070035830-$ | US- 20070046887-$ | US- 20070055888-$ | US- 20070098192-$ | US- 20070109491-$ | US- 20070186330-$ | US- 20070189548-$ | US- 20070200927-$ | US- 20070208531-$ | US- 20070211574-$ | US- 20070248238-$ | US- 20070270663-$ | US- 20070271065-$ | US- 20070271116-$ | US- 20070271387-$ | US- 20070279584-$ | US- 20080062338-$ | US- 20080068559-$ | US- 20080089545-$ | US- 20080100792-$ | US- 20080144854-$ | US- 20080151175-$ | US- 20080151179-$ | US- 20080158506-$ | US- 20080211921-$ | US- 20080218684-$ | US- 20080262392-$ | US- 20080278678-$ | US- 20090059159-$ | US- 20090059381-$ | US- 20090073375-$ | US- 20090141233-$ | US- 20090147215-$ | US- 20090156128-$ | US- 20090251660-$ | US- 20090251661-$ | US-					

		20090296044-$ | US-20100045928-$ | US-20100061579-$ | US-20100079356-$ | US-20100105445-$ | US-20100110368-$ | US-20100245754-$).DID.					
L2934	342	(US-20100296045-$ | US-20100309426-$ | US-20110102734-$ | US-20110164122-$ | US-20110187990-$ | US-20110241976-$ | US-20110273365-$ | US-20110292333-$ | US-20120033061-$ | US-20120050668-$ | US-20120062357-$ | US-20120101411-$ | US-20120133885-$ | US-20120176580-$ | US-20120283894-$ | US-20130072828-$ | US-20130077175-$ | US-20130143519-$ | US-20130172691-$ | US-20130201440-$ | US-20130308089-$ | US-20140132913-$ | US-20140176902-$ | US-20140198293-$ | US-20140226838-$ | US-20140268008-$ | US-20140268013-$ | US-20140268017-$ | US-20140361185-$ | US-20150085245-$ | US-20150230988-$ | US-20150253590-$ | US-20150277123-$ | US-20150338677-$ | US-20160098874-$ | US-20160246075-$ | US-20160302992-$ | US-20170074721-$ | US-20170090219-$ | US-20170131575-$ | US-20170146829-$ | US-20170289323-$ | US-20170303187-$ | US-20180122208-$ | US-20180314079-$ | US-20180335650-$ | US-20180348050-$ | US-20190004325-$ | US-20190033622-$ | US-20190033623-$ |	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:39 PM

		US-20190117121-$ | US-20190187492-$ | US-20190272800-$ | US-20190278110-$ | US-20190285913-$ | US-20190310132-$ | US-20190318589-$ | US-20190369402-$ | US-20190378493-$ | US-20190387351-$ | US-20200012127-$ | US-20200218094-$ | US-20200364992-$ | US-20210000347-$ | US-20210026146-$ | US-20210271116-$ | US-20210364827-$ | US-20210364828-$ | US-20210379425-$ | US-20210399691-$ | US-20220008763-$ | US-20220011603-$ | US-20220034542-$ | US-20220054092-$ | US-20220178743-$ | US-20220260859-$ | US-20220335792-$ | US-20220357599-$ | US-20220415338-$ | US-20230017635-$ | US-20230033660-$ | US-20230057654-$ | US-20230236444-$ | US-20230273464-$ | US-20230359266-$ | US-20230408850-$ | US-3060308-$ | US-3104290-$ | US-3119903-$ | US-3597054-$ | US-3710115-$ | US-3858001-$ | US-3883701-$ | US-4165487-$ | US-4254451-$ | US-4283127-$ | US-4322585-$ | US-4348664-$ | US-4389217-$ | US-4526473-$ | US-4535244-$ | US-4608492-$ | US-4683587-$ | US-4751691-$ | US-4757714-$ | US-4773095-$ | US-4806011-$ | US-4822160-$ | US-					

		4822161-$ | US- 4851686-$ | US- 4856086-$ | US- 4859047-$ | US- 4882769-$ | US- 4904078-$ | US- 4942629-$ | US- 4962469-$ | US- 4967268-$ | US- 4985632-$ | US- 5008548-$ | US- 5015086-$ | US- 5020150-$ | US- 5026151-$ | US- 5036311-$ | US- 5050150-$ | US- 5064410-$ | US- 5093576-$ | US- 5106179-$ | US- 5144344-$ | US- 5148023-$ | US- 5151600-$ | US- 5161250-$ | US- 5172256-$ | US- 5264877-$ | US- 5306917-$ | US- 5353378-$ | US- 5359370-$ | US- 5359444-$ | US- 5367345-$ | US- 5379464-$ | US- 5382986-$ | US- 5394005-$ | US- 5452026-$ | US- 5452480-$ | US- 5455637-$ | US- 5455640-$ | US- 5457751-$ | US- 5463428-$ | US- 5475798-$ | US- 5500532-$ | US- 5510961-$ | US- 5513384-$ | US- 5519781-$ | US- 5533130-$ | US- 5541641-$ | US- 5581090-$ | US- 5585871-$ | US- 5589398-$ | US- 5590417-$ | US- 5606743-$ | US- 5608808-$ | US- 5634201-$ | US- 5671035-$ | US- 5686727-$ | US- 5694475-$ | US- 5715323-$ | US- 5737436-$ | US-					

		5777715-$ | US-5790311-$ | US-5818381-$ | US-5819183-$ | US-5835185-$ | US-5900720-$ | US-5903395-$).DID.					
L2935	293	(US-5923398-$ | US-5941837-$ | US-5946071-$ | US-5949516-$ | US-5966746-$ | US-5980037-$ | US-5988812-$ | US-5991085-$ | US-5992996-$ | US-5995592-$ | US-6010216-$ | US-6013919-$ | US-6028627-$ | US-6046455-$ | US-6060321-$ | US-6061580-$ | US-6091546-$ | US-6091832-$ | US-6115177-$ | US-6132681-$ | US-6145983-$ | US-6154552-$ | US-6176576-$ | US-6225897-$ | US-6231181-$ | US-6236969-$ | US-6243578-$ | US-6259367-$ | US-6270466-$ | US-6292213-$ | US-6292685-$ | US-6301050-$ | US-6301367-$ | US-6307526-$ | US-6311155-$ | US-6343858-$ | US-6346929-$ | US-6349001-$ | US-6349422-$ | US-6409335-$ | US-6409338-$ | US-6426719-$ | US-6431705-$ | US-6474816-$ | US-6478736-$ | US-6506142-$ | US-6511175-$ | US-6513532-$ | US-6517203-$ | US-6539336-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:39 PM

		6542081-$ | US- 6546101-$ | US- 6554763-$ | US- 6582075-$ | US- 6619799-$ | US- 6629076-$ | US- 6678381-$ | US- 6717737-$ | US- 6729726-$ | US- 6736759-$ | US- 6764194-$ | US- 6769767-$ | US- 6771423-$ | US- 6788309-$ | US- 6792401-$ | US- 6816314-$ | US- 6824265-$ | US- 6857741-$ | US- 6871951-$ | US- 6879930-$ | US- 6912386-$ | US- 6929365-$ | US- 6932090-$ | US- 6947219-$ | US- 7004582-$ | US- 7013009-$ | US- 7023594-$ | US- 7030902-$ | US- 7031667-$ | US- 7033025-$ | US- 7059717-$ | US- 7073905-$ | US- 7079876-$ | US- 7123215-$ | US- 7192136-$ | US- 7255437-$ | US- 7265358-$ | US- 7274292-$ | US- 7289767-$ | US- 7312699-$ | US- 7331666-$ | US- 7376238-$ | US- 7380936-$ | US- 7401918-$ | US- 7405801-$ | US- 7429965-$ | US- 7430299-$ | US- 7438409-$ | US- 7438410-$ | US- 7445332-$ | US- 7481531-$ | US- 7500746-$ | US- 7500747-$ | US- 7512414-$ | US- 7517083-$ | US- 7527374-$ | US- 7543934-$ | US- 7581833-$ | US-					

		7621634-$ | US-7648236-$ | US-7677723-$ | US-7760898-$ | US-7771046-$ | US-7787647-$ | US-7792552-$ | US-7801570-$ | US-7806525-$ | US-7922321-$ | US-7976159-$ | US-8009849-$ | US-8109629-$ | US-8142015-$ | US-8174569-$ | US-8175886-$ | US-8251875-$ | US-8337013-$ | US-8430507-$ | US-8434863-$ | US-8465151-$ | US-8485661-$ | US-8500271-$ | US-8571241-$ | US-8582789-$ | US-8620208-$ | US-8626246-$ | US-8770742-$ | US-8849185-$ | US-8905542-$ | US-9033493-$ | US-9183351-$ | US-9244292-$ | US-9369814-$ | US-9400390-$ | US-9405135-$ | US-9488520-$ | US-9547184-$ | US-9690121-$ | US-9922236-$).DID.					
L2936	73	(11/183256 | 11/183269 | 11/546685 | 11/580222 | 12/462286 | 12/803732 | 12/806312 | 13/085402 | 13/291020 | 13/367346 | 13/831419 | 13/831445 | 13/831512 | 13/955336 | 14/557409 | 14/594662 | 14/715501 | 15/375423 | 15/396428 | 15/409723 | 16/049120 | 16/127957 | 16/182969 | 16/424018 | 16/429181 | 16/574254	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:39 PM

		| 16/821810 | 17/395509 | 17/484080 | 17/737866 | 17/873104 | 17/942347 | 17/949029 | 17/964853 | 18/129660 | 18/144557 | 18/224793 | 19/594662).APP.					
L2937	83	(CA-2487391-$ | CN-88203065-$ | CN-89214222-$ | CN-90208199-$ | DE-10123226-$ | EP-1027626-$ | EP-1134491-$ | EP-2290433-$ | FR-2530039-$ | GB-1467982-$ | JP-58113914-$ | JP-02181722-$ | JP-09017204-$ | JP-10161072-$ | JP-2000039595-$ | JP-2002341059-$ | JP-2005151292-$ | JP-2005167902-$ | JP-58113912-$ | KR-20020044416-$ | TW-484711-$ | WO-0106298-$ | WO-0124576-$ | WO-0206881-$ | WO-03069394-$ | WO-03100368-$ | WO-03100503-$ | WO-04012477-$ | WO-04025554-$ | WO-9712205-$ | WO-9950706-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:39 PM
L2938	73	(US-0024594-$ | US-0030597-$ | US-0182812-$ | US-0203183-$ | US-0281440-$ | US-0363835-$ | US-20030030597-$ | US-20050281440-$ | US-20060203183-$ | US-20070182812-$ | US-20080024594-$ | US-20200363835-$ | US-4852988-$ | US-4882598-$ | US-4975584-$ | US-5184156-$ | US-5495576-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:39 PM

		5583795-$ | US-5841507-$ | US-5966680-$ | US-6099124-$ | US-6163281-$ | US-6244703-$ | US-6433760-$ | US-6491391-$ | US-6563532-$ | US-6771294-$ | US-6847336-$ | US-6943754-$ | US-6977776-$ | US-7148489-$ | US-7150526-$ | US-7278734-$ | US-7347551-$ | US-7488294-$ | US-7651220-$ | US-8408699-$ | US-8931896-$).DID.					
L2939	36	(AT-036110-$ | AL-316473-$ | AT-362895-$ | AL-388766-$ | CA-2233047-$ | CA-2316473-$ | CA-2362895-$ | CA-2388766-$ | CA-2435873-$ | EP-0441791-$ | HO-2102521-$ | HO-2159272-$ | JP-6275987-$ | JP-63153218-$ | WO-0184095-$ | WO-02086599-$ | WO-03062906-$ | WO-04001373-$ | WO-05036110-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:39 PM
L2946	1469	2932 2933 2934 2935 2936 2937 2938 2939	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:40 PM
L2947	229	2946 AND 54	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2024/12/13 05:41 PM

			AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2948	132	2946 AND 59	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:41 PM
L2949	61	2946 AND 63	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:41 PM
L2950	13	2946 AND 49	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO,	OR	ON	ON	2024/12/13 05:41 PM

			RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2951	2	2946 AND 52	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:42 PM
L2952	663	("197708" | "198608" | "198805" | "198909" | "99411" | "199511" | "199609" | "199709" | "199807" | "200011" | "200101" | "200102" | "200205" | "200208" | "200210" | "200302" | "200512" | "200907" | "1129988" | "6081194" | "681194" | "7312791" | "8237349" | "2107638").DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:50 PM
L2953	383	(US-10042186-$ | US-10060790-$ | US-10061144-$ | US-10310296-$ | US-10345625-$ | US-10359311-$ | US-10359459-$ | US-10624790-$ | US-10777048-$ | US-11042045-$ | US-1255265-$ | US-1917745-$ | US-2249572-$ | US-2638532-$ | US-2794085-$ | US-2818511-$ | US-2830132-$ | US-2874230-$ | US-2904670-$ | US-3060308-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:50 PM

		3597054-$ | US- 3710115-$ | US- 3858001-$ | US- 3883701-$ | US- 4165487-$ | US- 4254451-$ | US- 4283127-$ | US- 4322585-$ | US- 4348664-$ | US- 4389217-$ | US- 4526473-$ | US- 4535244-$ | US- 4608492-$ | US- 4683587-$ | US- 4751691-$ | US- 4757714-$ | US- 4773095-$ | US- 4806011-$ | US- 4822160-$ | US- 4822161-$ | US- 4851686-$ | US- 4856086-$ | US- 4859047-$ | US- 4882769-$ | US- 4904078-$ | US- 4942629-$ | US- 4962469-$ | US- 4967268-$ | US- 4985632-$ | US- 5008548-$ | US- 5015086-$ | US- 5020150-$ | US- 5026151-$ | US- 5036311-$ | US- 5050150-$ | US- 5064410-$ | US- 5093576-$ | US- 5106179-$ | US- 5148023-$ | US- 5151600-$ | US- 5161250-$ | US- 5172256-$ | US- 5264877-$ | US- 5306917-$ | US- 5353378-$ | US- 5359370-$ | US- 5359444-$ | US- 5367345-$ | US- 5379464-$ | US- 5382986-$ | US- 5394005-$ | US- 5452026-$ | US- 5452480-$ | US- 5455637-$ | US- 5455640-$ | US- 5457751-$ | US- 5463428-$ | US- 5500532-$ | US-					

		5510961-$ | US- 5513384-$ | US- 5533130-$ | US- 5541641-$ | US- 5581090-$ | US- 5585871-$ | US- 5589398-$ | US- 5590417-$ | US- 5606743-$ | US- 5608808-$ | US- 5634201-$ | US- 5671035-$ | US- 5686727-$ | US- 5694475-$ | US- 5715323-$ | US- 5737436-$ | US- 5818381-$ | US- 5835185-$ | US- 5900720-$ | US- 5903395-$ | US- 5923398-$ | US- 5941837-$ | US- 5946071-$ | US- 5949516-$ | US- 5966746-$ | US- 5980037-$ | US- 5988812-$ | US- 5991085-$ | US- 5992996-$ | US- 5995592-$ | US- 6010216-$ | US- 6013919-$ | US- 6028627-$ | US- 6046455-$ | US- 6060321-$ | US- 6061580-$ | US- 6091546-$ | US- 6091832-$ | US- 6115177-$ | US- 6132681-$ | US- 6145983-$ | US- 6154552-$ | US- 6176576-$ | US- 6225897-$ | US- 6231181-$ | US- 6236969-$ | US- 6243578-$ | US- 6259367-$ | US- 6270466-$ | US- 6292213-$ | US- 6292685-$ | US- 6301367-$ | US- 6307526-$ | US- 6343858-$ | US- 6349001-$ | US- 6349422-$ | US- 6409335-$ | US- 6409338-$ | US-					

		6426719-$ | US- 6431705-$ | US- 6474816-$ | US- 6478736-$ | US- 6506142-$ | US- 6511175-$ | US- 6513532-$ | US- 6517203-$ | US- 6539336-$ | US- 6542081-$ | US- 6546101-$ | US- 6554763-$ | US- 6582075-$ | US- 6619799-$ | US- 6629076-$ | US- 6729726-$ | US- 6736759-$ | US- 6764194-$ | US- 6769767-$ | US- 6788309-$ | US- 6792401-$ | US- 6816314-$ | US- 6824265-$ | US- 6857741-$ | US- 6871951-$ | US- 6879930-$ | US- 6912386-$ | US- 6929365-$ | US- 6932090-$ | US- 6947219-$ | US- 7004582-$ | US- 7013009-$ | US- 7023594-$ | US- 7030902-$ | US- 7031667-$ | US- 7033025-$ | US- 7059717-$ | US- 7073905-$ | US- 7079876-$ | US- 7123215-$ | US- 7192136-$ | US- 7255437-$ | US- 7265358-$ | US- 7274292-$ | US- 7289767-$ | US- 7312699-$ | US- 7331666-$ | US- 7376238-$ | US- 7380936-$ | US- 7401918-$ | US- 7405801-$ | US- 7429965-$ | US- 7438409-$ | US- 7438410-$ | US- 7445332-$ | US- 7481531-$ | US- 7500746-$ | US- 7500747-$ | US-					

		7512414-$).DID.					
L2954	381	(US-20190310132-$ | US-20190318589-$ | US-20190387351-$ | US-20200012127-$ | US-20200218094-$ | US-20200364992-$ | US-3060308-$ | US-3597054-$ | US-3710115-$ | US-3858001-$ | US-3883701-$ | US-4165487-$ | US-4254451-$ | US-4283127-$ | US-4322585-$ | US-4348664-$ | US-4389217-$ | US-4526473-$ | US-4535244-$ | US-4608492-$ | US-4683587-$ | US-4751691-$ | US-4757714-$ | US-4773095-$ | US-4806011-$ | US-4822160-$ | US-4822161-$ | US-4851686-$ | US-4856086-$ | US-4859047-$ | US-4882769-$ | US-4904078-$ | US-4942629-$ | US-4962469-$ | US-4967268-$ | US-4985632-$ | US-5008548-$ | US-5015086-$ | US-5020150-$ | US-5026151-$ | US-5036311-$ | US-5050150-$ | US-5064410-$ | US-5093576-$ | US-5106179-$ | US-5148023-$ | US-5151600-$ | US-5161250-$ | US-5172256-$ | US-5264877-$ | US-5306917-$ | US-5353378-$ | US-5359370-$ | US-5359444-$ | US-5367345-$ | US-5379464-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:50 PM

		5382986-$ | US- 5394005-$ | US- 5452026-$ | US- 5452480-$ | US- 5455637-$ | US- 5455640-$ | US- 5457751-$ | US- 5463428-$ | US- 5500532-$ | US- 5510961-$ | US- 5513384-$ | US- 5533130-$ | US- 5541641-$ | US- 5581090-$ | US- 5585871-$ | US- 5589398-$ | US- 5590417-$ | US- 5606743-$ | US- 5608808-$ | US- 5634201-$ | US- 5671035-$ | US- 5686727-$ | US- 5694475-$ | US- 5715323-$ | US- 5737436-$ | US- 5818381-$ | US- 5835185-$ | US- 5900720-$ | US- 5903395-$ | US- 5923398-$ | US- 5941837-$ | US- 5946071-$ | US- 5949516-$ | US- 5966746-$ | US- 5980037-$ | US- 5988812-$ | US- 5991085-$ | US- 5992996-$ | US- 5995592-$ | US- 6010216-$ | US- 6013919-$ | US- 6028627-$ | US- 6046455-$ | US- 6060321-$ | US- 6061580-$ | US- 6091546-$ | US- 6091832-$ | US- 6115177-$ | US- 6132681-$ | US- 6145983-$ | US- 6154552-$ | US- 6176576-$ | US- 6225897-$ | US- 6231181-$ | US- 6236969-$ | US- 6243578-$ | US- 6259367-$ | US- 6270466-$ | US-					

		6292213-$ | US- 6292685-$ | US- 6301367-$ | US- 6307526-$ | US- 6343858-$ | US- 6349001-$ | US- 6349422-$ | US- 6409335-$ | US- 6409338-$ | US- 6426719-$ | US- 6431705-$ | US- 6474816-$ | US- 6478736-$ | US- 6506142-$ | US- 6511175-$ | US- 6513532-$ | US- 6517203-$ | US- 6539336-$ | US- 6542081-$ | US- 6546101-$ | US- 6554763-$ | US- 6582075-$ | US- 6619799-$ | US- 6629076-$ | US- 6729726-$ | US- 6736759-$ | US- 6764194-$ | US- 6769767-$ | US- 6788309-$ | US- 6792401-$ | US- 6816314-$ | US- 6824265-$ | US- 6857741-$ | US- 6871951-$ | US- 6879930-$ | US- 6912386-$ | US- 6929365-$ | US- 6932090-$ | US- 6947219-$ | US- 7004582-$ | US- 7013009-$ | US- 7023594-$ | US- 7030902-$ | US- 7031667-$ | US- 7033025-$ | US- 7059717-$ | US- 7073905-$ | US- 7079876-$ | US- 7123215-$ | US- 7192136-$ | US- 7255437-$ | US- 7265358-$ | US- 7274292-$ | US- 7289767-$ | US- 7312699-$ | US- 7331666-$ | US- 7376238-$ | US- 7380936-$ | US-					

		7401918-$ | US- 7405801-$ | US- 7429965-$ | US- 7438409-$ | US- 7438410-$ | US- 7445332-$ | US- 7481531-$ | US- 7500746-$ | US- 7500747-$ | US- 7512414-$ | US- 7517083-$ | US- 7527374-$ | US- 7543934-$ | US- 7581833-$ | US- 7621634-$ | US- 7648236-$ | US- 7677723-$ | US- 7760898-$ | US- 7771046-$ | US- 7792552-$ | US- 7806525-$ | US- 7922321-$).DID.					
L2955	376	(US-0000733-$ | US- 0001827-$ | US- 0003803-$ | US- 0005230-$ | US- 0012127-$ | US- 0017997-$ | US- 0018274-$ | US- 0021407-$ | US- 0022690-$ | US- 0023158-$ | US- 0028309-$ | US- 0029582-$ | US- 0030442-$ | US- 0032449-$ | US- 0033061-$ | US- 0033623-$ | US- 0034478-$ | US- 0035830-$ | US- 0046887-$ | US- 0050668-$ | US- 0050754-$ | US- 0055888-$ | US- 0059159-$ | US- 0059212-$ | US- 0059381-$ | US- 0061579-$ | US- 0062046-$ | US- 0062338-$ | US- 0062357-$ | US- 0063378-$ | US- 0065257-$ | US- 0067580-$ | US- 0067585-$ | US- 0068057-$ | US- 0068117-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:50 PM

		0068559-$ | US- 0072828-$ | US- 0073375-$ | US- 0074721-$ | US- 0077175-$ | US- 0078274-$ | US- 0079356-$ | US- 0081982-$ | US- 0083591-$ | US- 0084990-$ | US- 0085245-$ | US- 0088365-$ | US- 0089639-$ | US- 0090103-$ | US- 0090219-$ | US- 0096078-$ | US- 0098192-$ | US- 0098877-$ | US- 0100384-$ | US- 0100792-$ | US- 0101178-$ | US- 0101568-$ | US- 0102734-$ | US- 0107822-$ | US- 0109491-$ | US- 0109600-$ | US- 0110368-$ | US- 0128737-$ | US- 0131575-$ | US- 0132382-$ | US- 0132913-$ | US- 0133885-$ | US- 0140899-$ | US- 0141233-$ | US- 0143519-$ | US- 0144854-$ | US- 0146829-$ | US- 0147215-$ | US- 0150986-$ | US- 0151175-$ | US- 0151179-$ | US- 0156012-$ | US- 0156128-$ | US- 0157649-$ | US- 0158506-$ | US- 0159023-$ | US- 0160571-$ | US- 0160572-$ | US- 0160573-$ | US- 0164122-$ | US- 0176580-$ | US- 0176902-$ | US- 0186330-$ | US- 0187492-$ | US- 0187990-$ | US- 0197002-$ | US- 0197961-$ | US- 0198293-$ | US-					

		0200927-$ | US- 0201440-$ | US- 0201585-$ | US- 0208531-$ | US- 0211921-$ | US- 0213026-$ | US- 0214630-$ | US- 0218094-$ | US- 0218684-$ | US- 0226978-$ | US- 0227219-$ | US- 0230596-$ | US- 0230988-$ | US- 0231293-$ | US- 0238194-$ | US- 0239502-$ | US- 0241796-$ | US- 0245754-$ | US- 0246075-$ | US- 0248238-$ | US- 0248717-$ | US- 0248718-$ | US- 0248719-$ | US- 0251660-$ | US- 0251661-$ | US- 0253590-$ | US- 0262392-$ | US- 0264752-$ | US- 0268008-$ | US- 0268013-$ | US- 0268017-$ | US- 0270663-$ | US- 0271065-$ | US- 0271116-$ | US- 0271387-$ | US- 0272800-$ | US- 0273365-$ | US- 0278110-$ | US- 0278446-$ | US- 0278678-$ | US- 0279584-$ | US- 0285913-$ | US- 0296044-$ | US- 0296045-$ | US- 0302992-$ | US- 0303187-$ | US- 0308089-$ | US- 0309426-$ | US- 0310132-$ | US- 0314079-$ | US- 0318589-$ | US- 0348050-$ | US- 0361185-$ | US- 0364992-$ | US- 0387351-$ | US- 10042186-$ | US- 10060790-$ | US- 10061144-$ | US-						

		10310296-$ | US-10345625-$ | US-10359311-$ | US-10359459-$ | US-10624790-$ | US-10777048-$ | US-11042045-$ | US-11086147-$ | US-1255265-$ | US-1917745-$ | US-20010005230-$ | US-20010028309-$ | US-20010050754-$ | US-20020017997-$ | US-20020021407-$ | US-20020081982-$ | US-20020084990-$ | US-20020089639-$ | US-20020090103-$ | US-20020098877-$ | US-20020101568-$ | US-20020109600-$ | US-20020140899-$ | US-20020159023-$ | US-20020197961-$ | US-20030018274-$ | US-20030022690-$ | US-20030032449-$ | US-20030062046-$ | US-20030065257-$ | US-20030067585-$ | US-20030068057-$ | US-20030083591-$ | US-20030214630-$ | US-20030226978-$ | US-20030231293-$ | US-20040000733-$).DID.					
L2956	369	(US-6060321-$ | US-6061580-$ | US-6091832-$ | US-6115177-$ | US-6132681-$ | US-6154552-$ | US-6176576-$ | US-61810704-$ | US-6199550-$ | US-62023804-$ | US-6225897-$ | US-6231181-$ | US-6236969-$ | US-6259367-$ | US-6270466-$ | US-6292213-$ | US-6292685-$ | US-6301367-$ | US-6343858-$ | US-6409335-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:50 PM

		6409338-$ | US- 6431705-$ | US- 6474816-$ | US- 64782605-$ | US- 64783605-$ | US- 6511175-$ | US- 6513532-$ | US- 6517203-$ | US- 6539336-$ | US- 6542081-$ | US- 6546101-$ | US- 6554444-$ | US- 6582075-$ | US- 6619799-$ | US- 6629076-$ | US- 6686843-$ | US- 6729726-$ | US- 6736759-$ | US- 6764194-$ | US- 6769767-$ | US- 6788309-$ | US- 6792401-$ | US- 6798391-$ | US- 6824265-$ | US- 6840908-$ | US- 6853303-$ | US- 6857741-$ | US- 6871951-$ | US- 6879930-$ | US- 6898550-$ | US- 6899585-$ | US- 6912386-$ | US- 6932090-$ | US- 6947219-$ | US- 6974226-$ | US- 7013009-$ | US- 7023594-$ | US- 7030902-$ | US- 7031667-$ | US- 7033025-$ | US- 7044615-$ | US- 7048370-$ | US- 7059717-$ | US- 7079876-$ | US- 7148879-$ | US- 7150526-$ | US- 7192136-$ | US- 7255437-$ | US- 7265358-$ | US- 7274292-$ | US- 7278734-$ | US- 7289767-$ | US- 7312699-$ | US- 7313246-$ | US- 7319780-$ | US- 7376238-$ | US- 7380936-$ | US- 7405801-$ | US-					

		7438409-$ | US- 7438410-$ | US- 7452067-$ | US- 7500746-$ | US- 7500747-$ | US- 7512414-$ | US- 7521623-$ | US- 7543934-$ | US- 7543938-$ | US- 7547101-$ | US- 7581833-$ | US- 7604348-$ | US- 7643895-$ | US- 7648236-$ | US- 7677723-$ | US- 7740353-$ | US- 7760898-$ | US- 7792552-$ | US- 7798638-$ | US- 7806525-$ | US- 7818142-$ | US- 7834759-$ | US- 7922321-$ | US- 8073984-$ | US- 8095799-$ | US- 8109629-$ | US- 8142015-$ | US- 8182267-$ | US- 8184067-$ | US- 8243973-$ | US- 8328420-$ | US- 8337013-$ | US- 8421851-$ | US- 8430507-$ | US- 8465151-$ | US- 8482488-$ | US- 8485661-$ | US- 8508851-$ | US- 8558759-$ | US- 8593795-$ | US- 8668334-$ | US- 8766747-$ | US- 8767306-$ | US- 8778022-$ | US- 8801174-$ | US- 8823740-$ | US- 8832233-$ | US- 8838708-$ | US- 8884845-$ | US- 8905541-$ | US- 8907867-$ | US- 8908894-$ | US- 8931896-$ | US- 8941560-$ | US- 8944590-$ | US- 8952869-$ | US- 8957835-$ | US- 8979259-$ | US-					

		9024843-$ | US- 9081212-$ | US- 9091851-$ | US- 9097890-$ | US- 9097891-$ | US- 9116545-$ | US- 9128281-$ | US- 9128522-$ | US- 9129295-$ | US- 9134534-$ | US- 9137309-$ | US- 9141194-$ | US- 9143848-$ | US- 9158116-$ | US- 9182596-$ | US- 9201512-$ | US- 9223134-$ | US- 9229227-$ | US- 9230501-$ | US- 9256071-$ | US- 9277334-$ | US- 9285589-$ | US- 9298007-$ | US- 9299194-$ | US- 9341843-$ | US- 9349280-$ | US- 9366862-$ | US- 9400390-$ | US- 9401540-$ | US- 9405135-$ | US- 9405892-$ | US- 9423842-$ | US- 9423870-$ | US- 9494800-$ | US- 9529197-$ | US- 9529199-$ | US- 9568746-$ | US- 9582071-$ | US- 9589482-$ | US- 9594433-$ | US- 9600079-$ | US- 9651787-$ | US- 9672210-$ | US- 9684172-$ | US- 9684374-$ | US- 9690121-$ | US- 9715112-$ | US- 9715774-$ | US- 9730647-$ | US- 9740280-$ | US- 9753288-$ | US- 9759917-$ | US- 9766463-$ | US- 9781408-$ | US- 9800990-$ | US- 9829707-$ | US- 9836122-$ | US- 9841599-$ | US-					

		9857590-$).DID.					
L2957	345	(US-5036311-$ | US-5050150-$ | US-5064410-$ | US-5093576-$ | US-5106179-$ | US-5148023-$ | US-5151600-$ | US-5161250-$ | US-5172256-$ | US-5264877-$ | US-5306917-$ | US-5353378-$ | US-5359370-$ | US-5359444-$ | US-5367345-$ | US-5379464-$ | US-5382986-$ | US-5394005-$ | US-5452026-$ | US-5452480-$ | US-5455637-$ | US-5455640-$ | US-5457751-$ | US-5463428-$ | US-5500532-$ | US-5510961-$ | US-5513384-$ | US-5533130-$ | US-5541641-$ | US-5581090-$ | US-5585871-$ | US-5589398-$ | US-5590417-$ | US-5606743-$ | US-5608808-$ | US-5634201-$ | US-5671035-$ | US-5686727-$ | US-5694475-$ | US-5715323-$ | US-5737436-$ | US-5818381-$ | US-5835185-$ | US-5900720-$ | US-5903395-$ | US-5923398-$ | US-5941837-$ | US-5946071-$ | US-5949516-$ | US-5966746-$ | US-5980037-$ | US-5988812-$ | US-5991085-$ | US-5992996-$ | US-5995592-$ | US-6010216-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:50 PM

		6013919-$ | US- 6028627-$ | US- 6046455-$ | US- 6060321-$ | US- 6061580-$ | US- 6091546-$ | US- 6091832-$ | US- 6115177-$ | US- 6132681-$ | US- 6145983-$ | US- 6154552-$ | US- 6176576-$ | US- 6225897-$ | US- 6231181-$ | US- 6236969-$ | US- 6243578-$ | US- 6259367-$ | US- 6270466-$ | US- 6292213-$ | US- 6292685-$ | US- 6301367-$ | US- 6307526-$ | US- 6343858-$ | US- 6349001-$ | US- 6349422-$ | US- 6409335-$ | US- 6409338-$ | US- 6426719-$ | US- 6431705-$ | US- 6474816-$ | US- 6478736-$ | US- 6506142-$ | US- 6511175-$ | US- 6513532-$ | US- 6517203-$ | US- 6539336-$ | US- 6542081-$ | US- 6546101-$ | US- 6554763-$ | US- 6582075-$ | US- 6619799-$ | US- 6629076-$ | US- 6729726-$ | US- 6736759-$ | US- 6764194-$ | US- 6769767-$ | US- 6788309-$ | US- 6792401-$ | US- 6816314-$ | US- 6824265-$ | US- 6857741-$ | US- 6871951-$ | US- 6879930-$ | US- 6912386-$ | US- 6929365-$ | US- 6932090-$ | US- 6947219-$ | US- 7004582-$ | US-					

		7013009-$ | US- 7023594-$ | US- 7030902-$ | US- 7031667-$ | US- 7033025-$ | US- 7059717-$ | US- 7073905-$ | US- 7079876-$ | US- 7123215-$ | US- 7192136-$ | US- 7255437-$ | US- 7265358-$ | US- 7274292-$ | US- 7289767-$ | US- 7312699-$ | US- 7331666-$ | US- 7376238-$ | US- 7380936-$ | US- 7401918-$ | US- 7405801-$ | US- 7429965-$ | US- 7438409-$ | US- 7438410-$ | US- 7445332-$ | US- 7481531-$ | US- 7500746-$ | US- 7500747-$ | US- 7512414-$ | US- 7517083-$ | US- 7527374-$ | US- 7543934-$ | US- 7581833-$ | US- 7621634-$ | US- 7648236-$ | US- 7677723-$ | US- 7760898-$ | US- 7771046-$ | US- 7792552-$ | US- 7806525-$ | US- 7922321-$ | US- 7976159-$ | US- 8109629-$ | US- 8142015-$ | US- 8174569-$ | US- 8337013-$ | US- 8430507-$ | US- 8434863-$ | US- 8465151-$ | US- 8485661-$ | US- 8500271-$ | US- 8770742-$ | US- 8905542-$ | US- 9033493-$ | US- 9244292-$ | US- 9400390-$ | US- 9405135-$ | US- 9488520-$ | US- 9547184-$ | US-					

		9690121-$ | US-9922236-$ | US-D369167-$).DID.					
L2958	342	(US-10042186-$ | US-10045732-$ | US-10108984-$ | US-10123732-$ | US-10180572-$ | US-10215568-$ | US-10227063-$ | US-10254856-$ | US-10276028-$ | US-10310296-$ | US-10310597-$ | US-10345625-$ | US-10359459-$ | US-10448867-$ | US-10463300-$ | US-10466491-$ | US-10466510-$ | US-10469916-$ | US-10473950-$ | US-10561376-$ | US-10613355-$ | US-10617342-$ | US-10624790-$ | US-10649220-$ | US-10663740-$ | US-10678322-$ | US-10684478-$ | US-10684687-$ | US-10686972-$ | US-10690936-$ | US-10722128-$ | US-10742965-$ | US-10777048-$ | US-10824253-$ | US-10831316-$ | US-10853589-$ | US-10908421-$ | US-10997943-$ | US-11042045-$ | US-11061252-$ | US-11086147-$ | US-11115074-$ | US-11137626-$ | US-11138301-$ | US-11156856-$ | US-11204512-$ | US-1255265-$ | US-1917745-$ | US-20020021407-$ | US-20020081982-$ | US-20020090103-$ | US-20020098877-$ | US-20030022690-$ | US-20030032449-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:50 PM

		20030226978-$ | US- 20040096078-$ | US- 20050230596-$ | US- 20050248719-$ | US- 20050278446-$ | US- 20060034478-$ | US- 20060269079-$ | US- 20070186330-$ | US- 20070258040-$ | US- 20070270663-$ | US- 20070271116-$ | US- 20080062338-$ | US- 20080144854-$ | US- 20080273166-$ | US- 20090156128-$ | US- 20090201460-$ | US- 20120002160-$ | US- 20120105740-$ | US- 20120108215-$ | US- 20120176580-$ | US- 20120194550-$ | US- 20120249797-$ | US- 20130072828-$ | US- 20130143519-$ | US- 20130169513-$ | US- 20140176902-$ | US- 20140198293-$ | US- 20150309316-$ | US- 20150309534-$ | US- 20160187651-$ | US- 20160223832-$ | US- 20160239985-$ | US- 20190278110-$ | US- 20190285913-$ | US- 20200029140-$ | US- 20220011603-$ | US- 2249572-$ | US- 2638532-$ | US- 2794085-$ | US- 2818511-$ | US- 2830132-$ | US- 2874230-$ | US- 2904670-$ | US- 3060308-$ | US- 3597054-$ | US- 3710115-$ | US- 3858001-$ | US- 3883701-$ | US- 4165487-$ | US- 4254451-$ | US- 4283127-$ | US- 4322585-$ | US- 4348664-$ | US- 4389217-$ | US- 4526473-$ | US- 4535244-$ | US- 4608492-$ | US- 4683587-$ | US-					

		4751691-$ | US- 4757714-$ | US- 4806011-$ | US- 4822160-$ | US- 4822161-$ | US- 4851666-$ | US- 4851686-$ | US- 4856086-$ | US- 4859047-$ | US- 4882769-$ | US- 4962469-$ | US- 4967268-$ | US- 4985632-$ | US- 5008548-$ | US- 5015086-$ | US- 5020150-$ | US- 5026151-$ | US- 5064410-$ | US- 5093576-$ | US- 50963103-$ | US- 5151600-$ | US- 5161250-$ | US- 5172256-$ | US- 5264877-$ | US- 52756503-$ | US- 5306917-$ | US- 5353378-$ | US- 5359444-$ | US- 5367345-$ | US- 5379464-$ | US- 5382986-$ | US- 5394005-$ | US- 5452026-$ | US- 5452480-$ | US- 5455637-$ | US- 5455640-$ | US- 5457751-$ | US- 5463428-$ | US- 5500532-$ | US- 5510961-$ | US- 5513384-$ | US- 5533130-$ | US- 5581090-$ | US- 5585871-$ | US- 56279804-$ | US- 5634201-$ | US- 5671035-$ | US- 5673692-$ | US- 5694475-$ | US- 5715323-$ | US- 58316904-$ | US- 5835185-$ | US- 5900720-$ | US- 5903395-$ | US- 59204504-$ | US- 5923398-$ | US- 5941837-$ | US- 5946071-$ | US-					

		5949516-$ | US-5963294-$ | US-5966746-$ | US-5988812-$ | US-5991085-$ | US-5992996-$ | US-6010216-$ | US-6013919-$ | US-6028627-$ | US-6046455-$ | US-60519104-$).DID.					
L2965	1808	2952 2953 2954 2955 2956 2957 2958	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:52 PM
L2966	156	2965 AND 54	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:52 PM
L2967	118	2965 AND 56	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2024/12/13 05:52 PM

			JPO; DERWENT; IBM_TDB)				
L2968	57	2965 AND 61	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:53 PM
L2969	31	2965 AND 65	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:53 PM
L2970	18	2965 AND 49	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/13 05:53 PM
L2971	97	(US-0005069-$ | US-0017634-$ | US-0033660-$ | US-0044416-$ | US-0045928-$ | US-0057654-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2024/12/16 02:58 PM

		0064746-$ | US-0091200-$ | US-0114770-$ | US-0136414-$ | US-0189548-$ | US-02511706-$ | US-0283894-$ | US-0291667-$ | US-0292333-$ | US-0357599-$ | US-0379425-$ | US-0415388-$ | US-10802582-$ | US-11513371-$ | US-11536988-$ | US-11630331-$ | US-11644361-$ | US-11644693-$ | US-2725462-$ | US-20020136414-$ | US-20030064746-$ | US-20030091200-$ | US-20040005069-$ | US-20040114770-$ | US-20060291667-$ | US-20070189548-$ | US-20100045928-$ | US-20110292333-$ | US-20120283894-$ | US-20210379425-$ | US-20220357599-$ | US-20220415388-$ | US-20230017634-$ | US-20230033660-$ | US-20230057654-$ | US-3104290-$ | US-3119903-$ | US-5519781-$ | US-5819183-$ | US-6311155-$ | US-6678381-$ | US-7801570-$ | US-8582789-$ | US-8849185-$).DID.	HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2972	78	(US-10359459-$ | US-10624790-$ | US-10777048-$ | US-20030231293-$ | US-20040059212-$ | US-20040101178-$ | US-20060034478-$ | US-20070035830-$ | US-20080100792-$ | US-20090073375-$ | US-20090141233-$ | US-20120033061-$ | US-20130072828-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA,	OR	ON	ON	2024/12/16 02:58 PM

		20130148519-$ | US-20140132913-$ | US-20160302992-$ | US-20170074721-$ | US-20170090219-$ | US-20170131575-$ | US-20170146829-$ | US-20170303187-$ | US-20190272800-$ | US-20190278110-$ | US-20190285913-$ | US-20190310132-$ | US-20190318589-$ | US-20190387351-$ | US-20200012127-$ | US-20200364992-$ | US-3858001-$ | US-4904078-$ | US-5455637-$ | US-5541641-$ | US-5923398-$ | US-6091546-$ | US-6788309-$ | US-6816314-$ | US-6857741-$ | US-7023594-$ | US-7517083-$).DID.	VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2973	76	(AU-2005259090-$ | CA-2388872-$ | CN-1110465-$ | CN-214896080-$ | DE-69800345-$ | EP-1156572-$ | EP-2082281-$ | EP-3306380-$ | JP-2001183620-$ | JP-2002027680-$ | JP-2002218669-$ | JP-2003017020-$ | JP-2020027271-$ | JP-6742059-$ | KR-100238065-$ | KR-100720019-$ | KR-20010078034-$ | KR-200165484-$ | KR-200250874-$ | KR-200262295-$ | NZ-527050-$ | WO-2001035159-$ | WO-2002054135-$ | WO-2009062381-$ | WO-2010010204-$ | WO-2019011925-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 02:59 PM
L2974	65	(US-7517083-$ | US-7527374-$ | US-7543934-$ | US-7581833-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/12/16 02:59 PM

		7621634-$ | US-7648236-$ | US-7677723-$ | US-7760898-$ | US-7771046-$ | US-7792552-$ | US-7806525-$ | US-7922321-$ | US-7976159-$ | US-8109629-$ | US-8142015-$ | US-8174569-$ | US-8337013-$ | US-8430507-$ | US-8434863-$ | US-8465151-$ | US-8485661-$ | US-8500271-$ | US-8770742-$ | US-8905542-$ | US-9033493-$ | US-9244292-$ | US-9400390-$ | US-9405135-$ | US-9488520-$ | US-9547184-$ | US-9690121-$ | US-D369167-$).DID.	CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2975	43	(US-0045283-$ | US-0090295-$ | US-0359266-$ | US-0408850-$ | US-11480802-$ | US-11803069-$ | US-11829518-$ | US-20030045283-$ | US-20050090295-$ | US-20230359266-$ | US-20230408850-$ | US-5790311-$ | US-7430299-$ | US-7787647-$ | US-8009849-$ | US-8175886-$ | US-8251875-$ | US-8571241-$ | US-8620208-$ | US-8626246-$ | US-9183351-$ | US-9369814-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 02:59 PM
L2976	40	(US-7976159-$ | US-8109629-$ | US-8142015-$ | US-8174569-$ | US-8337013-$ | US-8430507-$ | US-8434863-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2024/12/16 02:59 PM

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		8465151-$ | US-8485661-$ | US-8500271-$ | US-8770742-$ | US-8905542-$ | US-9033493-$ | US-9244292-$ | US-9400390-$ | US-9405135-$ | US-9488520-$ | US-9547184-$ | US-9690121-$).DID.	IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2977	33	(US-0063763-$ | US-0117121-$ | US-0146097-$ | US-0260859-$ | US-0273464-$ | US-0399691-$ | US-0415338-$ | US-11721183-$ | US-11733549-$ | US-11762224-$ | US-20020146097-$ | US-20030063763-$ | US-20190117121-$ | US-20210399691-$ | US-20220260859-$ | US-20220415338-$ | US-20230273464-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 02:59 PM
L2978	24	(US-0026146-$ | US-0036103-$ | US-0089545-$ | US-0122208-$ | US-0178743-$ | US-10571715-$ | US-11326941-$ | US-20050036103-$ | US-20080089545-$ | US-20180122208-$ | US-20210026146-$ | US-20220178743-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 02:59 PM
L2979	20	(US-11086147-$ | US-11204512-$ | US-20050278446-$ | US-20080211921-$ | US-20120062357-$ | US-20190033622-$ | US-20210271116-$ | US-20210364827-$ | US-20210364828-$ | US-9922236-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2024/12/16 02:59 PM

			TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2980	40	(US-0011603-$ | US-0054092-$ | US-0104864-$ | US-0172691-$ | US-0226838-$ | US-0369402-$ | US-11243416-$ | US-20040104864-$ | US-20130172691-$ | US-20140226838-$ | US-20190369402-$ | US-20220011603-$ | US-20220054092-$ | US-5144344-$ | US-5475798-$ | US-5777715-$ | US-6301050-$ | US-6346929-$ | US-6717737-$ | US-6771423-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 02:59 PM
L2981	16	(US-11042045-$ | US-11086147-$ | US-20050278446-$ | US-20070248238-$ | US-20080211921-$ | US-20120062357-$ | US-20210271116-$ | US-9922236-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 02:59 PM
L2982	13	(US-9880441-$ | US-9882992-$ | US-9910298-$ | US-9922236-$ | US-9939934-$ | US-9952883-$ | US-9965681-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 02:59 PM

L2983	10	(EP-1027626-$ | EP-2290433-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 02:59 PM
L2984	9	("20070211574" | "20190378493" | "20020044416" | "200124576").DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 02:59 PM
L2997	499	2971 2972 2973 2974 2975 2976 2977 2978 2979 2980 2981 2982 2983 2984	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:03 PM
L2998	96	2997 AND 54	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO,	OR	ON	ON	2024/12/16 03:03 PM

			MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L2999	63	2997 AND 59	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:03 PM
L3000	28	2997 AND 65	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:04 PM
L3001	7	2997 AND 49	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:04 PM
L3002	1	2997 AND 52	(US-PGPUB; USPAT;	OR	ON	ON	2024/12/16

			USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				03:04 PM
L3003	317	(US-20040029582-$ | US-20040059212-$ | US-20040063378-$ | US-20040096078-$ | US-20040100384-$ | US-20040101178-$ | US-20040128737-$ | US-20040150986-$ | US-20040156012-$ | US-20040157649-$ | US-20040160571-$ | US-20040160572-$ | US-20040160573-$ | US-20040197002-$ | US-20040227219-$ | US-20050067580-$ | US-20050078274-$ | US-20050088365-$ | US-20050201585-$ | US-20050213026-$ | US-20050230596-$ | US-20050238194-$ | US-20050239502-$ | US-20050248717-$ | US-20050248718-$ | US-20050248719-$ | US-20050264752-$ | US-20050278446-$ | US-20060001827-$ | US-20060003803-$ | US-20060023158-$ | US-20060034478-$ | US-20060107822-$ | US-20060132382-$ | US-20070030442-$ | US-20070035830-$ | US-20070046887-$ | US-20070055888-$ | US-20070098192-$ | US-20070109491-$ | US-20070186330-$ | US-20070200927-$ |	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:20 PM

		US-20070208531-$ | US-20070248238-$ | US-20070270663-$ | US-20070271065-$ | US-20070271116-$ | US-20070271387-$ | US-20070279584-$ | US-20080062338-$ | US-20080068559-$ | US-20080100792-$ | US-20080144854-$ | US-20080151175-$ | US-20080151179-$ | US-20080158506-$ | US-20080211921-$ | US-20080218684-$ | US-20080262392-$ | US-20080278678-$ | US-20090059159-$ | US-20090059381-$ | US-20090073375-$ | US-20090141233-$ | US-20090147215-$ | US-20090156128-$ | US-20090251660-$ | US-20090251661-$ | US-20090296044-$ | US-20100061579-$ | US-20100079356-$ | US-20100110368-$ | US-20100245754-$ | US-20100296045-$ | US-20100309426-$ | US-20110102734-$ | US-20110164122-$ | US-20110187990-$ | US-20110241796-$ | US-20110273365-$ | US-20120033061-$ | US-20120050668-$ | US-20120062357-$ | US-20120133885-$ | US-20120176580-$ | US-20130072828-$ | US-20130077175-$ | US-20130143519-$ | US-20130201440-$ | US-20130308089-$ | US-20140132913-$ | US-20140176902-$ | US-20140198293-$ | US-20140268008-$ | US-20140268013-$ | US-20140268017-$ | US-20140361185-$ | US-20150085245-$ | US-20150230988-$ | US-20150253590-$ |				

		US-20160246075-$ | US-20160302992-$ | US-20170068117-$ | US-20170074721-$ | US-20170090219-$ | US-20170131575-$ | US-20170146829-$ | US-20170303187-$ | US-20180314079-$ | US-20180348050-$ | US-20190033623-$ | US-20190187492-$ | US-20190272800-$ | US-20190278110-$ | US-20190285913-$ | US-20190310132-$ | US-20190318589-$ | US-20190387351-$ | US-20200012127-$ | US-20200218094-$ | US-20200364992-$ | US-20210271116-$ | US-2249572-$ | US-2638532-$ | US-2794085-$ | US-2818511-$ | US-2830132-$ | US-2874230-$ | US-2904670-$ | US-3060308-$ | US-3597054-$ | US-3710115-$ | US-3858001-$ | US-3883701-$ | US-4165487-$ | US-4254451-$ | US-4283127-$ | US-4322585-$ | US-4348664-$ | US-4389217-$ | US-4526473-$ | US-4535244-$ | US-4608492-$ | US-4683587-$ | US-4751691-$ | US-4757714-$ | US-4773095-$ | US-4806011-$ | US-4822160-$ | US-4822161-$ | US-4851686-$ | US-4856086-$ | US-4859047-$ | US-4882769-$ | US-4904078-$ | US-4942629-$ | US-4962469-$ | US-4967268-$ | US-						

		4985632-$ | US-5008548-$ | US-5015086-$ | US-5020150-$ | US-5026151-$).DID.					
L3004	301	(US-1255265-$ | US-1917745-$ | US-10042186-$ | US-10060790-$ | US-10061144-$ | US-10310296-$ | US-10345625-$ | US-10359311-$ | US-10539459-$ | US-10624790-$ | US-10777048-$ | US-11042045-$ | US-2249572-$ | US-2638532-$ | US-2794085-$ | US-2818511-$ | US-2830132-$ | US-2874230-$ | US-2904670-$ | US-20010005230-$ | US-20010028309-$ | US-20010050754-$ | US-20020017997-$ | US-20020021407-$ | US-20020081982-$ | US-20020084990-$ | US-20020090103-$ | US-20020098877-$ | US-20020101568-$ | US-20020109600-$ | US-20020140899-$ | US-20020159023-$ | US-20020197961-$ | US-20030018274-$ | US-20030022690-$ | US-20030032449-$ | US-20030062046-$ | US-20030065257-$ | US-20030067585-$ | US-20030068057-$ | US-20030083591-$ | US-20030214630-$ | US-20030226978-$ | US-20030231293-$ | US-20040000733-$ | US-20040029582-$ | US-20040059212-$ | US-20040063378-$ | US-20040096078-$ | US-20040100384-$ | US-20040101178-$ | US-20040128737-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:20 PM

		20040150986-$ | US- 20040156012-$ | US- 20040157649-$ | US- 20040160571-$ | US- 20040160572-$ | US- 20040160573-$ | US- 20040197002-$ | US- 20040227219-$ | US- 20050067580-$ | US- 20050078274-$ | US- 20050088365-$ | US- 20050201585-$ | US- 20050213026-$ | US- 20050230596-$ | US- 20050238194-$ | US- 20050239502-$ | US- 20050248717-$ | US- 20050248718-$ | US- 20050248719-$ | US- 20050264752-$ | US- 20060001827-$ | US- 20060003803-$ | US- 20060023158-$ | US- 20060034478-$ | US- 20060107822-$ | US- 20060132382-$ | US- 20070030442-$ | US- 20070035830-$ | US- 20070046887-$ | US- 20070055888-$ | US- 20070098192-$ | US- 20070109491-$ | US- 20070186330-$ | US- 20070200927-$ | US- 20070208531-$ | US- 20070248238-$ | US- 20070270663-$ | US- 20070271065-$ | US- 20070271116-$ | US- 20070271387-$ | US- 20070279584-$ | US- 20080062338-$ | US- 20080068559-$ | US- 20080100792-$ | US- 20080144854-$ | US- 20080151175-$ | US- 20080151179-$ | US- 20080158506-$ | US- 20080218684-$ | US- 20080262392-$ | US- 20080278678-$ | US- 20090059159-$ | US- 20090059381-$ | US- 20090073375-$ | US- 20090141233-$ | US- 20090147215-$ | US- 20090156128-$ | US- 20090251660-$ | US-				

		20090251661-$ | US- 20090296044-$ | US- 20100061579-$ | US- 20100079356-$ | US- 20100110368-$ | US- 20100245754-$ | US- 20100296045-$ | US- 20100309426-$ | US- 20110102734-$ | US- 20110164122-$ | US- 20110187990-$ | US- 20110241976-$ | US- 20110273365-$ | US- 20120033061-$ | US- 20120050668-$ | US- 20120133885-$ | US- 20120176580-$ | US- 20130072828-$ | US- 20130077175-$ | US- 20130143519-$ | US- 20130201440-$ | US- 20130308089-$ | US- 20140132913-$ | US- 20140176902-$ | US- 20140198293-$ | US- 20140268008-$ | US- 20140268013-$ | US- 20140268017-$ | US- 20140361185-$ | US- 20150085245-$ | US- 20150230988-$ | US- 20150253590-$ | US- 20160246075-$ | US- 20160302992-$ | US- 20170068117-$ | US- 20170074721-$ | US- 20170090219-$ | US- 20170131575-$ | US- 20170146829-$ | US- 20170303187-$ | US- 20180314079-$ | US- 20180335650-$ | US- 20180348050-$ | US- 20190033623-$ | US- 20190187492-$ | US- 20190272800-$ | US- 20190278110-$ | US- 20190285913-$).DID.					
L3005	283	(US-20010005230-$ | US-20010028309-$ | US-20010050754-$ | US-20020017997-$ | US-20020021407-$ | US-20020081982-$ | US-20020084990-$ | US-20020089639-$ | US-20020090103-$ |	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO,	OR	ON	ON	2024/12/16 03:20 PM

		US-20020098877-$ | US-20020101568-$ | US-20020109600-$ | US-20020140899-$ | US-20020159023-$ | US-20020197961-$ | US-20030018274-$ | US-20030022690-$ | US-20030032449-$ | US-20030062046-$ | US-20030065257-$ | US-20030067585-$ | US-20030068057-$ | US-20030083591-$ | US-20030214630-$ | US-20030226978-$ | US-20030231293-$ | US-20040000733-$ | US-20040029582-$ | US-20040059212-$ | US-20040063378-$ | US-20040096078-$ | US-20040100384-$ | US-20040101178-$ | US-20040128737-$ | US-20040150986-$ | US-20040156012-$ | US-20040157649-$ | US-20040160571-$ | US-20040160572-$ | US-20040160573-$ | US-20040197002-$ | US-20040227219-$ | US-20050067580-$ | US-20050078274-$ | US-20050088365-$ | US-20050201585-$ | US-20050213026-$ | US-20050230596-$ | US-20050238194-$ | US-20050239502-$ | US-20050248717-$ | US-20050248718-$ | US-20050248719-$ | US-20050264752-$ | US-20060001827-$ | US-20060003803-$ | US-20060023158-$ | US-20060034478-$ | US-20060107822-$ | US-20060132382-$ | US-20070030442-$ | US-20070035830-$ | US-20070046887-$ | US-20070055888-$ | US-20070098192-$ | US-20070109491-$ | US-20070186330-$ |	MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				

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		US-20070200927-$ | US-20070208531-$ | US-20070248238-$ | US-20070270663-$ | US-20070271065-$ | US-20070271116-$ | US-20070271387-$ | US-20070279584-$ | US-20080062338-$ | US-20080068559-$ | US-20080100792-$ | US-20080144854-$ | US-20080151175-$ | US-20080151179-$ | US-20080158506-$ | US-20080218684-$ | US-20080262392-$ | US-20080278678-$ | US-20090059159-$ | US-20090059381-$ | US-20090073375-$ | US-20090141233-$ | US-20090147215-$ | US-20090156128-$ | US-20090251660-$ | US-20090251661-$ | US-20090296044-$ | US-20100061579-$ | US-20100079356-$ | US-20100110368-$ | US-20100245754-$ | US-20100296045-$ | US-20100309426-$ | US-20110102734-$ | US-20110164122-$ | US-20110187990-$ | US-20110241976-$ | US-20110273365-$ | US-20120033061-$ | US-20120050668-$ | US-20120133885-$ | US-20120176580-$ | US-20130072828-$ | US-20130077175-$ | US-20130143519-$ | US-20130201440-$ | US-20130308089-$ | US-20140132913-$ | US-20140176902-$ | US-20140198293-$ | US-20140268008-$ | US-20140268013-$ | US-20140268017-$ | US-20140361185-$ | US-20150085245-$ | US-20150230988-$ | US-20150253590-$ | US-20160246075-$ |					

		US-20160302992-$ | US-20170068117-$ | US-20170074721-$ | US-20170090219-$ | US-20170131575-$ | US-20170146829-$ | US-20170303187-$ | US-20180314079-$ | US-20180335650-$ | US-20180348050-$ | US-20190033623-$ | US-20190187492-$ | US-20190272800-$ | US-20190278110-$ | US-20190285913-$ | US-20190310132-$ | US-20190318589-$ | US-20190387351-$ | US-20200218094-$ | US-20200364992-$).DID.					
L3006	211	(US-3192826-$ | US-3216308-$ | US-3229580-$ | US-3524710-$ | US-3610825-$ | US-3787109-$ | US-3885095-$ | US-3915548-$ | US-3923370-$ | US-3936605-$ | US-3940204-$ | US-4052073-$ | US-4082432-$ | US-4195915-$ | US-4218111-$ | US-4447128-$ | US-4550984-$ | US-4649434-$ | US-4664475-$ | US-4665385-$ | US-4722601-$ | US-4751691-$ | US-4753514-$ | US-4799765-$ | US-4806001-$ | US-4806011-$ | US-4818048-$ | US-4826287-$ | US-4852988-$ | US-4853306-$ | US-4867551-$ | US-4869575-$ | US-4884137-$ | US-4961626-$ | US-4968117-$ | US-4973132-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:20 PM

		4973139-$ | US- 4988183-$ | US- 5003300-$ | US- 5013134-$ | US- 5028119-$ | US- 5044709-$ | US- 5050962-$ | US- 5053755-$ | US- 5129716-$ | US- 5138470-$ | US- 5162828-$ | US- 5212471-$ | US- 5214425-$ | US- 5231379-$ | US- 5281957-$ | US- 5281960-$ | US- 5309169-$ | US- 5320538-$ | US- 5325386-$ | US- 5334991-$ | US- 5348477-$ | US- 5359669-$ | US- 5367345-$ | US- 5369415-$ | US- 5381267-$ | US- 5384654-$ | US- 5392158-$ | US- 5416876-$ | US- 5446507-$ | US- 5455591-$ | US- 5459612-$ | US- 5469185-$ | US- 5491510-$ | US- 5506728-$ | US- 5519410-$ | US- 5537253-$ | US- 5539578-$ | US- 5576887-$ | US- 5579148-$ | US- 5583590-$ | US- 5585871-$ | US- 5589846-$ | US- 5596451-$ | US- 5606743-$ | US- 5610765-$ | US- 5626410-$ | US- 5629790-$ | US- 5648789-$ | US- 5653751-$ | US- 5654827-$ | US- 5654828-$ | US- 5671037-$ | US- 5673139-$ | US- 5682173-$ | US- 5699194-$ | US- 5712649-$ | US- 5717479-$ | US- 5719588-$ | US-					

		5744788-$ | US-5751493-$ | US-5808589-$ | US-5815326-$ | US-5886822-$ | US-5943171-$ | US-5973845-$ | US-5991103-$ | US-6005720-$ | US-6023372-$ | US-6081304-$ | US-6091546-$ | US-D195365-$ | US-RE28847-$).DID.					
L3007	125	(US-10042186-$ | US-10222617-$ | US-10345625-$ | US-10613355-$ | US-10624790-$ | US-10777048-$ | US-11061252-$ | US-12003393-$ | US-20040160572-$ | US-20090097688-$ | US-20090296044-$ | US-20100177277-$ | US-20100265456-$ | US-20110080556-$ | US-20110102734-$ | US-20110109873-$ | US-20120002159-$ | US-20130010256-$ | US-20160109729-$ | US-20170068117-$ | US-20190126060-$ | US-20200004050-$ | US-3042548-$ | US-3683168-$ | US-3923384-$ | US-4447504-$ | US-4449799-$ | US-4618226-$ | US-4675259-$ | US-4756605-$ | US-4770954-$ | US-4883728-$ | US-4977899-$ | US-5007726-$ | US-5142406-$ | US-5455637-$ | US-5455638-$ | US-5835185-$ | US-5900720-$ | US-5933496-$ | US-6099117-$ | US-6325507-$ | US-64764696-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:20 PM

		6552511-$ | US-7150526-$ | US-7339353-$ | US-7461936-$ | US-8337013-$ | US-8465151-$ | US-8500271-$ | US-8770742-$ | US-8787970-$ | US-8801174-$ | US-8876285-$ | US-8905541-$ | US-8944590-$ | US-9192772-$ | US-9207515-$ | US-9274395-$ | US-9405135-$ | US-9470909-$ | US-9482880-$ | US-9619201-$ | US-9632059-$ | US-9720258-$ | US-9720260-$).DID.					
L3008	156	(US-20020098877-$ | US-20020118825-$ | US-20020176330-$ | US-20030003969-$ | US-20030022690-$ | US-20030067585-$ | US-20030068057-$ | US-20040000733-$ | US-20040132509-$ | US-20040156012-$ | US-20040157649-$ | US-20040160572-$ | US-20040160573-$ | US-20040239874-$ | US-20050046789-$ | US-20050046790-$ | US-20050128431-$ | US-20050185815-$ | US-20060183427-$ | US-2424935-$ | US-2856466-$ | US-2882348-$ | US-2999136-$ | US-3104290-$ | US-3119903-$ | US-3495898-$ | US-3588384-$ | US-3665122-$ | US-3769663-$ | US-3883701-$ | US-4636048-$ | US-4683587-$ | US-4856086-$ | US-4882769-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:20 PM

		4902120-$ | US- 4904078-$ | US- 5020150-$ | US- 5159639-$ | US- 5327178-$ | US- 5335285-$ | US- 5367345-$ | US- 5533130-$ | US- 5579400-$ | US- 5606743-$ | US- 5608808-$ | US- 5634201-$ | US- 5694475-$ | US- 5715323-$ | US- 5717479-$ | US- 5737436-$ | US- 5781272-$ | US- 5892564-$ | US- 5988812-$ | US- 6010216-$ | US- 6012812-$ | US- 6176576-$ | US- 6218958-$ | US- 6233344-$ | US- 6233345-$ | US- 6252970-$ | US- 6301050-$ | US- 6301367-$ | US- 6311155-$ | US- 6325507-$ | US- 6349001-$ | US- 6356392-$ | US- 6384982-$ | US- 6392798-$ | US- 6409338-$ | US- 6421031-$ | US- 6456721-$ | US- 6490362-$ | US- 6690807-$ | US- 6729726-$ | US- 6769767-$ | US- 6929365-$ | US- 6966647-$ | US- 7004582-$ | US- 7013009-$ | US- D207919-$ | US- D212863-$ | US- D418153-$ | US- D426845-$ | US- D435058-$ | US- D445416-$ | US- D462708-$ | US- RE35051-$).DID.					
L3009	93	(US-20010035242-$ | US-20020072387-$ | US-20020193151-$ | US-20030036414-$ |	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/12/16 03:20 PM

		US-20030040285-$ | US-20030042348-$ | US-20030108217-$ | US-20030182003-$ | US-20040077382-$ | US-20040204165-$ | US-20050078274-$ | US-20050128431-$ | US-20050201585-$ | US-20050220316-$ | US-20050248717-$ | US-20050255883-$ | US-20050255898-$ | US-20060013410-$ | US-20060023158-$ | US-20060093178-$ | US-20060153409-$ | US-20060177086-$ | US-20060185062-$ | US-20060251283-$ | US-20070064969-$ | US-20090175482-$ | US-2249572-$ | US-3528734-$ | US-4456797-$ | US-4902120-$ | US-4942617-$ | US-5034995-$ | US-5164987-$ | US-5422957-$ | US-5608808-$ | US-5715323-$ | US-5737436-$ | US-5881160-$ | US-6095820-$ | US-6097822-$ | US-6176576-$ | US-6633770-$ | US-6643528-$ | US-6690808-$ | US-6920228-$ | US-7519192-$ | US-7702122-$ | US-D533539-$).DID.	CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3016	887	3003 3004 3005 3006 3007 3008 3009	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA,	OR	ON	ON	2024/12/16 03:22 PM

			VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3017	140	3016 AND 54	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:22 PM
L3018	80	3016 AND 58	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:22 PM
L3019	44	3016 AND 61	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:23 PM
L3020	19	3016 AND 65	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/12/16 03:23 PM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3021	1	3016 AND 49	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:23 PM
L3022	31	"20090296044"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:52 PM
L3023	33	"20070046887"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2024/12/16 03:52 PM

			JPO; DERWENT; IBM_TDB)				
L3024	27	"20070248238"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:53 PM
L3025	22	"20040160573"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:53 PM
L3026	32	"20040000733"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:53 PM
L3027	25	"20030063763"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2024/12/16 03:53 PM

			HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3028	20	"20030045283"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:53 PM
L3029	157	"20030030597"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:53 PM
L3030	24	"20020146097"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2024/12/16 03:53 PM

			IBM_TDB)				
L3031	27	"20020140899"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 03:53 PM
L3032	58	"11204512"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:18 PM
L3033	43	"11243416"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:18 PM
L3034	74	"11183269"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2024/12/16 04:18 PM

			IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3035	29	"10628831"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:18 PM
L3036	74	"10310296"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:18 PM
L3037	37	"9122082"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:18 PM

L3038	84	"9124796"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:20 PM
L3039	44	(Artificial Intelligence) More like doc: US-20070046887-A1 Text: (NL-8700968-A OR US-6542081-B2 OR US-6898550-B1 OR US-7376238-B1 OR US-6409333-B1 OR US-6871951-B2 OR US-6769767-B2 OR US-7013009-B2 OR JP-2003033328-A OR DE-10249705-A1 OR US-6853303-B2 OR US-7312699-B2 OR US-7760898-B2 OR US-7922321-B2 OR US-20050230596-A1 OR US-20050248719-A1 OR US-7792552-B2 OR US-7192136-B2 OR US-7265358-B2 OR US-7059717-B2).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:32 PM
L3040	44	(Artificial Intelligence) More like doc: US-20090296044-A1 Text: (US-4882769-A OR JP-3000621-B2 OR CA-2059597-A1 OR US-5359444-A OR US-6132881-A OR US-7023594-B2 OR DE-10103922-A1 OR KR-100420024-B1 OR DE-10222375-A1 OR US-20040096078-A1 OR US-8142015-B2 OR JP-4496354-B2 OR US-9137309-B2 OR US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:32 PM

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		7648236-B1 OR EP-2082281-A4 OR US-20090296044-A1 OR US-20220011603-A1 OR US-20110187990-A1 OR US-20070046887-A1 OR US-20170131575-A1).did.					
L3041	35	(Artificial Intelligence) More like doc: US-20120050668-A1 Text: (US-5835185-A OR US-7059717-B2 OR TW-200804887-A OR US-8430507-B2 OR US-20170068117-A9 OR US-20140268013-A1 OR US-20120050668-A1 OR US-20230236444-A1 OR US-20190278110-A1 OR US-20070030442-A1 OR US-20160246075-A9 OR US-20230359266-A1 OR US-8434863-B2 OR US-11630331-B2 OR US-20060023158-A1 OR US-11829518-B1 OR US-11513371-B2 OR US-20110187990-A1 OR US-20230033660-A1 OR US-7806525-B2).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:32 PM
L3042	36	(Artificial Intelligence) More like doc: US-20020140899-A1 Text: (US-2576581-A OR US-2437642-A OR US-3161718-A OR US-3245315-A OR US-3614215-A OR US-3738734-A OR FR-2369583-A1 OR US-4181408-A OR US-4190330-A OR US-4300818-A OR US-4264154-A OR US-4279474-A OR FR-2487566-A1 OR US-4373218-A OR US-4418990-A OR US-4457585-A OR JP-S58118618-A OR US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:33 PM

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		4466706-A OR US-4572616-A OR US-4529268-A).did.					
L3043	39	(Artificial Intelligence) More like doc: US-20130329183-A1 Text: (JP-S49114285-A OR JP-S5466098-A OR US-5471658-A OR US-6115482-A OR US-20120105740-A1 OR US-7661818-B2 OR US-7806525-B2 OR WO-2007005938-A2 OR US-7810750-B2 OR US-20080144854-A1 OR US-7631968-B1 OR US-20080207275-A1 OR SG-172914-A1 OR JP-2010226660-A OR JP-5389493-B2 OR JP-2010231119-A OR GB-0912608-D0 OR US-20110213664-A1 OR KR-200459922-Y1 OR WO-2013188343-A1).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:33 PM
L3044	33	"20050201585"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:43 PM
L3045	52	"20050264752"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA,	OR	ON	ON	2024/12/16 04:43 PM

			VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3046	13	"2005167902"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:43 PM
L3047	21	"20050278446"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:43 PM
L3048	8	"20050052537"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/12/16 04:43 PM
L3049	23	"2005086522"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2024/12/16 04:43 PM

			IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3050	17	"20050090295"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:43 PM
L3051	174	"7278734"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:57 PM
L3052	243	"7192136"	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 04:57 PM
L3054	146	"7150526"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA,	OR	ON	ON	2024/12/16 04:57 PM

			VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3055	190	"7760898"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:58 PM
L3056	182	"7922321"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:59 PM
L3057	307	"7380936"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 04:59 PM
L3058	40	(Artificial Intelligence) More like doc: US-20050052537-A1 Text: (US-5610678-A OR JP-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/12/16 05:22 PM

		H10304234-A OR JP-H11164186-A OR US-7046279-B2 OR US-7474335-B2 OR US-6717737-B1 OR US-20050052537-A1 OR JP-3159530-U OR US-7991275-B2 OR KR-970028786-A OR JP-WO2005091620-A1 OR JP-4551475-B2 OR JP-2007097199-A OR JP-2005086522-A OR US-20110141295-A1 OR WO-2005091620-A1 OR US-8131142-B2 OR US-20100214449-A1 OR US-20220303465-A1 OR JP-2009124761-A).did.	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3059	35	(Artificial Intelligence) More like doc: US-20030030597-A1 Text: (US-5539422-A OR TW-422965-B OR US-20030030597-A1 OR US-6771423-B2 OR US-20030184868-A1 OR US-20050078378-A1 OR US-7145726-B2 OR WO-9619746-A2 OR EP-0799435-A2 OR US-6094181-A OR US-5684497-A OR US-6356392-B1 OR US-5625372-A OR US-20180003985-A1 OR JP-5059272-B2 OR US-5905478-A OR US-20010050817-A1 OR WO-2014116615-A1 OR US-5991084-A OR US-8873149-B2).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:22 PM
L3060	50	(Artificial Intelligence) More like doc: US-20140049831-A1 Text: (DE-10103922-A1 OR JP-4022921-B2 OR JP-2005107038-A OR AT-E398296-T1 OR JP-2007178939-A OR JP-4929878-B2 OR JP-5235341-B2 OR JP-5201015-B2 OR US-8547618-B2 OR JP-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA,	OR	ON	ON	2024/12/16 05:22 PM

		5195707-B2 OR US-9239462-B2 OR US-20140049831-A1 OR EP-2698662-A1 OR JP-2014038239-A OR JP-6069946-B2 OR JP-2014191007-A OR JP-6065694-B2 OR JP-4006179-B2 OR CN-110954018-A OR JP-2002311361-A).did.	VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3061	36	(Artificial Intelligence) More like doc: US-20240036361-A1 Text: (US-12044901-B2 OR US-12140819-B1 OR US-20240377657-A1 OR US-11644693-B2 OR US-20230273464-A1 OR US-20220011603-A1 OR US-11921355-B2 OR US-20110187990-A1 OR US-20240036361-A1 OR US-20230359266-A1 OR US-7581833-B2 OR US-20170131575-A1 OR US-20220357599-A1 OR US-20180335650-A1 OR US-20170090219-A1 OR US-20130201440-A1 OR US-20200218094-A1 OR US-20120133885-A1 OR US-20150085245-A1 OR US-20190187492-A1).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:22 PM
L3062	36	(Artificial Intelligence) More like doc: US-20230273464-A1 Text: (US-20230273464-A1 OR US-11644693-B2 OR US-11921355-B2 OR US-7760898-B2 OR US-20070147630-A1 OR US-20220011603-A1 OR US-20200218094-A1 OR US-20110187990-A1 OR US-7590233-B2 OR US-20220357599-A1 OR US-12025855-B2 OR US-9967682-B2 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:22 PM

		US-12140819-B1 OR US-20040160572-A1 OR US-10284972-B2 OR US-20040160573-A1 OR US-7216973-B2 OR US-20060034478-A1 OR EP-1547434-B1 OR US-20130308089-A1).did.					
L3063	7	"20240036361"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:38 PM
L3064	12	"20230017635"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:38 PM
L3065	27	"20200012127"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:38 PM

L3066	79	"20170289323"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:38 PM
L3067	18	"20140049831"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:38 PM
L3068	20	"20130329183"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/12/16 05:38 PM
L3069	54	"20120050668"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE,	OR	ON	ON	2024/12/16 05:38 PM

			SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3070	58	"6911172"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:44 PM
L3071	627	"6349001"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:44 PM
L3072	116	"6771423"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:44 PM
L3073	125	"5835185"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2024/12/16 05:44 PM

			CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3074	130	"5671037"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:44 PM
L3075	165	"5020150"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/12/16 05:45 PM
L3076	5	"12044901"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2024/12/17 08:52 AM

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			TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3077	8	"20010043266"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/01/23 12:29 PM
L3078	6	"20020089469"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/01/23 12:30 PM
L3079	5	"20020101510"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/01/23 12:30 PM
L3080	3	"20040178970"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2025/01/23 12:31 PM

			CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3081	5	"20050275714"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/01/23 12:32 PM
L3082	27	"20060115130"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/01/23 12:33 PM
L3083	255	"20070081123"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA,	OR	ON	ON	2025/01/23 12:33 PM

			VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3084	129	"4902120"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/01/23 12:34 PM
L3085	76	"5455638"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/01/23 12:35 PM
L3086	45	"6181304"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/01/23 12:35 PM
L3087	171082	(G02C11/10 OR G02C5/143 OR G02C5/146 OR G02C11/06 OR H02J7/0045 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2025/03/02 04:10 PM

		G02C2200/08 OR G02C5/14 OR G02C11/00 OR H02J7/00).cpc.	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3103	3986	3087 AND 54	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/02 04:12 PM
L3104	2710	3087 AND 56	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/02 04:12 PM
L3105	663	3087 AND 61	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/02 04:12 PM
L3106	138	3087 AND 65	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2025/03/02 04:12 PM

			CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)				
L3107	20	3087 AND 49	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/02 04:12 PM
L3108	3	3087 AND 52	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/02 04:12 PM
L3109	104	"2856466"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/02 04:13 PM
L3110	98	"3104290"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2025/03/02 04:13 PM

			CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)				
L3111	70	"3665122"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/02 04:15 PM
L3112	40	(Artificial Intelligence) More like doc: US-2856466-A Text: (US-2168781-A OR US-2613282-A OR US-2856466-A OR US-3789163-A OR CN-110099347-A OR JP-2006162879-A OR DE-102008052682-A1 OR JP-H02135000-A OR US-3297832-A OR DE-2625654-A1 OR JP-S60105400-A OR US-4137431-A OR EP-1847868-B1 OR DE-8706344-U1 OR DE-1837151-U OR EP-1483938-B1 OR DE-2312250-A1 OR US-2830132-A OR DE-102013204153-B4 OR CN-101953175-A).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/02 04:28 PM
L3113	237	"4904078"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV,	OR	ON	ON	2025/03/02 04:33 PM

			MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3114	334	(US-20050520-$ | US-20050524-$ | US-10013976-$ | US-10042186-$ | US-10113837-$ | US-10180572-$ | US-10222617-$ | US-10310296-$ | US-10410535-$ | US-10438106-$ | US-10484649-$ | US-10540907-$ | US-10624790-$ | US-10645348-$ | US-10742913-$ | US-10753709-$ | US-10777048-$ | US-10791783-$ | US-10796860-$ | US-10801813-$ | US-10827249-$ | US-10921578-$ | US-10976574-$ | US-10976575-$ | US-11048103-$ | US-11079202-$ | US-11103025-$ | US-11109137-$ | US-11112622-$ | US-11122698-$ | US-11143838-$ | US-11397337-$ | US-11425486-$ | US-11513371-$ | US-11562711-$ | US-11630331-$ | US-11644693-$ | US-11733549-$ | US-11829518-$ | US-11852901-$ | US-12044901-$ | US-12124116-$ | US-12171293-$ | US-20020098877-$ | US-20020111197-$ | US-20020118825-$ | US-20020176330-$ | US-20020186180-$ | US-20030003969-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/02 04:38 PM

		20030022690-$ | US- 20030067585-$ | US- 20030068057-$ | US- 20040000733-$ | US- 20040015403-$ | US- 20040086141-$ | US- 20040132509-$ | US- 20040156012-$ | US- 20040160572-$ | US- 20040160573-$ | US- 20050185815-$ | US- 20050239502-$ | US- 20060072067-$ | US- 20060088171-$ | US- 20060205449-$ | US- 20070003093-$ | US- 20070110256-$ | US- 20070173293-$ | US- 20070223748-$ | US- 20070248238-$ | US- 20080055194-$ | US- 20080130910-$ | US- 20080144264-$ | US- 20080144854-$ | US- 20080154337-$ | US- 20080181435-$ | US- 20080234847-$ | US- 20080304683-$ | US- 20090059381-$ | US- 20090080667-$ | US- 20090196443-$ | US- 20090209205-$ | US- 20090251409-$ | US- 20090303430-$ | US- 20100061533-$ | US- 20100202627-$ | US- 20100309427-$ | US- 20110084900-$ | US- 20110250958-$ | US- 20120249797-$ | US- 20120316455-$ | US- 20120316456-$ | US- 20130141313-$ | US- 20130180033-$ | US- 20130201440-$ | US- 20130346168-$ | US- 20140010389-$ | US- 20140233753-$ | US- 20140268008-$ | US- 20150181010-$ | US- 20150309316-$ | US- 20170078022-$ | US- 20170102558-$ | US- 20180060613-$ | US- 20220187609-$ | US- 2424935-$ | US- 2856466-$ | US- 2882348-$ | US-					

		2999136-$ | US- 3104290-$ | US- 3119903-$ | US- 3495898-$ | US- 3588384-$ | US- 3665122-$ | US- 3769663-$ | US- 3883701-$ | US- 3943925-$ | US- 39931702-$ | US- 46015403-$ | US- 4636048-$ | US- 4683587-$ | US- 4806011-$ | US- 4856086-$ | US- 4882769-$ | US- 4902120-$ | US- 4904078-$ | US- 5020150-$ | US- 5159639-$ | US- 5327178-$ | US- 5335285-$ | US- 5353378-$ | US- 5367345-$ | US- 5446788-$ | US- 5533130-$ | US- 5579400-$ | US- 5606743-$ | US- 5608808-$ | US- 5634201-$ | US- 5671037-$ | US- 5694475-$ | US- 5703670-$ | US- 5715323-$ | US- 5717479-$ | US- 5737436-$ | US- 5781272-$ | US- 5892564-$ | US- 5988812-$ | US- 6010216-$ | US- 6012812-$ | US- 6057966-$ | US- 6091832-$ | US- 6176576-$ | US- 6218958-$ | US- 6233344-$ | US- 6233345-$ | US- 6252970-$ | US- 6301050-$ | US- 6301367-$ | US- 6311155-$ | US- 6325507-$ | US- 6349001-$ | US- 6356392-$ | US- 6392798-$ | US- 6409338-$ | US- 6421031-$ | US- 6456721-$ | US-				

		6474816-$ | US-6490362-$ | US-6582075-$ | US-6629076-$ | US-6650894-$ | US-6690807-$ | US-6978162-$ | US-7013009-$ | US-7150526-$ | US-7158096-$ | US-7278734-$).DID.					
L3115	179	(US-7289767-$ | US-7321785-$ | US-7461936-$ | US-7512414-$ | US-7581833-$ | US-7661818-$ | US-7699486-$ | US-7814903-$ | US-7988283-$ | US-8184983-$ | US-8235524-$ | US-8323188-$ | US-8323189-$ | US-8328718-$ | US-8388164-$ | US-8449471-$ | US-8461988-$ | US-8467133-$ | US-8472120-$ | US-8477425-$ | US-8482488-$ | US-8482859-$ | US-8488246-$ | US-8491118-$ | US-8500636-$ | US-8538058-$ | US-8540364-$ | US-8543061-$ | US-8593795-$ | US-8684900-$ | US-8684922-$ | US-8686871-$ | US-8736516-$ | US-8750971-$ | US-8825468-$ | US-8855719-$ | US-8862186-$ | US-8905542-$ | US-8929954-$ | US-8964980-$ | US-8968195-$ | US-8979295-$ | US-9033493-$ | US-9060683-$ | US-9069380-$ | US-9081212-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/02 04:38 PM

		9089761-$ | US-9091851-$ | US-9097890-$ | US-9097891-$ | US-9128281-$ | US-9129295-$ | US-9134534-$ | US-9134793-$ | US-9160064-$ | US-9182596-$ | US-9217868-$ | US-9223134-$ | US-9229227-$ | US-9235262-$ | US-9264824-$ | US-9285589-$ | US-9301085-$ | US-9316827-$ | US-9316830-$ | US-9341843-$ | US-9366862-$ | US-9377862-$ | US-9378028-$ | US-9402121-$ | US-9405135-$ | US-9442290-$ | US-9488520-$ | US-9525936-$ | US-9526287-$ | US-9526292-$ | US-9568173-$ | US-9606375-$ | US-9609902-$ | US-9619201-$ | US-9720258-$ | US-9720260-$ | US-9744359-$ | US-9759917-$ | US-9808625-$ | US-9820658-$ | US-9839274-$ | US-9861820-$ | US-9864211-$ | US-9865176-$ | US-9910297-$ | US-9959777-$ | US-9974954-$ | US-9991699-$).DID.					
L3116	158	(AT-0820100311-$ | DA-1419941122-$ | DA-1419970304-$ | QR-1820030624-$ | TY-2020091223-$ | TO-20050520-$ | AT-2120090326-$ | AU-2005306412-$ | AU-2008358016-$ | AU-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO,	OR	ON	ON	2025/03/02 04:38 PM

		2012203662-$ | AU-2013263854-$ | CA-2375519-$ | CA-2588650-$ | CA-2932965-$ | CA-2969450-$ | CN-103676211-$ | CN-105009202-$ | CN-114815578-$ | CN-1687817-$ | CN-202975580-$ | CN-2760600-$ | CN-2854988-$ | DE-10207214-$ | EP-05851915-$ | EP-1828833-$ | EP-1952757-$ | EP-2167186-$ | EP-2941909-$ | EP-3000243-$ | ES-2547907-$ | FI-111674-$ | FR-2642856-$ | FR-2820936-$ | JP-2001203956-$ | JP-2010527557-$ | JP-2012249097-$ | JP-2013521576-$ | KR-101441873-$ | MX-2007005998-$ | SE-516509-$ | TO-20050524-$ | WO-2001003072-$ | WO-2007079478-$ | WO-2008135763-$ | WO-2010041245-$ | WO-2011007000-$ | WO-2011097564-$ | WO-2012040086-$ | WO-2012154938-$ | WO-2014100477-$ | WO-2014144507-$ | WO-2014158426-$ | WO-2015164287-$ | WO-2020028529-$ | WO-2021026234-$ | WO-2021243095-$ | WO-2024165923-$).DID.	MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3120	55	(US-10222617-$ | US-12078870-$ | US-12140819-$ | US-12164180-$ | US-20020027600-$ | US-20020101510-$ | US-20050052537-$ | US-20070047936-$ | US-4873576-$ | US-5610678-$ | US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO,	OR	ON	ON	2025/03/02 04:52 PM

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		6549231-$ | US-6556240-$ | US-6717737-$ | US-7324748-$ | US-7499635-$ | US-7525596-$ | US-7576778-$ | US-7625143-$ | US-7665912-$ | US-8259184-$ | US-8730388-$ | US-9253378-$ | US-9451068-$ | US-9494807-$ | US-9619201-$ | US-9720258-$ | US-9720260-$ | US-9864211-$).DID.	NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3121	63	(EP-2214404-$ | JP-2000152066-$ | JP-2000187268-$ | JP-2003234935-$ | JP-2003316994-$ | JP-2005181356-$ | JP-2006235278-$ | JP-2008205569-$ | JP-2022041765-$ | JP-3843035-$ | JP-3906586-$ | JP-4110876-$ | JP-4433015-$ | JP-4529810-$ | JP-4617767-$ | KR-101005325-$ | KR-101665510-$ | KR-101696683-$ | WO-2014140823-$ | WO-2016048546-$ | WO-2020013313-$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/02 04:52 PM
L3122	709	3114 3115 3116 3120	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/02 04:52 PM
L3124	43	3122 AND (force near5 sens$4)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2025/03/02 04:53 PM

			AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3126	169	3122 AND touch$4	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/02 05:38 PM
L3127	42	3122 AND (touch$4 WITH switch)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/02 05:38 PM
L3128	34	"36407830".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO,	OR	ON	ON	2025/03/02 05:41 PM

			RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)				
L3129	54	"2006055884"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/02 05:47 PM
L3130	34	"36407830".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/02 05:47 PM
L3131	39	(Artificial Intelligence) More like doc: WO-2006055884-A2 Text: (US-4902120-A OR JP-H08298694-A OR AU-759466-B2 OR US-6311155-B1 OR CN-2583696-Y OR CN-2735373-Y OR WO-2006055884-A2 OR EP-1828833-A2 OR CA-2932965-A1 OR CA-2588650-A1 OR US-20080089545-A1 OR CA-2932965-C OR US-7278734-B2 OR AU-2005306412-A1 OR US-20050201585-A1 OR KR-101231026-B1 OR EP-1828833-B1 OR AU-2005306412-A2 OR KR-20120090097-A OR KR-20070103367-A).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/02 05:50 PM

L3132	79	"6717737"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/03 08:09 AM
L3133	1	"32033316".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/03 08:09 AM
L3134	41	(Artificial Intelligence) More like doc: US-6717737-B1 Text: (GB-2143948-B OR US-6046712-A OR JP-3962115-B2 OR JP-H10240491-A OR JP-H10304234-A OR JP-2002116404-A OR US-20020171604-A1 OR US-6717737-B1 OR US-20110304704-A1 OR JP-2004328700-A OR US-5818733-A OR KR-102681095-B1 OR JP-2010081557-A OR DE-69720215-T2 OR JP-2023054260-A OR US-7477283-B2 OR US-20050162510-A1 OR US-7885681-B2 OR EP-1681852-B1 OR KR-20020021534-A).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/03 08:09 AM
L3135	79	"20070273611"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2025/03/03 08:47 AM

			AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3136	49	"34972808".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/03 08:47 AM
L3137	35	(Artificial Intelligence) More like doc: US-20070273611-A1 Text: (US-3689135-A OR US-3966310-A OR US-4102564-A OR JP-S6332624-A OR US-4815839-A OR US-4836670-A OR JP-H01312902-A OR US-4852988-A OR JP-H02164335-A OR JP-H02309925-A OR US-5231674-A OR GB-8916206-D0 OR US-4967186-A OR US-5778893-A OR US-5189512-A OR US-5183512-A OR WO-9518565-A1 OR US-5293187-A OR US-5468239-A OR US-5341181-A).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/03 08:47 AM
L3138	180935	2911 2917	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2025/03/03 09:09 AM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L3140	3464	3138 AND (force near3 sens$4)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/03 09:10 AM
L3141	553	3138 AND (force near3 sens$4) AND eyewear	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/03 09:11 AM
L3142	169	3138 AND (force near5 sens$4) AND (radiation near3 (detector OR sensor)) AND eyewear	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2025/03/03 09:13 AM

			JPO; DERWENT; IBM_TDB)				
L3143	22	"20050248719"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/03 09:15 AM
L3144	10	"60303263".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2025/03/03 09:15 AM
L3145	37	(Artificial Intelligence) More like doc: US-12120477-B2 Text: (US-2904639-A OR US-5272757-A OR US-6729726-B2 OR US-7313246-B2 OR US-20050248719-A1 OR US-7792552-B2 OR CN-101390438-A OR US-20090216070-A1 OR US-9020168-B2 OR US-20130329183-A1 OR US-9395543-B2 OR US-9100732-B1 OR US-9261700-B2 OR US-9301040-B2 OR US-11825257-B2 OR US-20240056714-A1 OR US-20220078535-A1 OR US-11350196-B2 OR US-12120477-B2 OR US-10757495-B2).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/03/03 09:15 AM

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N1	13414	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV.	(US-PGPUB; USPAT)	OR	ON	ON	2024/02/05 01:06 PM
N2	143	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4	(US-PGPUB; USPAT)	OR	ON	ON	2024/02/05 01:06 PM
N3	129	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4)	(US-PGPUB; USPAT)	OR	ON	ON	2024/02/05 01:06 PM
N4	125	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR	(US-PGPUB; USPAT)	OR	ON	ON	2024/02/05 01:06 PM

		eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND (communicat$4 near10 wireless$4) AND (audio OR speak$4) AND embed$4					
N5	103	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone	(US-PGPUB; USPAT)	OR	ON	ON	2024/02/05 01:06 PM
N379	91	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge	(US-PGPUB; USPAT)	OR	ON	ON	2024/09/04 11:10 AM
N406	97	((("HOWELL") near3 ("Thomas")) OR	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/13 04:44 PM

		(("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second					
N410	875	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND control$4 AND (memor$4 OR stor$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/13 05:01 PM
N411	170	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/13 05:01 PM
N412	132	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND connect$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/13 05:01 PM
N413	44	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/13 05:38 PM
N414	44	((eyewear$4 OR glasses$4 OR spetacl$4 OR	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/13 05:38 PM

		eyegalss$4) AND (temple SAME (speakers WITH audio))).clm.					
N415	15	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/13 05:38 PM
N416	10	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 02:57 PM
N417	6	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND temple AND ((speaker$2 OR audio) SAME (sound WITH guid$4))).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 02:57 PM
N418	6	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 02:57 PM
N419	5	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4)	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 03:41 PM

		AND batter$4 AND connect$4 AND (communicat$4 near10 wireless$4) AND (audio OR speak$4) AND embed$4).clm.					
N420	5	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 03:41 PM
N421	4	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 03:41 PM
N422	1	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 04:17 PM
N423	1	((eyewear$4 OR glasses$4 OR	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 04:17 PM

		spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4).clm.					
N424	1	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 04:17 PM
N425	1	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 05:00 PM
N426	0	((eyewear$4 OR glasses$4 OR	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 05:00 PM

		spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND impair$4 AND compensat$4 AND amplif$6 AND customiz$4).clm.					
N429	0	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND impair$4 AND compensat$4 AND (amplif$6 WITH customiz$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 05:23 PM
N430	0	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4)	(US-PGPUB; USPAT)	OR	ON	ON	2024/12/16 05:23 PM

		AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND impair$4 AND compensat$4 AND (amplif$6 WITH customiz$4) AND (detect$3 WITH infrared)).clm.					
N431	92	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4	(US-PGPUB; USPAT)	OR	ON	ON	2025/03/02 03:53 PM
N432	88	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left	(US-PGPUB; USPAT)	OR	ON	ON	2025/03/02 03:53 PM

		AND right AND first AND second AND (motion near3 sensor)					
N433	82	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND (motion near3 sensor)	(US-PGPUB; USPAT)	OR	ON	ON	2025/03/02 03:53 PM
N437	0	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND (force near5 sens$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2025/03/02 04:54 PM
N438	0	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND	(US-PGPUB; USPAT)	OR	ON	ON	2025/03/02 05:51 PM

		(memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND impair$4 AND compensat$4 AND amplif$6 AND customiz$4 AND (force near5 sens$4)).clm.					
N439	0	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND impair$4 AND compensat$4 AND (amplif$6 WITH customiz$4) AND (force near5 sens$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2025/03/02 05:51 PM
N441	0	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first	(US-PGPUB; USPAT)	OR	ON	ON	2025/03/03 08:07 AM

		AND second AND bridge AND partial$4 AND (force near5 sens$4)).clm.					
N442	0	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4) AND (batter$4 near10 rechargeable) AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND impair$4 AND compensat$4 AND (amplif$6 WITH customiz$4) AND (detect$3 WITH infrared) AND (force near5 sens$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2025/03/03 08:07 AM
N443	0	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND (force near5 sens$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2025/03/03 08:07 AM
N445	0	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND (circuit near10 board) AND (electric$4 WITH control$4) AND (memor$4 OR stor$4)	(US-PGPUB; USPAT)	OR	ON	ON	2025/03/03 08:51 AM

		AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND (force near5 sens$4) AND (radiation near3 (detector OR sensor))).clm.					
N446	0	((eyewear$4 OR glasses$4 OR spetacl$4 OR eyegalss$4) AND frame AND circuit AND control$4 AND (memor$4 OR stor$4) AND batter$4 AND connect$4 AND communicat$4 AND (audio OR speak$4) AND wireless$4 AND embed$4 AND microphone AND left AND right AND first AND second AND bridge AND partial$4 AND (force near5 sens$4) AND (radiation near3 (detector OR sensor))).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2025/03/03 08:51 AM

PE2E SEARCH - Search History (Similarity Search)

Ref #	Sort and Retrieval Information	Text Selections	CPC Selections
L2784	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	No selections	No selections
L2785	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	(Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise	No selections

		aesthetic design principles. The electrical components can be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) 1. A system, comprising: a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force	

		induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus in the charging apparatus, electrical connection results at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be	

		recharged while the head-worn personal electronic apparatus is placed in the charging apparatus. (Claims) 2. A head-worn personal electronic apparatus, comprising: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure;	

		electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure.	
L2786	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	(Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) 1. A system, comprising: a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user;	(G02C11/10) Electronic devices other than hearing aids (G02C11/06) Hearing aids

		a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at	

		least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus in the charging apparatus, electrical connection results at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed in the charging apparatus. (Claims) 2. A head-worn personal electronic apparatus, comprising: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input	

		from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure.	
L2787	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	(Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components	(G02C5/143) Side-members having special ear pieces (G02C5/146) Side-members having special front end

		are also disclosed. (Claims) 1. A system, comprising: a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-	

		worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus in the charging apparatus, electrical connection results at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed in the charging apparatus. (Claims) 2. A head-worn personal electronic apparatus, comprising: a head-worn structure configured to be worn by a user;	

		a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure.	

L2788	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	(Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) 1. A system, comprising: a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first	(G02C5/143) Side-members having special ear pieces (G02C5/146) Side-members having special front end (G02C11/06) Hearing aids (G02C11/10) Electronic devices other than hearing aids

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		microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the	

		head-worn personal electronic apparatus in the charging apparatus, electrical connection results at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed in the charging apparatus. (Claims) 2. A head-worn personal electronic apparatus, comprising: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially	

		contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure.	
L2789	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	(Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) 1. A system, comprising: a head-worn personal electronic apparatus, including at least: a head-worn structure	(G02C5/143) Side-members having special ear pieces (G02C5/146) Side-members having special front end (G02C11/06) Hearing aids (G02C11/10) Electronic devices other than hearing aids (G02C2200/08) Modular frames, easily exchangeable frame parts and lenses (H02J7/0045) Circuit arrangements for charging or depolarising batteries or for supplying loads from batteries characterised by the mechanical construction concerning the insertion or the connection of the batteries

		configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-	

		worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus in the charging apparatus, electrical connection results at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed in the charging apparatus. (Claims) 2. A head-worn personal electronic apparatus, comprising: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the	

		head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure.	
L2901	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	(Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles.	No selections

		The electrical components can be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being contained within the head-worn structure, wherein the received user input operating to at least alter	

		an operation of the head-worn personal electronic apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; 1. (Previously Presented) A system, comprising: wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and (Claims) at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus at least partially in the charging apparatus, electrical connection is configured to result at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed at least	

		partially in the charging apparatus. a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; 2. (Previously Presented) A head-worn personal electronic apparatus, comprising: a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic	

		circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. (Claims) 72. (New) A head-worn personal electronic apparatus, comprising: a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure; at least one conductive element at least partially included within the head- worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a radiation detector contained within the head-worn structure and configured to capture radiation data, wherein the head-worn personal electronic apparatus is configured to determine whether the head-worn personal electronic apparatus is being worn by the user based on the radiation data captured by the radiation detector, and wherein the second	

		microphone is configured to at least pick-up an environmental audio input. the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus; (Claims) 95. (New) A head-worn personal electronic apparatus, comprising: a motion sensor at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a display at least partially contained within the head-worn structure, the display configured to present information to the user of the head-worn personal electronic apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. (Claims) a head-worn	

		structure configured to be worn by a user, the head-worn structure including a front section and first and second temples; a first speaker at least partially contained within the first temple of the head- worn structure; a second speaker at least partially contained within the second temple of the head-worn structure; a motion sensor at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a microphone at least partially contained within the head-worn structure, the microphone being positioned to pick up at least audio input from at least the user; a display at least partially contained within the head-worn structure, the display configured to present information to the user of the head-worn personal electronic apparatus; electronic circuitry contained within the head-worn structure and configured to control the display to present the information to the user of the head-worn personal electronic apparatus; and data communication circuitry at least partially contained within the head-worn structure. 100. (New) A head-worn personal electronic apparatus, comprising: (Claims) 08. (New) A head-worn personal electronic	

		apparatus, comprising: a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a first optical sensor at least partially contained within the first extended endpiece; a second optical sensor at least partially contained within the second extended endpiece; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. a processor at least partially contained within the head-worn structure and configured to control operation of the head-worn personal electronic apparatus;	
L2902	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	(Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can	(G02C5/146) Side-members having special front end (G02C5/143) Side-members having special ear pieces

		be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn	

		personal electronic apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; 1. (Previously Presented) A system, comprising: wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and (Claims) at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus at least partially in the charging apparatus, electrical connection is configured to result at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed at least partially in the charging	

		apparatus. a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; 2. (Previously Presented) A head-worn personal electronic apparatus, comprising: a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically	

		connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. (Claims) 72. (New) A head-worn personal electronic apparatus, comprising: a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure; at least one conductive element at least partially included within the head- worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a radiation detector contained within the head-worn structure and configured to capture radiation data, wherein the head-worn personal electronic apparatus is configured to determine whether the head-worn personal electronic apparatus is being worn by the user based on the radiation data captured by the radiation detector, and wherein the second microphone is configured to at	

		least pick-up an environmental audio input. the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus; (Claims) 95. (New) A head-worn personal electronic apparatus, comprising: a motion sensor at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a display at least partially contained within the head-worn structure, the display configured to present information to the user of the head-worn personal electronic apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. (Claims) a head-worn structure configured to be	

		worn by a user, the head-worn structure including a front section and first and second temples; a first speaker at least partially contained within the first temple of the head- worn structure; a second speaker at least partially contained within the second temple of the head-worn structure; a motion sensor at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a microphone at least partially contained within the head-worn structure, the microphone being positioned to pick up at least audio input from at least the user; a display at least partially contained within the head-worn structure, the display configured to present information to the user of the head-worn personal electronic apparatus; electronic circuitry contained within the head-worn structure and configured to control the display to present the information to the user of the head-worn personal electronic apparatus; and data communication circuitry at least partially contained within the head-worn structure. 100. (New) A head-worn personal electronic apparatus, comprising: (Claims) 08. (New) A head-worn personal electronic apparatus, comprising:	

		a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a first optical sensor at least partially contained within the first extended endpiece; a second optical sensor at least partially contained within the second extended endpiece; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. a processor at least partially contained within the head-worn structure and configured to control operation of the head-worn personal electronic apparatus;	
L2903	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	(Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can be partially or completely	(G02C5/146) Side-members having special front end (G02C5/143) Side-members having special ear pieces (G02C11/06) Hearing aids (G02C11/10) Electronic devices other than hearing aids

		internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus;	

		a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; 1. (Previously Presented) A system, comprising: wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and (Claims) at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus at least partially in the charging apparatus, electrical connection is configured to result at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed at least partially in the charging apparatus.	

		a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; 2. (Previously Presented) A head-worn personal electronic apparatus, comprising: a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the	

		rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. (Claims) 72. (New) A head-worn personal electronic apparatus, comprising: a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure; at least one conductive element at least partially included within the head- worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a radiation detector contained within the head-worn structure and configured to capture radiation data, wherein the head-worn personal electronic apparatus is configured to determine whether the head-worn personal electronic apparatus is being worn by the user based on the radiation data captured by the radiation detector, and wherein the second microphone is configured to at least pick-up an environmental	

		audio input. the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus; (Claims) 95. (New) A head-worn personal electronic apparatus, comprising: a motion sensor at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a display at least partially contained within the head-worn structure, the display configured to present information to the user of the head-worn personal electronic apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. (Claims) a head-worn structure configured to be worn by a user, the head-worn	

		structure including a front section and first and second temples; a first speaker at least partially contained within the first temple of the head- worn structure; a second speaker at least partially contained within the second temple of the head-worn structure; a motion sensor at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a microphone at least partially contained within the head-worn structure, the microphone being positioned to pick up at least audio input from at least the user; a display at least partially contained within the head-worn structure, the display configured to present information to the user of the head-worn personal electronic apparatus; electronic circuitry contained within the head-worn structure and configured to control the display to present the information to the user of the head-worn personal electronic apparatus; and data communication circuitry at least partially contained within the head-worn structure. 100. (New) A head-worn personal electronic apparatus, comprising: (Claims) 08. (New) A head-worn personal electronic apparatus, comprising:	

		a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a first optical sensor at least partially contained within the first extended endpiece; a second optical sensor at least partially contained within the second extended endpiece; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. a processor at least partially contained within the head-worn structure and configured to control operation of the head-worn personal electronic apparatus;	
L2904	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	(Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can be partially or completely internal to eyewear or other	(G02C5/146) Side-members having special front end (G02C5/143) Side-members having special ear pieces (G02C11/06) Hearing aids (G02C11/10) Electronic devices other than hearing aids (G02C2200/08) Modular frames, easily exchangeable frame parts and lenses (H02J7/0045) Circuit arrangements for

		head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus;	charging or depolarising batteries or for supplying loads from batteries characterised by the mechanical construction concerning the insertion or the connection of the batteries

		a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; 1. (Previously Presented) A system, comprising: wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and (Claims) at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus at least partially in the charging apparatus, electrical connection is configured to result at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed at least partially in the charging apparatus.	

		a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; 2. (Previously Presented) A head-worn personal electronic apparatus, comprising: a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and	

		wireless communication circuitry at least partially contained within the head-worn structure. (Claims) 72. (New) A head-worn personal electronic apparatus, comprising: a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure; at least one conductive element at least partially included within the head- worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a radiation detector contained within the head-worn structure and configured to capture radiation data, wherein the head-worn personal electronic apparatus is configured to determine whether the head-worn personal electronic apparatus is being worn by the user based on the radiation data captured by the radiation detector, and wherein the second microphone is configured to at least pick-up an environmental audio input.	

		the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus; (Claims) 95. (New) A head-worn personal electronic apparatus, comprising: a motion sensor at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a display at least partially contained within the head-worn structure, the display configured to present information to the user of the head-worn personal electronic apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. (Claims) a head-worn structure configured to be worn by a user, the head-worn structure including a front	

		section and first and second temples; a first speaker at least partially contained within the first temple of the head- worn structure; a second speaker at least partially contained within the second temple of the head-worn structure; a motion sensor at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a microphone at least partially contained within the head-worn structure, the microphone being positioned to pick up at least audio input from at least the user; a display at least partially contained within the head-worn structure, the display configured to present information to the user of the head-worn personal electronic apparatus; electronic circuitry contained within the head-worn structure and configured to control the display to present the information to the user of the head-worn personal electronic apparatus; and data communication circuitry at least partially contained within the head-worn structure. 100. (New) A head-worn personal electronic apparatus, comprising: (Claims) 08. (New) A head-worn personal electronic apparatus, comprising: a first microphone at least	

		partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a first optical sensor at least partially contained within the first extended endpiece; a second optical sensor at least partially contained within the second extended endpiece; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. a processor at least partially contained within the head-worn structure and configured to control operation of the head-worn personal electronic apparatus;	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: HOWELL et al.	Attorney Docket No.: IPVCP003X1C4X1C2
Application No.: 18/597,874	Examiner: LEI, JIE
Filed: March 6, 2024	Group: 2872
Title: SYSTEM FOR POWERING HEAD-WORN PERSONAL ELECTRONIC APPARATUS	

AMENDMENT C

Mail Stop _____
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Notice of Allowance dated January 13, 2025, please amend the above-identified patent application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 38 of this paper.

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A system, comprising:

a head-worn personal electronic apparatus, including at least:

a head-worn structure configured to be worn by a user;

a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user;

a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus;

a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user;

a second microphone at least partially contained within the head-worn structure;

a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus;

a rechargeable battery contained within the head-worn structure;

electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery;

wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and

at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and

a charging apparatus having at least a charging connector,

wherein on placement of the head-worn personal electronic apparatus at least partially in the charging apparatus, electrical connection is configured to result at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed at least partially in the charging apparatus.

2. (Previously Presented) A head-worn personal electronic apparatus, comprising:

a head-worn structure configured to be worn by a user;

a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user;

a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus;

a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user;

a second microphone at least partially contained within the head-worn structure;

a force sensing device configured to receive a user input based on a force induced on the force sensing device, the force sensing device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus;

a rechargeable battery contained within the head-worn structure;

electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and

wireless communication circuitry at least partially contained within the head-worn structure.

3. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the head-worn personal electronic apparatus comprises:

at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery.

4. (Canceled).

5. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the head-worn personal electronic apparatus is configured to support audio output to the user via the speaker, and

wherein the operation of the head-worn personal electronic apparatus being altered concerns control of the audio output being provided to the user.

6. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the head-worn personal electronic apparatus is configured to support voice calls to the user, and

wherein the operation of the head-worn personal electronic apparatus being altered concerns at least accepting or declining a voice call to the user.

7. (Previously Presented) A system as recited in claim 1, wherein the head-worn personal electronic apparatus is configured to support audio output to the user via the speaker, and

wherein the operation of the head-worn personal electronic apparatus being altered concerns control of the audio output being provided to the user.

8. (Previously Presented) A system as recited in claim 1, wherein the head-worn personal electronic apparatus is configured to support voice calls to the user, and

wherein the operation of the head-worn personal electronic apparatus being altered concerns at least accepting or declining a voice call to the user.

9. (Previously Presented) A system as recited in claim 1,

wherein the system comprises:

a mobile communication device at least for supporting audio output, the mobile communication device configured to store at least a hearing profile associated with the user, the stored hearing profile associated with the user at least characterizes hearing impairment regarding the user's ability to hear, the mobile communication device configured to produce audio output signals customized for the user based on at least the stored hearing profile associated with the user such that the customized audio output signals at least compensate for the hearing impairment regarding the user's ability to hear, and the mobile communication device configured to transmit the customized audio output signals to the head-worn personal electronic apparatus,

wherein the speaker is configured to generate at least a portion of the customized audio output for the user in accordance with at least the portion of

the customized audio output signals being received by the head-worn personal electronic apparatus.

10. (Previously Presented) A system as recited in claim 9, wherein the mobile communication device is configured to support establishment of the hearing profile for the user.

11. (Previously Presented) A system as recited in claim 10, wherein the hearing profile for the user is established by the mobile communication device at least via generating audio tones and outputting such to at least the speaker and receiving a user indication corresponding to the user's ability to hear the generated audio tones.

12. (Previously Presented) A system as recited in claim 9, wherein the mobile communication device is configured to produce the customized audio output signals using frequency-dependent amplification.

13. (Previously Presented) A system as recited in claim 9,

wherein the mobile communication device is or includes a mobile phone, and

wherein the customized audio output includes music.

14. (Previously Presented) A system as recited in claim 9,

wherein the mobile communication device is or includes a mobile phone, and

wherein the customized audio output includes a voice conversation.

15. (Previously Presented) A system as recited in claim 9, wherein the customized audio output signals are produced based on amplifying or attenuating different frequency bands differently according to at least the stored hearing profile.

16. (Previously Presented) A system as recited in claim 9,

wherein the mobile communication device includes computing capabilities and a storage device, the storage device storing at least a software program executed by the mobile communication device to enable the user to establish the hearing profile associated with the user, and

wherein the mobile communication device is configured to establish the hearing profile associated with the user via the software program executed by the mobile communication device based on the user interacting with the software program via the mobile communication device.

17. (Previously Presented) A system as recited in claim 16, wherein the software program at least interactively guides the user to establish the hearing profile for the user.

18. (Previously Presented) A system as recited in claim 17, wherein the software program at least interactively guides the user to establish the hearing profile for the user by at least causing various audio tones to be output to the user via at least the speaker, prompting the user to provide a hearing input with respect to one or more of the various audio tones being output, and receiving the hearing input pertaining to one or more of the various audio tones being output.

19. (Previously Presented) A system as recited in claim 18, wherein the mobile communication device is configured to wirelessly communicate with the head-worn personal electronic apparatus over a wireless network using the wireless communication circuitry.

20. (Previously Presented) A system as recited in claim 9, wherein the head-worn personal electronic apparatus includes a plurality of circuit boards, each of the plurality of circuit boards including at least one integrated circuit mounted thereto.

21. (Previously Presented) A system as recited in claim 20, wherein at least one of the plurality of circuit boards is a flexible printed circuit board.

22. (Previously Presented) A system as recited in claim 20, wherein at least one of the plurality of circuit boards has at least one integrated circuit mounted on a first side of the at least one of the plurality of circuit boards, and at least one integrated circuit mounted on a second side of the at least one of the plurality of circuit boards.

23. (Previously Presented) A system as recited in claim 9, wherein the head-worn structure comprises:

an infrared emitter configured to at least direct infrared signals towards the user when at least the head-worn structure of the head-worn personal electronic apparatus is being worn; and

an infrared detector configured to detect infrared radiation reflected back from the user when at least the head-worn structure of the head-worn personal electronic apparatus is being worn.

24. (Previously Presented) A system as recited in claim 23, wherein the electronic circuitry within the head-worn structure is configured to facilitate determining whether the head-worn structure is being worn by the user based on at least the detected infrared radiation.

25. (Previously Presented) A system as recited in claim 9, wherein the head-worn structure comprises:

a physical condition sensor configured to acquire data pertaining to at least a physical condition of the user, the physical condition sensor being provided at least partially internal to the head-worn structure.

26. (Previously Presented) A system as recited in claim 25, wherein the acquired data by the physical condition sensor includes data regarding temperature of the user.

27. (Previously Presented) A system as recited in claim 25, wherein the acquired data by the physical condition sensor includes data regarding vital signs of the user.

28. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2,

wherein the second microphone is configured to pick-up an environmental audio input, and

wherein the environmental audio input picked-up from at least the second microphone is used at least for noise cancelation, and at least a portion of the environmental audio input picked-up from the second microphone is subtracted from the audio input picked-up from the first microphone.

29. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2,

wherein the second microphone is configured to pick-up an environmental audio input, and

wherein the electronic circuitry is configured to receive audio output signals to be output to the user via the speaker, and modify the audio output signals to be output to the user via the speaker to cancel at least a portion of noise associated with the environment, the modification of the audio output signals being dependent at least in part on the environmental audio input picked-up via the second microphone.

30. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 29, wherein the head-worn personal electronic apparatus comprises:

a physical condition sensor configured to acquire data pertaining to at least a physical condition of the user, the physical condition sensor being provided at least partially internal to the head-worn structure,

wherein the acquired data by the physical condition sensor includes data regarding vital signs or temperature of the user.

31. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 29, wherein the environmental audio input picked-up from at least the second microphone is used at least for noise cancelation, and at least a portion of the environmental audio input picked-up from the second microphone is used to remove undesired noise from the audio input picked-up from the first microphone.

32. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the electronic circuitry is configured to:

determine an ambient noise level based on at least signals picked-up from at least the second microphone; and

modify at least a portion of audio output signals to be output to the user via the speaker, with the modification being at least in part dependent on the ambient noise level.

33. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the first microphone faces the user when the head-worn personal electronic apparatus is being worn.

34. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 33, wherein the second microphone faces away from the user when the head-worn personal electronic apparatus is being worn.

35. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 34,

wherein the second microphone is configured to pick-up an environmental audio input, and

wherein the electronic circuitry is configured to receive audio output signals to be output to the user via the speaker, and modify the audio output signals to be output to the user via the speaker to cancel at least a portion of noise associated with the environment, the modification of the audio output signals being dependent at least in part on the environmental audio input picked-up via the second microphone.

36. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 34,

wherein the second microphone is configured to pick-up an environmental audio input, and

wherein the environmental audio input picked-up from at least the second microphone is used at least for noise cancelation, and at least a portion of the environmental audio input picked-up from the second microphone is used to remove undesired noise from the audio input picked-up from the first microphone.

37. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 34, wherein the electronic circuitry is configured to:

determine an ambient noise level based on at least signals picked-up from at least the second microphone; and

modify at least a portion of audio output signals to be output to the user via the speaker, with the modification being at least in part dependent on the ambient noise level.

38. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the head-worn personal electronic apparatus is configured to receive a voice input from the user via at least the first microphone,

support or receive determination of a requested operation from the voice input using voice recognition, and control operation by the head-worn personal electronic apparatus based on the requested operation.

39. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2,

wherein the head-worn personal electronic apparatus comprises:

an optical sensor contained within the head-worn structure and configured to capture optical sensor data,

wherein the head-worn personal electronic apparatus is configured to determine whether the head-worn personal electronic apparatus is being worn by the user based on the optical sensor data captured by the optical sensor.

40. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 39, wherein the optical sensor is configured to sense at least infrared radiation, and wherein the optical sensor data captured includes at least infrared radiation data.

41. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the head-worn personal electronic apparatus comprises:

a radiation emitter at least partially contained within the head-worn structure and configured to at least direct radiation towards the user when the head-worn personal electronic apparatus is being worn; and

a radiation detector at least partially contained within the head-worn structure and configured to detect a portion of the radiation directed towards the user that is reflected back from the user when the head-worn personal electronic apparatus is being worn.

42. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 41, wherein the radiation detector comprises a photodetector.

43. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the head-worn personal electronic apparatus comprises:

an optical sensor at least partially contained within the head-worn structure and configured to capture data, the captured data being indicative of whether the head-worn personal electronic apparatus is being worn by the user,

wherein the head-worn personal electronic apparatus is configured to at least alter operation of the head-worn personal electronic apparatus based at least in part on the captured data.

44. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 43, wherein the optical sensor is configured to sense at least infrared radiation.

45. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the head-worn personal electronic apparatus comprises:

an infrared emitter contained within the head-worn structure and configured to emit infrared radiation towards the user when the head-worn personal electronic apparatus is being worn.

46. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the head-worn personal electronic apparatus comprises:

at least a portion of a Hall effect detector at least partially contained within the head-worn structure, the Hall effect detector being configured to capture data associated with a magnetic characteristic.

47. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2,

wherein the head-worn personal electronic apparatus is operable to at least output customized audio output,

wherein the wireless communication circuitry includes at least a wireless receiver configured to wirelessly receive audio output signals to be output to the user via the speaker,

wherein the electronic circuitry including at least an integrated circuit, the electronic circuitry being configured to (i) store hearing characteristics associated with the user; (ii) customize the received audio output signals to produce customized audio output signals for the user based on at least a portion of the stored hearing characteristics associated with the user such that the customized audio output signals at least compensate for hearing impairment regarding the user's ability to hear; and (iii) output the customized audio output signals to the speaker, and

wherein the speaker is configured to generate at least a portion of the customized audio output for the user in accordance with at least the portion of the customized audio output signals.

48. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 47, wherein the received audio output signals are wirelessly received from a mobile communication device associated with the user.

49. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2,

wherein the head-worn personal electronic apparatus is operable to at least output customized audio output,

wherein the wireless communication circuitry includes at least a wireless receiver configured to wirelessly receive audio output signals to be output to the user via the speaker,

wherein the electronic circuitry including at least an integrated circuit, the electronic circuitry being configured to (i) store attributes associated with the user; (ii) customize the received audio output signals to produce customized audio output signals for the user based on at least a portion of the stored attributes associated with the user; and (iii) output the customized audio output signals to the speaker, and

wherein the speaker is configured to generate at least a portion of the customized audio output for the user in accordance with at least the portion of the customized audio output signals.

50. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 49, wherein the received audio output signals are wirelessly received from a mobile communication device associated with the user.

51. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2,

wherein the head-worn personal electronic apparatus is operable to at least output customized audio output,

wherein the wireless communication circuitry includes at least a wireless receiver configured to wirelessly receive customized audio output signals for the user, the customized audio output signals having been customized based on at least predetermined hearing characteristics associated with the user such that the customized audio output signals at least compensate for hearing impairment regarding the user's ability to hear, and

wherein the speaker is configured to generate at least a portion of the customized audio output for the user in accordance with at least the portion of the customized audio output signals.

52. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 51, wherein the customized audio output signals are wirelessly received from a mobile communication device associated with the user.

53. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 51,

wherein the first microphone is positioned to be directed towards the user when the head-worn personal electronic apparatus is being worn by the user; and

wherein the second microphone is configured to pick up at least ambient sound input associated with an environment in the vicinity of the head-worn personal electronic apparatus, the second microphone being positioned to be directed away from the user when the head-worn personal electronic apparatus is being worn by the user.

54. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 51,

wherein the second microphone is configured to pick up at least ambient sound input associated with an environment in the vicinity of the head-worn personal electronic apparatus, and

wherein the second microphone is positioned to be further away from mouth of the user than the first microphone when the head-worn personal electronic apparatus is being worn.

55. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 51,

wherein the second microphone is configured to pick up at least environmental audio input associated with an environment in the vicinity of the head-worn personal electronic apparatus, and

wherein the electronic circuitry is configured to process the audio input from at least the user picked-up via the first microphone to remove at least a portion of the environmental audio input associated with the environment picked-up via the second microphone.

56. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 54,

wherein the first microphone is positioned so as to be directed towards the user of the head-worn personal electronic apparatus, and

wherein the second microphone is positioned so as to be directed away from the user of the head-worn personal electronic apparatus, relative to the first microphone.

57. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 56, wherein the head-worn personal electronic apparatus comprises:

a physical condition sensor configured to acquire data pertaining to at least a physical condition of the user, the physical condition sensor being provided at least partially internal to the head-worn structure, the acquired data by the physical condition sensor includes (i) data regarding temperature of the user, or (ii) data regarding vital signs of the user.

58. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 50,

wherein the second microphone is configured to pick up at least ambient noise associated with an environment in the vicinity of the head-worn personal electronic apparatus, and

wherein the electronic circuitry is configured to:

determine an ambient noise level based on at least the ambient noise; and

modify at least a portion of the audio input picked-up via the first microphone, with the modification being at least in part dependent on the ambient noise level.

59. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 50, wherein the head-worn personal electronic apparatus comprises:

a radiation emitter at least partially contained within the head-worn personal electronic apparatus and configured to at least direct radiation towards the user when at least the head-worn personal electronic apparatus of the head-worn personal electronic apparatus is being worn; and

a radiation detector at least partially contained within the head-worn personal electronic apparatus and configured to detect a portion of the radiation directed towards the user that is reflected back from the user when the head-worn structure of the head-worn personal electronic apparatus is being worn,

wherein the radiation detector is operatively connected to the electronic circuitry, and wherein the electronic circuitry is configured to facilitate determining whether the head-worn personal electronic apparatus is being worn by the user based on at least the detected radiation.

60. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 59, wherein the detected radiation is at least infrared radiation.

61. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 60, wherein the speaker is configured to be at least partially inserted into the ear of the user.

62. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 50, wherein the head-worn personal electronic apparatus is configured to receive a voice input, support a determination of a requested

operation from the voice input using voice recognition, and control operation by the head-worn personal electronic apparatus based on the requested operation.

63. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 50, wherein the customized audio output includes music that was wirelessly received via the wireless receiver.

64. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 50, wherein the customized audio output signals result from amplifying or attenuating different frequency bands differently according to at least the predetermined hearing characteristics associated with the user.

65. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 64,

wherein the second microphone is positioned to pick up at least environmental audio input associated with an environment around the head-worn personal electronic apparatus, and

wherein the electronic circuitry is configured to modify the customized audio output signals to be output to the user via the at least one speaker to cancel at least a portion of noise associated with the environment, the modification of the customized audio output signals being dependent at least in part on the environmental audio input picked-up via the second microphone.

66. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the head-worn personal electronic apparatus comprises:

a bone conducting electronic element at least partially contained within the head-worn structure.

67. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 66,

wherein the bone conducting electronic element associated with vibrations, and

wherein the bone conducting electronic element having electrical signals associated with the vibration.

68. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the motion detector includes at least an accelerometer.

69. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the wireless receiver is configured to operate with a Bluetooth network.

70. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the electronic circuitry includes at least a microprocessor.

71. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 2, wherein the head-worn personal electronic apparatus comprises:

an antenna contained within the head-worn structure of the head-worn personal electronic apparatus.

72. (Previously Presented) A head-worn personal electronic apparatus, comprising:

a head-worn structure configured to be worn by a user;

a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user;

a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus;

a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user;

a second microphone at least partially contained within the head-worn structure;

a force sensing device configured to receive a user input based on a force induced on the force sensing device, the force sensing device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus;

a rechargeable battery contained within the head-worn structure;

electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery;

wireless communication circuitry at least partially contained within the head-worn structure;

at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and

a radiation detector contained within the head-worn structure and configured to capture radiation data,

wherein the head-worn personal electronic apparatus is configured to determine whether the head-worn personal electronic apparatus is being worn by the user based on the radiation data captured by the radiation detector, and

wherein the second microphone is configured to at least pick-up an environmental audio input.

73. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 72, wherein the head-worn personal electronic apparatus is configured to receive a voice input from the user via at least the first microphone, support or receive determination of a requested operation from the voice input using voice recognition, and control operation by the head-worn personal electronic apparatus based on the requested operation.

74. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 73,

wherein the wireless communication circuitry includes at least a wireless receiver configured to wirelessly receive audio output signals to be output to the user via the speaker, and

wherein the electronic circuitry is configured to modify the audio output signals to be output to the user via the speaker to cancel at least a portion of environmental noise, the modification of the audio output signals being dependent at least in part on the environmental audio input picked-up via the second microphone.

75. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 74,

wherein the head-worn personal electronic apparatus is operable to at least output customized audio output,

wherein the electronic circuitry includes at least an integrated circuit, and the electronic circuitry being configured to (i) store hearing characteristics associated with the user; (ii) customize the received audio output signals to produce customized audio output signals for the user based on at least a portion of the stored hearing characteristics associated with the user such that the customized audio output signals at least compensate for hearing impairment regarding the user's ability to hear; and (iii) output the customized audio output signals to the speaker, and

wherein the speaker is configured to generate at least a portion of the customized audio output for the user in accordance with at least the portion of the customized audio output signals.

76. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 75,

wherein the head-worn personal electronic apparatus comprises:

a radiation emitter at least partially contained within the head-worn structure and configured to at least direct radiation towards the user when the head-worn personal electronic apparatus is being worn, and

wherein the radiation detector at least partially contained within the head-worn structure and configured to detect a portion of the radiation directed towards the user by the radiation emitter that is reflected back from the user when the head-worn personal electronic apparatus is being worn.

77. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 76,

wherein the head-worn personal electronic apparatus is configured to support control of (i) audio output to the user via the speaker and (ii) voice calls to the user, and

wherein the operation of the head-worn personal electronic apparatus being altered concerns at least control of the audio output being provided to the user and/or accepting or declining a voice call to the user.

78. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 77, wherein the head-worn personal electronic apparatus comprises:

at least a portion of a Hall effect detector at least partially contained within the head-worn personal electronic apparatus, the Hall effect detector being configured to capture data associated with a magnetic characteristic.

79. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 78, wherein the head-worn personal electronic apparatus comprises:

a bone conducting electronic element at least partially contained within the head-worn structure, the bone conducting electronic element being associated with vibrations, and the bone conducting electronic element utilizing electrical signals associated with the vibration.

80. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 72,

wherein the wireless communication circuitry includes at least a wireless receiver configured to wirelessly receive audio output signals to be output to the user via the speaker, and

wherein the electronic circuitry is configured to modify the audio output signals to be output to the user via the speaker to cancel at least a portion of environmental noise, the modification of the audio output signals being dependent at least in part on the environmental audio input picked-up via the second microphone.

81. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 80,

wherein the head-worn personal electronic apparatus is operable to at least output customized audio output,

wherein the electronic circuitry includes at least an integrated circuit, and the electronic circuitry being configured to (i) store attributes associated with the user; (ii) customize the received audio output signals to produce customized audio output signals for the user based on at least a portion of the stored attributes associated with the user; and (iii) output the customized audio output signals to the speaker, and

wherein the speaker is configured to generate at least a portion of the customized audio output for the user in accordance with at least the portion of the customized audio output signals.

82. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 81,

wherein the head-worn personal electronic apparatus comprises:

a radiation emitter at least partially contained within the head-worn structure and configured to at least direct radiation towards the user when the head-worn personal electronic apparatus is being worn, and

wherein the radiation detector at least partially contained within the head-worn structure and configured to detect a portion of the radiation directed towards the user by the radiation emitter that is reflected back from the user when the head-worn personal electronic apparatus is being worn.

83. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 82, wherein the head-worn personal electronic apparatus comprises:

at least a portion of a Hall effect detector at least partially contained within the head-worn personal electronic apparatus, the Hall effect detector being configured to capture data associated with a magnetic characteristic; and

a plurality of circuit boards, each of the plurality of circuit boards including at least one electrical component mounted thereto, at least one of the plurality of circuit boards being a flexible printed circuit board, at least one of the plurality of circuit boards has at least one integrated circuit mounted on a first side of the at least one of the plurality of circuit boards, and at least one integrated circuit mounted on a second side of the at least one of the plurality of circuit boards.

84. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 82,

wherein the head-worn personal electronic apparatus is configured to support control of (i) audio output to the user via the speaker and (ii) voice calls to the user, and

wherein the operation of the head-worn personal electronic apparatus being altered concerns at least control of the audio output being provided to the user and/or accepting or declining a voice call to the user.

85. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 84, wherein the head-worn personal electronic apparatus comprises:

at least a portion of a Hall effect detector at least partially contained within the head-worn personal electronic apparatus, the Hall effect detector being configured to capture data associated with a magnetic characteristic.

86. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 84, wherein the head-worn personal electronic apparatus comprises:

a bone conducting electronic element at least partially contained within the head-worn structure, the bone conducting electronic element being associated with vibrations, and the bone conducting electronic element utilizing electrical signals associated with the vibration.

87. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 86, wherein the head-worn personal electronic apparatus comprises:

at least a portion of a Hall effect detector at least partially contained within the head-worn personal electronic apparatus, the Hall effect detector being configured to capture data associated with a magnetic characteristic.

88. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 84, wherein the head-worn personal electronic apparatus comprises:

a plurality of circuit boards, each of the plurality of circuit boards including at least one electrical component mounted thereto.

89. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 88, wherein at least one of the plurality of circuit boards is a flexible printed circuit board.

90. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 88, wherein at least one of the plurality of circuit boards has at least one integrated circuit mounted on a first side of the at least one of the plurality of circuit boards, and at least one integrated circuit mounted on a second side of the at least one of the plurality of circuit boards.

91. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 82, wherein the head-worn personal electronic apparatus comprises:

a touch sensitive surface at least partially contained within the head-worn structure and configured to sense a touch input associated with the user,

wherein at least the electronic circuitry is configured to facilitate determination at least whether the touch input associated with the user pertains to a first sliding direction or a second sliding direction with respect to the touch sensitive surface.

92. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 91, wherein the touch input by the touch sensitive surface operates to at least control audio volume level of the customized audio output for the user via the speaker.

93. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 72, wherein the head-worn personal electronic apparatus comprises:

a touch sensitive surface at least partially contained within the head-worn structure and configured to sense a touch input associated with the user,

wherein at least the electronic circuitry is configured to facilitate determination at least whether the touch input associated with the user pertains to a first sliding direction or a second sliding direction with respect to the touch sensitive surface.

94. (Previously Presented) A head-worn personal electronic apparatus as recited in claim 93,

wherein the touch sensitive surface senses the touch input by at least sensing capacitance, and

wherein the touch input by the touch sensitive surface operates to at least control audio volume level of audio output configured to be provided to the user via the speaker.

Claims 95-120 (Canceled).

121. (New) A system, comprising:

a head-worn personal electronic apparatus, including at least:

a head-worn structure configured to be worn by a user;

a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user;

a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus;

a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user;

a second microphone at least partially contained within the head-worn structure;

a force sensing device configured to receive a user input based on a force induced on the force sensing device, the force sensing device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus;

a rechargeable battery contained within the head-worn structure;

electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery;

wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and

at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery;

a charging apparatus having at least a charging connector; and

a mobile communication device at least for supporting audio output, the mobile communication device configured to store at least a hearing profile associated with the user, the stored hearing profile associated with the user at least characterizes hearing impairment regarding the user's ability to hear, the mobile communication device configured to produce audio output signals customized for the user based on at least the stored hearing profile associated with the user such that the customized audio output signals at least compensate for the hearing impairment regarding the user's ability to hear, and the mobile

communication device configured to wirelessly transmit the customized audio output signals to the head-worn personal electronic apparatus,

wherein the speaker is configured to generate at least a portion of the customized audio output for the user in accordance with at least the portion of the customized audio output signals being received by the head-worn personal electronic apparatus,

wherein on placement of the head-worn personal electronic apparatus at least partially in the charging apparatus, electrical connection is configured to result at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed at least partially in the charging apparatus, and

wherein the customized audio output signals are produced based on amplifying or attenuating different frequency bands differently according to at least the stored hearing profile.

122. (New) A system as recited in claim 121,

wherein the mobile communication device includes computing capabilities and a storage device, the storage device storing at least a software program executed by the mobile communication device to enable the user to establish the hearing profile associated with the user, and

wherein the mobile communication device is configured to establish the hearing profile associated with the user via the software program executed by the mobile communication device based on the user interacting with the software program via the mobile communication device.

123. (New) A system as recited in claim 122, wherein the software program at least interactively guides the user to establish the hearing profile for the user by at least causing various audio tones to be output to the user via at least the speaker, prompting the user to provide a hearing input with respect to one or more of the

various audio tones being output, and receiving the hearing input pertaining to one or more of the various audio tones being output.

124. (New) A system as recited in claim 122, wherein the head-worn structure comprises:

an infrared emitter configured to at least direct infrared signals towards the user when at least the head-worn structure of the head-worn personal electronic apparatus is being worn; and

an infrared detector configured to detect infrared radiation reflected back from the user when at least the head-worn structure of the head-worn personal electronic apparatus is being worn,

125. (New) A system as recited in claim 124, wherein the electronic circuitry within the head-worn structure is configured to facilitate determining whether the head-worn structure is being worn by the user based on at least the detected infrared radiation.

126. (New) A system as recited in claim 124,

wherein the second microphone is configured to pick-up an environmental audio input, and

wherein the environmental audio input picked-up from at least the second microphone is used at least for noise cancelation, and at least a portion of the environmental audio input picked-up from the second microphone is canceled from the audio input picked-up from the first microphone.

127. (New) A system as recited in claim 124,

wherein the second microphone is configured to pick-up an environmental audio input, and

wherein the electronic circuitry is configured to receive audio output signals to be output to the user via the speaker, and modify the audio output signals to be

output to the user via the speaker to cancel at least a portion of noise associated with the environment, the modification of the audio output signals being dependent at least in part on the environmental audio input picked-up via the second microphone.

128. (New) A system as recited in claim 122,

wherein the second microphone is configured to pick-up an environmental audio input, and

wherein the environmental audio input picked-up from at least the second microphone is used at least for noise cancelation, and at least a portion of the environmental audio input picked-up from the second microphone is used to remove undesired noise from the audio input picked-up from the first microphone.

129. (New) A system as recited in claim 122, wherein the head-worn structure comprises:

a radiation emitter at least partially contained within the head-worn structure and configured to at least direct radiation towards the user when the head-worn structure is being worn, and

a radiation detector at least partially contained within the head-worn structure and configured to detect a portion of the radiation directed towards the user by the radiation emitter that is reflected back from the user when the head-worn structure is being worn.

130. (New) A system as recited in claim 122, wherein the head-worn structure comprises:

at least a portion of a Hall effect detector at least partially contained within the head-worn structure, the Hall effect detector being configured to capture data associated with a magnetic characteristic.

131. (New) A system as recited in claim 122, wherein the head-worn structure comprises:

a bone conducting electronic element at least partially contained within the head-worn structure, the bone conducting electronic element being associated with vibrations, and the bone conducting electronic element utilizing electrical signals associated with the vibration.

132. (New) A system as recited in claim 122, wherein the head-worn structure comprises:

a touch sensitive surface at least partially contained within the head-worn structure and configured to sense a touch input associated with the user,

wherein at least the electronic circuitry is configured to facilitate determination at least whether the touch input associated with the user pertains to a first sliding direction or a second sliding direction with respect to the touch sensitive surface, and

wherein the touch input by the touch sensitive surface operates to at least control audio volume level of the customized audio output for the user via the speaker.

133. (New) A system as recited in claim 132, wherein the head-worn structure comprises:

a radiation emitter at least partially contained within the head-worn structure and configured to at least direct radiation towards the user when the head-worn structure is being worn, and

a radiation detector at least partially contained within the head-worn structure and configured to detect a portion of the radiation directed towards the user by the radiation emitter that is reflected back from the user when the head-worn structure is being worn.

134. (New) A system as recited in claim 133, wherein the system comprises:

a Hall effect detector configured to capture data associated with a magnetic characteristic.

135. (New) A system as recited in claim 134, wherein the head-worn structure comprises:

a bone conducting electronic element at least partially contained within the head-worn structure, the bone conducting electronic element being associated with vibrations, and the bone conducting electronic element utilizing electrical signals associated with the vibration.

136. (New) A head-worn personal electronic apparatus, comprising:

a head-worn structure configured to be worn by a user;

a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user;

a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus;

a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user;

a second microphone at least partially contained within the head-worn structure;

a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being contained within the head-worn structure, wherein the received user input operating to at least alter an operation of the head-worn personal electronic apparatus;

a rechargeable battery contained within the head-worn structure;

electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery;

wireless communication circuitry at least partially contained within the head-worn structure;

at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and

a radiation detector contained within the head-worn structure and configured to capture radiation data,

wherein the head-worn personal electronic apparatus is configured to determine whether the head-worn personal electronic apparatus is being worn by the user based on the radiation data captured by the radiation detector, and

wherein the second microphone is configured to at least pick-up an environmental audio input.

137. (New) A head-worn personal electronic apparatus as recited in claim 136, wherein the head-worn personal electronic apparatus comprises:

a touch sensitive surface at least partially contained within the head-worn structure and configured to sense a touch input associated with the user,

wherein at least the electronic circuitry is configured to facilitate determination at least whether the touch input associated with the user pertains to a first sliding direction or a second sliding direction with respect to the touch sensitive surface.

138. (New) A head-worn personal electronic apparatus as recited in claim 137,

wherein the touch sensitive surface senses the touch input by at least sensing capacitance, and

wherein the touch input by the touch sensitive surface operates to at least control audio volume level of audio output configured to be provided to the user via the speaker.

139. (New) A head-worn personal electronic apparatus as recited in claim 138,

wherein the head-worn personal electronic apparatus comprises:

a radiation emitter at least partially contained within the head-worn structure and configured to at least direct radiation towards the user when the head-worn personal electronic apparatus is being worn, and

wherein the radiation detector at least partially contained within the head-worn structure and configured to detect a portion of the radiation directed towards the user by the radiation emitter that is reflected back from the user when the head-worn personal electronic apparatus is being worn.

140. (New) A head-worn personal electronic apparatus as recited in claim 139, wherein the head-worn personal electronic apparatus comprises:

at least a portion of a Hall effect detector at least partially contained within the head-worn personal electronic apparatus, the Hall effect detector being configured to capture data associated with a magnetic characteristic; and

a plurality of circuit boards, each of the plurality of circuit boards including at least one electrical component mounted thereto, at least one of the plurality of circuit boards being a flexible printed circuit board, at least one of the plurality of circuit boards has at least one integrated circuit mounted on a first side of the at least one of the plurality of circuit boards, and at least one integrated circuit mounted on a seco139nd side of the at least one of the plurality of circuit boards.

141. (New) A head-worn personal electronic apparatus as recited in claim 139,

wherein the head-worn personal electronic apparatus is configured to support control of (i) audio output to the user via the speaker and (ii) voice calls to the user, and

wherein the operation of the head-worn personal electronic apparatus being altered concerns at least control of the audio output being provided to the user and/or accepting or declining a voice call to the user.

142. (New) A head-worn personal electronic apparatus as recited in claim 141, wherein the head-worn personal electronic apparatus comprises:

a bone conducting electronic element at least partially contained within the head-worn structure, the bone conducting electronic element being associated with vibrations, and the bone conducting electronic element utilizing electrical signals associated with the vibration.

143. (New) A head-worn personal electronic apparatus as recited in claim 138,

wherein the head-worn personal electronic apparatus comprises:

an infrared radiation emitter at least partially contained within the head-worn structure and configured to at least direct infrared radiation towards the user when the head-worn personal electronic apparatus is being worn, and

wherein the radiation detector at least partially contained within the head-worn structure and configured to detect a portion of the infrared radiation directed towards the user by the infrared radiation emitter that is reflected back from the user when the head-worn personal electronic apparatus is being worn.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: HOWELL et al.

Application No.: 18/597,874

Filed: March 6, 2024

Title: SYSTEM FOR POWERING HEAD-WORN PERSONAL ELECTRONIC APPARATUS

Attorney Docket No.: IPVCP003X1C4X1C2

Examiner: LEI, JIE

Group: 2872

AMENDMENT C TRANSMITTAL

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an Amendment in the above-identified application.

The fee has been calculated as shown below.

	Claims After Amendment		Highest Previously Paid For	Present Extra	Small Entity Rate Fee	Large Entity Rate Fee
Total Claims	116	MINUS	119	0	x 80 =	x 200 =
Independent Claims	5	MINUS	6	0	x 240 =	x 600 =
Multiple Dependent Claim Present and Fee Not Previously Paid					$	$
				Total	$0.00	$0.00

☐ Applicant(s) hereby petition for a _____- month extension(s) of time to respond to the aforementioned Office Action.

☒ Applicant(s) believe that no (additional) Extension of Time is required; however, if it is determined that such an extension is required, Applicant(s) hereby petition that such an extension be granted and authorize the Commissioner to charge the required fees for an Extension of Time under 37 CFR 1.136 to Deposit Account No. 50-3874 (Order No. IPVCP003X1C4X1C2).

☒ Any fees due are being paid electronically herewith.

☒ Please charge any additional fees required to facilitate filing the enclosed response, to Deposit Account No. 50-3874 (Order No. IPVCP003X1C4X1C2).

Respectfully submitted,

/C. Douglass Thomas/

C. Douglass Thomas
Reg. No. 32,947

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
18/597,874	**03/03/2025 01:57:40 PM Z ET**	**IPVCP003X1C4X1C2**

Title of Invention

SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	7223	FILED BY	Angela Nijim
PATENT CENTER #	69408918	FILING DATE	03/06/2024
CUSTOMER #	34071	FIRST NAMED INVENTOR	Thomas A. Howell
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Peter Tong

Documents

TOTAL DOCUMENTS: 4

DOCUMENT		PAGES	DESCRIPTION	SIZE (KB)
IPVCP003X1C4X1C2_AmdC_AsFiled_2-28-final.pdf		38	-	140 KB
IPVCP003X1C4X1C2_AmdC_AsFiled_2-28-final-AMSB.pdf	(1-1)	1	Amendment Submitted/Entered with Filing of Continued Prosecution Application (CPA)/Request for Continued Examination(RCE)	17 KB
IPVCP003X1C4X1C2_AmdC_AsFiled_2-28-final-CLM.pdf	(2-37)	36	Claims	128 KB
IPVCP003X1C4X1C2_AmdC_AsFiled_2-28-final-REM.pdf	(38-38)	1	Applicant Arguments/Remarks Made in an Amendment	14 KB

IPVCP003X1C4X1C2_AmdC Trans_3-25.pdf	1	Transmittal Letter	16 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
IPVCP003X1C4X1C2_AmdC_AsFiled_2-28-final.pdf	EC4E19C1576B59F689AEE08E795457DE26F3A6D60A5CB46570CAD0BB3F076731FFC5D44ECC5AED6ADC84F8C2FEC28C77020EFDF29420AF78A54E468A6E5D2629
IPVCP003X1C4X1C2_AmdC_AsFiled_2-28-final-AMSB.pdf	5FA4491ECD78D471EDD8B38A1F21B54ADEFBAA4E035CADDA428AF867C780257D4C8E7F9AD913AF888C2DEDA8701B38E6BE01622271ED9EC533B73907A9CBC028
IPVCP003X1C4X1C2_AmdC_AsFiled_2-28-final-CLM.pdf	ED33608124BDEDBB27C6FA9958E63C165DFA9AE55956F4D27B5185844AE542AB695D84F8DFB6C2A49CCD36DD944289F5F7EBD1C3CDE263301BD17675A9910D47
IPVCP003X1C4X1C2_AmdC_AsFiled_2-28-final-REM.pdf	D0A54ABF9F3B8B0B207DBFBEB392AB822B2356E34AED60C2DBF3438F8D92A472E885810441D647D730122103D379BA302DA98C2E3C17AB4E2CCF71F552058D42
IPVCP003X1C4X1C2_AmdCTrans_3-25.pdf	DAA448957E50CD63B111A54B7761C25F23FE704ED6477359C5FADC39A16EACA4E58E0AA0D5B161223A24BBC8F5BF9C7BF9F784EA991DF0782E62DCB3FDE0EB85

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/597,874	03/06/2024	Thomas A. Howell	IPVCP003X1C4X1C2	7223

34071 7590 02/28/2025

IPVENTURE, INC.
4010 Moorpark Avenue
Suite 211
San Jose, CA 95117

EXAMINER	
LEI, JIE	

ART UNIT	PAPER NUMBER
2872	

MAIL DATE	DELIVERY MODE
02/28/2025	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Response to Rule 312 Communication	Application No.	Applicant(s)	
	18/597,874	Howell et al.	
	Examiner	Art Unit	AIA (FITF) Status
	JIE LEI	2872	Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

1. ☑ The amendment filed on 21 February 2025 under 37 CFR 1.312 has been considered, and has been:

a) ☐ entered.

b) ☐ entered as directed to matters of form not affecting the scope of the invention.

c) ☐ disapproved because the amendment was filed after the payment of the issue fee.
Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.

d) ☐ disapproved. See explanation below.

e) ☑ entered in part. See explanation below.

f) ☐ not entered because the supplemental or corrected Application Data sheet (ADS)

- ☐ was not accompanied by a petition to accept an unintentionally delayed claim under 37 CFR 1.55 or 27 CFR 1.78;
- ☐ did not identify the information being changed in accordance with 37 CFR 1.76(c)(2);
- ☐ was not properly signed in accordance with 37 CFR 1.76(e) (or 37 CFR 1.33(b) for applications filed prior to September 16, 2012).

Amendments of claims 94 and 95-120 are OK to enter. Amendments of claims 2 and 7 are not entered.

/JIE LEI/
Primary Examiner, Art Unit 2872

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	18/597,874	Howell et al.
	Examiner	**Art Unit**
	JIE LEI	2872

CPC						
Symbol					**Type**	**Version**
G02C	/	11	/	10	F	2013-01-01
G02C	/	5	/	143	I	2013-01-01
G02C	/	5	/	146	I	2013-01-01
H02J	/	7	/	0045	I	2013-01-01
G02C	/	11	/	06	I	2013-01-01
G02C	/	2200	/	08	A	2013-01-01

CPC Combination Sets								
Symbol					**Type**	**Set**	**Ranking**	**Version**
	/		/					

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	93	
/JIE LEI/ Primary Examiner, Art Unit 2872	27 February 2025	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

U.S. Patent and Trademark Office — Part of Paper No.: 20250227

Apple Inc. Exhibit 1015 Page 901

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	18/597,874	Howell et al.
	Examiner	**Art Unit**
	JIE LEI	2872

INTERNATIONAL CLASSIFICATION				
CLAIMED				
G02C	/	11	/	00
G02C	/	5	/	14
G02C	/	11	/	06
H02J	/	7	/	00

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**
351	158

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

NONE (Assistant Examiner) (Date)	**Total Claims Allowed:** 93	
/JIE LEI/ Primary Examiner, Art Unit 2872 (Primary Examiner) (Date) 27 February 2025	O.G. Print Claim(s) 1	O.G. Print Figure 1

U.S. Patent and Trademark Office Part of Paper No.: 20250227

Apple Inc. Exhibit 1015 Page 902