

L1688	110	1687 AND 51	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) (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	2023/08/21 09:51 AM
L1689	61	1687 AND 53	(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	2023/08/21 09:51 AM
L1691	8	1687 AND 104	(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	2023/08/21 09:51 AM
L1692	44	(Artificial Intelligence) Similar to:	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2023/08/21 09:54 AM

		17/949,029 with 0 CPC Selections and 0 Text Selections Text: (US-11644693-B2 OR US-20230017635-A1 OR US-20220357599- A1 OR GB-2594812-A OR US-20190113774- A1 OR US-11156855- B2 OR WO- 2017196294-A1 OR EP-3455670-A1 OR US-20200285069-A1 OR WO-2020144536- A2 OR US-11668958- B2 OR US- 20220113562-A1 OR WO-2007110551-A1 OR EP-1998729-A1 OR EP-3143460-B1 OR CN-113260902-A OR FR-2984534-A1 OR WO-2023101802-A1 OR US-20230168522- A1 OR JP-7185053-B2 OR WO-2010060323- A1 OR US-7792552-B2 OR FR-2899097-A1 OR WO-2007109989-A1 OR FR-3027412-A1 OR US-9547184-B2 OR KR-102077483-B1 OR US-20110224481-A1 OR CH-707274-B9 OR CH-707274-B1 OR US- 11243416-B2 OR US- 20200218094-A1 OR AU-2009319620-A1 OR EP-2387252-A1 OR US-20190204617-A1 OR US-6148087-A OR US-20050074137-A1 OR US-20220295167- A1 OR US- 20220011603-A1 OR US-10061144-B2 OR US-11204512-B2 OR US-11536988-B2 OR JP-2012510218-A OR DE-19704119-C1 OR DE-20105364-U1 OR CH-692883-A5 OR JP- 2022516768-A OR KR- 20220038802-A OR US-7760898-B2 OR ES-2707523-T3).did.	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))				
--	--	--	---	--	--	--	--

L1693	46	(Artificial Intelligence) Similar to: 17/949,029 with 0 CPC Selections and 3 Text Selections Text: (US-20040208325-A1 OR US-11644693-B2 OR US-20210227338- A1 OR US- 20130223661-A1 OR US-11657827-B2 OR US-20050260978-A1 OR US-11665488-B2 OR US-20210266684- A1 OR US-11488618- B2 OR US- 20100150356-A1 OR US-7529545-B2 OR CN-115136620-A OR US-10750293-B2 OR US-9344793-B2 OR US-20150078575-A1 OR WO-2022164423- A1 OR EP-1767057-A2 OR WO-2006001998- A2 OR EP-2677772-A1 OR US-20100100318- A1 OR US-8271192-B2 OR US-20060215844- A1 OR US- 20100119093-A1 OR US-20160234589-A1 OR US-20050078838- A1 OR WO- 2005034734-A2 OR WO-2014193264-A1 OR US-9344815-B2 OR US-20220141599-A1 OR JP-2005504470-A OR EP-1216599-A1 OR AU-7385600-A OR KR- 20040053134-A OR US-20170048619-A1 OR JP-20180511212- A5 OR EP-1467596-A2 OR KR-100846879-B1 OR JP-2001008296-A OR US-20100191143- A1 OR WO- 2007112918-A1 OR CA-2653767-A1 OR US-20140314261-A1 OR US-20190261102- A1 OR US-5608803-A OR CA-2464025-C OR US-20230017635-A1 OR US-20080025538-)	(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	2023/08/21 10:03 AM
-------	----	--	---	----	----	----	------------------------

L1694	45	A1 OR US-20170171661-A1 OR US-10057683-B2 OR US-8437479-B2).did. (Artificial Intelligence) Similar to: 17/949,029 with 2 CPC Selections and 3 Text Selections Text: (US-11644693-B2 OR US-20040208325-A1 OR US-20230017635-A1 OR US-20220357599-A1 OR US-11668958-B2 OR US-20220113562-A1 OR EP-3455670-A1 OR WO-2017196294-A1 OR US-11156855-B2 OR US-20190113774-A1 OR TW-I774573-B OR US-11684516-B2 OR US-6091832-A OR FR-2984534-A1 OR JP-2020053948-A OR TW-202205879-A OR WO-2020067263-A1 OR US-20210341761-A1 OR US-11592689-B2 OR TW-202126057-A OR US-20220260859-A1 OR CN-112740718-A OR US-20210267803-A1 OR JP-7015378-B2 OR EP-3833040-A1 OR TW-202031056-A OR US-7512414-B2 OR US-9525936-B1 OR US-20070046887-A1 OR US-7581833-B2 OR JP-7185053-B2 OR US-20110224481-A1 OR US-20060197907-A1 OR US-20040156012-A1 OR EP-2387252-A1 OR EP-1540991-A2 OR WO-2004028203-A2 OR US-20190104370-A1 OR US-20220296421-A1 OR CN-106940484-B OR US-20170102560-A1 OR US-10659868-B1 OR DE-19704119-C1 OR US-20040157649-	(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	2023/08/21 10:05 AM
-------	----	--	--	----	----	----	---------------------

L1695	47	A1 OR AU-2009319620-A1 OR DE-102014207914-A1 OR US-7760898-B2 OR US-20220007100-A1 OR US-20170085976-A1 OR US-10003877-B2).did. (Artificial Intelligence) Similar to: 17/949,029 with 3 CPC Selections and 3 Text Selections Text: (US-20040208325-A1 OR US-11644693-B2 OR US-20230017635-A1 OR US-20220357599-A1 OR US-20140268008-A1 OR US-20160246075-A9 OR US-20230236444-A1 OR US-20190278110-A1 OR US-11630331-B2 OR US-20160266413-A1 OR US-9535267-B2 OR CH-718397-A2 OR US-7760898-B2 OR CH-718397-B1 OR US-10345625-B2 OR US-11668958-B2 OR US-20220113562-A1 OR US-10379377-B2 OR US-20180074343-A1 OR US-20200218094-A1 OR US-9740023-B1 OR US-20220011603-A1 OR US-20170248801-A1 OR US-9851585-B2 OR EP-2149068-B1 OR EP-3455670-A1 OR WO-2017196294-A1 OR WO-2017151519-A9 OR WO-2017151519-A1 OR US-20190113774-A1 OR US-11156855-B2 OR US-11243416-B2 OR US-20210325691-A1 OR US-20090234614-A1 OR EP-2149068-A1 OR WO-2008133921-A1 OR US-11536988-B2 OR US-9547184-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))	OR	ON	ON	2023/08/21 10:05 AM
-------	----	---	--	----	----	----	---------------------

L1696	44	US-20120229263-A1 OR US-8410913-B2 OR US-20190285913-A1 OR US-20170090219- A1 OR CA-2956795-A1 OR US-20180335650- A1 OR US-7922321-B2 OR US-10620459-B2 OR US-20180088355- A1 OR EP-4057051-A1 OR US-20120050668- A1 OR US- 20220043278-A1).did. (Artificial Intelligence) Similar to: 17/949,029 with 5 CPC Selections and 3 Text Selections Text: (US-11644693-B2 OR US-20230017635-A1 OR US-20220357599- A1 OR US-11668958- B2 OR US- 20220113562-A1 OR US-20190113774-A1 OR WO-2017196294- A1 OR EP-3455670-A1 OR US-11156855-B2 OR US-20210165243- A1 OR GB-2594812-A OR US-20200285069- A1 OR WO- 2020144536-A2 OR US-7760898-B2 OR US-11243416-B2 OR US-9547184-B2 OR US-20200218094-A1 OR US-20220011603- A1 OR CN-113260902- A OR JP-7185053-B2 OR US-11536988-B2 OR US-20110224481- A1 OR WO- 2023101802-A1 OR US-20230168522-A1 OR EP-2387252-A1 OR AU-2009319620-A1 OR US-20170090219-A1 OR US-10061144-B2 OR US-20180335650- A1 OR US-11204512- B2 OR US-7922321-B2 OR US-20120050668- A1 OR US-8905542-B2 OR WO-2007110551- A1 OR EP-1998729-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	2023/08/21 10:05 AM
-------	----	--	---	----	----	----	------------------------

L1697	45	OR US-20200012127-A1 OR US-9024830-B2 OR US-6091832-A OR US-20110187990-A1 OR US-20050264752-A1 OR US-9525936-B1 OR US-8430507-B2 OR US-20130308089-A1 OR US-6148087-A OR US-8500271-B2 OR EP-1540991-A2 OR WO-2004028203-A2 OR JP-2022516768-A OR FR-2899097-A1 OR DE-19704119-C1).did. (Artificial Intelligence) Similar to: 17/949,029 with 5 CPC Selections and 2 Text Selections Text: (US-11644693-B2 OR US-20230017635-A1 OR US-20220357599-A1 OR US-11668958-B2 OR US-20220113562-A1 OR US-11156855-B2 OR US-20190113774-A1 OR EP-3455670-A1 OR WO-2017196294-A1 OR GB-2594812-A OR US-20200285069-A1 OR WO-2020144536-A2 OR US-20040208325-A1 OR JP-2022512232-A OR CN-113260902-A OR US-20200218094-A1 OR US-9547184-B2 OR US-11243416-B2 OR US-20220011603-A1 OR JP-7185053-B2 OR US-11536988-B2 OR US-20110224481-A1 OR EP-2387252-A1 OR WO-2023101802-A1 OR US-20230168522-A1 OR AU-2009319620-A1 OR WO-2007110551-A1 OR EP-1998729-A1 OR US-20170090219-A1 OR US-20180335650-A1 OR US-10061144-B2 OR US-11204512-B2 OR US-7922321-B2	(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	2023/08/21 10:06 AM
-------	----	---	--	----	----	----	---------------------

L1698	7	OR US-20120050668-A1 OR US-6148087-A OR US-9525936-B1 OR US-8905542-B2 OR US-20200012127-A1 OR US-7792552-B2 OR DE-19704119-C1 OR US-20150085245-A1 OR US-6091832-A OR FR-2899097-A1 OR FR-2984534-A1 OR US-20050264752-A1 OR US-8430507-B2 OR US-20110187990-A1 OR CH-692883-A5 OR US-20130308089-A1 OR US-8500271-B2).did. "20230017634"	(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	2023/08/21 10:11 AM
L1699	143885	221 222 223 224 225 226 227 228 229 230 231	(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	2023/08/21 10:14 AM
L1700	2984	1699 AND 51	(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	2023/08/21 10:15 AM

L1701	517	1699 AND 53	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) (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	2023/08/21 10:15 AM
L1702	202	1699 AND 55	(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	2023/08/21 10:15 AM
L1703	90	1699 AND 238	(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	2023/08/21 10:15 AM

L1704	80	1699 AND 104	(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	2023/08/21 10:15 AM
L1705	1	1699 AND 105	(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	2023/08/21 10:16 AM
L1706	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-	(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	2023/08/21 10:30 AM

		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-\$ 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.					
L1707	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-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	2023/08/21 10:30 AM

		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-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.					
L1708	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-	(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	2023/08/21 10:30 AM

		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- 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-					

L1709	369	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. (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- 6409338-\$ US- 6431705-\$ US- 6474816-\$ US- 64782605-\$ US- 64783605-\$ US- 6511175-\$ US- 6513532-\$ US- 6517203-\$ 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	2023/08/21 10:30 AM
-------	-----	--	---	----	----	----	------------------------

		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-					

L1710	301	9129295-\$ 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	2023/08/21 10:30 AM
		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.					
		(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- 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-	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)				
--	--	---	--	--	--	--	--

		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.					
L1711	976	1706 1707 1708 1709 1710	(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	2023/08/21 10:31 AM
L1712	107	1711 AND 51	(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	2023/08/21 10:31 AM

L1713	80	1711 AND 53	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	2023/08/21 10:31 AM
L1714	46	1711 AND 55	(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	2023/08/21 10:32 AM
L1715	16	1711 AND 104	(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	2023/08/21 10:32 AM

L1716	0	1711 AND 105	IBM_TDB) (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	2023/08/21 10:32 AM
L1730	283	(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-\$ 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-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	2023/08/21 11:34 AM

		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-\$					

		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- 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-	NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
--	--	--	---	--	--	--	--

L1732	123	5491510-\$ 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	2023/08/21 11:35 AM
		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.					
		(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-					

L1733	156	20160109729-\$ 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	2023/08/21 11:35 AM
		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-					
		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.					
		(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- 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-	NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
--	--	--	---	--	--	--	--

L1734	93	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. (US-20010035242-\$ US-20020072387-\$ US-20020193151-\$ US-20030036414-\$ 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-	(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	2023/08/21 11:35 AM
-------	----	--	---	----	----	----	------------------------

L1738	801	6097822-\$ US- 6176576-\$ US- 6633770-\$ US- 6643528-\$ US- 6690808-\$ US- 6920228-\$ US- 7519192-\$ US- 7702122-\$ US- D533539-\$).DID. 1730 1731 1732 1733 1734	(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	2023/08/21 11:39 AM
L1739	55	1738 AND 51	(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	2023/08/21 11:39 AM
L1740	38	1738 AND 53	(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	2023/08/21 11:39 AM

L1741	19	1738 AND 55	(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	2023/08/21 11:39 AM
L1743	1	1738 AND 238	(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	2023/08/21 11:40 AM
L1750	56	"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	2023/08/21 11:55 AM
L1751	562	"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,	OR	ON	ON	2023/08/21 11:55 AM

L1752	97	"6771423"	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) (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	2023/08/21 11:55 AM
L1753	113	"5835185"	(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	2023/08/21 11:55 AM
L1754	127	"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	2023/08/21 11:55 AM
L1759	166	"7278734"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2023/08/21 11:59 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)				
L1760	214	"7192136"	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 11:59 AM
L1761	157	"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	2023/08/21 11:59 AM
L1762	135	"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, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/08/21 11:59 AM
L1764	36	"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,	OR	ON	ON	2023/08/21 12:00 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)				
L1766	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	2023/08/21 12:13 PM
L1767	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-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-	(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	2023/08/21 12:14 PM

L1768	75	5923398-\$ US-6091546-\$ US-6788309-\$ US-6816314-\$ US-6857741-\$ US-7023594-\$ US-7517083-\$).DID. (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	2023/08/21 12:14 PM
L1769	65	(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-	(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	2023/08/21 12:14 PM

L1770	40	9033493-\$ US- 9244292-\$ US- 9400390-\$ US- 9405135-\$ US- 9488520-\$ US- 9547184-\$ US- 9690121-\$ US- D369167-\$).DID. (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-\$).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	2023/08/21 12:14 PM
L1771	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	2023/08/21 12:14 PM
L1772	24	(US-0026146-\$ US- 0036103-\$ US- 0089545-\$ US- 0122208-\$ US- 0178743-\$ US- 10571715-\$ US- 11326941-\$ US- 20050036103-\$ US- 20080089545-\$ US- 20180122208-\$ 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	2023/08/21 12:14 PM

L1773	20	20210026146-\$ US-20220178743-\$).DID. (US-11086147-\$ US-11204512-\$ US-20050278446-\$ US-20080211921-\$ US-20120062357-\$ US-20190033622-\$ US-20210271116-\$ US-20210364827-\$ US-20210364828-\$ US-9922236-\$).DID.	NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB) (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	2023/08/21 12:14 PM
L1774	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	2023/08/21 12:14 PM
L1775	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	2023/08/21 12:14 PM
L1776	321	1766 1767 1768 1769 1770 1771 1772 1773 1774 1775	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2023/08/21 12:15 PM

L1777	37	1776 AND 51	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) (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	2023/08/21 12:15 PM
L1779	28	1776 AND 53	(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	2023/08/21 12:15 PM
L1780	17	1776 AND 55	(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	2023/08/21 12:15 PM

L1781	1	1776 AND 238	TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB) (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	2023/08/21 12:16 PM
L1786	40	"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	2023/08/21 12:41 PM
L1787	22	"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	2023/08/21 12:41 PM
L1788	65	"11183269"	(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	2023/08/21 12:41 PM

L1789	27	"10628831"	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	2023/08/21 12:41 PM
L1798	15	"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	2023/08/21 01:11 PM
L1799	8	"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;	OR	ON	ON	2023/08/21 01:11 PM

L1800	13	"2005167902"	JPO; DERWENT; IBM_TDB) (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	2023/08/21 01:11 PM
L1801	8	"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	2023/08/21 01:11 PM
L1802	18	"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, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/08/21 01:11 PM
L1803	17	"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,	OR	ON	ON	2023/08/21 01:11 PM

L1804	14	"20050201585"	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) (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	2023/08/21 01:11 PM
L1805	10	"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	2023/08/21 01:11 PM
L1806	39	(Artificial Intelligence) More like doc: <u>JP-2005167902-A</u> 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 EP-1433160-A1 OR WO-03023756-A1 OR JP-2006209144-A OR WO-2018186062-A1 OR US-20200053449-	(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	2023/08/21 01:36 PM

L1807	34	A1 OR JP- WO2018186062-A1 OR JP-2002539498-A OR US-11109137-B2 OR JP-7088172-B2 OR US- 6356392-B1 OR CN- 110463221-B OR US- 6204974-B1 OR JP- 2012231259-A).did. (Artificial Intelligence) More like doc: US-11243416-B2 Text: (US-10061144-B2 OR US-9547184-B2 OR US-8905542-B2 OR US-8500271-B2 OR US-20050264752-A1 OR US-9690121-B2 OR US-7922321-B2 OR US-11086147-B2 OR US-8109629-B2 OR US-7581833-B2 OR US-20180335650-A1 OR US-20110187990- A1 OR US- 20170090219-A1 OR US-20150085245-A1 OR US-20130308089- A1 OR US- 20210364828-A1 OR US-20170146829-A1 OR US-20120133885- A1 OR US- 20190033623-A1 OR US-20220260859- 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	2023/08/21 01:36 PM
L1808	38	(Artificial Intelligence) More like doc: US-6349001-B1 Text: (CA-2307877-C OR WO-9923524-A1 OR EP-1027627-A1 OR EP-1027627-A4 OR US-6091546-A OR JP- 2001522063-A OR EP- 1027627-B1 OR AU- 2007205168-A1 OR CA-2636159-A1 OR AU-2007205168-B2 OR CA-2174510-A1 OR CA-2636159-C OR BR- PI0706349-A2 OR KR- 20180037887-A OR US-20040108981-A1 OR CN-100365470-C	(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	2023/08/21 01:36 PM

L1809	31	OR CN-103888163-A OR TW-200409945-A OR CN-103033952-A OR CA-2377742-A1).did. (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 EP-1828833-A2 OR WO-2006055884-A2 OR AU-2005306412-A2 OR AU-2005306412-A1 OR CA-2932965-C OR CA-2932965-A1 OR AU-2013263854-A1 OR AU-2013263854-B2 OR AU-2012203662-A1 OR AU-2012203662-B2 OR US-8482488-B2 OR CA-2588650-C OR US- 20130293448-A1 OR US-10222617-B2 OR US-20060132382-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	2023/08/21 01:36 PM
L1810	29	(Artificial Intelligence) More like doc: US-6911172-B2 Text: (US-20040000733-A1 OR US-20040239874-A1 OR US- 20020159023-A1 OR WO-02089496-A2 OR EP-1485748-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 CN- 104756482-B).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	2023/08/21 01:36 PM

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N1	13314	((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV.	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 08:26 AM
N2	134	((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/08/21 08:26 AM
N3	120	((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/08/21 08:26 AM
N4	116	((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND frame AND circuit AND control\$4 AND	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 08:26 AM

N5	94	(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 (((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/08/21 08:26 AM
N6	75	(((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/08/21 08:26 AM
N7	75	(((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 08:26 AM

N8	70	("C")) OR ("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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)	OR	ON	ON	2023/08/21 08:26 AM
N24	784	(((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR ("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/08/21 08:48 AM
N25	159	((eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND frame AND circuit AND control\$4 AND (memor\$4 OR stor\$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 08:48 AM

N26	122	((eyewear\$4 OR glasses\$4 OR spectacles\$4 OR eyeglasses\$4) AND frame AND circuit AND control\$4 AND (memory\$4 OR storage\$4) AND connect\$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 08:48 AM
N257	40	((eyewear\$4 OR glasses\$4 OR spectacles\$4 OR eyeglasses\$4) AND frame AND circuit AND control\$4 AND (memory\$4 OR storage\$4) AND battery\$4 AND connect\$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 09:41 AM
N258	33	((eyewear\$4 OR glasses\$4 OR spectacles\$4 OR eyeglasses\$4) AND (temple SAME (speakers WITH audio))) .clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 09:41 AM
N259	11	((eyewear\$4 OR glasses\$4 OR spectacles\$4 OR eyeglasses\$4) AND frame AND circuit AND control\$4 AND (memory\$4 OR storage\$4) AND battery\$4 AND connect\$4 AND communication\$4 AND (audio OR speaker\$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 09:41 AM
N260	7	((eyewear\$4 OR glasses\$4 OR spectacles\$4 OR eyeglasses\$4) AND frame AND circuit AND control\$4 AND (memory\$4 OR storage\$4) AND battery\$4 AND connect\$4 AND communication\$4 AND (audio OR speaker\$4) AND wireless\$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 10:52 AM
N261	5	((eyewear\$4 OR glasses\$4 OR spectacles\$4 OR eyeglasses\$4) AND frame AND circuit AND control\$4 AND (memory\$4 OR storage\$4) AND battery\$4 AND	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 10:52 AM

N262	5	connect\$4 AND communicat\$4 AND (audio OR speak\$4) AND wireless\$4 AND embed\$4).clm. ((eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND temple AND ((speaker\$2 OR audio) SAME (sound WITH guid\$4))).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 10:52 AM
N263	4	((eyewear\$4 OR glasses\$4 OR spetac\$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).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 11:40 AM
N264	4	((eyewear\$4 OR glasses\$4 OR spetac\$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	2023/08/21 11:41 AM
N265	3	((eyewear\$4 OR glasses\$4 OR spetac\$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	2023/08/21 11:41 AM

N266	0	((eyewear\$4 OR glasses\$4 OR spetac\$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	2023/08/21 12:44 PM
N267	0	((eyewear\$4 OR glasses\$4 OR spetac\$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.	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 12:44 PM
N268	0	((eyewear\$4 OR glasses\$4 OR spetac\$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	2023/08/21 12:44 PM
N269	0	((eyewear\$4 OR glasses\$4 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 01:37 PM

N270	0	spetac\$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. ((eyewear\$4 OR glasses\$4 OR spetac\$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.	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 01:37 PM
N271	0	((eyewear\$4 OR glasses\$4 OR spetac\$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	(US-PGPUB; USPAT)	OR	ON	ON	2023/08/21 01:37 PM

		AND right AND first AND second AND bridge AND partial\$4 AND impair\$4 AND compensat\$4 AND (amplif\$6 WITH customiz\$4)).clm.					
--	--	--	--	--	--	--	--

PE2E SEARCH - Search History (Similarity Search)

Ref #	Sort and Retrieval Information	Text Selections	CPC Selections
L1692	Sort results by: Similarity to Application # 17/949,029 Retrieve results by: Application # 17/949,029	No selections	No selections
L1693	Sort results by: Similarity to Application # 17/949,029 Retrieve results by: Application # 17/949,029	(Abstract) Techniques for providing wearable electronic devices with electrical components are disclosed. The electrical components can provide electrical technology to eyewear to facilitate audio support including enhanced hearing. The electrical components can operate independently or together with other electrical components provided elsewhere. The wearable electronic devices with electronic components can, for example, provide audio output, audio enhancements, or event-related audio content. (Claims) Eyewear configured to be worn on a head of a user and for at least providing customized audio output, the eyewear comprising: wherein the eyewear configured to provide the customized audio output signals to the first and second speakers of the eyewear, and wherein each of the first speaker and the second 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	No selections

		signals being provided thereto. the hearing impairment regarding the user's ability to hear, the eyewear configured to produce the customized audio output signal using at least signal amplification, (Claims) eyewear configured to be worn on a head of a user, the eyewear including at least (i) a front section, (ii) a first temple and a second temple, the first temple having a forward end and a rearward end, the forward end of the first temple being coupled to a first side of the front section, the second temple having a forward end and a rearward end, and the forward end of the second temple being coupled to a second side of the front section; (iii) a first speaker in the first temple; and (iv) a second speaker in the second temple; 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 customized audio output signals for the user based on at least the stored hearing profile associated with the user, such that the customized audio output signals are at least compensated for the hearing impairment regarding the user's ability to hear, the mobile communication device configured to produce the customized audio output signal using at least signal amplification, and the mobile communication device	
--	--	--	--

L1694	Sort results by: Similarity to Application # 17/949,029 Retrieve results by: Application # 17/949,029	configured to transmit the customized audio output signals to the eyewear, wherein the eyewear is configured to receive at least a portion of the customized audio output signals transmitted by the mobile communication device, and wherein each of the first speaker and the second speaker is configured to generate at least a portion of the customized audio output for the user in 1. (Previously Presented) A personal audio system operable to at least generate customized audio output, comprising: accordance with at least the portion of the customized audio output signals being received. (Abstract) Techniques for providing wearable electronic devices with electrical components are disclosed. The electrical components can provide electrical technology to eyewear to facilitate audio support including enhanced hearing. The electrical components can operate independently or together with other electrical components provided elsewhere. The wearable electronic devices with electronic components can, for example, provide audio output, audio enhancements, or event-related audio content. (Claims) Eyewear configured to be worn on a head of a user and for at least providing customized audio output, the eyewear comprising: wherein the eyewear configured to provide the customized audio output signals to the first and second speakers of the eyewear, and	(G02C11/06) Hearing aids (G02C5/143) Side-members having special ear pieces
-------	---	---	---

		wherein each of the first speaker and the second 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 provided thereto. the hearing impairment regarding the user's ability to hear, the eyewear configured to produce the customized audio output signal using at least signal amplification, (Claims) eyewear configured to be worn on a head of a user, the eyewear including at least (i) a front section, (ii) a first temple and a second temple, the first temple having a forward end and a rearward end, the forward end of the first temple being coupled to a first side of the front section, the second temple having a forward end and a rearward end, and the forward end of the second temple being coupled to a second side of the front section; (iii) a first speaker in the first temple; and (iv) a second speaker in the second temple; 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 customized audio output signals for the user based on at least the stored hearing profile associated with the user, such that the customized audio output signals are at	
--	--	--	--

L1695	Sort results by: Similarity to Application # 17/949,029 Retrieve results by: Application # 17/949,029	least compensated for the hearing impairment regarding the user's ability to hear, the mobile communication device configured to produce the customized audio output signal using at least signal amplification, and the mobile communication device configured to transmit the customized audio output signals to the eyewear, wherein the eyewear is configured to receive at least a portion of the customized audio output signals transmitted by the mobile communication device, and wherein each of the first speaker and the second speaker is configured to generate at least a portion of the customized audio output for the user in 1. (Previously Presented) A personal audio system operable to at least generate customized audio output, comprising: accordance with at least the portion of the customized audio output signals being received. (Abstract) Techniques for providing wearable electronic devices with electrical components are disclosed. The electrical components can provide electrical technology to eyewear to facilitate audio support including enhanced hearing. The electrical components can operate independently or together with other electrical components provided elsewhere. The wearable electronic devices with electronic components can, for example, provide audio output, audio enhancements, or event-related audio content. (Claims) Eyewear configured to be worn on a head of a user	(G02C11/10) Electronic devices other than hearing aids (G02C5/001) Constructions of non-optical parts specially adapted for particular purposes, not otherwise provided for or not fully classifiable according to technical characteristics, e.g. therapeutic glasses (G02C5/14) Side-members
-------	---	--	---

		and for at least providing customized audio output, the eyewear comprising: wherein the eyewear configured to provide the customized audio output signals to the first and second speakers of the eyewear, and wherein each of the first speaker and the second 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 provided thereto. the hearing impairment regarding the user's ability to hear, the eyewear configured to produce the customized audio output signal using at least signal amplification, (Claims) eyewear configured to be worn on a head of a user, the eyewear including at least (i) a front section, (ii) a first temple and a second temple, the first temple having a forward end and a rearward end, the forward end of the first temple being coupled to a first side of the front section, the second temple having a forward end and a rearward end, and the forward end of the second temple being coupled to a second side of the front section; (iii) a first speaker in the first temple; and (iv) a second speaker in the second temple; 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	
--	--	--	--

L1696	Sort results by: Similarity to Application # 17/949,029 Retrieve results by: Application # 17/949,029	the user's ability to hear, the mobile communication device configured to produce customized audio output signals for the user based on at least the stored hearing profile associated with the user, such that the customized audio output signals are at least compensated for the hearing impairment regarding the user's ability to hear, the mobile communication device configured to produce the customized audio output signal using at least signal amplification, and the mobile communication device configured to transmit the customized audio output signals to the eyewear, wherein the eyewear is configured to receive at least a portion of the customized audio output signals transmitted by the mobile communication device, and wherein each of the first speaker and the second speaker is configured to generate at least a portion of the customized audio output for the user in 1. (Previously Presented) A personal audio system operable to at least generate customized audio output, comprising: accordance with at least the portion of the customized audio output signals being received. (Abstract) Techniques for providing wearable electronic devices with electrical components are disclosed. The electrical components can provide electrical technology to eyewear to facilitate audio support including enhanced hearing. The electrical components can operate independently or together with other electrical components provided elsewhere. The	(G02C11/10) Electronic devices other than hearing aids (G02C5/001) Constructions of non-optical parts specially adapted for particular purposes, not otherwise provided for or not fully classifiable according to technical characteristics, e.g. therapeutic glasses (G02C5/14) Side-members (G02C5/143) Side-members having special ear pieces
-------	---	--	---

		wearable electronic devices with electronic components can, for example, provide audio output, audio enhancements, or event-related audio content. (Claims) Eyewear configured to be worn on a head of a user and for at least providing customized audio output, the eyewear comprising: wherein the eyewear configured to provide the customized audio output signals to the first and second speakers of the eyewear, and wherein each of the first speaker and the second 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 provided thereto. the hearing impairment regarding the user's ability to hear, the eyewear configured to produce the customized audio output signal using at least signal amplification, (Claims) eyewear configured to be worn on a head of a user, the eyewear including at least (i) a front section, (ii) a first temple and a second temple, the first temple having a forward end and a rearward end, the forward end of the first temple being coupled to a first side of the front section, the second temple having a forward end and a rearward end, and the forward end of the second temple being coupled to a second side of the front section; (iii) a first speaker in the first temple; and (iv) a second speaker in the second temple; and a mobile communication	(G02C11/06) Hearing aids
--	--	---	--------------------------

L1697	Sort results by: Similarity to Application # 17/949,029	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 customized audio output signals for the user based on at least the stored hearing profile associated with the user, such that the customized audio output signals are at least compensated for the hearing impairment regarding the user's ability to hear, the mobile communication device configured to produce the customized audio output signal using at least signal amplification, and the mobile communication device configured to transmit the customized audio output signals to the eyewear, wherein the eyewear is configured to receive at least a portion of the customized audio output signals transmitted by the mobile communication device, and wherein each of the first speaker and the second speaker is configured to generate at least a portion of the customized audio output for the user in 1. (Previously Presented) A personal audio system operable to at least generate customized audio output, comprising: accordance with at least the portion of the customized audio output signals being received. (Abstract) Techniques for providing wearable electronic devices with electrical	(G02C11/10) Electronic devices other than hearing aids
-------	---	--	--

	Retrieve results by: Application # 17/949,029	components are disclosed. The electrical components can provide electrical technology to eyewear to facilitate audio support including enhanced hearing. The electrical components can operate independently or together with other electrical components provided elsewhere. The wearable electronic devices with electronic components can, for example, provide audio output, audio enhancements, or event-related audio content. (Claims) Eyewear configured to be worn on a head of a user and for at least providing customized audio output, the eyewear comprising: wherein the eyewear configured to provide the customized audio output signals to the first and second speakers of the eyewear, and wherein each of the first speaker and the second 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 provided thereto. the hearing impairment regarding the user's ability to hear, the eyewear configured to produce the customized audio output signal using at least signal amplification,	(G02C5/001) Constructions of non-optical parts specially adapted for particular purposes, not otherwise provided for or not fully classifiable according to technical characteristics, e.g. therapeutic glasses (G02C5/14) Side-members (G02C5/143) Side-members having special ear pieces (G02C11/06) Hearing aids
--	--	---	---



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/144,557	05/08/2023	Thomas A. Howell	IPVCP003C11	1712
34071	7590	08/23/2023	EXAMINER	
IPVENTURE, INC. 4010 Moorpark Avenue Suite 211 San Jose, CA 95117			LEI, JIE	
			ART UNIT	PAPER NUMBER
			2872	
			MAIL DATE	DELIVERY MODE
			08/23/2023	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.

Office Action Summary	Application No. 18/144,557	Applicant(s) Howell et al.	
	Examiner JIE LEI	Art Unit 2872	AIA (FITF) Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/1/2023.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) ☒ Claim(s) 1-5 is/are pending in the application.
5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-5 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 5/8/2023 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) ☐ All b) ☐ Some** c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date 6/1/2023, 5/19/2023, 5/8/2023.
- 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 4) ☐ Other: ____.

DETAILED ACTION

1. The present application is being examined under the pre-AIA first to invent provisions.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 6/1/2023, 5/19/2023 and 5/8/2023 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements have been considered by the examiner.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specifications shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-5** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the term of “....stored hearing characteristics...” (line 8-9) is vague and renders the claims indefinite. Claim does not cite any element for storing data, so it is unclear that where the “....stored hearing characteristics...” is stored, in the controller or in the mobile communication device?

Claim 2 is rejected as containing the deficiencies of claim 1 through its dependency from claim 1.

Claim 3 has the same undefined issue (line 6) as that of claim 1.

Claim 4 is rejected as containing the deficiencies of claim 3 through its dependency from claim 3.

Regarding claim 5, claim 5 is rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

It is noted that the features upon which applicant relies (i.e., for examples, system structures, method steps) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Therefore proper amendments are required in order to clarify the scopes of the claims and overcome the rejections.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the claims at issue are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the reference application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit <http://www.uspto.gov/forms/>. The filing date of the application will determine what form should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more

information about eTerminal Disclaimers, refer to

<http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-Lisp>.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. **Claims 1-4** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1- 3 of US Patent Application No. 17949029 of Howell et al (US 20230017635). Although the claims of instant invention and patent Application No. 17949029 are not identical, they are not patentably distinct from each other because the limitations of the claims of that of the present invention are disclosed in the respective claims of patent Application No. 17949029 and are therefore anticipated by said claims. This is a provisional nonstatutory double patenting rejection because the patentably indistinct claims have not in fact been patented.

7. **Claims 1-4** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 5, 24 and 27-29 of US patent US 11644693. Although the claims at issue are not identical, they are not patentably distinct from each other because the limitations of the claims of that of the present invention are disclosed in the respective claims of US 11644693 and are therefore anticipated by said

claims. This is a non-provisional, obviousness-type double patenting rejection because the conflicting claims have in fact been patented.

Examiner's Note

8. Regarding the references, the Examiner cites particular figures, paragraphs, columns and line numbers in the reference(s), as applied to the claims above.

Although the particular citations are representative teachings and are applied to specific limitations within the claims, other passages, internally cited references, and figures may also apply. In preparing a response, it is respectfully requested that the Applicant fully consider the references, in their entirety, as potentially disclosing or teaching all or part of the claimed invention, as well as fully consider the context of the passage as taught by the reference(s) or as disclosed by the Examiner.

Conclusion

9. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure:

(a) Swab et al (US 20040000733) is cited for the teaching a personal audio system operable to at least generate customized audio output (abstract; fig. 1 and fig. 8), comprising: eyewear configured to be worn on a head of a user (fig. 1 and fig. 8), the eyewear including at least a first speaker and a second speaker (fig. 8); a mobile communication device at least for supporting audio output (figs. 1 and 8), the mobile communication device configured to store at least a hearing profile associated with the user, the mobile communication device producing audio output signals customized for

the user based on at least the stored hearing profile associated with the user (§[0043], line 1-26; §[0046], line 1-21), and the mobile communication device configure to transmit the customized audio output signals to the eyewear (fig. 4; figs.8-10), wherein the eyewear is configured to receive at least a portion of the customized audio output signals transmitted by the mobile communication device (fig. 4; (§[0043], line 1-26), and wherein each of the first speaker and the second 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 (figs. 3-4 and 8-10).

10. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Jie Lei whose telephone number is (571) 272 7231. The examiner can normally be reached on Mon.-Thurs. 8:00 am to 5:30 pm.

11. If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, Thomas Pham can be reached on (571) 272 3689. The Fax number for the organization where this application is assigned is (571) 273 8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Application/Control Number: 18/144,557
Art Unit: 2872

Page 8

Customer Services Representative or access to the automated information system, call
800-786-9199(In USA or Canada) or 571-272-1000.

/JIE LEI/
Primary Examiner, Art Unit 2872



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
18/144,557	05/08/2023	Thomas A. Howell	IPVCP003C11

CONFIRMATION NO. 1712

34071
IPVENTURE, INC.
4010 Moorpark Avenue
Suite 211
San Jose, CA 95117

PUBLICATION NOTICE



OC000000061333489

Date Mailed: 08/31/2023

Title:HEAD-WORN PERSONAL AUDIO APPARATUS SUPPORTING ENHANCED HEARING SUPPORT

Publication No.US-2023-0273464-A1

Publication Date:08/31/2023

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <https://portal.uspto.gov/pair/PublicPair>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 18/144,557		Filing Date 05/08/2023		☐ To be Mailed			
ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO											
APPLICATION AS FILED - PART I											
		(Column 1)		(Column 2)							
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)			
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A					
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))		N/A		N/A		N/A					
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A		N/A		N/A					
TOTAL CLAIMS (37 CFR 1.16(j))		minus 20 =		*		x \$100 =					
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =		*		x \$480 =					
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))											
* If the difference in column 1 is less than zero, enter "0" in column 2.						TOTAL					
APPLICATION AS AMENDED - PART II											
		(Column 1)		(Column 2)		(Column 3)					
AMENDMENT	11/14/2023	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(j))	* 86	Minus	** 20	= 66		x \$100 =		6600		
	Independent (37 CFR 1.16(h))	* 4	Minus	*** 3	= 1		x \$480 =		480		
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
								TOTAL ADD'L FEE		7080	
		(Column 1)		(Column 2)		(Column 3)					
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(j))	*	Minus	**	=		x \$0 =				
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x \$0 =				
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
								TOTAL ADD'L FEE			
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.								SLIE			
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".								/AMANDA CHRISTINE LEMUS/			
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".											
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.											

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Doc Code: DIST.E.FILE Document Description: Electronic Terminal Disclaimer - Filed		PTO/SB/25 PTO/SB/26 U.S. Patent and Trademark Office Department of Commerce
Electronic Petition Request	TERMINAL DISCLAIMER TO OBVIATE A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION AND TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT	
Application Number	18144557	
Filing Date	08-May-2023	
First Named Inventor	Thomas Howell	
Attorney Docket Number	IPVCP003C11	
Title of Invention	HEAD-WORN PERSONAL AUDIO APPARATUS SUPPORTING ENHANCED HEARING SUPPORT	
☒ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action ☒ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.		
Owner	Percent Interest	
IngenioSpec, LLC	100 %	
The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number(s)		
17949029 filed on 09/20/2022 as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns. In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that any such patent granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.		
The owner(s) with percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent number(s)		

11644693

as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later:

- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

☒ Terminal disclaimer fee under 37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request.

☐ I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.

Applicants claims the following fee status:

☐ Small Entity

☐ Micro Entity

☒ Regular Undiscounted

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES

I certify, in accordance with 37 CFR 1.4(d)(4) that I am:

☒ An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application

Registration Number 32947

☐ A sole inventor

☐ A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application

☐ A joint inventor; all of whom are signing this request

Signature

/C. Douglass Thomas/

Name

C. Douglass Thomas

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Patent Application Fee Transmittal				
Application Number:		18144557		
Filing Date:		08-May-2023		
Title of Invention:		HEAD-WORN PERSONAL AUDIO APPARATUS SUPPORTING ENHANCED HEARING SUPPORT		
First Named Inventor/Applicant Name:		Thomas A. Howell		
Filer:		Peter P. Tong/Angela Nijim		
Attorney Docket Number:		IPVCP003C11		
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
STATUTORY OR TERMINAL DISCLAIMER	1814	1	170	170
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				170

Doc Code: DISQ.E.FILE
Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 18144557

Filing Date: 08-May-2023

Applicant/Patent under Reexamination: Howell

Electronic Terminal Disclaimer filed on November 14, 2023

☒ APPROVED

This patent is subject to a terminal disclaimer

☐ DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

Electronic Acknowledgement Receipt	
EFS ID:	48827191
Application Number:	18144557
International Application Number:	
Confirmation Number:	1712
Title of Invention:	HEAD-WORN PERSONAL AUDIO APPARATUS SUPPORTING ENHANCED HEARING SUPPORT
First Named Inventor/Applicant Name:	Thomas A. Howell
Customer Number:	34071
Filer:	Peter P. Tong/Angela Nijim
Filer Authorized By:	Peter P. Tong
Attorney Docket Number:	IPVCP003C11
Receipt Date:	14-NOV-2023
Filing Date:	08-MAY-2023
Time Stamp:	22:38:49
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$170
RAM confirmation Number	E2023ADM38479611
Deposit Account	503874
Authorized User	Angela Nijim
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.21 (Miscellaneous fees and charges)	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer-Filed (Electronic)	eTerminal-Disclaimer.pdf	46020	no	3
			969577620a3c76c00dd7c2374774315f4089422b		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	37855	no	2
			22b50bca5387c6c0d0e144bd2110649c1d5687e3		
Warnings:					
Information:					
Total Files Size (in bytes):			83875		
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. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVCP003C11
	Application No.:	18/144,557
	Applicant	HOWELL et al.
	Filing Date	May 8, 2023
	Group	2872
		Page 1 of 2

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	1.	2002/0146097 A1	Oct-02	Vuori			
	2.	2003/0045283 A1	Mar-03	Hagadoorn			
	3.	2003/0063763 A1	Apr-03	Allred et al.			
	4.	2005/0090295 A1	Apr-05	Ali et al.			
	5.	2017/0289323 A1	Oct-17	Gelvin et al.			
	6.	2019/0117121 A1	Apr-19	Kutina et al.			
	7.	2021/0399691 A1	Dec-21	SAMINATHAN et al.			
	8.	2022/0260859 A1	Aug-22	Howell et al.			
	9.	2022/0415338 A1	Dec-22	Howell et al.			
	10.	2023/0017635 A1	Jan-23	Howell et al.			
	11.	2023/0236444 A1	Jul-23	Howell et al.			
	12.	2023/0359266 A1	Nov-23	Howell et al.			
	13.	5,790,311	Aug-98	Togino			
	14.	7,430,299 B2	Sep-08	Armstrong et al.			
	15.	7,787,647 B2	Aug-10	Hagen et al.			
	16.	8,009,849 B2	Aug-11	Enzmann			
	17.	8,175,886 B2	May-12	Odinak			
	18.	8,251,875 B2	Aug-12	Ellis et al.			
	19.	8,571,241 B2	Oct-13	Larsen			
	20.	8,620,208 B2	Dec-13	Slotznick			
	21.	8,626,246 B2	Jan-14	Shostak			
	22.	9,183,351 B2	Nov-15	Shusterman			
	23.	9,369,814 B2	Jun-16	Victorian et al.			
	24.	11,721,183 B2	Aug-23	Howell et al.			
	25.	11,733,549 B2	Aug-23	Howell et al.			
	26.	11,762,224 B2	Sep-23	Howell et al.			
	27.	11,803,069 B2	Oct-23	Howell et al.			
	28.	11,829,518 B2	Nov-23	Howell et al.			
Examiner				Date Considered			

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVCP003C11
	Application No.:	18/144,557
	Applicant	HOWELL et al.
	Filing Date	May 8, 2023
	Group	2872
		Page 2 of 2

Foreign Documents								
Init.		Document No.	Date	Country	Class	Subclass	Translation	
							Yes	No
Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)								
	A	Notice of Allowance for U.S. Patent Application No. 17/484,080, dated June 1, 2023.						
	B	Notice of Allowance for U.S. Patent Application No. 17/949,029, dated July 3, 2023.						
	C	Notice of Allowance for U.S. Patent Application No. 17/949,029, dated October 30, 2023.						
	D	Office Action for U.S. Patent Application No. 17/873,104, dated November 4, 2022.						
	E	Notice of Allowance for U.S. Patent Application No. 16/182,969, dated June 30, 2023.						
	F	Notice of Allowance for U.S. Patent Application No 17/942,347, dated July 3, 2023.						
	G	Notice of Allowance for U.S. Patent Application No. 17/942,347, dated August 14, 2023.						
	H	Office Action for U.S. Patent Application No. 17/964,853, dated September 15, 2023.						
	I	Office Action for U.S. Patent Application No. 18/129,660, dated July 7, 2023.						
	J	Notice of Allowance for U.S. Patent Application No. 18/129,660, dated August 24, 2023.						
	K	Office Action for U.S. Patent Application No. 18/224,793, dated September 7, 2023.						
	L	Notice of Allowance for U.S. Patent Application No. 18/224,793, dated October 2, 2023.						

Examiner	Date Considered
----------	-----------------

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Electronic Patent Application Fee Transmittal				
Application Number:		18144557		
Filing Date:		08-May-2023		
Title of Invention:		HEAD-WORN PERSONAL AUDIO APPARATUS SUPPORTING ENHANCED HEARING SUPPORT		
First Named Inventor/Applicant Name:		Thomas A. Howell		
Filer:		Peter P. Tong/Angela Nijim		
Attorney Docket Number:		IPVCP003C11		
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
CLAIMS IN EXCESS OF 20	1202	66	100	6600
INDEPENDENT CLAIMS IN EXCESS OF 3	1201	1	480	480
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	260	260
Total in USD (\$)				7340

Electronic Acknowledgement Receipt	
EFS ID:	48827297
Application Number:	18144557
International Application Number:	
Confirmation Number:	1712
Title of Invention:	HEAD-WORN PERSONAL AUDIO APPARATUS SUPPORTING ENHANCED HEARING SUPPORT
First Named Inventor/Applicant Name:	Thomas A. Howell
Customer Number:	34071
Filer:	Peter P. Tong/Angela Nijim
Filer Authorized By:	Peter P. Tong
Attorney Docket Number:	IPVCP003C11
Receipt Date:	14-NOV-2023
Filing Date:	08-MAY-2023
Time Stamp:	22:42:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$7340
RAM confirmation Number	E2023ADM43259906
Deposit Account	503874
Authorized User	Angela Nijim
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.21 (Miscellaneous fees and charges)	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	IPVCP003C11_AmdATrans_11-23.pdf	16621	no	1
			490638c3594fb5179f6f783bcb494ae949fa7cb		
Warnings:					
Information:					
2	Transmittal Letter	IPVCP003C11_IDSTrans_11-23.pdf	19713	no	2
			a97d06650fb9ace3821cc70f176831a12714d58		
Warnings:					
Information:					
3	Information Disclosure Statement (IDS) Form (SB08)	IPVCP003C11_1449_11-23.pdf	28439	no	2
			ea2682fa25969ba7bf54cfaac2336497af6dd2		
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
4	Amendment/Request for Reconsideration-After Non-Final Rejection	IPVCP003C11_AmdA_AsFiled_11-23.pdf	120274	no	29
			cf062fd61d72b9fae94dbdacdafed955833581		
Warnings:					
Information:					
5	Fee Worksheet (SB06)	fee-info.pdf	42536	no	2
			663bc5d9b53572d2167364eac20070d8db82f5a		
Warnings:					
Information:					
Total Files Size (in bytes):			227583		

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 a 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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: HOWELL et al.

Attorney Docket No.: IPVCP003C11

Application No.: 18/144,557

Examiner: LEI, JIE

Filed: May 8 2023

Group: 2872

Title: HEAD-WORN PERSONAL AUDIO
APPARATUS SUPPORTING ENHANCED
HEARING SUPPORT

AMENDMENT A 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	86	MINUS	20	66	x 40 =	x 100 = 6600
Independent Claims	4	MINUS	3	01	x 192 =	x 480 = 480
Multiple Dependent Claim Present and Fee Not Previously Paid					\$	\$
Total					\$0.00	\$7,080

- ☐ 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. IPVCP003C11).
- ☒ 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. IPVCP003C11).

Respectfully submitted,

/C. Douglass Thomas/

C. Douglass Thomas
Reg. No. 32,947

Appln. No. 18/144,557

Atty. Docket No. IPVCP003C11

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: HOWELL et al.

Attorney Docket No.: IPVCP003C11

Application No.: 18/144,557

Examiner: LIE, JIE

Filed: May 8, 2023

Group: 2872

Title: HEAD-WORN PERSONAL
AUDIO APPARATUS SUPPORTING
ENHANCED HEARING SUPPORT

**INFORMATION DISCLOSURE STATEMENT
BEFORE FINAL ACTION OR NOTICE OF ALLOWANCE
(37 CFR §§ 1.56 AND 1.97(c))**

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

Dear Sir:

The references listed in the attached PTO Form 1449, a copy of which is attached, may be material to examination of the above-identified patent application. Applicants submit this reference in compliance with their duty of disclosure pursuant to 37 CFR §§1.56 and 1.97. The Examiner is requested to make this citation of official record in this application.

This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that this reference indeed constitutes prior art.

This Information Disclosure Statement is being filed after the mailing date of the first Office Action on the merits, or after three months of the filing date of this application, whichever event occurred last, but it is believed before the mailing date

of either: (i) a final action under §1.113 or (ii) a notice of allowance under §1.311, whichever occurs first.

Accompanying this Information Disclosure Statement is

- ☐ a statement as specified in 37 CFR 1.97(e); or
- ☒ the fee set forth in 37 CFR 1.17(p).

Electronic Fee in payment of the Information Disclosure Statement Fee is provided herewith. If it is determined that any additional fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 50-3874 (Order No. IPVCP003C11).

Respectfully submitted,

/C. Douglass Thomas/

C. Douglass Thomas
Registration No. 32,947

4010 Moorpark Avenue
Suite 211
San Jose, CA 95117

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: HOWELL et al.

Attorney Docket No.: IPVCP003C11

Application No.: 18/144,557

Examiner: LEI, JIE

Filed: May 8, 2023

Group: 2872

Title: HEAD-WORN PERSONAL
AUDIO APPARATUS SUPPORTING
ENHANCED HEARING SUPPORT

AMENDMENT A

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

Dear Sir:

In response to the Office Action dated August 23, 2023, please amend the above-identified patent application as follows:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 4 of this paper.

Remarks/Arguments begin on page 28 of this paper.

AMENDMENTS TO THE SPECIFICATION:

Please **INSERT** paragraphs [0004.1] and [0004.1] as follows into the Specification between paragraphs [0004] and [0005] as follows:

- -

[0004.1] Typically, to participate in wireless communications, a user holds a mobile phone (e.g., wireless or a cellular phone) against his ear to hear an audio communication received in a wireless manner. The user usually also speaks towards a microphone embedded in the mobile phone to participate in the audio communication, again in a wireless manner. More recently, to facilitate hands-free operation of mobile phones, head-sets have been produced and utilized. Typically, a headset clips over or into an ear of the user to provide a speaker and a microphone in proximity to the ear and the mouth, respectively, of the user. Traditionally, the head-set was connected to the mobile phone by a cord (i.e., wire). In recent times, head-sets have been developed to operate in a wireless manner, without the need of a cord connected to the mobile phone. For example, one popular type of wireless head-set uses Bluetooth wireless transmissions to communicate between the head-set and the corresponding mobile phone.

[0004.2] Mobile phones often support both voice calls and text messaging. When the user does not make use of a head-set, the user often holds the mobile phone against their ear when participating in a voice call. One problem this presents is that the user is not able to see the screen of the mobile phone. As a result, the user has difficulty interacting with the keypad or screen of the mobile phone when the mobile phone is held against the user's head. Alternatively, when the user of a mobile phone makes use of a head-set, the user can receive and participate in voice calls in a hands-free manner. Unfortunately, however, the user would need to view a screen of the mobile phone to participate in text messaging.

- -

Please **AMEND** paragraph **[0005]** of the Specification as follows:

- -

[0005] Accordingly, there remains a need for improved approaches to facilitate use of electrical components or wireless communication with wearable electronic devices ~~eyewear~~.

- -

AMENDMENTS TO THE CLAIMS:

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

Listing of Claims:

1. (Currently Amended) A head-worn personal electronic ~~audio~~ apparatus operable to at least output customized audio output, comprising:

at least one speaker ~~a pair of speakers, each of the at least one speaker~~ speakers being configured to be wearable proximate to an ear of a user;

a wireless receiver configured to wirelessly receive audio output signals to be output to the user via the at least one speaker ~~pair of speakers~~; and

electronic circuitry including at least an integrated circuit, the electronic circuitry being a controller configured to (i) store hearing characteristics associated with the user; (ii) [(i)] 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 the hearing impairment regarding the user's ability to hear; and (iii) [(ii)] output the customized audio output signals to the at least one speaker ~~pair of speakers~~,

wherein the at least one speaker ~~each of the speakers~~ 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~~.

2. (Currently Amended) A head-worn personal electronic ~~audio~~ apparatus as recited in claim 1, wherein the received audio output signals are wirelessly received from a mobile communication device associated with the user.

3. (Currently Amended) A head-worn personal electronic ~~audio~~ apparatus operable to at least output customized audio output, comprising:

at least one speaker ~~a pair of speakers, each of the~~ at least one speaker ~~speakers~~ being configured to be wearable proximate to an ear of a user;

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 ~~stored~~ hearing characteristics 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

electronic circuitry including at least an integrated circuit, the electronic circuitry being ~~a controller~~ configured to output the customized audio output signals to the at least one speaker ~~pair of speakers~~,

wherein the at least one speaker ~~each of the speakers~~ 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.

4. (Currently Amended) A head-worn personal electronic ~~audio~~ apparatus as recited in claim 3, wherein the ~~received~~ customized audio output signals are wirelessly received from a mobile communication device associated with the user.

5. (Canceled).

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

a touch sensitive surface at least partially contained within the head-worn personal electronic apparatus and configured to sense a touch input associated with the user, wherein the sensed touch input operating to at least alter operation of the head-worn electronic personal audio apparatus.

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

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

8. (New) A head-worn personal electronic apparatus recited in claim 6, wherein head-worn personal electronic apparatus is configured to support audio output to the user, and

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

9. (New) A head-worn personal electronic apparatus as recited in claim 6, wherein the head-worn personal electronic apparatus is configured to distinguish at least a direction of the user input with respect to the touch sensitive surface.

10. (New) A head-worn personal electronic apparatus as recited in claim 6, wherein the head-worn personal electronic apparatus is configured to detect at least a sliding of a finger action with respect to the touch sensitive surface.

11. (New) A head-worn personal electronic apparatus as recited in claim 6, wherein the head-worn personal electronic apparatus is configured to facilitate determination at least whether the user input pertains to a forward sliding action or a backward sliding action with respect to the touch sensitive surface.

12. (New) A head-worn personal electronic apparatus as recited in claim 6, wherein the head-worn personal electronic apparatus comprises:

a sensor at least partially contained within the head-worn personal electronic structure and configured to sense data indicative of whether the head-worn personal electronic apparatus is being worn by the user.

13. (New) A head-worn personal electronic apparatus as recited in claim 12, 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 sensed data from the sensor.

14. (New) A head-worn personal electronic apparatus as recited in claim 13, wherein head-worn personal electronic apparatus is configured to support audio output to the user, and

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

15. (New) A head-worn personal electronic apparatus as recited in claim 13, wherein the operation of the head-worn personal electronic apparatus being altered concerns operation of the head-worn personal electronic apparatus in a lower power operation.

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

a first microphone configured to pick up at least audio input from at least the user, the first microphone being at least partially in the head-worn personal electronic apparatus and is positioned to be directed towards the user when the head-worn personal electronic apparatus is being worn by the user; and

a second microphone 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 wearable electronic device is being worn by the user.

17. (New) A head-worn personal electronic apparatus as recited in claim 16, wherein the electronic circuitry is configured to:

determine an ambient sound level; and

modify audio output to the at least one speaker dependent at least in part on the ambient sound level.

18. (New) A head-worn personal electronic apparatus as recited in claim 16, wherein the electronic circuitry is configured to:

produce an ambient audio output signal based on at least the ambient sound input; and

provide at least the ambient audio output signal to the at least one speaker.

19. (New) A head-worn personal electronic apparatus as recited in claim 18, wherein the electronic circuitry is configured to:

determine an ambient noise level based on at least the ambient sound input,

wherein the ambient audio output signal is dependent on the ambient noise level.

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

a first microphone configured to pick up at least audio input from at least the user, the first microphone being at least partially in the head-worn personal electronic apparatus; and

a second microphone 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 at least partially in the head-worn personal electronic apparatus,

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

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

a first microphone; and

a second microphone;

wherein the first microphone is configured to pick up at least audio input from at least the user,

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 wearable electronic device, 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.

22. (New) A head-worn personal electronic apparatus as recited in claim 21,

wherein the audio input from at least the user picked-up via the first microphone includes at least a voice input, and

wherein the environmental audio input associated with the environment includes at least ambient noise.

23. (New) A head-worn personal electronic apparatus as recited in claim 21,

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

wherein the second microphone is at least partially in the head-worn personal electronic apparatus and is positioned so as to be directed away from the user of the head-worn personal electronic apparatus.

24. (New) A head-worn personal electronic apparatus as recited in claim 23,

wherein the audio input from at least the user includes at least a voice input, and

wherein the environmental audio input includes at least ambient noise.

25. (New) A head-worn personal electronic apparatus as recited in claim 3,
wherein the head-worn wearable electronic device comprises:
a first microphone configured to pick up at least audio input from at least the user; and
a second microphone configured to pickup at least environmental audio input associated with environmental sound in the vicinity of the head-worn personal electronic apparatus, and
wherein the electronic circuitry is configured to:
determine an environmental sound level based on at least the environmental audio input; and
amplify at least a portion of the audio input from the first microphone, with the amplification being at least in part dependent on the environmental sound level.
26. (New) A head-worn personal electronic apparatus as recited in claim 3,
wherein the head-worn wearable electronic device comprises at least a first microphone and a second microphone,
wherein the first microphone is configured to pick up at least audio sound from at least the user,
wherein the second microphone is configured to pick up at least ambient noise associated with an environment in the vicinity of the head-worn wearable electronic device, 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 sound picked-up via the first microphone, with the modification being at least in part dependent on the ambient noise level.

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

a first microphone configured to receive audio picked-up from the user; and

a second microphone configured to receive audio picked-up outward away from the user,

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

28. (New) A head-worn personal electronic apparatus as recited in claim 3, wherein the head-worn personal electronic apparatus:

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 radiation reflected back from the user when at least the head-worn personal electronic apparatus of the head-worn personal electronic apparatus is being worn,

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

29. (New) A head-worn personal electronic apparatus as recited in claim 28, wherein the detected radiation is at least infrared radiation.

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

a radiation detector configured to capture radiation data,

wherein the electronic circuitry is configured to process at least the radiation data captured by the radiation detector.

31. (New) A head-worn personal electronic apparatus as recited in claim 30, wherein the electronic circuitry is configured to determine whether the head-worn personal electronic apparatus is being worn by a user based on at least the processed radiation data.

32. (New) A head-worn personal electronic apparatus as recited in claim 31, wherein the radiation detector comprises a photodetector.

33. (New) A head-worn personal electronic apparatus as recited in claim 3, wherein the head-worn personal electronic apparatus includes a force sensor configured to receive a user input based at least on sensing force applied to the force sensor.

34. (New) A head-worn personal electronic apparatus as recited in claim 33, wherein the force sensor is configured to detect the user input, the detected user input operating to alter at least an operation of the head-worn wearable electronic device.

35. (New) A head-worn personal electronic apparatus as recited in claim 34, wherein the head-worn personal electronic apparatus is configured to support audio output to the user, and

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

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

a light detector configured to capture light data, the light detector being electrically connected to the electronic circuitry, and the electronic circuitry being configured to process at least the light data captured by the light detector.

37. (New) A head-worn personal electronic apparatus as recited in claim 36, wherein the light detector comprises a photodetector.

38. (New) A head-worn personal electronic apparatus as recited in claim 3, wherein the head-worn personal electronic apparatus is configured to provide audio alerts to the user via the at least one speaker.

39. (New) A head-worn personal electronic apparatus as recited in claim 38, wherein the audio alerts are dependent on one or more user preference settings.

40. (New) A head-worn personal electronic apparatus as recited in claim 3, wherein the at least one speaker is configured to be at least partially inserted into an ear of the user.

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

a microphone at least partially internal to the head-worn personal electronic apparatus,

wherein the head-worn personal electronic device is configured to receive a voice input via the microphone, determine a requested operation from the voice input using voice recognition, and control an operation by the head-worn personal electronic device based on the requested operation.

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

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

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

a bone conducting element at least partially contained within the head-worn personal electronic apparatus and configured to operate in accordance with acoustic characteristics.

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

an array of microphones configured for directional audio pickup.

45. (New) A head-worn personal electronic apparatus as recited in claim 3, wherein the customized audio output includes music that was wirelessly received via the wireless receiver.

46. (New) A head-worn personal electronic apparatus as recited in claim 3, 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.

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

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

a second microphone at least partially contained within the head-worn personal electronic apparatus, the second microphone being positioned to pick up

at least environmental audio input associated with an environment around the head-worn personal electronic apparatus,

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.

48. (New) A head-worn personal electronic apparatus as recited in claim 47, wherein the head-worn personal electronic apparatus comprises:

a user input device supported by the head-worn personal electronic apparatus, the user input device being configured to receive a user input, the user input device is based on at least capacitive effect, wherein the user input being received induces at least a capacitive change to produce at least an electrical response.

49. (New) A head-worn personal electronic apparatus as recited in claim 48, wherein the electronic circuitry is electrically connected to the user input device to receive user input data from the user input device, and wherein the head-worn personal electronic apparatus is configured to distinguish at least whether the user input pertains to a forward sliding action or a backward sliding action with respect to the user input device using at least the electronic circuitry and the user input data.

50. (New) A head-worn personal electronic apparatus as recited in claim 48, wherein the head-worn wearable electronic device includes an accelerometer.

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

a radiation sensor, operatively connected to the rechargeable battery, at least partially contained within the head-worn personal electronic apparatus and configured to sense radiation.

52. (New) A head-worn personal electronic apparatus operable to at least output customized audio output, comprising:

at least one speaker, the at least one speaker being configured to be wearable proximate to an ear of a user;

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 the hearing impairment regarding the user's ability to hear;

electronic circuitry including at least an integrated circuit, the electronic circuitry being configured to output the customized audio output signals to the at least one speaker;

a touch sensitive surface at least partially contained within the head-worn personal electronic apparatus and configured to sense a touch input associated with the user, wherein the sensed touch input operating to at least alter operation of the head-worn electronic personal audio apparatus;

a sensor at least partially contained within the head-worn personal electronic structure and configured to sense data indicative of whether the head-worn personal electronic apparatus is being worn by the user, 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 sensed data from the sensor;

a first microphone configured to pick up at least audio input from at least the user, the first microphone being at least partially in the head-worn personal electronic apparatus and is positioned to be directed towards the user when the head-worn personal electronic apparatus is being worn by the user; and

a second microphone 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 wearable electronic device is being worn by the user,

wherein the at least one 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.

53. (New) A head-worn personal electronic apparatus as recited in claim 52, wherein the head-worn personal electronic apparatus comprises:

a radiation detector configured to capture radiation data,

wherein the electronic circuitry is configured to process at least the radiation data captured by the radiation detector, and configured to determine whether the head-worn personal electronic apparatus is being worn by a user based on at least the processed radiation data.

54. (New) A head-worn personal electronic apparatus as recited in claim 52, wherein the head-worn personal electronic apparatus wherein the head-worn personal electronic device is configured to receive a voice input via the first microphone, determine a requested operation from the voice input using voice recognition, and control an operation by the head-worn personal electronic device based on the requested operation.

55. (New) A head-worn personal electronic apparatus as recited in claim 52, 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 ambient sound input picked-up via the second microphone.

56. (New) A head-worn personal electronic apparatus as recited in claim 52, wherein the ambient sound picked-up from at least the second microphone is used at least for noise cancelation, and at least a portion of the ambient sound picked-up from the second microphone is subtracted from the audio picked-up from the first microphone.

57. (New) A head-worn personal electronic apparatus as recited in claim 52, wherein the electronic circuitry is configured to:

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

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

58. (New) A head-worn personal electronic apparatus as recited in claim 52, wherein head-worn personal electronic apparatus is configured to support voice calls to the user, and

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

59. (New) A head-worn personal electronic apparatus recited in claim 52, wherein head-worn personal electronic apparatus is configured to support audio output to the user, and

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

60. (New) A head-worn personal electronic apparatus as recited in claim 52, wherein the head-worn personal electronic apparatus comprises:

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

61. (New) A head-worn personal electronic apparatus as recited in claim 52, wherein the head-worn personal electronic apparatus comprises:

a bone conducting element at least partially contained within the head-worn personal electronic apparatus and configured to operate in accordance with acoustic characteristics.

62. (New) A head-worn personal electronic apparatus as recited in claim 52, wherein the electronic circuitry is configured to:

produce an ambient audio output signal based on at least the ambient sound input; and

provide at least the ambient audio output signal to the at least one speaker.

63. (New) A head-worn personal electronic apparatus as recited in claim 62, wherein the electronic circuitry is configured to:

determine an ambient noise level based on at least the ambient sound input,

wherein the ambient audio output signal is dependent on the ambient noise level.

64. (New) A head-worn personal electronic apparatus operable to at least output customized audio output, comprising:

at least one speaker, the at least one speaker being configured to be wearable proximate to an ear of a user;

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 the hearing impairment regarding the user's ability to hear;

electronic circuitry including at least an integrated circuit, the electronic circuitry being configured to output the customized audio output signals to the at least one speaker;

a force sensor at least partially contained within the head-worn personal electronic apparatus and configured to receive a user input based at least on sensing force applied to the force sensor, the force sensor is configured to detect the user input, the detected user input operating to alter at least an operation of the head-worn wearable electronic device;

a sensor at least partially contained within the head-worn personal electronic structure and configured to sense data indicative of whether the head-worn personal electronic apparatus is being worn by the user, 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 sensed data from the sensor;

a first microphone configured to pick up at least audio input from at least the user, the first microphone being at least partially in the head-worn personal electronic apparatus and is positioned to be directed towards the user when the head-worn personal electronic apparatus is being worn by the user; and

a second microphone 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 wearable electronic device is being worn by the user,

wherein the at least one 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.

65. (New) A head-worn personal electronic apparatus as recited in claim 64, wherein the head-worn personal electronic apparatus comprises:

a radiation detector configured to capture radiation data,

wherein the electronic circuitry is configured to process at least the radiation data captured by the radiation detector, and configured to determine whether the head-worn personal electronic apparatus is being worn by a user based on at least the processed radiation data.

66. (New) A head-worn personal electronic apparatus as recited in claim 64, wherein the head-worn personal electronic apparatus wherein the head-worn personal electronic device is configured to receive a voice input via the first microphone, determine a requested operation from the voice input using voice recognition, and control an operation by the head-worn personal electronic device based on the requested operation.

67. (New) A head-worn personal electronic apparatus as recited in claim 64, 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 ambient sound input picked-up via the second microphone.

68. (New) A head-worn personal electronic apparatus as recited in claim 64, wherein the ambient sound input picked-up from at least the second microphone is used at least for noise cancelation, and at least a portion of the ambient sound input picked-up from the second microphone is subtracted from the audio picked-up from the first microphone.

69. (New) A head-worn personal electronic apparatus as recited in claim 64, wherein the electronic circuitry is configured to:

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

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

70. (New) A head-worn personal electronic apparatus as recited in claim 64, wherein the head-worn personal electronic apparatus comprises:

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

71. (New) A head-worn personal electronic apparatus as recited in claim 64, wherein the head-worn personal electronic apparatus comprises:

a bone conducting element at least partially contained within the head-worn personal electronic apparatus and configured to operate in accordance with acoustic characteristics.

72. (New) A head-worn personal electronic apparatus as recited in claim 64, wherein the electronic circuitry is configured to:

produce an ambient audio output signal based on at least the ambient sound input; and

provide at least the ambient audio output signal to the at least one speaker.

73. (New) A head-worn personal electronic apparatus as recited in claim 72, wherein the electronic circuitry is configured to:

determine an ambient noise level based on at least the ambient sound input, wherein the ambient audio output signal is dependent on the ambient noise level.

74. (New) A head-worn personal electronic apparatus as recited in claim 1, wherein the head-worn personal electronic apparatus comprises:

a touch sensitive surface at least partially contained within the head-worn personal electronic apparatus and configured to sense a touch input associated with the user, wherein the sensed touch input operating to at least alter operation of the head-worn electronic personal audio apparatus.

75. (New) A head-worn personal electronic apparatus as recited in claim 74, wherein head-worn personal electronic apparatus is configured to support voice calls to the user, and

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

76. (New) A head-worn personal electronic apparatus recited in claim 74, wherein head-worn personal electronic apparatus is configured to support audio output to the user, and

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

77. (New) A head-worn personal electronic apparatus as recited in claim 74, wherein the head-worn personal electronic apparatus is configured to detect at least a sliding of a finger action with respect to the touch sensitive surface.

78. (New) A head-worn personal electronic apparatus as recited in claim 1, wherein the head-worn personal electronic apparatus comprises:

a first microphone configured to pick up at least audio input from at least the user, the first microphone being at least partially in the head-worn personal electronic apparatus and is positioned to be directed towards the user when the head-worn personal electronic apparatus is being worn by the user; and

a second microphone 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 wearable electronic device is being worn by the user.

79. (New) A head-worn personal electronic apparatus as recited in claim 78, wherein the electronic circuitry is configured to:

determine an ambient sound level; and

modify audio output to the at least one speaker dependent at least in part on the ambient sound level.

80. (New) A head-worn personal electronic apparatus as recited in claim 78, wherein the electronic circuitry is configured to:

produce an ambient audio output signal based on at least the ambient sound input; and

provide at least the ambient audio output signal to the at least one speaker.

81. (New) A head-worn personal electronic apparatus as recited in claim 78, wherein the electronic circuitry is configured to:

determine an ambient noise level based on at least the ambient sound input,

wherein the ambient audio output signal is dependent on the ambient noise level.

82. (New) A head-worn personal electronic apparatus as recited in claim 1, wherein the head-worn personal electronic apparatus comprises:

a first microphone; and

a second microphone;

wherein the first microphone is configured to pick up at least audio input from at least the user,

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 wearable electronic device, 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.

83. (New) A head-worn personal electronic apparatus as recited in claim 1,

wherein the head-worn wearable electronic device comprises at least a first microphone and a second microphone,

wherein the first microphone is configured to pick up at least audio sound from at least the user,

wherein the second microphone is configured to pick up at least ambient noise associated with an environment in the vicinity of the head-worn wearable electronic device, 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 sound picked-up via the first microphone, with the modification being at least in part dependent on the ambient noise level.

84. (New) A head-worn personal electronic apparatus as recited in claim 1,
wherein the head-worn personal electronic apparatus comprises:

a radiation detector configured to capture radiation data,

wherein the electronic circuitry is configured to process at least the radiation data captured by the radiation detector, and

wherein the electronic circuitry is configured to determine whether the head-worn personal electronic apparatus is being worn by a user based on at least the processed radiation data.

85. (New) A head-worn personal electronic apparatus as recited in claim 1,

wherein the head-worn personal electronic apparatus includes a force sensor configured to receive a user input based at least on sensing force applied to the force sensor, and

wherein the force sensor is configured to detect the user input, the detected user input operating to alter at least an operation of the head-worn wearable electronic device.

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

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

a second microphone at least partially contained within the head-worn personal electronic apparatus, the second microphone being positioned to pick up at least environmental audio input associated with an environment around the head-worn personal electronic apparatus,

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.

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

a radiation detector configured to capture radiation data,

wherein the electronic circuitry is configured to process at least the radiation data captured by the radiation detector, and configured to determine whether the head-worn personal electronic apparatus is being worn by a user based on at least the processed radiation data.

REMARKS

In response to the Office Action, claims 1-4 have been amended to further clarify the subject matter regarded as the invention. Claim 5 has been canceled from the application without prejudice or disclaimer. New claims 6-87 have been added to the application. Claims 1-4 and 6-87 are pending. The Specification has also been amended to expressly recite content incorporated by reference, see, e.g., U.S. Patent Application No. 11/006,343 (U.S. Patent No. 7,116,976), ¶ [0003]-[0004]. Reconsideration of the application is respectfully requested based on the following remarks.

REJECTION UNDER 35 USC 112, SECOND PARAGRAPH

In the Office Action, the Examiner rejected claims 1-5 as being indefinite under 35 USC 112, Second Paragraph. Applicant respectfully disagrees. Nevertheless, to obviate the Examiner's concerns claim 1 has been amended to further clarify the subject matter regarded as the invention, and claim 5 has been canceled without prejudice or disclaimer. Accordingly, it is respectfully requested that the rejection of claims 1-5 under 35 USC 112, Second Paragraph, be withdrawn.

DOUBLE PATENTING

In the Office Action, the Examiner rejected claims 1-4 under non-statutory obviousness-type double patenting in view of certain claims of U.S. Patent No. 11,644,693; and provisionally rejected claims 1-4 under non-statutory obviousness-type double patenting in view of certain claims of U.S. Patent Application No. 17/949,029. Applicant respectfully disagrees. Nevertheless, without acquiescence, agreement or admission but to instead expedite prosecution, Applicants submit herewith a Terminal Disclaimer re U.S. Patent No. 11,644,693 and U.S. Patent Application 17/949,029, thereby obviating the double patenting rejections. Accordingly, it is respectfully requested that the double patenting rejections be withdrawn.

SUMMARY

It is submitted that both the rejection under 35 USC 112, Second Paragraph, and the non-statutory obviousness-type double patenting rejections have been obviated. Therefore, it is submitted that all claims are in condition for allowance.

Reconsideration of the application and an early Notice of Allowance are earnestly solicited. If there are any issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned representative at the telephone number listed below.

Respectfully submitted,

/C. Douglass Thomas/

C. Douglass Thomas
Reg. No. 32,947

(650) 903-9200, x103

<i>Index of Claims</i> 	Application/Control No. 18/144,557	Applicant(s)/Patent Under Reexamination Howell et al.
	Examiner JIE LEI	Art Unit 2872

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS									
☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47									
CLAIM		DATE							
Final	Original	08/21/2023	11/21/2023						
	1	✓	=						
	2	✓	=						
	3	✓	=						
	4	✓	=						
	5	✓	-						
	6		✓						
	7		✓						
	8		✓						
	9		✓						
	10		✓						
	11		✓						
	12		✓						
	13		✓						
	14		✓						
	15		✓						
	16		=						
	17		=						
	18		=						
	19		=						
	20		=						
	21		=						
	22		=						
	23		=						
	24		=						
	25		=						
	26		=						
	27		=						
	28		=						
	29		=						
	30		=						
	31		=						
	32		=						
	33		✓						
	34		✓						
	35		✓						
	36		=						
	37		=						
	38		=						
	39		=						
	40		=						
	41		=						
	42		=						

<i>Index of Claims</i> 	Application/Control No. 18/144,557	Applicant(s)/Patent Under Reexamination Howell et al.
	Examiner JIE LEI	Art Unit 2872

CLAIM		DATE									
Final	Original	08/21/2023	11/21/2023								
	43		=								
	44		=								
	45		=								
	46		=								
	47		=								
	48		=								
	49		=								
	50		=								
	51		=								
	52		✓								
	53		✓								
	54		✓								
	55		✓								
	56		✓								
	57		✓								
	58		✓								
	59		✓								
	60		✓								
	61		✓								
	62		✓								
	63		✓								
	64		✓								
	65		✓								
	66		✓								
	67		✓								
	68		✓								
	69		✓								
	70		✓								
	71		✓								
	72		✓								
	73		✓								
	74		✓								
	75		✓								
	76		✓								
	77		✓								
	78		=								
	79		=								
	80		=								
	81		=								
	82		=								
	83		=								
	84		=								
	85		✓								
	86		✓								
	87		✓								

<i>Search Notes</i> 	Application/Control No. 18/144,557	Applicant(s)/Patent Under Reexamination Howell et al.
	Examiner JIE LEI	Art Unit 2872

CPC - Searched*		
Symbol	Date	Examiner
G02C 1/00, 11/10, 11/06, 5/001, 5/02, 5/14, 5/22, 5/146	08/21/2023	JL
G02B 27/01, 27/017, 27/0176	08/21/2023	JL
update search	11/21/2023	JL

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
351	158, 41, 111, 121, 123, 124	08/21/2023	JL
359	13, 629-633	08/21/2023	JL
381	381, 327, 328, 370, 380	08/21/2023	JL
	update search	11/21/2023	JL

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

	/JIE LEI/ Primary Examiner, Art Unit 2872
--	--

<i>Search Notes</i> 	Application/Control No. 18/144,557	Applicant(s)/Patent Under Reexamination Howell et al.
	Examiner JIE LEI	Art Unit 2872

Search Notes		
Search Notes	Date	Examiner
G02C 1/00, 11/10, 11/06, 5/001, 5/02, 5/14, 5/22, 5/146 class and text search	08/21/2023	JL
G02B 27/01, 27/017, 27/0176 class and text search	08/21/2023	JL
351/158, 41, 111, 121, 123, 124 class and text search	08/21/2023	JL
359/13, 629-633 class and text search	08/21/2023	JL
381/381, 327, 328, 370, 380 class and text search	08/21/2023	JL
Inventor name search	08/21/2023	JL
NPL and foreign search (google scholar, google patent, globaldossier and Dialog search)	08/21/2023	JL
PE2E text search	08/21/2023	JL
Similarity search	08/21/2023	JL
update search	11/21/2023	JL

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	USPGPUB, USPAT	08/21/2023	JL
	update search	11/21/2023	JL

	/JIE LEI/ Primary Examiner, Art Unit 2872
--	--

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVCP003C11
	Application No.:	18/144,557
	Applicant	HOWELL et al.
	Filing Date	May 8, 2023
	Group	2872
		Page 1 of 2

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	1.	2002/0146097 A1	Oct-02	Vuori			
	2.	2003/0045283 A1	Mar-03	Hagadoorn			
	3.	2003/0063763 A1	Apr-03	Allred et al.			
	4.	2005/0090295 A1	Apr-05	Ali et al.			
	5.	2017/0289323 A1	Oct-17	Gelvin et al.			
	6.	2019/0117121 A1	Apr-19	Kutina et al.			
	7.	2021/0399691 A1	Dec-21	SAMINATHAN et al.			
	8.	2022/0260859 A1	Aug-22	Howell et al.			
	9.	2022/0415338 A1	Dec-22	Howell et al.			
	10.	2023/0017635 A1	Jan-23	Howell et al.			
	11.	2023/0236444 A1	Jul-23	Howell et al.			
	12.	2023/0359266 A1	Nov-23	Howell et al.			
	13.	5,790,311	Aug-98	Togino			
	14.	7,430,299 B2	Sep-08	Armstrong et al.			
	15.	7,787,647 B2	Aug-10	Hagen et al.			
	16.	8,009,849 B2	Aug-11	Enzmann			
	17.	8,175,886 B2	May-12	Odinak			
	18.	8,251,875 B2	Aug-12	Ellis et al.			
	19.	8,571,241 B2	Oct-13	Larsen			
	20.	8,620,208 B2	Dec-13	Slotznick			
	21.	8,626,246 B2	Jan-14	Shostak			
	22.	9,183,351 B2	Nov-15	Shusterman			
	23.	9,369,814 B2	Jun-16	Victorian et al.			
	24.	11,721,183 B2	Aug-23	Howell et al.			
	25.	11,733,549 B2	Aug-23	Howell et al.			
	26.	11,762,224 B2	Sep-23	Howell et al.			
	27.	11,803,069 B2	Oct-23	Howell et al.			
	28.	11,829,518 B2	Nov-23	Howell et al.			
Examiner				Date Considered			

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVCP003C11
	Application No.:	18/144,557
	Applicant	HOWELL et al.
	Filing Date	May 8, 2023
	Group	2872
		Page 2 of 2

Foreign Documents								
Init.		Document No.	Date	Country	Class	Subclass	Translation Yes No	
Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)								
	A	Notice of Allowance for U.S. Patent Application No. 17/484,080, dated June 1, 2023.						
	B	Notice of Allowance for U.S. Patent Application No. 17/949,029, dated July 3, 2023.						
	C	Notice of Allowance for U.S. Patent Application No. 17/949,029, dated October 30, 2023.						
	D	Office Action for U.S. Patent Application No. 17/873,104, dated November 4, 2022.						
	E	Notice of Allowance for U.S. Patent Application No. 16/182,969, dated June 30, 2023.						
	F	Notice of Allowance for U.S. Patent Application No 17/942,347, dated July 3, 2023.						
	G	Notice of Allowance for U.S. Patent Application No. 17/942,347, dated August 14, 2023.						
	H	Office Action for U.S. Patent Application No. 17/964,853, dated September 15, 2023.						
	I	Office Action for U.S. Patent Application No. 18/129,660, dated July 7, 2023.						
	J	Notice of Allowance for U.S. Patent Application No. 18/129,660, dated August 24, 2023.						
	K	Office Action for U.S. Patent Application No. 18/224,793, dated September 7, 2023.						
	L	Notice of Allowance for U.S. Patent Application No. 18/224,793, dated October 2, 2023.						

Examiner	/JIE LEI/	Date Considered	11/21/2023
----------	-----------	-----------------	------------

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.L./

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1811	2	"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	2023/11/20 04:39 PM
L1812	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	2023/11/20 04:39 PM
L1813	4	"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; EPO; JPO)	OR	ON	ON	2023/11/20 04:39 PM
L1814	11	"11644693"	(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	2023/11/20 04:39 PM

L1816	5	"16821810"	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) (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	2023/11/20 04:39 PM
L1817	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	2023/11/20 04:39 PM
L1818	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, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/11/20 04:39 PM
L1819	11	"16574254"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2023/11/20 04:39 PM

L1820	99819	(eyewear\$4 OR glasses\$4 OR spectacles\$4 OR eyeglasses\$4) AND frame AND circuit AND control\$4 AND (memory\$4 OR storage\$4) AND battery\$4 AND connect\$4	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	2023/11/20 04:39 PM
L1821	79010	(eyewear\$4 OR glasses\$4 OR spectacles\$4 OR eyeglasses\$4) AND frame AND circuit AND control\$4 AND (memory\$4 OR storage\$4) AND battery\$4 AND connect\$4 AND communication\$4 AND (audio OR speech\$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	2023/11/20 04:39 PM
L1822	74663	(eyewear\$4 OR glasses\$4 OR spectacles\$4 OR eyeglasses\$4) AND frame AND circuit AND control\$4 AND (memory\$4 OR storage\$4) AND battery\$4 AND connect\$4 AND communication\$4 AND (audio OR speech\$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	2023/11/20 04:39 PM

L1823	47772	(eyewear\$4 OR glasses\$4 OR spetac\$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	TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB) (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	2023/11/20 04:39 PM
L1824	44693	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1825	20203	((("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	2023/11/20 04:39 PM
L1826	140	((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND frame AND circuit AND control\$4 AND (memor\$4 OR stor\$4)	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1827	125	AND batter\$4 AND connect\$4 (((("HOWELL") near3 ("Thomas")) OR ("CHAO") near3 ("David")) OR ("THOMAS") near3 ("C")) OR ("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR spetaci\$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	2023/11/20 04:39 PM
L1828	121	(((("HOWELL") near3 ("Thomas")) OR ("CHAO") near3 ("David")) OR ("THOMAS") near3 ("C")) OR ("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR spetaci\$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	2023/11/20 04:39 PM
L1829	121	(((("HOWELL") near3 ("Thomas")) OR ("CHAO") near3 ("David")) OR ("THOMAS") near3 ("C")) OR ("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR spetaci\$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; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1830	99	wireless\$4) AND (audio OR speak\$4) AND embed\$4 (((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1831	80	(((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1832	80	(((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND frame	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1833	80	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 (((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1834	75	(((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1835	17017	AND right AND first AND second AND bridge AND partial\$4 (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1836	11279	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1837	3465	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1838	1866	(eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND frame AND (circuit near10 board) AND control\$4 AND (memor\$4 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1839	1359	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 (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1840	702	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1841	690	AND rechargeable (eyewear\$4 OR glasses\$4 OR spetac\$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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1842	12243	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 L15 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 G02B6/0038 OR G02B30/25 OR G02B26/001 OR G02B13/0045 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	2023/11/20 04:39 PM
-------	-------	---	---	----	----	----	------------------------

		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				
--	--	--	--	--	--	--

L1843	4031	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.) L15 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 G02C7/061 OR G02C7/16 OR G02C2200/02 OR G02C5/16 OR G02C7/066 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	2023/11/20 04:39 PM
-------	------	---	---	----	----	----	------------------------

		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.)					
L1844	9488	L16 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	(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	2023/11/20 04:39 PM

		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 G02B27/4272 OR G02B5/32 OR G02B6/0065 OR G02B27/0149 OR G02B2027/0114 OR	NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
--	--	---	---	--	--	--	--

		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					
--	--	--	--	--	--	--	--

L1845	2320	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.) L16 AND (G02C11/10 OR G02C11/06 OR G02C7/04 OR G02C7/101 OR G02C11/00 OR G02C5/143 OR G02C5/14 OR G02C7/083 OR G02C11/04 OR G02C5/001 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,	OR	ON	ON	2023/11/20 04:39 PM
-------	------	--	--	----	----	----	------------------------

		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 G02B3/14 OR G02B9/64 OR G02B30/24 OR G02B6/0016 OR G02B6/0023 OR G02B7/08 OR	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)				
--	--	---	--	--	--	--	--

		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.)					
L1847	2121	L18 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 G02C9/04 OR G02C7/16 OR G02C1/00 OR G02C1/10 OR G02C7/06 OR G02C1/06 OR G02C7/104 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	2023/11/20 04:39 PM

L1848	0	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.) L31 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 G02B27/0075 OR G02B5/208 OR G02B27/4205 OR G02B6/0036 OR G02B6/0038 OR G02B27/283 OR G02B6/0076 OR G02B5/3025 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	2023/11/20 04:39 PM
-------	---	---	---	----	----	----	------------------------

		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.)					
L1849	85	L31 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 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	(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	2023/11/20 04:39 PM

L1850	6	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.) L44 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 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
-------	---	---	---	----	----	----	------------------------

		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					
--	--	--	--	--	--	--	--

L1851	113	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.) L44 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 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
-------	-----	--	---	----	----	----	------------------------

L1852	6	G02C5/2263 OR G02C7/02).cpc.) L45 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 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
-------	---	--	---	----	----	----	------------------------

		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.)					
L1853	91	L45 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 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

		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.)					
L1854	6	L46 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 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

		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					
--	--	--	--	--	--	--	--

L1855	73	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.) L46 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
-------	----	---	---	----	----	----	------------------------

L1856	6	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.) L48 AND ((G02B2027/0178 OR G02B27/017 OR G02B2027/014 OR 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
-------	---	---	---	----	----	----	------------------------

		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				
--	--	--	--	--	--	--

L1857	73	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.) L48 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 G02C5/2254 OR G02C5/2281 OR G02C7/022 OR G02C7/04 OR G02C9/02).cpc.)	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1858	6	L49 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1859	68	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 G02B5/28).cpc.) L49 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
-------	----	--	---	----	----	----	------------------------

L1860	1758	G02C5/2209 OR G02C7/083 OR G02C7/101 OR G02C9/04 OR G02C5/12 OR G02C5/22 OR G02C5/2254 OR G02C5/2281).cpc.) L51 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 G02B5/28).cpc.)	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1861	522	L51 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1862	119	G02C7/101).cpc.) L51 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	2023/11/20 04:39 PM
L1863	3486	(351/158,121).ccls.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1864	2572	(351/41,111).ccls.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1865	1002	(351/123,124).ccls.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1866	3414	(359/13,629).ccls.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1867	5542	(359/630-633).ccls.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1868	3403	(381/381,327,328).ccls.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1869	4072	(381/380,370,381).ccls.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1870	321	g02c1/00.cpc.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1871	5770	g02c11/10.cpc.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1872	1059	g02c11/06.cpc.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1873	1171	g02c5/001.cpc.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1874	1668	g02c5/02.cpc.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1875	1127	g02c5/14.cpc.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1876	1527	g02c5/146.cpc.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1877	1408	g02c5/22.cpc.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1878	9204	g02b27/01.cpc.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1879	26198	g02b27/017.cpc.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1880	9219	g02b27/0176.cpc.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1881	4035	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1882	1421	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1883	580	(eyewear\$4 OR glasses\$4 OR spetac\$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; JPO; DERWENT;	OR	ON	ON	2023/11/20 04:39 PM

L1884	284	(eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND ((temples SAME speakers) AND (sound WITH guid\$4))	IBM_TDB) (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	2023/11/20 04:39 PM
L1885	12838	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1886	1220	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1887	313	(eyewear\$4 OR glasses\$4 OR spetac\$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; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1888	300	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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1889	300	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
		(eyewear\$4 OR glasses\$4 OR spetac\$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					

L1890	3	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1891	99819	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1892	79010	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1893	74663	(eyewear\$4 OR glasses\$4 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2023/11/20 04:39 PM

		spetacul\$4 OR eyeglasses\$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	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)				
L1894	47772	(eyewear\$4 OR glasses\$4 OR spetacul\$4 OR eyeglasses\$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	2023/11/20 04:39 PM
L1895	44693	(eyewear\$4 OR glasses\$4 OR spetacul\$4 OR eyeglasses\$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	2023/11/20 04:39 PM
L1896	20203	((("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	2023/11/20 04:39 PM
L1897	140	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1898	125	((("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR spectac\$4 OR eyegals\$4) AND frame AND circuit AND control\$4 AND (memor\$4 OR stor\$4) AND batter\$4 AND connect\$4	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1899	121	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR spectac\$4 OR eyegals\$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	2023/11/20 04:39 PM
L1900	121	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR spectac\$4 OR eyegals\$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	2023/11/20 04:39 PM

L1901	99	AND (eyewear\$4 OR glasses\$4 OR spetac\$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 (((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1902	80	(((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1903	80	(((("HOWELL") near3	(US-PGPUB; USPAT;	OR	ON	ON	2023/11/20

		("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR ("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	USOCR; EPO; JPO; DERWENT)				04:39 PM
L1904	80	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR ("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1905	75	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR ("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM

L1906	17017	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 (eyewear\$4 OR glasses\$4 OR spetaci\$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	2023/11/20 04:39 PM
L1907	11279	(eyewear\$4 OR glasses\$4 OR spetaci\$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	2023/11/20 04:39 PM
L1908	3465	(eyewear\$4 OR glasses\$4 OR spetaci\$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; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM

L1909	1866	AND right AND first AND second AND bridge AND partial\$4 (eyewear\$4 OR glasses\$4 OR spetac\$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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2023/11/20 04:39 PM
L1910	1359	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM
L1911	702	(eyewear\$4 OR glasses\$4 OR spetac\$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	2023/11/20 04:39 PM

L1912	690	(eyewear\$4 OR glasses\$4 OR spectacles\$4 OR eyeglasses\$4) AND frame AND (circuit near10 board) AND (electric\$4 WITH control\$4) AND (memory\$4 OR storage\$4) AND (battery\$4 near10 rechargeable) AND connect\$4 AND communicate\$4 AND (audio OR speaker\$4) AND wireless\$4 AND embedded\$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	2023/11/20 04:39 PM
L1913	12243	L15 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	(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	2023/11/20 04:39 PM

		G02B27/02 OR G02B6/0016 OR G02B26/0833 OR G02B30/00 OR G02B5/30 OR G02B27/4205 OR 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.)					
L1914	4031	L15 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	(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	2023/11/20 04:39 PM

		G02C5/001 OR G02C2202/22 OR G02C7/081 OR G02C2200/08 OR G02C7/085 OR 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.)					
--	--	---	--	--	--	--	--

L1915	9488	L16 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 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	(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	2023/11/20 04:39 PM
-------	------	--	---	----	----	----	------------------------