

date, time	web site	search string
5/14/2024 1:38:19 PM	Google Patents	Search Term 1 lens Search Term 2 coating Search Term 3 transmission altering Search Term 4 color Search Term 5 base Before Priority Date: priority:20030129
5/14/2024 1:38:25 PM	Google Scholar	lens coating layer infrared absorbing scratch
5/14/2024 1:38:25 PM	Google Patents	Search Term 1 lens Search Term 2 coating Search Term 3 layer Search Term 4 infrared absorbing Search Term 5 scratch Before Priority Date: priority:20030129
5/14/2024 2:32:24 PM	Google Scholar	electro active lens lenses phoropter
5/14/2024 2:32:24 PM	Google Patents	Search Term 1 electro Search Term 2 active Search Term 3 lens Search Term 4 lenses Search Term 5 phoropter Before Priority Date: priority:19990702
5/14/2024 2:32:31 PM	Google Scholar	lens coating curve optical altering layer

date, time	web site	search string
5/14/2024 2:32:31 PM	Google Patents	Search Term 1 lens Search Term 2 coating Search Term 3 curve Search Term 4 optical Search Term 5 altering layer Before Priority Date: priority:20030129
5/14/2024 2:32:45 PM	Google Scholar	eyeglasses microphone connector cable connection
5/14/2024 2:32:45 PM	Google Patents	Search Term 1 eyeglasses Search Term 2 microphone Search Term 3 connector Search Term 4 cable Search Term 5 connection Before Priority Date: priority:20020124
5/14/2024 2:32:53 PM	Google Scholar	radiation output electronic circuit recited monitoring
5/14/2024 2:32:53 PM	Google Patents	Search Term 1 radiation Search Term 2 output Search Term 3 electronic circuit Search Term 4 recited Search Term 5 monitoring Before Priority Date: priority:20040415
5/14/2024 2:33:00 PM	Google Scholar	user ear set forth transmitting apparatus electronic module

date, time	web site	search string
5/14/2024 2:33:00 PM	Google Patents	Search Term 1 user Search Term 2 ear Search Term 3 set forth Search Term 4 transmitting apparatus Search Term 5 electronic module Before Priority Date: priority:20030401
5/14/2024 2:53:48 PM	Google Scholar	glasses pair pedometer recited temple
5/14/2024 2:53:48 PM	Google Patents	Search Term 1 glasses Search Term 2 pair Search Term 3 pedometer Search Term 4 recited Search Term 5 temple Before Priority Date: priority:20031009
5/14/2024 2:54:05 PM	Google Scholar	subscriber computer expert technical home
5/14/2024 2:54:05 PM	Google Patents	Search Term 1 subscriber Search Term 2 computer Search Term 3 expert Search Term 4 technical Search Term 5 home Before Priority Date: priority:20040527
5/14/2024 2:54:27 PM	Google Scholar	eyeglasses wireless arms wireless communication frame

date, time	web site	search string
5/14/2024 2:54:27 PM	Google Patents	Search Term 1 eyeglasses Search Term 2 wireless Search Term 3 arms Search Term 4 wireless communication Search Term 5 frame Before Priority Date: priority:20030415
5/14/2024 2:54:45 PM	Google Scholar	glasses pair connector temple recited
5/14/2024 2:54:45 PM	Google Patents	Search Term 1 glasses Search Term 2 pair Search Term 3 connector Search Term 4 temple Search Term 5 recited Before Priority Date: priority:20031009
5/14/2024 2:54:52 PM	Google Scholar	audio eyeglasses recited frame assembly mass storage
5/14/2024 2:54:52 PM	Google Patents	Search Term 1 audio Search Term 2 eyeglasses Search Term 3 recited Search Term 4 frame assembly Search Term 5 mass storage Before Priority Date: priority:20040811
5/14/2024 2:55:04 PM	Google Scholar	mode portable telephone noncommunicative functioning communicative

date, time	web site	search string
5/14/2024 2:55:04 PM	Google Patents	Search Term 1 mode Search Term 2 portable telephone Search Term 3 noncommunicative Search Term 4 functioning Search Term 5 communicative Before Priority Date: priority:20000825
5/14/2024 2:55:12 PM	Google Scholar	picture pictures image bridging series
5/14/2024 2:55:12 PM	Google Patents	Search Term 1 picture Search Term 2 pictures Search Term 3 image Search Term 4 bridging Search Term 5 series Before Priority Date: priority:20010123
5/14/2024 3:11:41 PM	Google Scholar	(tempo) (music) (recited) (event) (song)
5/14/2024 3:11:41 PM	Google Patents	Search Term 1 (tempo) (music) (recited) (event) (song) Before Priority Date: priority:20041124
5/14/2024 3:11:42 PM	Google Scholar	tempo music recited event song

date, time	web site	search string
5/14/2024 3:11:42 PM	Google Patents	Search Term 1 tempo Search Term 2 music Search Term 3 recited Search Term 4 event Search Term 5 song Before Priority Date: priority:20041124
5/14/2024 3:11:47 PM	Google Patents	Search Term 1 (tempo) Search Term 2 (music) Search Term 3 (recited) Search Term 4 (event) Search Term 5 (song) Before Priority Date: priority:20041124
5/14/2024 3:12:00 PM	Google Scholar	light lens viewing window shutter control
5/14/2024 3:12:00 PM	Google Patents	Search Term 1 light Search Term 2 lens Search Term 3 viewing window Search Term 4 shutter Search Term 5 control Before Priority Date: priority:20030710
5/14/2024 3:12:06 PM	Google Scholar	electro phoropter optical power active lenses

date, time	web site	search string
5/14/2024 3:12:06 PM	Google Patents	Search Term 1 electro Search Term 2 phoropter Search Term 3 optical power Search Term 4 active Search Term 5 lenses Before Priority Date: priority:20030206
5/14/2024 3:12:13 PM	Google Scholar	patterned electrode liquid crystal electrodes layer pattern
5/14/2024 3:12:13 PM	Google Patents	Search Term 1 patterned electrode Search Term 2 liquid crystal Search Term 3 electrodes Search Term 4 layer Search Term 5 pattern Before Priority Date: priority:20040413
5/14/2024 3:12:21 PM	Google Scholar	glasses temple speaker pair hearing
5/14/2024 3:12:21 PM	Google Patents	Search Term 1 glasses Search Term 2 temple Search Term 3 speaker Search Term 4 pair Search Term 5 hearing Before Priority Date: priority:20031009
5/14/2024 3:12:33 PM	Google Scholar	glasses pair information recited event

date, time	web site	search string
5/14/2024 3:12:33 PM	Google Patents	Search Term 1 glasses Search Term 2 pair Search Term 3 information Search Term 4 recited Search Term 5 event Before Priority Date: priority:20031009
5/14/2024 3:12:41 PM	Google Scholar	temple adapter pair glasses electrical component
5/14/2024 3:12:41 PM	Google Patents	Search Term 1 temple Search Term 2 adapter Search Term 3 pair Search Term 4 glasses Search Term 5 electrical component Before Priority Date: priority:20031009
5/14/2024 3:12:48 PM	Google Scholar	electro lens active optical lens controller
5/14/2024 3:12:48 PM	Google Patents	Search Term 1 electro Search Term 2 lens Search Term 3 active Search Term 4 optical lens Search Term 5 controller Before Priority Date: priority:20000623
5/14/2024 3:12:55 PM	Google Scholar	glasses temple clock pair lens holder

date, time	web site	search string
5/14/2024 3:12:55 PM	Google Patents	Search Term 1 glasses Search Term 2 temple Search Term 3 clock Search Term 4 pair Search Term 5 lens holder Before Priority Date: priority:20031009
5/14/2024 3:13:02 PM	Google Scholar	cells optical component optical component walls
5/14/2024 3:13:02 PM	Google Patents	Search Term 1 cells Search Term 2 optical component Search Term 3 optical Search Term 4 component Search Term 5 walls Before Priority Date: priority:20040702

Web Search History

date, time	web site	search string
4/19/2024 8:05:53 AM	Google	audio smart glasses
4/19/2024 8:06:01 AM	Google	Bluetooth audio smart glasses
4/19/2024 8:06:08 AM	Google	Wireless audio smart glasses
4/19/2024 8:06:15 AM	Google	Best audio smart glasses
4/19/2024 8:06:21 AM	Google	Bluetooth Audio Glasses
4/19/2024 8:06:28 AM	Google	Bluetooth Sunglasses
4/19/2024 8:06:40 AM	Google	Sunglasses with Bluetooth speakers
4/19/2024 8:06:55 AM	Google	Bluetooth Sunglasses with Camera
4/19/2024 8:06:58 AM	Google	Bluetooth sunglasses Bose
4/19/2024 8:24:58 AM	Google	Audio glasses
4/19/2024 8:25:35 AM	Google	Best audio glasses
4/19/2024 8:25:58 AM	Google	Wireless audio glasses
4/19/2024 8:26:59 AM	Google	vr glasses
4/19/2024 8:27:14 AM	Google	Best VR headset for PC
4/19/2024 8:27:26 AM	Google	VR Headset for Phone
4/19/2024 8:27:41 AM	Google	ar glasses
4/19/2024 8:28:16 AM	Google	Nreal AR glasses
4/19/2024 8:28:24 AM	Google	Best AR glasses
4/19/2024 8:29:43 AM	Google Scholar	lens electronic frame eyewear electro

date, time	web site	search string
4/19/2024 8:29:43 AM	Google Patents	Search Term 1 lens Search Term 2 electronic Search Term 3 frame Search Term 4 eyewear Search Term 5 electro Before Priority Date: priority:20041102
4/19/2024 8:31:19 AM	Google Scholar	panoramic image video display camera
4/19/2024 8:31:19 AM	Google Patents	Search Term 1 panoramic Search Term 2 image Search Term 3 video Search Term 4 display Search Term 5 camera Before Priority Date: priority:20040519
4/19/2024 8:31:51 AM	Google Scholar	audio wearer support audio device ear
4/19/2024 8:31:51 AM	Google Patents	Search Term 1 audio Search Term 2 wearer Search Term 3 support Search Term 4 audio device Search Term 5 ear Before Priority Date: priority:20000602
4/19/2024 8:37:05 AM	Google Scholar	steam superheater head valve boiler

date, time	web site	search string
4/19/2024 8:37:05 AM	Google Patents	Search Term 1 steam Search Term 2 superheater Search Term 3 head Search Term 4 valve Search Term 5 boiler Before Priority Date: priority:19251130
4/19/2024 8:37:13 AM	Google Scholar	magnet sections members connector contacts
4/19/2024 8:37:13 AM	Google Patents	Search Term 1 magnet Search Term 2 sections Search Term 3 members Search Term 4 connector Search Term 5 contacts Before Priority Date: priority:19370614
4/19/2024 8:37:20 AM	Google Scholar	lens sac lenses temple spectacle
4/19/2024 8:37:20 AM	Google Patents	Search Term 1 lens Search Term 2 sac Search Term 3 lenses Search Term 4 temple Search Term 5 spectacle Before Priority Date: priority:19460709
4/19/2024 8:37:27 AM	Google Scholar	lenses spectacles liquid space vision

date, time	web site	search string
4/19/2024 8:37:27 AM	Google Patents	Search Term 1 lenses Search Term 2 spectacles Search Term 3 liquid Search Term 4 space Search Term 5 vision Before Priority Date: priority:19460816
4/19/2024 9:02:57 AM	Google Scholar	lens fluid diaphragm tension pressure
4/19/2024 9:02:57 AM	Google Patents	Search Term 1 lens Search Term 2 fluid Search Term 3 diaphragm Search Term 4 tension Search Term 5 pressure Before Priority Date: priority:19610712
4/19/2024 9:03:04 AM	Google Scholar	pair shade panel hinge members bar
4/19/2024 9:03:04 AM	Google Patents	Search Term 1 pair Search Term 2 shade Search Term 3 panel Search Term 4 hinge members Search Term 5 bar Before Priority Date: priority:19620514
4/19/2024 9:03:11 AM	Google Scholar	crystal lens electro groove laminated

date, time	web site	search string
4/19/2024 9:03:11 AM	Google Patents	Search Term 1 crystal Search Term 2 lens Search Term 3 electro Search Term 4 groove Search Term 5 laminated Before Priority Date: priority:19620905
4/19/2024 9:03:23 AM	Google Scholar	lens casting base composite mold
4/19/2024 9:03:23 AM	Google Patents	Search Term 1 lens Search Term 2 casting Search Term 3 base Search Term 4 composite Search Term 5 mold Before Priority Date: priority:19630228
4/19/2024 9:03:43 AM	Google Scholar	assembly speaker structured recited industrial safety
4/19/2024 9:03:43 AM	Google Patents	Search Term 1 assembly Search Term 2 speaker Search Term 3 structured Search Term 4 recited Search Term 5 industrial safety Before Priority Date: priority:19960906
4/19/2024 9:03:52 AM	Google Scholar	eyewear frame transceiver temple devices

date, time	web site	search string
4/19/2024 9:03:52 AM	Google Patents	Search Term 1 eyewear Search Term 2 frame Search Term 3 transceiver Search Term 4 temple Search Term 5 devices Before Priority Date: priority:20010430
4/19/2024 9:05:04 AM	Google Scholar	ear audio eyeglass audio device wearer
4/19/2024 9:05:04 AM	Google Patents	Search Term 1 ear Search Term 2 audio Search Term 3 eyeglass Search Term 4 audio device Search Term 5 wearer Before Priority Date: priority:20020726
4/19/2024 9:05:18 AM	Google Scholar	earphone wearer eyeglass support lens
4/19/2024 9:05:18 AM	Google Patents	Search Term 1 earphone Search Term 2 wearer Search Term 3 eyeglass Search Term 4 support Search Term 5 lens Before Priority Date: priority:20000602
4/19/2024 9:05:29 AM	Google Scholar	speaker audio device audio ear wearable wireless

date, time	web site	search string
4/19/2024 9:05:29 AM	Google Patents	Search Term 1 speaker Search Term 2 audio device Search Term 3 audio Search Term 4 ear Search Term 5 wearable wireless Before Priority Date: priority:20000602
4/19/2024 9:05:45 AM	Google Scholar	optical optical element adjustable adjustable connector wearer
4/19/2024 9:05:45 AM	Google Patents	Search Term 1 optical Search Term 2 optical element Search Term 3 adjustable Search Term 4 adjustable connector Search Term 5 wearer Before Priority Date: priority:20061214
4/19/2024 9:47:40 AM	Google Scholar	speaker module detachable module detachable earstem
4/19/2024 9:47:40 AM	Google Patents	Search Term 1 speaker Search Term 2 module Search Term 3 detachable module Search Term 4 detachable Search Term 5 earstem Before Priority Date: priority:20000602
4/19/2024 9:47:47 AM	Google Scholar	sensors earphones recited user media player

date, time	web site	search string
4/19/2024 9:47:47 AM	Google Patents	Search Term 1 sensors Search Term 2 earphones Search Term 3 recited Search Term 4 user Search Term 5 media player Before Priority Date: priority:20080714
4/19/2024 9:47:58 AM	Google Scholar	eyeglass frame frame extension arm eyeglass speaker
4/19/2024 9:47:58 AM	Google Patents	Search Term 1 eyeglass frame Search Term 2 frame Search Term 3 extension arm Search Term 4 eyeglass Search Term 5 speaker Before Priority Date: priority:20010621
4/19/2024 9:48:10 AM	Google Scholar	source audio wearer speaker interface
4/19/2024 9:48:10 AM	Google Patents	Search Term 1 source Search Term 2 audio Search Term 3 wearer Search Term 4 speaker Search Term 5 interface Before Priority Date: priority:20041222
4/19/2024 9:48:33 AM	Google Scholar	sound unit outputting device user side unit

date, time	web site	search string
4/19/2024 9:48:33 AM	Google Patents	Search Term 1 sound Search Term 2 unit Search Term 3 outputting device Search Term 4 user Search Term 5 side unit Before Priority Date: priority:20110527
4/19/2024 9:48:43 AM	Google Scholar	audio communication system audio communication user zone
4/19/2024 9:48:43 AM	Google Patents	Search Term 1 audio Search Term 2 communication system Search Term 3 audio communication Search Term 4 user Search Term 5 zone Before Priority Date: priority:20131220
4/19/2024 9:48:50 AM	Google Scholar	eyeglass view elevational view side elevational ornamental design
4/19/2024 9:48:50 AM	Google Patents	Search Term 1 eyeglass Search Term 2 view Search Term 3 elevational view Search Term 4 side elevational Search Term 5 ornamental design Before Priority Date: priority:20150325
4/19/2024 9:49:08 AM	Google Scholar	module interface system electronically enabled enabled interface speaker

date, time	web site	search string
4/19/2024 9:49:08 AM	Google Patents	Search Term 1 module Search Term 2 interface system Search Term 3 electronically enabled Search Term 4 enabled interface Search Term 5 speaker Before Priority Date: priority:20000602
4/19/2024 9:49:22 AM	Google Scholar	display user eyewear system support source device
4/19/2024 9:49:22 AM	Google Patents	Search Term 1 display Search Term 2 user Search Term 3 eyewear system Search Term 4 support Search Term 5 source device Before Priority Date: priority:20130315
4/19/2024 10:18:47 AM	Google Scholar	eyewear communication system base base link modular communication
4/19/2024 10:18:47 AM	Google Patents	Search Term 1 eyewear Search Term 2 communication system Search Term 3 base Search Term 4 base link Search Term 5 modular communication Before Priority Date: priority:20130612
4/19/2024 10:18:54 AM	Google Scholar	connector electronic device eyewear plate attachment member

date, time	web site	search string
4/19/2024 10:18:54 AM	Google Patents	Search Term 1 connector Search Term 2 electronic device Search Term 3 eyewear Search Term 4 plate Search Term 5 attachment member Before Priority Date: priority:20120217
4/19/2024 10:19:01 AM	Google Scholar	side section wearer vibration vibration transducer support structure
4/19/2024 10:19:01 AM	Google Patents	Search Term 1 side section Search Term 2 wearer Search Term 3 vibration Search Term 4 vibration transducer Search Term 5 support structure Before Priority Date: priority:20110720
4/19/2024 10:19:11 AM	Google Scholar	earphone communication equipment wireless headset ears wearing state
4/19/2024 10:19:11 AM	Google Patents	Search Term 1 earphone Search Term 2 communication equipment Search Term 3 wireless headset Search Term 4 ears Search Term 5 wearing state Before Priority Date: priority:20180605
4/19/2024 10:19:38 AM	Google Scholar	loudspeaker vibration fixed position hinge supporting surface

date, time	web site	search string
4/19/2024 10:19:38 AM	Google Patents	Search Term 1 loudspeaker Search Term 2 vibration Search Term 3 fixed position Search Term 4 hinge Search Term 5 supporting surface Before Priority Date: priority:20180824
4/19/2024 10:19:44 AM	Google Scholar	speaker user frequency unit housing member
4/19/2024 10:19:44 AM	Google Patents	Search Term 1 speaker Search Term 2 user Search Term 3 frequency Search Term 4 unit Search Term 5 housing member Before Priority Date: priority:20201104
4/19/2024 10:19:57 AM	Google Scholar	radiation electro birefringent zone plate electrodes
4/19/2024 10:19:57 AM	Google Patents	Search Term 1 radiation Search Term 2 electro Search Term 3 birefringent Search Term 4 zone plate Search Term 5 electrodes Before Priority Date: priority:19630628
4/19/2024 10:20:03 AM	Google Scholar	eye patient refractometer test attachment

date, time	web site	search string
4/19/2024 10:20:03 AM	Google Patents	Search Term 1 eye Search Term 2 patient Search Term 3 refractometer Search Term 4 test Search Term 5 attachment Before Priority Date: priority:19691106
4/19/2024 10:20:12 AM	Google Scholar	fluid spectacle reservoir compartment lens
4/19/2024 10:20:12 AM	Google Patents	Search Term 1 fluid Search Term 2 spectacle Search Term 3 reservoir Search Term 4 compartment Search Term 5 lens Before Priority Date: priority:19700423
4/19/2024 10:44:16 AM	Google Scholar	assembly wearer ear protective structured
4/19/2024 10:44:16 AM	Google Patents	Search Term 1 assembly Search Term 2 wearer Search Term 3 ear Search Term 4 protective Search Term 5 structured Before Priority Date: priority:20000110
4/19/2024 10:44:23 AM	Google Scholar	internet network terminal data telephony

date, time	web site	search string
4/19/2024 10:44:23 AM	Google Patents	Search Term 1 internet Search Term 2 network Search Term 3 terminal Search Term 4 data Search Term 5 telephony Before Priority Date: priority:20000901
4/19/2024 10:45:00 AM	Google Scholar	leo pigment blocking element wavelengths short
4/19/2024 10:45:00 AM	Google Patents	Search Term 1 leo Search Term 2 pigment Search Term 3 blocking element Search Term 4 wavelengths Search Term 5 short Before Priority Date: priority:20121221
4/19/2024 10:45:07 AM	Google Scholar	display device ocular prosthesis prosthesis ocular display
4/19/2024 10:45:07 AM	Google Patents	Search Term 1 display device Search Term 2 ocular prosthesis Search Term 3 prosthesis Search Term 4 ocular Search Term 5 display Before Priority Date: priority:20130109
4/19/2024 10:45:15 AM	Google Scholar	organic semiconductor ophthalmic lens ophthalmic semiconductor layer thin film

date, time	web site	search string
4/19/2024 10:45:15 AM	Google Patents	Search Term 1 organic semiconductor Search Term 2 ophthalmic lens Search Term 3 ophthalmic Search Term 4 semiconductor layer Search Term 5 thin film Before Priority Date: priority:20130315
4/19/2024 10:45:24 AM	Google Scholar	liquid crystal crystal lens tunable liquid power optical
4/19/2024 10:45:24 AM	Google Patents	Search Term 1 liquid crystal Search Term 2 crystal lens Search Term 3 tunable liquid Search Term 4 power Search Term 5 optical Before Priority Date: priority:20130430
4/19/2024 10:45:34 AM	Google Scholar	programming ophthalmic lens media insert programming apparatus lens
4/19/2024 10:45:34 AM	Google Patents	Search Term 1 programming Search Term 2 ophthalmic lens Search Term 3 media insert Search Term 4 programming apparatus Search Term 5 lens Before Priority Date: priority:20130530
4/19/2024 10:45:42 AM	Google Scholar	ophthalmic lens programming media insert parameters programmable media

date, time	web site	search string
4/19/2024 10:45:42 AM	Google Patents	Search Term 1 ophthalmic lens Search Term 2 programming Search Term 3 media insert Search Term 4 parameters Search Term 5 programmable media Before Priority Date: priority:20130530
4/19/2024 11:10:55 AM	Google Scholar	hat brim led lens leds
4/19/2024 11:10:55 AM	Google Patents	Search Term 1 hat Search Term 2 brim Search Term 3 led Search Term 4 lens Search Term 5 leds Before Priority Date: priority:20050517
4/19/2024 11:11:06 AM	Google Scholar	light module clip light module mounting member
4/19/2024 11:11:06 AM	Google Patents	Search Term 1 light Search Term 2 module Search Term 3 clip Search Term 4 light module Search Term 5 mounting member Before Priority Date: priority:20011107
4/19/2024 11:11:17 AM	Google Scholar	light temple arm portions temple cross

date, time	web site	search string
4/19/2024 11:11:17 AM	Google Patents	Search Term 1 light Search Term 2 temple arm Search Term 3 portions Search Term 4 temple Search Term 5 cross Before Priority Date: priority:20011107
4/19/2024 11:11:32 AM	Google Scholar	temple arm temple arm members portions illuminated eyewear
4/19/2024 11:11:32 AM	Google Patents	Search Term 1 temple arm Search Term 2 temple Search Term 3 arm members Search Term 4 portions Search Term 5 illuminated eyewear Before Priority Date: priority:20011107
4/19/2024 11:11:42 AM	Google Scholar	glasses camera pair temple user
4/19/2024 11:11:42 AM	Google Patents	Search Term 1 glasses Search Term 2 camera Search Term 3 pair Search Term 4 temple Search Term 5 user Before Priority Date: priority:20031009
4/19/2024 11:11:50 AM	Google Scholar	temple glasses pair electronic device arrangement

date, time	web site	search string
4/19/2024 11:11:50 AM	Google Patents	Search Term 1 temple Search Term 2 glasses Search Term 3 pair Search Term 4 electronic device Search Term 5 arrangement Before Priority Date: priority:20031009
4/19/2024 11:12:01 AM	Google Scholar	glasses pair pedometer temple recited
4/19/2024 11:12:01 AM	Google Patents	Search Term 1 glasses Search Term 2 pair Search Term 3 pedometer Search Term 4 temple Search Term 5 recited Before Priority Date: priority:20031009
4/19/2024 11:12:15 AM	Google Scholar	temple connector rearward recited electrical components
4/19/2024 11:12:15 AM	Google Patents	Search Term 1 temple Search Term 2 connector Search Term 3 rearward Search Term 4 recited Search Term 5 electrical components Before Priority Date: priority:20030415
4/19/2024 11:12:27 AM	Google Scholar	coldpack electronic thermoelectric components thermoelectric components

date, time	web site	search string
4/19/2024 11:12:27 AM	Google Patents	Search Term 1 coldpack Search Term 2 electronic Search Term 3 thermoelectric components Search Term 4 thermoelectric Search Term 5 components Before Priority Date: priority:20130603
4/19/2024 11:12:34 AM	Google Scholar	piezoelectric contact lens microdevices array energy harvesting
4/19/2024 11:12:34 AM	Google Patents	Search Term 1 piezoelectric Search Term 2 contact lens Search Term 3 microdevices Search Term 4 array Search Term 5 energy harvesting Before Priority Date: priority:20130720
4/19/2024 11:31:33 AM	Google Scholar	glasses pair information recited event
4/19/2024 11:31:33 AM	Google Patents	Search Term 1 glasses Search Term 2 pair Search Term 3 information Search Term 4 recited Search Term 5 event Before Priority Date: priority:20031009
4/19/2024 11:31:41 AM	Google Scholar	eyeglasses sensor wireless communication recited communication circuitry

date, time	web site	search string
4/19/2024 11:31:41 AM	Google Patents	Search Term 1 eyeglasses Search Term 2 sensor Search Term 3 wireless communication Search Term 4 recited Search Term 5 communication circuitry Before Priority Date: priority:20030415
4/19/2024 11:31:48 AM	Google Scholar	glasses audio signals user frame hearing
4/19/2024 11:31:48 AM	Google Patents	Search Term 1 glasses Search Term 2 audio signals Search Term 3 user Search Term 4 frame Search Term 5 hearing Before Priority Date: priority:20031009
4/19/2024 11:31:57 AM	Google Scholar	temple eyewear recited eyeglass frame electrical components
4/19/2024 11:31:57 AM	Google Patents	Search Term 1 temple Search Term 2 eyewear Search Term 3 recited Search Term 4 eyeglass frame Search Term 5 electrical components Before Priority Date: priority:20031009
4/19/2024 11:32:08 AM	Google Scholar	lens system intraocular lens focal length lens ciliary body

date, time	web site	search string
4/19/2024 11:32:08 AM	Google Patents	Search Term 1 lens system Search Term 2 intraocular lens Search Term 3 focal length Search Term 4 lens Search Term 5 ciliary body Before Priority Date: priority:20130918
4/19/2024 11:32:15 AM	Google Scholar	ophthalmic device retinal vascularization monitoring system ophthalmic signal
4/19/2024 11:32:15 AM	Google Patents	Search Term 1 ophthalmic device Search Term 2 retinal vascularization Search Term 3 monitoring system Search Term 4 ophthalmic Search Term 5 signal Before Priority Date: priority:20131122
4/19/2024 11:32:23 AM	Google Scholar	grid configurable light viewer screen
4/19/2024 11:32:23 AM	Google Patents	Search Term 1 grid Search Term 2 configurable Search Term 3 light Search Term 4 viewer Search Term 5 screen Before Priority Date: priority:20140130
4/19/2024 11:32:32 AM	Google Scholar	piezoelectric sensor vision correction vision correction piezoelectric

date, time	web site	search string
4/19/2024 11:32:32 AM	Google Patents	Search Term 1 piezoelectric sensor Search Term 2 vision correction Search Term 3 vision Search Term 4 correction Search Term 5 piezoelectric Before Priority Date: priority:20140213
4/19/2024 12:00:09 PM	Google Scholar	contact lens wireless communication lens antenna data
4/19/2024 12:00:09 PM	Google Patents	Search Term 1 contact lens Search Term 2 wireless communication Search Term 3 lens Search Term 4 antenna Search Term 5 data Before Priority Date: priority:20140325
4/19/2024 12:00:18 PM	Google Scholar	pct prosthetic capsular iol eye refractive
4/19/2024 12:00:18 PM	Google Patents	Search Term 1 pct Search Term 2 prosthetic capsular Search Term 3 iol Search Term 4 eye Search Term 5 refractive Before Priority Date: priority:20140619
4/19/2024 12:00:26 PM	Google Scholar	lens combination intraocular optical combination according lens

date, time	web site	search string
4/19/2024 12:00:26 PM	Google Patents	Search Term 1 lens combination Search Term 2 intraocular Search Term 3 optical Search Term 4 combination according Search Term 5 lens Before Priority Date: priority:20140801
4/19/2024 12:00:33 PM	Google Scholar	camera eyewear marker image lens
4/19/2024 12:00:33 PM	Google Patents	Search Term 1 camera Search Term 2 eyewear Search Term 3 marker Search Term 4 image Search Term 5 lens Before Priority Date: priority:20140803
4/19/2024 12:00:47 PM	Google Scholar	temple camera guide groove electronic device
4/19/2024 12:00:47 PM	Google Patents	Search Term 1 temple Search Term 2 camera Search Term 3 guide Search Term 4 groove Search Term 5 electronic device Before Priority Date: priority:20140803
4/19/2024 12:01:06 PM	Google Scholar	radiation frame output eyewear sensor

date, time	web site	search string
4/19/2024 12:01:06 PM	Google Patents	Search Term 1 radiation Search Term 2 frame Search Term 3 output Search Term 4 eyewear Search Term 5 sensor Before Priority Date: priority:20040415
4/19/2024 12:01:15 PM	Google Scholar	(bone conduction) (content data) (user) (head) (control unit)
4/19/2024 12:01:15 PM	Google Patents	Search Term 1 (bone conduction) (content data) (user) (head) (control unit) Before Priority Date: priority:20030807
4/19/2024 12:01:17 PM	Google Scholar	bone conduction content data user head control unit
4/19/2024 12:01:17 PM	Google Patents	Search Term 1 bone conduction Search Term 2 content data Search Term 3 user Search Term 4 head Search Term 5 control unit Before Priority Date: priority:20030807

date, time	web site	search string
4/19/2024 12:01:25 PM	Google Patents	Search Term 1 (bone conduction) Search Term 2 (content data) Search Term 3 (user) Search Term 4 (head) Search Term 5 (control unit) Before Priority Date: priority:20030807
4/19/2024 12:01:31 PM	Google Scholar	conductive element optical device wearable optical fog thermal contact
4/19/2024 12:01:31 PM	Google Patents	Search Term 1 conductive element Search Term 2 optical device Search Term 3 wearable optical Search Term 4 fog Search Term 5 thermal contact Before Priority Date: priority:20140808
4/19/2024 12:01:39 PM	Google Scholar	battery examples cathode anode biomedical device
4/19/2024 12:01:39 PM	Google Patents	Search Term 1 battery Search Term 2 examples Search Term 3 cathode Search Term 4 anode Search Term 5 biomedical device Before Priority Date: priority:20140821

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US	11183263			07/15/2005	US 60647826 US 60527565 US 60583169 US 60509631 US 10964011 US 60562798 US 60620238 US 60618107 US 60606191 US 11183263 US 60592045 US 60647836	US 20060001827 A1 US 7360986 B2	01/06/2006 06/03/2008
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US	11183283			07/15/2005	US 60647826 US 60527565 US 60583169 US 60509631 US 11183283 US 10964011 US 60562798 US 60620238 US 60618107 US 60606191 US 60592045 US 60647836	US 20050248719 A1	11/10/2005

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US	11700550			01/30/2007	US 60583169 US 11700550 US 11078855 US 60787850 US 60846150 US 60647826 US 60783854 US 60562798 US 60620238 US 60618107 US 60605191 US 60592045 US 60647836	US 20070186330 A1	08/16/2007

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US	11803612			09/20/2007	US 60848150 US 11903512	US 2008068559 A1 US 7543934 B2	03/20/2008 06/09/2009
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US	12322377			02/02/2009	US 60647826 US 60583169 US 12322377 US 11078655 US 60562798 US 60820238 US 60618107 US 60605191 US 60592045 US 60847836	US 20090147215 A1 US 8770742 B2	06/11/2009 07/08/2014
US	12462286			07/31/2009	US 60583169 US 60725896 US 11183289 US 60787650 US 60346156 US 10964011 US 60725999 US 60647826 US 60527565 US 60509631 US 60562798 US 60820238 US 11580222 US 60618107 US 60605191 US 12462286 US 60592045 US 60647836	US 20090296044 A1 US 8108629 B2	12/03/2009 02/07/2012
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US	12803732			07/01/2010	US 60583169 US 60725896 US 11046685 US 60787550 US 60546100 US 10964011 US 12803732 US 60725999 US 11183269 US 60647826 US 60527565 US 60509631 US 60562798 US 60520238 US 60818107 US 60605191 US 60592045 US 60647836	US 20110152734 A1 US 8434863 B2	05/05/2011 05/07/2013
US	12806312			08/10/2010	US 60583169 US 60725896 US 60787550 US 10822218 US 11891411 US 60647826 US 60527565 US 12214435 US 60605191 US 12462288 US 60592045 US 60647836 US 11183269 US 11183275 US 60846150 US 10964011 US 12806312 US 60725999 US 12317043 US 60509631 US 60562798 US 60520238 US 11580222 US 60818107 US 60462591	US 20100399426 A1 US 8466151 B2	12/09/2010 06/18/2013
US	12987018			01/07/2011	US 12987018 US 11497651 US 12074361 US 11006343 US 60527565	US 8112104 B1	02/07/2012
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US	13291020			11/07/2011	US 60503169 US 60725896 US 11046685 US 60787550 US 60846100 US 10964011 US 12803732 US 60725999 US 11183256 US 60647826 US 60527565 US 60509631 US 60562798 US 60520238 US 60818107 US 13291020 US 60605191 US 60592045 US 60647836	US 20120150868 A1 US 8430507 B2	03/01/2012 04/30/2013
US	13363360			01/01/2012	US 12987018 US 11497851 US 12074961 US 11006243 US 60527565 US 13363360	US 8280419 B1	10/02/2012
US	13367346			02/06/2012	US 60503169 US 60725896 US 11078855 US 60787550 US 13367346 US 10822218 US 60647826 US 60527565 US 60605191 US 12462286 US 60592045 US 60647836 US 11183269 US 11183276 US 11546685 US 60846100 US 10964011 US 60725999 US 11183256 US 11006343 US 60509631 US 11183283 US 60562798 US 11183262 US 60520238 US 11560222 US 60818107 US 11078857 US 11183263	US 20120133885 A1 US 9033493 B2	05/31/2012 05/19/2015
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US	13831512			03/14/2013	US 60583169 US 60725896 US 11078855 US 60787850 US 10822218 US 11391411 US 60647826 US 60527565 US 12214435 US 60605191 US 13831612 US 12462286 US 60592045 US 60647836 US 11183269 US 11183278 US 11546885 US 60346150 US 10964011 US 12803732 US 60725999 US 11183256 US 12317943 US 11006343 US 60509831 US 11183283 US 60562798 US 11183262 US 60620238 US 11580222 US 60618107 US 60462591 US 11078857 US 11183263	US 20130201440 A1 US 9690121 B2	08/08/2013 06/27/2017
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US	13831419			03/14/2013	US 60583169 US 60725896 US 11078855 US 60787550 US 10822218 US 60647826 US 60527565 US 13291020 US 60505191 US 13831419 US 60592045 US 60647836 US 11183269 US 11183276 US 11546685 US 60846150 US 10964011 US 12803732 US 60725665 US 11183256 US 11006343 US 60508631 US 11183283 US 60562798 US 11183262 US 60620238 US 11580222 US 80618107 US 11078857 US 11183263	US 20140268508 A1 US 20160246075 A9 US 10345625 B2	09/18/2014 08/25/2016 07/09/2019
US	13855336			07/31/2013	US 60583169 US 11078855 US 11183269 US 11183276 US 10964011 US 13555336 US 10822218 US 13035402 US 11183256 US 60647826 US 11006343 US 60527565 US 60508631 US 11183283 US 11183262 US 60562798 US 11183262 US 60620238 US 80618107 US 60505191 US 11078857 US 11183263 US 60592045 US 60647836	US 20130368098 A1 US 8905542 B2	11/21/2013 12/09/2014
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US	14286976			05/23/2014	US 12987018 US 11497561 US 13593463 US 11006343 US 80527565 US 13363360 US 14286976 US 12074961	US 20140256293 A1 US 11019199 B2	09/11/2014 05/25/2021
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US	14557409			12/01/2014	US 80583169 US 11078855 US 11183269 US 11183276 US 10964011 US 13555336 US 10522218 US 13086402 US 11183256 US 14557409 US 80547526 US 11006343 US 80527565 US 80509631 US 11183263 US 80562798 US 11183262 US 80620238 US 80618107 US 80606191 US 11078857 US 11183263 US 80592045 US 80647536	US 20150085245 A1 US 9547184 B2	03/26/2015 01/17/2017
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US	14922344			10/26/2015	US 14922344 US 11006343 US 60527565 US 14272532 US 11452115 US 60862798 US 12798996	US 20180044474 A1 US 9738664 B2	02/11/2016 08/15/2017
US	15343472			11/04/2016	US 14313989 US 80583169 US 12322377 US 11078855 US 10964011 US 10822218 US 60647526 US 15343472 US 11006343 US 60562798 US 60620238 US 60618107 US 60606191 US 11078857 US 60592045 US 60647536	US 20170074721 A1 US 10080790 B2	03/16/2017 08/28/2018

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US	16102859			08/14/2018	US 14313989 US 60563169 US 12122377 US 11078855 US 16102859 US 60647826 US 15343472 US 60562798 US 60620238 US 60618107 US 60605191 US 60592045 US 60647836	US 20180348050 A1 US 10359311 B2	12/06/2018 07/23/2019
US	16127957			09/11/2018	US 14715501 US 60563169 US 60725896 US 11183289 US 60787550 US 60846150 US 10964011 US 13367346 US 60725999 US 16127957 US 60847826 US 60527565 US 60509631 US 60562798 US 60620238 US 11580222 US 60618107 US 60605191 US 12462286 US 60592045 US 60647836	US 20190033623 A1 US 11056147 B2	01/31/2019 08/10/2021

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US	16424018			05/29/2019	US 60593169 US 60725996 US 11546985 US 60787550 US 60846150 US 10964011 US 12803732 US 60725999 US 11183256 US 60847826 US 60527565 US 16424018 US 60509631 US 60562798 US 60820238 US 60618107 US 13091020 US 60605191 US 13831419 US 60592045 US 60647836	US 20190278110 A1 US 11630331 B2	09/12/2019 04/18/2023

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US	16429181			05/03/2019	US 60583169 US 60726896 US 11546685 US 80787850 US 60946150 US 10364011 US 13831455 US 12803732 US 60725999 US 11183256 US 60847826 US 60527565 US 60509631 US 16429181 US 60562798 US 60820238 US 60818107 US 60605191 US 60592045 US 60647536	US 20190255913 A1 US 11513371 B2	09/19/2019 11/29/2022
US	16445452			06/19/2019	US 12987018 US 11497851 US 13593483 US 11006343 US 60527565 US 13363360 US 14286976 US 12074961 US 16445452	US 20190306304 A1 US 11792316 B2	10/03/2019 10/17/2023
US	16446710			06/20/2019	US 12987018 US 11497851 US 13593483 US 11006343 US 60527565 US 13363360 US 14286976 US 12074961 US 16446710	US 20190306305 A1 US 11711459 B2	10/03/2019 07/25/2023
US	16556205			08/29/2019	US 14922344 US 11006343 US 60527565 US 14272632 US 15469440 US 11452115 US 60593686 US 15704181 US 12798995 US 16556205	US 20190387371 A1 US 10708727 B2	12/19/2019 07/07/2020

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US	16574254			09/18/2019	US 60583169 US 11183269 US 10964011 US 13955336 US 13086402 US 16049120 US 14557409 US 60647826 US 60527565 US 60509631 US 15375423 US 60562798 US 60620238 US 60618107 US 16574254 US 60606191 US 60592045 US 60647836	US 20200012127 A1 US 11204612 B2	01/09/2020 12/21/2021
US	15703805			12/04/2019	US 14313989 US 60583169 US 12322377 US 11078855 US 16102859 US 16426351 US 16703805 US 60647826 US 16343472 US 60562798 US 60620238 US 60618107 US 60606191 US 60592045 US 60647836	US 20200109986 A1 US 11326941 B2	04/09/2020 05/10/2022
US	16794458			02/19/2020	US 14922344 US 11066343 US 60527565 US 14272632 US 16794458 US 19489440 US 11452115 US 60689686 US 16704181 US 12798995 US 16556205	US 20200186975 A1 US 11800329 B2	06/11/2020 10/24/2023
US	16821810			03/17/2020	US 60583169 US 16821810 US 11183269 US 10964011 US 13955336 US 13086402 US 16049120 US 14557409 US 60647826 US 60527565 US 60509631 US 15375423 US 60562798 US 60620238 US 60618107 US 16574254 US 60606191 US 60592045 US 60647836	US 20200218094 A1 US 11536988 B2	07/09/2020 12/27/2022

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US	17484080			09/24/2021	US 17484080 US 80583189 US 11183269 US 10964011 US 13955336 US 13085402 US 16049120 US 14557409 US 60647826 US 60527565 US 60509531 US 15375423 US 60562798 US 60820238 US 60618107 US 16574254 US 60609191 US 60592045 US 60647836	US 20220011603 A1	01/13/2022
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US	17873104			07/25/2022	US 17494080 US 11183269 US 13855336 US 13189402 US 16049120 US 14557409 US 60647826 US 15375423 US 17873104 US 60620238 US 60618107 US 16574254 US 60605191 US 60592045 US 60647836	US 20220357599 A1 US 11644693 B2	11/10/2022 05/09/2023
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US	17849029	1)Howell, Thomas A. 2)Chao, David,3)Thomas, C. Douglass,4)Tong, Peter	WEARABLE AUDIO SYSTEM SUPPORTING ENHANCED HEARING SUPPORT	09/20/2022	US 17849029 US 17494080 US 11183269 US 13855336 US 13189402 US 16049120 US 14557409 US 60647826 US 15375423 US 60620238 US 60618107 US 16574254 US 60605191 US 60592045 US 60647836	US 20230017635 A1	01/19/2023

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Bibliographic Data

Application No: 18/597,874

Foreign Priority claimed: ☐ Yes ☒ No

35 USC 119 (a-d) conditions met: ☐ Yes ☒ No

☐ Met After Allowance

Verified and Acknowledged: /JIE LEI/

Examiner's Signature

Initials

Title:

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

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
03/06/2024	351	2872	IPVCP003X1C4X1C2
RULE			

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180.	2020/0218094 A1	Jul-20	Howell et al.			
181.	2020/0364992 A1	Nov-20	Howell et al.			
182.	2021/0000347 A1	Jan-21	Stump			
183.	2021/0026146 A1	Jan-21	Harder et al.			
184.	2021/0271116 A1	Sep-21	Chao et al.			
185.	2021/0364827 A9	Nov-21	Howell et al.			
186.	2021/0364828 A1	Nov-21	Howell et al.			
187.	2021/0379425 A1	Dec-21	Tran			
188.	2021/0399691 A1	Dec-21	SAMINATHAN et al.			
189.	2022/0008763 A1	Jan-22	SALEH et al.			
190.	2022/0011603 A1	Jan-22	Howell et al.			
191.	2022/0034542 A1	Feb-22	Peters et al.			
192.	2022/0054092 A1	Feb-22	Howell et al.			
193.	2022/0178743 A1	Jun-22	Howell et al.			
194.	2022/0260859 A1	Aug-22	Howell et al.			
195.	2022/0335792 A1	Oct-22	Howell et al.			
196.	2022/0357599 A1	Nov-22	Howell et al.			
197.	2022/0415338 A1	Dec-22	Howell et al.			
198.	2023/0017635 A1	Jan-23	Howell et al.			
199.	2023/0033660 A1	Feb-23	Howell et al.			
200.	2023/0057654 A1	Feb-23	Howell et al.			
201.	2023/0236444 A1	Jul-23	Howell et al.			
202.	2023/0273464 A1	Aug-23	Howell et al.			
203.	2023/0359266 A1	Nov-23	Howell et al.			
204.	2024/0036361 A1	Feb-24	Howell et al.			
205.	320,558	Jun-1885	Hull			
206.	669,949	Mar-1901	Underwood			
207.	1,255,265	Feb-1918	Zachara			
208.	1,917,745	Jul-33	Weiss			

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209.	2,249,572	Jul-41	Lieber			
210.	2,638,532	May-53	Brady			
211.	2,725,462	Nov-55	Vorgang			
212.	2,794,085	May-57	De Angelis			
213.	2,818,511	Dec-57	Ullery et al.			
214.	2,830,132	Apr-58	Borg			
215.	2,874,230	Feb-59	Carlson			
216.	2,904,670	Sep-59	Calmes			
217.	3,060,308	Oct-62	Fortuna			
218.	3,104,290	Sep-63	Rosemond et al.			
219.	3,119,903	Jan-64	Rosemond et al.			
220.	3,597,054	Aug-71	Winter			
221.	3,710,115	Jan-73	Jubb			
222.	3,858,001	Dec-74	Bonne			
223.	3,883,701	May-75	Delorenzo			
224.	4,165,487	Aug-79	Corderman			
225.	4,254,451	Mar-81	Cochran, Jr.			
226.	4,283,127	Aug-81	Rosenwinkel et al.			
227.	4,322,585	Mar-82	Liautaud			
228.	4,348,664	Sep-82	Boschetti et al.			
229.	4,389,217	Jun-83	Baughman et al.			
230.	4,526,473	Jul-85	Zahn, III			
231.	4,535,244	Aug-85	Burnham			
232.	4,608,492	Aug-86	Burnham			
233.	4,683,587	Jul-87	Silverman			
234.	4,751,691	Jun-88	Perera			
235.	4,757,714	Jul-88	Purdy et al.			
236.	4,773,095	Sep-88	Zwicker et al.			
237.	4,806,011	Feb-89	Bettinger			
238.	4,822,160	April-89	Tsai			

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239.	4,822,161	Apr-89	Jimmy			
240.	4,851,686	Jul-89	Pearson			
241.	4,856,086	Aug-89	McCullough			
242.	4,859,047	Aug-89	Badewitz			
243.	4,882,769	Nov-89	Gallimore			
244.	4,904,078	Feb-90	Gorike			
245.	4,942,629	Jul-90	Stadlmann			
246.	4,962,469	Oct-90	Ono et al.			
247.	4,967,268	Oct-90	Lipton et al.			
248.	4,985,632	Jan-91	Bianco et al.			
249.	5,008,548	Apr-91	Gat			
250.	5,015,086	May-91	Okaue et al.			
251.	5,020,150	May-91	Shannon			
252.	5,026,151	Jun-91	Waltuck et al.			
253.	5,036,311	Jul-91	Moran et al.			
254.	5,050,150	Sep-91	Ikeda			
255.	5,064,410	Nov-91	Frenkel et al.			
256.	5,093,576	Mar-92	Edmond et al.			
257.	5,106,179	Apr-92	Kamaya et al.			
258.	5,144,344	Sep-92	Takahashi et al.			
259.	5,148,023	Sep-92	Hayashi et al.			
260.	5,151,600	Sep-92	Black			
261.	5,161,250	Nov-92	Ianna et al			
262.	5,172,256	Dec-92	Sethofer et al.			
263.	5,264,877	Nov-93	Hussey			
264.	5,306,917	Apr-94	Black et al.			
265.	5,353,378	Oct-94	Hoffman et al.			
266.	5,359,370	Oct-94	Mugnier			
267.	5,359,444	Oct-94	Piosenka et al.			
268.	5,367,345	Nov-94	da Silva			

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269.	5,379,464	Jan-95	Schleger et al.			
270.	5,382,986	Jan-95	Black et al.			
271.	5,394,005	Feb-95	Brown et al.			
272.	5,452,026	Sep-95	Marcy, III			
273.	5,452,480	Sep-95	Ryden			
274.	5,455,637	Oct-95	Kallman et al.			
275.	5,455,640	Oct-95	Gertsikov			
276.	5,457,751	Oct-95	Such			
277.	5,463,428	Oct-95	Lipton et al.			
278.	5,475,798	Dec-95	Handlos			
279.	5,500,532	Mar-96	Kozicki			
280.	5,510,961	Apr-96	Peng			
281.	5,513,384	Apr-96	Brennan et al.			
282.	5,519,781	May-96	Kurkurudza			
283.	5,533,130	Jul-96	Staton			
284.	5,541,641	Jul-96	Shimada			
285.	5,581,090	Dec-96	Goudjil			
286.	5,585,871	Dec.-96	Linden			
287.	5,589,398	Dec-96	Krause et al.			
288.	5,590,417	Dec-96	Rydbeck			
289.	5,606,743	Feb-97	Vogt et al.			
290.	5,608,808	Mar-97	da Silva			
291.	5,634,201	May-97	Mooring			
292.	5,671,035	Sep-97	Barnes			
293.	5,686,727	Nov-97	Reenstra et al.			
294.	5,694,475	Dec-97	Boyden			
295.	5,715,323	Feb-98	Walker			
296.	5,737,436	Apr-98	Boyden et al.			
297.	5,777,715	Jul-98	Kruegle et al.			
298.	5,790,311	Aug-98	Togino			

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299.	5,818,381	Oct-98	Williams			
300.	5,819,183	Oct-98	Voroba et al.			
301.	5,835,185	Nov-98	Kallman et al.			
302.	5,900,720	May-99	Kallman et al.			
303.	5,903,395	May-99	Rallison et al.			
304.	5,923,398	Jul-99	Goldman			
305.	5,941,837	Aug-99	Amano et al.			
306.	5,946,071	Aug-99	Feldman			
307.	5,949,516	Sep-99	McCurdy			
308.	5,966,746	Oct-99	Reedy et al.			
309.	5,980,037	Nov-99	Conway			
310.	5,988,812	Nov-99	Wingate			
311.	5,991,085	Nov-99	Rallison et al.			
312.	5,992,996	Nov-99	Sawyer			
313.	5,995,592	Nov-99	Shirai et al.			
314.	6,091,546	Jul-00	Spitzer			
315.	6,010,216	Jan-00	Jesiek			
316.	6,013,919	Jan-00	Schneider et al.			
317.	6,028,627	Feb-00	Helmsderfer			
318.	6,046,455	Apr-00	Ribi et al.			
319.	6,060,321	May-00	Hovorka			
320.	6,061,580	May-00	Altschul et al.			
321.	6,091,546	Jul-00	Spitzer			
322.	6,091,832	Jul-00	Shurman et al.			
323.	6,115,177	Sep-00	Vossler			
324.	6,132,681	Oct-00	Faran et al.			
325.	6,145,983	Nov-00	Schiffer			
326.	6,154,552	Nov-00	Koroljow et al.			
327.	6,176,576 B1	Jan-01	Green et al.			
328.	6,225,897 B1	May-01	Doyle et al.			

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329.	6,231,181 B1	May-01	Swab			
330.	6,236,969 B1	May-01	Ruppert et al.			
331.	6,243,578 B1	Jun-01	Koike			
332.	6,259,367 B1	Jul-01	Klein			
333.	6,270,466 B1	Aug-01	Weinstein et al.			
334.	6,292,213 B1	Sep-01	Jones			
335.	6,292,685 B1	Sep-01	Pompei			
336.	6,301,050 B1	Oct-01	DeLeon			
337.	6,301,367 B1	Oct-01	Boyden et al.			
338.	6,307,526 B1	Oct-01	Mann			
339.	6,311,155 B1	Oct-01	Vaudrey et al.			
340.	6,343,858 B1	Feb-02	Zelman			
341.	6,346,929 B1	Feb-02	Fukushima et al.			
342.	6,349,001 B1	Feb-02	Spitzer			
343.	6,349,422 B1	Feb-02	Schleger et al.			
344.	6,409,335 B1	Jun-02	Lipawsky			
345.	6,409,338 B1	Jun-02	Jewell			
346.	6,426,719 B1	Jul-02	Nagareda et al.			
347.	6,431,705 B1	Aug-02	Linden			
348.	6,474,816 B2	Nov-02	Butler et al.			
349.	6,478,736 B1	Nov-02	Mault			
350.	6,506,142 B2	Jan-03	Itoh et al.			
351.	6,511,175 B2	Jan-03	Hay et al.			
352.	6,513,532 B2	Feb-03	Mault et al.			
353.	6,517,203 B1	Feb-03	Blum et al.			
354.	6,539,336 B1	Mar-03	Vock et al.			
355.	6,542,081 B2	Apr-03	Torch			
356.	6,546,101 B1	Apr-03	Murray et al.			
357.	6,554,763 B1	Apr-03	Amano et al.			
358.	6,582,075 B1	Jun-03	Swab et al.			

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359.	6,619,799 B1	Sep-03	Blum et al.			
360.	6,629,076 B1	Sep-03	Haken			
361.	6,678,381 B1	Jan-04	Manabe			
362.	6,717,737 B1	Apr-04	Haglund			
363.	6,729,726 B2	May-04	Miller et al.			
364.	6,736,759 B1	May-04	Stubbs et al.			
365.	6,764,194 B1	Jul-04	Cooper			
366.	6,769,767 B2	Aug-04	Swab et al.			
367.	6,771,423 B2	Aug-04	Geist			
368.	6,788,309 B1	Sep-04	Swan et al.			
369.	6,792,401 B1	Sep-04	Nigro et al.			
370.	6,816,314 B2	Nov-04	Shimizu et al.			
371.	6,824,265 B1	Nov-04	Harper			
372.	6,857,741 B2	Feb-05	Blum et al.			
373.	6,871,951 B2	Mar-05	Blum et al.			
374.	6,879,930 B2	Apr-05	Sinclair et al.			
375.	6,912,386 B1	Jun-05	Himberg et al.			
376.	6,929,365 B2	Aug-05	Swab et al.			
377.	6,932,090 B1	Aug-05	Reschke et al.			
378.	6,947,219 B1	Sep-05	Ou			
379.	7,004,582 B2	Feb-06	Jannard et al.			
380.	7,013,009 B2	Mar-06	Warren			
381.	7,023,594 B2	Apr-06	Blum et al.			
382.	7,030,902 B2	Apr-06	Jacobs			
383.	7,031,667 B2	Apr-06	Horiguchi			
384.	7,033,025 B2	Apr-06	Winterbotham			
385.	7,059,717 B2	Jun-06	Bloch			
386.	7,073,905 B2	Jul-06	Da Pra'			
387.	7,079,876 B2	Jul-06	Levy			
388.	7,123,215 B2	Oct-06	Nakada			

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389.	7,192,136 B2	Mar-07	Howell et al.			
390.	7,255,437 B2	Aug-07	Howell et al.			
391.	7,265,358 B2	Sep-07	Fontaine			
392.	7,274,292 B2	Sep-07	Velhal et al.			
393.	7,289,767 B2	Oct-07	Lai			
394.	7,312,699 B2	Dec-07	Chornenky			
395.	7,331,666 B2	Feb-08	Swab et al.			
396.	7,376,238 B1	May-08	Rivas et al.			
397.	7,380,936 B2	Jun-08	Howell et al.			
398.	7,401,918 B2	Jul-08	Howell et al.			
399.	7,405,801 B2	Jul-08	Jacobs			
400.	7,429,965 B2	Sep-08	Weiner			
401.	7,430,299 B2	Sep-08	Armstrong et al.			
402.	7,438,409 B2	Oct-08	Jordan			
403.	7,438,410 B1	Oct-08	Howell et al.			
404.	7,445,332 B2	Nov-08	Jannard et al.			
405.	7,481,531 B2	Jan-09	Howell et al.			
406.	7,500,746 B2	Mar-09	Howell et al.			
407.	7,500,747 B2	Mar-09	Howell et al.			
408.	7,512,414 B2	Mar-09	Jannard et al.			
409.	7,517,083 B2	Apr-09	Blum et al.			
410.	7,527,374 B2	May-09	Chou			
411.	7,543,934 B2	Jun-09	Howell et al.			
412.	7,581,833 B2	Sep-09	Howell et al.			
413.	7,621,634 B2	Nov-09	Howell et al.			
414.	7,648,236 B1	Jan-10	Dobson			
415.	7,677,723 B2	Mar-10	Howell et al.			
416.	7,760,898 B2	Jul-10	Howell et al.			
417.	7,771,046 B2	Aug-10	Howell et al.			
418.	7,787,647 B2	Aug-10	Hagen et al.			

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419.	7,792,552 B2	Sep-10	Thomas et al.			
420.	7,801,570 B2	Sep-10	Cheung et al.			
421.	7,806,525 B2	Oct-10	Howell et al.			
422.	7,922,321 B2	Apr-11	Howell et al.			
423.	7,976,159 B2	Jul-11	Jacobs et al.			
424.	8,009,849 B2	Aug-11	Enzmann			
425.	8,109,629 B2	Feb-12	Howell et al.			
426.	8,142,015 B2	Mar-12	Paolino			
427.	8,174,569 B2	May-12	Tanijiri et al.			
428.	8,175,886 B2	May-12	Odinak			
429.	8,251,875 B2	Aug-12	Ellis et al.			
430.	8,337,013 B2	Dec-12	Howell et al.			
431.	8,430,507 B2	Apr-13	Howell et al.			
432.	8,434,863 B2	May-13	Howell et al.			
433.	8,465,151 B2	Jun-13	Howell et al.			
434.	8,485,661 B2	Jul-13	Yoo et al.			
435.	8,500,271 B2	Aug-13	Howell et al.			
436.	8,571,241 B2	Oct-13	Larsen			
437.	8,582,789 B2	Nov-13	Cheung et al.			
438.	8,620,208 B2	Dec-13	Slotznick			
439.	8,626,246 B2	Jan-14	Shostak			
440.	8,770,742 B2	Jul-14	Howell et al.			
441.	8,849,185 B2	Sep-14	Cheung et al.			
442.	8,905,542 B2	Dec-14	Howell et al.			
443.	9,033,493 B2	May-15	Howell et al.			
444.	9,183,351 B2	Nov-15	Shusterman			
445.	9,244,292 B2	Jan-16	Swab et al.			
446.	9,369,814 B2	Jun-16	Victorian et al.			
447.	9,400,390 B2	Jul-16	Osterhout et al.			
448.	9,405,135 B2	Aug-16	Sweis et al.			

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449.	9,488,520 B2	Nov-16	Howell et al.			
450.	9,547,184 B2	Jan-17	Howell et al.			
451.	9,690,121 B2	Jun-17	Howell et al.			
452.	9,922,236 B2	Mar-18	Moore et al.			
453.	10,042,186 B2	Aug-18	Chao et al.			
454.	10,060,790 B2	Aug-18	Howell et al.			
455.	10,061,144 B2	Aug-18	Howell et al.			
456.	10,310,296 B2	Jun-19	Howell et al.			
457.	10,345,625 B2	Jul-19	Howell et al.			
458.	10,359,311 B2	Jul-19	Howell et al.			
459.	10,515,623 B1	Dec-19	Grizzel			
460.	10,539,459 B2	Jan-20	Howell et al.			
461.	10,624,790 B2	Apr-20	Chao et al.			
462.	10,571,715 B2	Feb-20	Rizzo, III et al.			
463.	10,777,048 B2	Sep-20	Howell et al.			
464.	10,802,582 B1	Oct-20	Clements			
465.	10,964,190 B2	Mar-21	Peyrard			
466.	11,042,045 B2	Jun-21	Chao et al.			
467.	11,069,358 B1	Jul-21	Harper			
468.	11,086,147 B2	Aug-21	Howell et al.			
469.	11,204,512 B2	Dec-21	Howell et al.			
470.	11,243,416 B2	Feb-22	Howell et al.			
471.	11,326,941 B2	May-22	Howell et al.			
472.	11,480,802 B1	Oct-22	Tombelli			
473.	11,513,371 B2	Nov-22	Howell et al.			
474.	11,536,988 B2	Dec-22	Howell et al.			
475.	11,630,331 B2	Apr-23	Howell et al.			
476.	11,644,361 B2	May-23	Howell et al.			
477.	11,644,693 B2	May-23	Howell et al.			
478.	11,721,183 B2	Aug-23	Howell et al.			

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	Applicant	HOWELL et al.
	Filing Date	Filed Herewith
	Group	Not Yet Assigned
		Page 17 of 17

	479.	11,733,549 B2	Aug-23	Howell et al.			
	480.	11,762,224 B2	Sep-23	Howell et al.			
	481.	11,803,069 B2	Oct-23	Howell et al.			
	482.	11,829,518 B2	Nov-23	Howell et al.			
	483.	DES. 369,167	Apr-96	Hanson et al.			

Foreign Documents

							Translation	
Init.		Document No.	Date	Country	Class	Subclass	Yes	No

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

	A	
	B	
	C	

Examiner /JIE LEI/	Date Considered 05/15/2024
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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
L1	1	"18594662"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 09:39 AM
L1	1	"18597874"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 08:33 AM
L2	5	"18375893"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 08:34 AM
L3	3	"20240036361"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2024/05/15 08:34 AM

L4	3	"18144557"	CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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	2024/05/14 09:42 AM
L4	1	"89665263".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	2024/05/15 08:34 AM
L5	5	"83901364".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/05/14 09:42 AM

L5	33	(Artificial Intelligence) More like doc: US-20240036361-A1 Text: (US-9690121-B2 OR US-9033493-B2 OR US-20170146829-A1 OR US-20170131575- A1 OR US- 20100309426-A1 OR US-20210364827-A9 OR US-20190187492- A1 OR US-8465151-B2 OR US-11762224-B2 OR US-20090296044- A1 OR US- 20210364828-A1 OR US-8109629-B2 OR US-20230408850-A1 OR US-20130201440- A1 OR US-11733549- B2 OR US- 20070046887-A1 OR US-10330956-B2 OR US-20220260859-A1 OR US-20120133885- A1 OR US-11086147- B2).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 08:35 AM
L6	32	(Artificial Intelligence) More like doc: US-20230273464-A1 Text: (US-20220357599-A1 OR US-20230017635- A1 OR US- 20200218094-A1 OR US-20220011603-A1 OR US-20230057654- A1 OR US-11644693- B2 OR US- 20230236444-A1 OR US-20190278110-A1 OR US-11536988-B2 OR US-11803069-B2 OR US-20120050668- A1 OR US- 20140268008-A1 OR US-20160246075-A9 OR US-11921355-B2 OR US-20230359266- A1 OR US-11829518- B1 OR US-11852901- B2 OR US- 20240094800-A1 OR US-11630331-B2 OR US-8430507-B2).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 09:43 AM
L6	27	"20070046887"	(US-PGPUB; USPAT;	OR	ON	ON	2024/05/15

			USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				08:36 AM
L7	2	"37803583".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO)	OR	ON	ON	2024/05/15 08:36 AM
L8	41	"20120050668"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 09:49 AM
L8	33	(Artificial Intelligence) More like doc: US-20070046887-A1 Text: (US-7581833-B2 OR US-20090296044-A1 OR US-20100309426-A1 OR US-8109629-B2 OR US-8465151-B2 OR US-20220260859-A1 OR US-20210364828-A1 OR US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2024/05/15 08:36 AM

L9	6	20120133885-A1 OR US-20230408850-A1 OR US-20170146829- A1 OR US- 20150253590-A1 OR US-20130201440-A1 OR US-20190033623- A1 OR US- 20170131575-A1 OR US-20210364827-A9 OR US-20190187492- A1 OR US-9033493-B2 OR US-11086147-B2 OR US-10330956-B2 OR US-9690121- B2).did. "20230017635"	TH, TN, TR, TW, UA, VN); 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	2024/05/14 09:49 AM
L9	23	"20090296044"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 08:37 AM
L10	6	"46326291".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO,	OR	ON	ON	2024/05/14 09:50 AM

L10	12	"46332221".fmid.	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; JPO)	OR	ON	ON	2024/05/15 08:37 AM
L11	32	(Artificial Intelligence) More like doc: US-20120050668-A1 Text: (US-8430507-B2 OR US-20160246075-A9 OR US-20140268008-A1 OR US-11803069-B2 OR US-20070030442-A1 OR US-10345625-B2 OR US-20230236444-A1 OR US-7806525-B2 OR US-20190278110-A1 OR US-20060023158-A1 OR US-10310296-B2 OR US-7500747-B2 OR US-20230359266-A1 OR US-20170068117-A9 OR US-20140268013-A1 OR US-20230017635-A1 OR US-11829518-B1 OR US-20220357599-A1 OR US-20230273464-A1 OR US-20110102734-A1).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 09:50 AM
L11	33	(Artificial Intelligence) More like doc: US-20090296044-A1 Text: (US-8109629-B2 OR US-20070046887-A1 OR US-20210364828-A1 OR US-20220260859-A1 OR US-20120133885-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,	OR	ON	ON	2024/05/15 08:37 AM

L12	15	OR US-20230408850-A1 OR US-20100309426-A1 OR US-9033493-B2 OR US-20190033623-A1 OR US-10330956-B2 OR US-7581833-B2 OR US-20150253590-A1 OR US-20170146829-A1 OR US-20130201440-A1 OR US-8465151-B2 OR US-20210364827-A9 OR US-20190187492-A1 OR US-20170131575-A1 OR US-11086147-B2 OR US-9690121-B2).did. "20140049831"	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 (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 10:05 AM
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L14	4	"17949029"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO,	OR	ON	ON	2024/02/05 01:07 PM

L15	45	(Artificial Intelligence) More like doc: US-20140049831-A1 Text: (EP-2698662-A1 OR US-9239462-B2 OR JP- 2014038239-A OR JP- 6069946-B2 OR CN- 103592762-A OR JP- 2014191007-A OR JP- 6065694-B2 OR JP- 2014228817-A OR US- 20160252726-A1 OR JP-2015014628-A OR JP-2013250537-A OR JP-2015031776-A OR US-20140184477-A1 OR WO-2015140859- A1 OR JP-2014186235- A OR US-9229236-B2 OR JP- WO2015140859-A1 OR JP-6450944-B2 OR CN-105899997-B OR CN-105899997-A).did.	MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB) (US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 10:06 AM
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L17	114	"20030030597"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL,	OR	ON	ON	2024/05/14 10:07 AM

L18	17	"46304853".fmid.	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 (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/02/05 01:07 PM
L19	1	"27539742".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/05/14 10:07 AM
L20	8	"17484080"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L21	33	(Artificial Intelligence) More like doc: <u>US-20030030597-A1</u> Text: (US-20050078378-A1	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/05/14 10:08 AM

L22	11	OR US-7145726-B2 OR US-6771423-B2 OR US-20030184868-A1 OR US-5642221-A OR EP-3134763-B1 OR WO-2016032653-A1 OR EP-3134763-A1 OR US-20160062120-A1 OR US-9285591-B1 OR US-20050174651-A1 OR EP-1433160-A1 OR WO-03023756-A1 OR US-20040113867-A1 OR US-20030090439-A1 OR US-20160252731-A1 OR US-20200241302-A1 OR US-20160091718-A1 OR EP-4339692-A2 OR US-9366868-B2).did. "16574254"	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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	2024/02/05 01:07 PM
L23	103494	(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	2024/02/05 01:07 PM
L24	82071	(eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND frame	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/02/05 01:07 PM

L25	77662	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)	CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L26	49408	(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	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L27	46211	(eyewear\$4 OR glasses\$4 OR 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	2024/02/05 01:07 PM

L28	20279	((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV.	VN); FPRS; EPO; JPO; DERWENT; IBM_TDB) (US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L29	144	((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") 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; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L30	129	((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR 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; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L31	125	((("HOWELL") near3 ("Thomas")) OR ((("CHAO") near3 ("David")) OR ((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND frame AND circuit AND	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

L32	125	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 (((("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 wireless\$4) AND (audio OR speak\$4) AND embed\$4	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L33	103	(((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L34	84	microphone (((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

L35	84	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 (((("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	2024/02/05 01:07 PM
L36	84	(((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (((("THOMAS") near3 ("C")) OR ((("TONG") near3 ("Peter")))).INV. AND (eyewear\$4 OR glasses\$4 OR 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

L37	79	microphone AND left AND right AND first AND second AND bridge (((("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; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L43	4184	(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	2024/02/05 01:07 PM
L44	1509	(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,	OR	ON	ON	2024/02/05 01:07 PM

L45	622	(eyewear\$4 OR glasses\$4 OR spetaci\$4 OR eyegalss\$4) AND temple AND ((speaker\$2 OR audio) SAME (sound WITH guid\$4))	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	2024/02/05 01:07 PM
L46	296	(eyewear\$4 OR glasses\$4 OR spetaci\$4 OR eyegalss\$4) AND ((temples SAME speakers) AND (sound WITH guid\$4))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L47	13637	(eyewear\$4 OR glasses\$4 OR spetaci\$4 OR eyegalss\$4) AND temple AND (speakers AND audio)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L48	1282	(eyewear\$4 OR glasses\$4 OR spetaci\$4 OR eyegalss\$4) AND (temple SAME	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/02/05 01:07 PM

L49	316	(speakers WITH audio)) (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	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L50	302	(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	2024/02/05 01:07 PM
L51	302	(eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND frame	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

L52	3	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 (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	2024/02/05 01:07 PM
L53	17	"46304853".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/02/05 01:07 PM
L54	103494	(eyewear\$4 OR	(US-PGPUB; USPAT;	OR	ON	ON	2024/02/05

		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	USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				01:07 PM
L55	82071	(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	2024/02/05 01:07 PM
L56	77662	(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	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L57	49408	(eyewear\$4 OR glasses\$4 OR 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	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO,	OR	ON	ON	2024/02/05 01:07 PM

L58	46211	(audio OR speak\$4) AND wireless\$4 AND embed\$4	NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
L59	17504	(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	2024/02/05 01:07 PM
L60	11615	(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	2024/02/05 01:07 PM
L61	3610	(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	2024/02/05 01:07 PM

L62	1920	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 spetacl\$4 OR eyegalss\$4) AND frame AND (circuit near10 board) AND control\$4 AND (memor\$4 OR stor\$4) AND batter\$4 AND connect\$4 AND communicat\$4 AND (audio OR speak\$4) AND wireless\$4 AND embed\$4 AND microphone AND left AND right AND first AND second AND bridge AND partial\$4	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L63	1402	(eyewear\$4 OR glasses\$4 OR spetacl\$4 OR eyegalss\$4) AND frame AND (circuit near10 board) AND (electric\$4 WITH control\$4) AND (memor\$4 OR stor\$4) AND batter\$4 AND connect\$4 AND communicat\$4 AND (audio OR speak\$4) AND wireless\$4 AND embed\$4 AND microphone AND left AND right AND first AND second AND bridge AND partial\$4	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L64	722	(eyewear\$4 OR glasses\$4 OR spetacl\$4 OR eyegalss\$4) AND frame AND (circuit near10 board) AND (electric\$4 WITH control\$4) AND (memor\$4 OR stor\$4) AND batter\$4 AND	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

L65	710	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 (eyewear\$4 OR glasses\$4 OR spectacl\$4 OR eyegals\$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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L66	12657	L1 AND ((G02B27/017 OR G02B27/0178 OR G02B27/0172 OR G02B27/014 OR G02B27/0138 OR G02B27/0187 OR G02B27/0093 OR G02B27/0176 OR G02B27/0118 OR G02B27/0134 OR G02B27/0179 OR G02B27/0141 OR G02B27/0174 OR G02B27/0101 OR G02B27/01 OR G02B27/0132 OR G02B27/0127 OR G02B27/0123 OR G02B30/24 OR G02B27/0156 OR G02B27/0112 OR G02B27/0147 OR G02B27/0081 OR G02B3/14 OR G02B27/011 OR G02B27/0185 OR G02B6/005 OR G02B30/34 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM

		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 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				
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		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					
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		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				
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		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				
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L67	4141	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.) L1 AND (G02C11/10 OR G02C7/101 OR G02C7/083 OR G02C11/06 OR G02C7/04 OR G02C11/00 OR G02C11/04 OR G02C5/143 OR G02C7/02 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO,	OR	ON	ON	2024/02/05 01:07 PM
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		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 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	MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
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L68	9842	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.) L2 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	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
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		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 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				
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		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				
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		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				
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		G02B6/122 OR G02B13/008 OR G02B19/0076 OR G02B23/18 OR G02B27/0189 OR G02B27/20 OR G02B27/62 OR G02B3/04 OR G02B30/10 OR G02B5/1861 OR G02B5/23 OR G02B6/0033 OR G02B6/0046 OR G02B7/34 OR G02B13/003 OR G02B15/142 OR G02B19/009 OR G02B2003/0093 OR G02B2027/0196 OR G02B25/001 OR G02B27/0972 OR G02B27/1033 OR G02B27/141 OR G02B27/425 OR G02B30/30 OR G02B6/0006 OR G02B6/0008 OR G02B6/0073 OR G02B6/009 OR G02B6/02085 OR G02B6/29316 OR G02B6/29328 OR G02B6/4206 OR G02B6/443 OR G02B6/4471 OR G02B7/028 OR G02B9/36 OR G02B1/10 OR G02B13/002 OR G02B13/006 OR G02B15/00 OR G02B15/10 OR G02B15/20 OR G02B17/0605 OR G02B19/0028 OR G02B19/0047 OR G02B2027/0109 OR G02B27/04 OR G02B27/144 OR G02B3/0087 OR G02B30/50 OR G02B5/10 OR G02B7/10 OR G02B13/0055 OR G02B13/04 OR G02B17/06 OR G02B17/08 OR G02B27/0961 OR				
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L69	2404	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.) L2 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 G02C5/146 OR G02C2200/02 OR G02C3/003 OR G02C5/16 OR G02C5/22 OR G02C7/086 OR G02C5/02 OR G02C7/06 OR G02C2200/08 OR G02C7/16 OR G02C7/02 OR G02C5/20 OR G02C9/00 OR G02C5/12 OR G02C7/00 OR G02C7/085 OR G02C13/003 OR G02C9/04 OR G02C7/08 OR G02C7/081 OR G02C2202/10 OR G02C7/12 OR G02C2200/10 OR G02C2202/24 OR G02C7/049 OR G02C5/124 OR G02C5/2227 OR G02C5/2254 OR G02C1/00 OR G02C1/06 OR G02C1/10 OR G02C2200/06 OR G02C2200/18 OR G02C7/102 OR G02C11/08 OR G02C7/104 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
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L70	5079	G02C2202/22 OR G02C5/2209 OR G02C5/2218 OR G02C7/088 OR G02C7/105 OR G02C3/006 OR G02C7/021 OR G02C9/02 OR G02C11/02 OR G02C5/2263 OR G02C2200/26 OR G02C5/122 OR G02C7/10).cpc.) L4 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 G02B2027/0134 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	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/05 01:07 PM
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		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 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				
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		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					
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		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				
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L71	1210	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.) L4 AND ((G02C11/10 OR G02C11/06 OR G02C7/04 OR G02C11/00 OR G02C7/101 OR G02C5/14 OR G02C5/143 OR G02C5/001 OR G02C5/146 OR G02C2200/02 OR G02C3/003 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO,	OR	ON	ON	2024/02/05 01:07 PM
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		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 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					
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		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				
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		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				
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L73	2195	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.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2024/02/05 01:07 PM
		L17 AND ((G02C11/10 OR G02C11/06 OR G02C7/04 OR G02C11/00 OR G02C5/14 OR G02C7/101 OR G02C5/143 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 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					
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		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				
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		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				
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		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				
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L75	622	G02B27/024 OR G02B27/144 OR G02B27/149 OR G02B27/28 OR G02B27/288 OR G02B27/44 OR G02B27/48 OR G02B3/005 OR G02B30/22 OR G02B30/36 OR G02B30/50 OR G02B5/0284 OR G02B5/1842 OR G02B5/1876 OR G02B5/22 OR G02B5/23 OR G02B6/0011 OR G02B6/0015 OR G02B6/0048 OR G02B6/0058 OR G02B6/006 OR G02B6/0086 OR G02B6/02 OR G02B6/06 OR G02B6/12019 OR G02B6/27 OR G02B6/4206 OR G02B7/005 OR G02B7/028 OR G02B7/105 OR G02B7/1821 OR G02B7/1822 OR G02B7/1824 OR G02B7/28 OR G02B7/285 OR G02B7/346 OR G02B7/38 OR G02B9/18).cpc.) L30 AND (G02C11/10 OR G02C11/06 OR G02C7/04 OR G02C5/143 OR G02C11/00 OR G02C5/146 OR G02C5/001 OR G02C5/14 OR G02C7/101 OR G02C3/003 OR G02C2200/08 OR G02C2200/02 OR G02C7/083 OR G02C7/12 OR G02C5/16 OR G02C5/22 OR G02C7/16 OR G02C7/086 OR G02C9/04 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
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L76	2091	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 G02C5/2263 OR G02C7/02).cpc.) L31 AND ((G02B27/017 OR G02B2027/0178 OR G02B27/0172 OR G02B2027/014 OR G02B2027/0138 OR G02B27/0093 OR G02B2027/0187 OR G02B27/0176 OR G02B2027/0127 OR G02B2027/0118 OR G02B2027/0134 OR G02B27/0101 OR G02B27/0179 OR G02B2027/0141 OR G02B2027/0156 OR G02B6/34 OR G02B2027/0132 OR G02B2027/0174 OR G02B2027/0185 OR G02B2027/0123 OR G02B2027/0147 OR G02B27/01 OR G02B27/4205 OR G02B6/10 OR G02B2027/0105 OR G02B26/101 OR G02B27/42 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
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		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 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				
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		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				
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		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					
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		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				
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L77	580	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.) L31 AND (G02C11/10 OR G02C11/06 OR G02C7/04 OR G02C5/143 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
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L78	785	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 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.) L32 AND ((G02B27/017 OR G02B2027/0178 OR G02B2027/014 OR G02B27/0172 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
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		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 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					
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		G02B30/34 OR G02B30/56 OR G02B5/08 OR G02B5/1809 OR G02B5/1847 OR G02B5/3083 OR G02B6/0026 OR G02B6/122 OR G02B6/1221 OR G02B6/124 OR G02B7/04 OR G02B2027/0109 OR G02B2027/0136 OR G02B26/101 OR G02B6/0018 OR G02B6/002 OR G02B19/009 OR G02B2027/0116 OR G02B2027/013 OR G02B2027/015 OR G02B2027/0152 OR G02B2027/0163 OR G02B2027/0181 OR G02B26/105 OR G02B27/0075 OR G02B27/0149 OR G02B6/0053 OR G02B2027/011 OR G02B2027/0112 OR G02B2027/0154 OR G02B2027/0194 OR G02B27/00 OR G02B27/141 OR G02B5/04 OR G02B5/18 OR G02B6/00 OR G02B6/12009 OR G02B2027/0159 OR G02B2207/113 OR G02B2207/115 OR G02B26/0816 OR G02B26/103 OR G02B3/005 OR G02B30/35 OR G02B30/36 OR G02B5/23 OR G02B5/3058 OR G02B6/0028 OR G02B6/003 OR G02B6/0045 OR G02B6/0055 OR G02B6/0056 OR G02B6/006 OR G02B6/0065 OR G02B6/0068 OR G02B6/0088 OR G02B6/12019 OR G02B1/041 OR				
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L79	397	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.) L32 AND (G02C11/10 OR G02C11/06 OR G02C5/143 OR G02C5/14 OR G02C7/101 OR G02C3/003 OR G02C7/04 OR G02C5/001 OR G02C5/146 OR G02C7/083 OR G02C2200/08 OR G02C11/00 OR G02C5/16 OR G02C2200/10 OR G02C11/04 OR G02C7/12 OR G02C7/081 OR G02C7/06 OR G02C7/104 OR G02C7/16 OR G02C7/08 OR G02C2200/02 OR G02C7/00 OR G02C7/105 OR G02C9/00 OR G02C7/086 OR G02C9/04 OR G02C5/20 OR G02C7/021 OR G02C2202/06 OR G02C5/006 OR G02C5/045 OR G02C5/08 OR G02C5/2209 OR G02C5/2272 OR G02C1/10 OR G02C5/12 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
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L80	152	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.) L34 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 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	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
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L81	151	G02B2027/0134 OR G02B2027/0156 OR G02B2027/0123 OR G02B21/06 OR G02B21/365 OR G02B27/286 OR G02B30/52 OR G02B27/01 OR G02B6/0018 OR G02B6/002 OR G02B2027/0147 OR G02B2027/015 OR G02B27/0149 OR G02B6/0053 OR G02B2027/0112 OR G02B2027/0141 OR G02B2027/0152 OR G02B2027/0161 OR G02B5/18 OR G02B6/00 OR G02B6/12009 OR G02B7/12 OR G02B2027/011 OR G02B2027/0154 OR G02B2207/113 OR G02B2207/115 OR G02B27/0075 OR G02B5/23 OR G02B5/3058 OR G02B6/0028 OR G02B6/003 OR G02B6/0045 OR G02B6/0056 OR G02B6/006 OR G02B6/0065 OR G02B6/0068 OR G02B6/0088 OR G02B6/12019 OR G02B2027/013 OR G02B2027/0163 OR G02B2027/0181 OR G02B2027/019 OR G02B27/0189 OR G02B30/26 OR G02B5/04 OR G02B5/1842 OR G02B5/28 OR G02B6/32 OR G02B6/3512).cpc.) L34 AND (G02C11/10 OR G02C11/06 OR G02C5/143 OR G02C5/14 OR G02C3/003 OR G02C5/001 OR G02C5/146 OR G02C2200/08 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
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L82	108	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.) L35 AND ((G02B2027/0178 OR G02B27/017 OR G02B27/0093 OR G02B2027/014 OR G02B27/0172 OR G02B2027/0138 OR G02B2027/0187 OR G02B2027/0118 OR G02B5/30 OR G02B27/0176 OR G02B21/06 OR G02B21/365 OR G02B27/286 OR G02B2027/0134 OR G02B2027/0132 OR G02B2027/0147 OR G02B6/0053 OR G02B2027/0112 OR G02B2027/0127 OR G02B27/0149 OR G02B5/18 OR G02B6/12009 OR G02B2027/011 OR G02B2027/0123 OR G02B2027/0141 OR G02B2027/0156 OR G02B2207/113 OR G02B2207/115 OR G02B27/0075 OR G02B27/01 OR G02B27/0101 OR G02B5/23 OR G02B5/3058 OR G02B6/0018 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
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L83	95	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.) L35 AND (G02C11/10 OR G02C11/06 OR G02C5/143 OR G02C5/14 OR G02C3/003 OR G02C5/146 OR G02C5/001 OR G02C2200/08 OR G02C11/04 OR G02C11/00 OR G02C7/081 OR G02C7/08 OR G02C7/086 OR G02C9/00 OR G02C2202/06 OR G02C5/2209 OR G02C7/083 OR G02C7/101 OR G02C9/04 OR G02C5/12 OR G02C5/22 OR G02C5/2254 OR G02C5/2281).cpc.)	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM
L84	10	L37 AND ((G02B2027/0178 OR G02B27/017 OR G02B27/0093 OR G02B2027/014 OR G02B27/0172 OR G02B2027/0138 OR G02B2027/0187 OR G02B2027/0118 OR G02B5/30 OR G02B27/0176 OR G02B2027/0134 OR G02B2027/0147 OR G02B2027/0112 OR G02B2027/0127 OR G02B2027/0132 OR	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/02/05 01:07 PM

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

L89	22	"27496316".fmid.	USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, 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	02:26 PM
L90	34	(Artificial Intelligence) More like doc: US-11243416-B2 Text: (US-10061144-B2 OR US-9547184-B2 OR US-8905542-B2 OR US-11204512-B2 OR US-20220011603-A1 OR US-8500271-B2 OR US-20050264752-A1 OR US-11536988-B2 OR US-9690121-B2 OR US-7922321-B2 OR US-11086147-B2 OR US-8109629-B2 OR US-20180335650-A1 OR US-11762224-B2 OR US-20110187990-A1 OR US-20200218094-A1 OR US-20170090219-A1 OR US-20150085245-A1 OR US-20230017635-A1 OR US-20130308089-A1).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/02/05 02:27 PM
L91	29	(Artificial Intelligence) More like doc: US-6349001-B1	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2024/02/27 12:02 PM

L92	33	Text: (CA-2307877-C OR EP-1027627-A1 OR WO-9923524-A1 OR EP-1027627-A4 OR US-6091546-A OR JP-2001522063-A OR EP-1027627-B1 OR WO-9923524-A8 OR CA-2307877-A1 OR US-6204974-B1 OR US-6384982-B1 OR EP-1169663-A1 OR US-6356392-B1 OR WO-0055676-A1 OR EP-1169663-A4 OR JP-2002539498-A OR EP-1027626-A1 OR CA-2307869-C OR EP-1547434-B8 OR EP-1547434-A2).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 WO-2006055884-A2 OR EP-1828833-A2 OR AU-2005306412-A2 OR AU-2005306412-A1 OR CA-2932965-C OR CA-2932965-A1 OR AU-2013263854-A1 OR EP-1547434-A2 OR AU-2003254210-A1 OR CA-2494661-A1 OR US-20060203183-A1 OR US-20040160573-A1 OR US-7150526-B2 OR AU-2013263854-B2 OR CN-1720763-A).did.	CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/27 12:02 PM
L93	28	(Artificial Intelligence) More like doc: US-6911172-B2 Text: (US-20040000733-A1 OR US-20040239874-A1 OR US-20020159023-A1 OR EP-1485748-A2 OR WO-02089496-A2 OR US-9244292-B2 OR US-6929365-B2 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/27 12:03 PM

L94	7432	US-20040029582-A1 OR CA-2445952-A1 OR US-20050239502-A1 OR US-7331666-B2 OR US-6769767-B2 OR US-20160109729-A1 OR JP-2005502902-A OR JP-4246500-B2 OR TW-I252005-B OR EP- 1485748-B1 OR WO- 02089496-A3 OR TH- 61710-A OR US- 20200064654-A1).did. (eyewear\$4 OR glasses\$4 OR spetaci\$4 OR eyegalss\$4) AND frame AND circuit AND speaker\$2 AND (battery WITH (charge\$4 OR recharge\$4) WITH external)	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	2024/02/27 04:12 PM
L95	60	(eyewear\$4 OR glasses\$4 OR spetaci\$4 OR eyegalss\$4) AND frame AND circuit AND speaker\$2 AND (battery WITH (charge\$4 OR recharge\$4) WITH external WITH cord)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/02/27 04:12 PM
L96	6529	(eyewear\$4 OR glasses\$4 OR spetaci\$4 OR eyegalss\$4) AND frame AND circuit AND speaker\$2 AND (battery near10 (charge\$4 OR recharge\$4) near20 external)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2024/02/27 04:14 PM

L97	6529	(eyewear\$4 OR glasses\$4 OR spectacles\$4 OR eyeglasses\$4) AND frame AND circuit AND speaker\$2 AND ((battery near10 (charge\$4 OR recharge\$4)) near20 external)	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	2024/02/27 04:14 PM
L98	30633	(G02C11/10 OR G02C5/001 OR G02C5/14 OR G02C11/06 OR G02C5/00).cpc.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 11:17 AM
L99	2893	2465 AND 60	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 11:22 AM
L100	1932	2465 AND 62	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/05/14 11:22 AM

L101	1085	2465 AND 64	CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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	2024/05/14 11:22 AM
L102	918	2465 AND 66	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 11:23 AM
L103	582	2465 AND 67	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 11:23 AM

L104	221	2465 AND 69	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	2024/05/14 11:23 AM
L105	124	2465 AND 71	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 11:23 AM
L106	15	2465 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	2024/05/14 11:24 AM
L107	3	2465 AND 58	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/05/14 11:24 AM

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

L118	3412	(359/13,629).ccls.	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	2024/05/14 12:01 PM
L119	5523	(359/630-633).ccls.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:01 PM
L120	3403	(381/381,327,328).ccls.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:01 PM
L121	4068	(381/380,370,381).ccls.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2024/05/14 12:01 PM

L122	20538	2487 2488 2489 2490 2491 2492 2493	HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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	2024/05/14 12:03 PM
L123	358	2495 AND 60	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:04 PM
L124	270	2495 AND 61	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2024/05/14 12:04 PM

L125	143	2495 AND 64	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	2024/05/14 12:04 PM
L126	93	2495 AND 67	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:04 PM
L127	48	2495 AND 69	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:05 PM
L128	28	2495 AND 71	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2024/05/14 12:05 PM

L129	9	2495 AND 55	IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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	2024/05/14 12:05 PM
L130	1	2495 AND 58	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:05 PM
L131	806	g02c1/00.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:08 PM

L132	17282	g02c11/10.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:08 PM
L133	3090	g02c11/06.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:09 PM
L134	3174	g02c5/001.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:09 PM
L135	4012	g02c5/02.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL,	OR	ON	ON	2024/05/14 12:09 PM

L136	4853	g02c5/14.cpc.	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	2024/05/14 12:09 PM
L137	5010	g02c5/146.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:10 PM
L138	5174	g02c5/22.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:10 PM
L139	35428	g02b27/01.cpc.	(US-PGPUB; USPAT;	OR	ON	ON	2024/05/14

			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)				12:10 PM
L140	71042	g02b27/017.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:10 PM
L141	27914	g02b27/0176.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:10 PM
L142	153007	2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:11 PM

L143	9439	2529 AND 60	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	2024/05/14 12:11 PM
L144	7308	2529 AND 62	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:12 PM
L145	4440	2529 AND 63	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:12 PM
L146	3387	2529 AND 66	(US-PGPUB; USPAT; USOCR; FIT (AP, AT,	OR	ON	ON	2024/05/14 12:12 PM

L147	1351	2529 AND 67	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) (US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:12 PM
L148	351	2529 AND 69	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:12 PM
L149	206	2529 AND 71	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE,	OR	ON	ON	2024/05/14 12:12 PM

L150	95	2529 AND 55	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	2024/05/14 12:12 PM
L151	3	2529 AND 58	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:12 PM
L152	92	2529 AND 71 AND piezo\$6	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:21 PM
L153	28	2495 AND 64 AND piezo\$6	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2024/05/14 12:24 PM

L154	164	2529 AND 71 AND ((sensor OR detect\$4) near5 radiat\$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) (US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:27 PM
L155	76	2495 AND 64 AND ((sensor OR detect\$4) near5 radiat\$4)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:28 PM
L156	63	"20170289323"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2024/05/14 12:37 PM

L157	22	"20200012127"	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	2024/05/14 12:37 PM
L158	16	"20040160573"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:37 PM
L159	25	"20040000733"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:37 PM
L160	19	"20070248238"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/05/14 12:37 PM

L161	20	"20020146097"	CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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 (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:37 PM
L162	20	"20030063763"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:37 PM
L163	14	"20030045283"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA,	OR	ON	ON	2024/05/14 12:37 PM

L164	13	"20050090295"	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	2024/05/14 12:38 PM
L165	390	(US-0000347-\$ US- 0000733-\$ US- 0001827-\$ US- 0003803-\$ US- 0004325-\$ US- 0005069-\$ US- 0005230-\$ US- 0008763-\$ US- 0011603-\$ US- 0012127-\$ US- 0017635-\$ US- 0017997-\$ US- 0018274-\$ US- 0021407-\$ US- 0022690-\$ US- 0023158-\$ US- 0026146-\$ US- 0028309-\$ US- 0029582-\$ US- 0030442-\$ US- 0032449-\$ US- 0033061-\$ US- 0033622-\$ US- 0033623-\$ US- 0033660-\$ US- 0034478-\$ US- 0034542-\$ US- 0035830-\$ US- 0036103-\$ US- 0045283-\$ US- 0045928-\$ US- 0046887-\$ US- 0050668-\$ US- 0050754-\$ US- 0054092-\$ US- 0055888-\$ US- 0057654-\$ US- 0059159-\$ US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:57 PM

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L166	318	(US-0378493-\$ US- 0379425-\$ US- 0387351-\$ US- 0399691-\$ US- 0408850-\$ US- 0415338-\$ US- 1255265-\$ US- 1917745-\$ US- 10042186-\$ US- 10060790-\$ US- 10061144-\$ US- 10310296-\$ US- 10345625-\$ US- 10359311-\$ US- 10515623-\$ US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, 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	2024/05/14 12:57 PM

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L167	342	20070271065-\$ US- 20070271116-\$ US- 20070271387-\$ US- 20070279584-\$ US- 20080062338-\$ US- 20080068559-\$ US- 20080089545-\$ US- 20080100792-\$ US- 20080144854-\$ US- 20080151175-\$ US- 20080151179-\$ US- 20080158506-\$ US- 20080211921-\$ US- 20080218684-\$ US- 20080262392-\$ US- 20080278678-\$ US- 20090059159-\$ US- 20090059381-\$ US- 20090073375-\$ US- 20090141233-\$ US- 20090147215-\$ US- 20090156128-\$ US- 20090251660-\$ US- 20090251661-\$ US- 20090296044-\$ US- 20100045928-\$ US- 20100061579-\$ US- 20100079356-\$ US- 20100105445-\$ US- 20100110368-\$ US- 20100245754-\$).DID. (US-20100296045-\$ US-20100309426-\$ US-20110102734-\$ US-20110164122-\$ US-20110187990-\$ US-20110241976-\$ US-20110273365-\$ US-20110292333-\$ US-20120033061-\$ US-20120050668-\$ US-20120062357-\$ US-20120101411-\$ US-20120133885-\$ US-20120176580-\$ US-20120283894-\$ US-20130072828-\$ US-20130077175-\$ US-20130143519-\$ US-20130172691-\$ US-20130201440-\$ US-20130308089-\$ US-20140132913-\$ US-20140176902-\$ US-20140198293-\$ US-20140226838-\$ US-20140268008-\$	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:57 PM
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L168	293	5452480-\$ US- 5455637-\$ US- 5455640-\$ US- 5457751-\$ US- 5463428-\$ US- 5475798-\$ US- 5500532-\$ US- 5510961-\$ US- 5513384-\$ US- 5519781-\$ US- 5533130-\$ US- 5541641-\$ US- 5581090-\$ US- 5585871-\$ US- 5589398-\$ US- 5590417-\$ US- 5606743-\$ US- 5608808-\$ US- 5634201-\$ US- 5671035-\$ US- 5686727-\$ US- 5694475-\$ US- 5715323-\$ US- 5737436-\$ US- 5777715-\$ US- 5790311-\$ US- 5818381-\$ US- 5819183-\$ US- 5835185-\$ US- 5900720-\$ US- 5903395-\$).DID. (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-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:57 PM
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		6243578-\$ US-					
		6259367-\$ US-					
		6270466-\$ US-					
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		8849185-\$ US-					
		8905542-\$ US-					
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		9244292-\$ US-					
		9369814-\$ US-					

L169	70	9400390-\$ US-9405135-\$ US-9488520-\$ US-9547184-\$ US-9690121-\$ US-9922236-\$).DID. (11/183256 11/183269 11/546685 11/580222 12/462286 12/803732 12/806312 13/085402 13/291020 13/367346 13/831419 13/831445 13/831512 13/955336 14/557409 14/594662 14/715501 15/375423 15/396428 15/409723 16/049120 16/127957 16/182969 16/424018 16/429181 16/574254 16/821810 17/395509 17/484080 17/737866 17/873104 17/942347 17/949029 17/964853 18/129660 18/144557 18/224793 19/594662).APP.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:59 PM
L170	82	(CA-2487391-\$ CN-88203065-\$ CN-89214222-\$ CN-90208199-\$ DE-10123226-\$ EP-1027626-\$ EP-1134491-\$ EP-2290433-\$ FR-2530039-\$ GB-1467982-\$ JP-58113914-\$ JP-02181722-\$ JP-09017204-\$ JP-10161072-\$ JP-2000039595-\$ JP-2002341059-\$ JP-2005151292-\$ JP-2005167902-\$ JP-58113912-\$ KR-20020044416-\$ TW-484711-\$ WO-0106298-\$ WO-0124576-\$ WO-0206881-\$ WO-03069394-\$ WO-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 12:59 PM

L171	73	03100368-\$ WO-03100503-\$ WO-04012477-\$ WO-04025554-\$ WO-9712205-\$ WO-9950706-\$).DID. (US-0024594-\$ US-0030597-\$ US-0182812-\$ US-0203183-\$ US-0281440-\$ US-0363835-\$ US-20030030597-\$ US-20050281440-\$ US-20060203183-\$ US-20070182812-\$ US-20080024594-\$ US-20200363835-\$ US-4852988-\$ US-4882598-\$ US-4975584-\$ US-5184156-\$ US-5495576-\$ US-5583795-\$ US-5841507-\$ US-5966680-\$ US-6099124-\$ US-6163281-\$ US-6244703-\$ US-6433760-\$ US-6491391-\$ US-6563532-\$ US-6771294-\$ US-6847336-\$ US-6943754-\$ US-6977776-\$ US-7148489-\$ US-7150526-\$ US-7278734-\$ US-7347551-\$ US-7488294-\$ US-7651220-\$ US-8408699-\$ US-8931896-\$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 01:00 PM
L172	35	(AT-036110-\$ AL-316473-\$ AT-362895-\$ AL-388766-\$ CA-2233047-\$ CA-2316473-\$ CA-2362895-\$ CA-2388766-\$ CA-2435873-\$ EP-0441791-\$ HO-2102521-\$ HO-2159272-\$ JP-6275987-\$ JP-63153218-\$ WO-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA,	OR	ON	ON	2024/05/14 01:00 PM

L173	1464	0184095-\$ WO-02086599-\$ WO-03062906-\$ WO-04001373-\$ WO-05036110-\$).DID. 2556 2557 2558 2559 2560 2561 2562 2563	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	2024/05/14 01:03 PM
L174	226	2564 AND 60	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 01:04 PM
L175	181	2564 AND 61	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 01:04 PM
L176	151	2564 AND 64	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2024/05/14 01:04 PM

L177	109	2564 AND 66	CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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	2024/05/14 01:04 PM
L178	58	2564 AND 69	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 01:05 PM
L179	11	2564 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,	OR	ON	ON	2024/05/14 01:05 PM

L180	2	2564 AND 58	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	2024/05/14 01:05 PM
L181	188	2564 AND ((sensor OR detect\$4) near5 radiat\$4)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 01:07 PM
L182	51	2564 AND piezo\$6	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 01:08 PM
L183	20	"20020140899"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/05/14 01:18 PM

L184	4	"27569502".fmid.	CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 01:18 PM
L185	26	(Artificial Intelligence) More like doc: US-20020140899-A1 Text: (US-6871951-B2 OR US-20050270481-A1 OR EP-1358517-A1 OR WO-02057836-A1 OR EP-1358517-A4 OR CA-2433338-A1 OR AU-2002330292-A1 OR US-7475984-B2 OR US-20090195749-A1 OR CA-2650681-A1 OR EP-2063311-A1 OR AU-2002330292-B2 OR CA-2462430-A1 OR US-20030058406-A1 OR US-6733130-B2 OR US-20060238701-A1 OR US-20070091258-A1 OR US-20050206844-A1 OR US-6491394-B1 OR US-7077519-B2).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO)	OR	ON	ON	2024/05/14 01:18 PM
L186	168	"7278734"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2024/05/14 01:39 PM

L187	234	"7192136"	HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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)	OR	ON	ON	2024/05/14 01:39 PM
L188	172	"7922321"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 01:39 PM
L189	136	"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	2024/05/14 01:39 PM
L190	555	("197708" "198608" "198805" "198909" "99411" "199511" "199609" "199709" "199807" "200011" "200101" "200102" "200205" "200208" "200210" "200302" "200512" "200907" "1129988" "6081194" "681194" "7312791" "8237349" "2107638"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 02:28 PM

L191	383	).DID. (US-10042186-\$ US-10060790-\$ US-10061144-\$ US-10310296-\$ US-10345625-\$ US-10359311-\$ US-10359459-\$ US-10624790-\$ US-10777048-\$ US-11042045-\$ US-1255265-\$ US-1917745-\$ US-2249572-\$ US-2638532-\$ US-2794085-\$ US-2818511-\$ US-2830132-\$ US-2874230-\$ US-2904670-\$ US-3060308-\$ US-3597054-\$ US-3710115-\$ US-3858001-\$ US-3883701-\$ US-4165487-\$ US-4254451-\$ US-4283127-\$ US-4322585-\$ US-4348664-\$ US-4389217-\$ US-4526473-\$ US-4535244-\$ US-4608492-\$ US-4683587-\$ US-4751691-\$ US-4757714-\$ US-4773095-\$ US-4806011-\$ US-4822160-\$ US-4822161-\$ US-4851686-\$ US-4856086-\$ US-4859047-\$ US-4882769-\$ US-4904078-\$ US-4942629-\$ US-4962469-\$ US-4967268-\$ US-4985632-\$ US-5008548-\$ US-5015086-\$ US-5020150-\$ US-5026151-\$ US-	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	2024/05/14 02:28 PM
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L192	381	7030902-\$ US- 7031667-\$ US- 7033025-\$ US- 7059717-\$ US- 7073905-\$ US- 7079876-\$ US- 7123215-\$ US- 7192136-\$ US- 7255437-\$ US- 7265358-\$ US- 7274292-\$ US- 7289767-\$ US- 7312699-\$ US- 7331666-\$ US- 7376238-\$ US- 7380936-\$ US- 7401918-\$ US- 7405801-\$ US- 7429965-\$ US- 7438409-\$ US- 7438410-\$ US- 7445332-\$ US- 7481531-\$ US- 7500746-\$ US- 7500747-\$ US- 7512414-\$).DID. (US-20190310132-\$ US-20190318589-\$ US-20190387351-\$ US-20200012127-\$ US-20200218094-\$ US-20200364992-\$ US-3060308-\$ US- 3597054-\$ US- 3710115-\$ US- 3858001-\$ US- 3883701-\$ US- 4165487-\$ US- 4254451-\$ US- 4283127-\$ US- 4322585-\$ US- 4348664-\$ US- 4389217-\$ US- 4526473-\$ US- 4535244-\$ US- 4608492-\$ US- 4683587-\$ US- 4751691-\$ US- 4757714-\$ US- 4773095-\$ US- 4806011-\$ US- 4822160-\$ US- 4822161-\$ US- 4851686-\$ US- 4856086-\$ US- 4859047-\$ US- 4882769-\$ US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 02:28 PM
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L198	156	2592 AND 60	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/05/14 02:30 PM

L199	118	2592 AND 62	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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	2024/05/14 02:30 PM
L200	75	2592 AND 66	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 02:30 PM
L201	31	2592 AND 71	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 02:30 PM

L202	18	2592 AND 55	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	2024/05/14 02:31 PM
L203	317	(US-20040029582-\$ US-20040059212-\$ US-20040063378-\$ US-20040096078-\$ US-20040100384-\$ US-20040101178-\$ US-20040128737-\$ US-20040150986-\$ US-20040156012-\$ US-20040157649-\$ US-20040160571-\$ US-20040160572-\$ US-20040160573-\$ US-20040197002-\$ US-20040227219-\$ US-20050067580-\$ US-20050078274-\$ US-20050088365-\$ US-20050201585-\$ US-20050213026-\$ US-20050230596-\$ US-20050238194-\$ US-20050239502-\$ US-20050248717-\$ US-20050248718-\$ US-20050248719-\$ US-20050264752-\$ US-20050278446-\$ US-20060001827-\$ US-20060003803-\$ US-20060023158-\$ US-20060034478-\$ US-20060107822-\$ US-20060132382-\$ US-20070030442-\$ US-20070035830-\$ US-20070046887-\$ US-20070055888-\$ US-20070098192-\$	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 02:50 PM

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L208	156	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-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 02:50 PM
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L209	93	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- 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-PGPUB; USPAT;	OR	ON	ON	2024/05/14
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		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- 6097822-\$ US- 6176576-\$ US- 6633770-\$ US- 6643528-\$ US- 6690808-\$ US- 6920228-\$ US- 7519192-\$ US- 7702122-\$ US- D533539-\$).DID.	USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				02:50 PM
L210	885	2603 2604 2605 2606 2607 2608 2609	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO,	OR	ON	ON	2024/05/14 02:51 PM

L211	140	2610 AND 60	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	2024/05/14 02:52 PM
L212	103	2610 AND 62	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 02:52 PM
L213	58	2610 AND 66	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 02:52 PM
L214	19	2610 AND 71	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2024/05/14 02:52 PM

L215	1	2610 AND 55	AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 02:53 PM
L216	97	(US-0005069-\$ US-0017634-\$ US-0033660-\$ US-0044416-\$ US-0045928-\$ US-0057654-\$ US-0064746-\$ US-0091200-\$ US-0114770-\$ US-0136414-\$ US-0189548-\$ US-02511706-\$ US-0283894-\$ US-0291667-\$ US-0292333-\$ US-0357599-\$ US-0379425-\$ US-0415388-\$ US-10802582-\$ US-11513371-\$ US-11536988-\$ US-11630331-\$ US-11644361-\$ US-11644693-\$ US-2725462-\$ US-20020136414-\$ US-20030064746-\$ US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:06 PM

L217	78	20030091200-\$ US- 20040005069-\$ US- 20040114770-\$ US- 20060291667-\$ US- 20070189548-\$ US- 20100045928-\$ US- 20110292333-\$ US- 20120283894-\$ US- 20210379425-\$ US- 20220357599-\$ US- 20220415388-\$ US- 20230017634-\$ US- 20230033660-\$ US- 20230057654-\$ US- 3104290-\$ US- 3119903-\$ US- 5519781-\$ US- 5819183-\$ US- 6311155-\$ US- 6678381-\$ US- 7801570-\$ US- 8582789-\$ US- 8849185-\$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:06 PM
		(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- 5923398-\$ US-					

L218	75	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	2024/05/14 03:06 PM
L219	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-9033493-\$ US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:06 PM

L220	43	9244292-\$ US-9400390-\$ US-9405135-\$ US-9488520-\$ US-9547184-\$ US-9690121-\$ US-D369167-\$).DID. (US-0045283-\$ US-0090295-\$ US-0359266-\$ US-0408850-\$ US-11480802-\$ US-11803069-\$ US-11829518-\$ US-20030045283-\$ US-20050090295-\$ US-20230359266-\$ US-20230408850-\$ US-5790311-\$ US-7430299-\$ US-7787647-\$ US-8009849-\$ US-8175886-\$ US-8251875-\$ US-8571241-\$ US-8620208-\$ US-8626246-\$ US-9183351-\$ US-9369814-\$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:07 PM
L221	40	(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	2024/05/14 03:07 PM
L222	33	(US-0063763-\$ US-0117121-\$ US-0146097-\$ US-0260859-\$ US-0273464-\$ US-0399691-\$ US-0415338-\$ US-11721183-\$ US-11733549-\$ 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,	OR	ON	ON	2024/05/14 03:07 PM

L223	24	11762224-\$ US-20020146097-\$ US-20030063763-\$ US-20190117121-\$ US-20210399691-\$ US-20220260859-\$ US-20220415338-\$ US-20230273464-\$).DID. (US-0026146-\$ US-0036103-\$ US-0089545-\$ US-0122208-\$ US-0178743-\$ US-10571715-\$ US-11326941-\$ US-20050036103-\$ US-20080089545-\$ US-20180122208-\$ US-20210026146-\$ US-20220178743-\$).DID.	MC, MD, MY, 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	2024/05/14 03:07 PM
L224	20	(US-11086147-\$ US-11204512-\$ US-20050278446-\$ US-20080211921-\$ US-20120062357-\$ US-20190033622-\$ US-20210271116-\$ US-20210364827-\$ US-20210364828-\$ US-9922236-\$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:07 PM
L225	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-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:07 PM

L226	16	6346929-\$ US-6717737-\$ US-6771423-\$).DID. (US-11042045-\$ US-11086147-\$ US-20050278446-\$ US-20070248238-\$ US-20080211921-\$ US-20120062357-\$ US-20210271116-\$ US-9922236-\$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:07 PM
L227	13	(US-9880441-\$ US-9882992-\$ US-9910298-\$ US-9922236-\$ US-9939934-\$ US-9952883-\$ US-9965681-\$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:07 PM
L228	10	(EP-1027626-\$ EP-2290433-\$).DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:07 PM
L229	9	("20070211574" "20190378493" "20020044416" "200124576").DID.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/05/14 03:07 PM

L230	498	2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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	2024/05/14 03:08 PM
L231	96	2631 AND 60	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:09 PM
L232	56	2631 AND 66	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2024/05/14 03:09 PM

L233	28	2631 AND 71	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	2024/05/14 03:10 PM
L234	7	2631 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	2024/05/14 03:10 PM
L235	1	2631 AND 58	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:10 PM
L236	26	"20050201585"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2024/05/14 03:16 PM

L237	38	"20050264752"	HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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	2024/05/14 03:16 PM
L238	13	"2005167902"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:16 PM
L239	16	"20050278446"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2024/05/14 03:16 PM

L240	41	(Artificial Intelligence) More like doc: US-20030045283-A1 Text: (WO-2023130105-A1 OR DE-102006049213-B4 OR US-8300864-B2 OR US-20090296967-A1 OR US-20080123865-A1 OR EP-1621045-A2 OR EP-1915031-A2 OR DE-102006049213-A1 OR CN-101175342-B OR CN-101175342-A OR US-8155359-B2 OR DK-3202160-T3 OR JP-2008118636-A OR EP-2750407-A1 OR EP-1638367-B1 OR KR-20030090298-A OR EP-3890356-A1 OR EP-1638367-A2 OR DK-1638367-T3 OR US-20070037615-A1).did.	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	2024/05/14 03:16 PM
L241	39	(Artificial Intelligence) More like doc: US-20050090295-A1 Text: (EP-1673960-A4 OR WO-2005036922-A1 OR EP-1673960-A1 OR CA-2542622-A1 OR EP-1949370-A1 OR WO-2007019702-A1 OR US-20050232452-A1 OR US-20030012391-A1 OR US-20070041589-A1 OR CA-2619268-A1 OR WO-2009039364-A1 OR US-20090073950-A1 OR EP-1251714-B2 OR EP-1251715-B1 OR EP-1251715-B2 OR DE-102008032852-A1 OR US-8121323-B2 OR TW-399392-B OR US-7647077-B2 OR US-20030012392-A1).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:16 PM
L242	27	(Artificial Intelligence) More like doc: US-20170289323-A1 Text: (US-8140658-B1 OR	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/05/14 03:16 PM

L243	39	US-10757000-B2 OR US-20100201516-A1 OR US-20100148940-A1 OR US-20110035491-A1 OR US-20150046582-A1 OR US-8836503-B2 OR US-9628365-B2 OR US-7844687-B1 OR US-7797367-B1 OR US-8832244-B2 OR US-8812654-B2 OR US-6859831-B1 OR US-6826607-B1 OR WO-0126334-A9 OR WO-0126335-A2 OR US-7020701-B1 OR WO-0126333-A2 OR US-6832251-B1 OR US-6735630-B1).did. (Artificial Intelligence) More like doc: JP-2005167902-A Text: (JP-2007318476-A OR JP-4887907-B2 OR JP-2009157290-A OR US-8174569-B2 OR JP-2004120154-A OR US-20070291966-A1 OR US-20030090439-A1 OR WO-03023756-A1 OR EP-1433160-A1 OR JP-2006209144-A OR WO-2018186062-A1 OR US-20200053449-A1 OR JP-2002539498-A OR US-20120268433-A1 OR US-6356392-B1 OR US-6204974-B1 OR JP-4411547-B2 OR EP-1169663-A4 OR WO-0055676-A1 OR EP-1169663-A1).did.	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:17 PM
L244	51	"11204512"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:17 PM

L245	34	"11243416"	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	2024/05/14 03:17 PM
L246	68	"11183269"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:17 PM
L247	28	"10628831"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:17 PM
L248	66	"10310296"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2024/05/14 03:17 PM

L249	37	"9122082"	CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, 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	2024/05/14 03:42 PM
L250	57	"6911172"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:42 PM
L251	598	"6349001"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:42 PM

L252	108	"6771423"	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	2024/05/14 03:42 PM
L253	119	"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	2024/05/14 03:42 PM
L254	128	"5671037"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/14 03:42 PM
L2677	50	(Artificial Intelligence) Similar to: 18/597,874 with 0 CPC Selections and 0 Text Selections	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2024/05/15 08:53 AM

		Text: (US-20170131575-A1 OR US-20210364827-A9 OR US-20190187492-A1 OR US-20170146829-A1 OR US-20230273464-A1 OR US-20240036361-A1 OR US-11921355-B2 OR US-20230359266-A1 OR US-20130201440-A1 OR US-20110187990-A1 OR US-9690121-B2 OR US-8500271-B2 OR US-20120133885-A1 OR US-20150253590-A1 OR US-20170090219-A1 OR US-8905542-B2 OR US-20180335650-A1 OR US-20210364828-A1 OR US-11243416-B2 OR US-10061144-B2 OR US-20130308089-A1 OR US-20150085245-A1 OR US-20220357599-A1 OR US-20230017635-A1 OR US-20070046887-A1 OR US-7922321-B2 OR US-20230408850-A1 OR US-20200012127-A1 OR US-9547184-B2 OR US-7581833-B2 OR US-8465151-B2 OR US-11829518-B1 OR US-11733549-B2 OR US-20220260859-A1 OR US-9033493-B2 OR US-11086147-B2 OR US-8109629-B2 OR US-10330956-B2 OR US-20050264752-A1 OR US-11762224-B2 OR US-11513371-B2 OR US-20240094800-A1 OR EP-3134825-B1 OR US-20050078274-A1 OR US-20190278110-A1 OR US-20200218094-A1 OR US-20190285913-A1 OR US-20220011603-A1 OR US-11536988-B2 OR	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))				
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L2678	44	US-20230236444-A1).did. (Artificial Intelligence) Similar to: 18/597,874 with 0 CPC Selections and 3 Text Selections Text: (US-11921355-B2 OR US-20240036361-A1 OR US-20230273464- A1 OR US- 20210314698-A1 OR JP-20220108194-A5 OR US-20180239413- A1 OR US- 20170045928-A1 OR CN-108472686-B OR EP-3566468-B1 OR US-20170180863-A1 OR US-10146262-B1 OR US-10495885-B2 OR US-11829518-B1 OR US-20190064750- A1 OR US- 20170322416-A1 OR EP-3345142-A1 OR WO-2017040397-A1 OR US-20170131575- A1 OR CA-2997538-A1 OR EP-3320832-A1 OR US-20160282628-A1 OR US-20180132031- A1 OR WO- 2023194827-A1 OR US-20180113524-A1 OR US-20220361787- A1 OR AU- 2016316932-B2 OR US-20180253159-A1 OR US-20180113504- A1 OR US- 20180113590-A1 OR US-20220313089-A1 OR EP-3242153-A1 OR US-20210096372-A1 OR US-9690121-B2 OR US-10338394-B2 OR EP-3998946-A1 OR WO-2021016094-A1 OR US-9977483-B2 OR US-20210364827-A9 OR US-20190187492- A1 OR EP-3625976-A1 OR WO-2018210974- A1 OR EP-2929405-A2 OR WO-2014089074-	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 08:53 AM
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L2679	49	A2 OR US-10694299-B2 OR US-11778428-B2 OR US-20230127100-A1 OR JP-2020184692-A OR US-11144125-B2 OR US-20180185665-A1 OR WO-2021224497-A1).did. (Artificial Intelligence) Similar to: 18/597,874 with 2 CPC Selections and 3 Text Selections Text: (US-20240036361-A1 OR US-11921355-B2 OR US-20230273464-A1 OR US-20210314698-A1 OR US-11829518-B1 OR US-20170131575-A1 OR US-9690121-B2 OR US-20190187492-A1 OR US-20210364827-A9 OR US-20230359266-A1 OR US-20170146829-A1 OR US-20230412967-A1 OR US-20220167077-A1 OR WO-2022109190-A1 OR US-11653140-B2 OR US-20220011603-A1 OR JP-2023538681-A OR WO-2021222214-A1 OR EP-4144099-A1 OR US-20150253590-A1 OR US-10330956-B2 OR US-20210341762-A1 OR US-11086147-B2 OR US-11762224-B2 OR US-9033493-B2 OR US-20210364828-A1 OR US-20220260859-A1 OR US-8109629-B2 OR US-11733549-B2 OR US-8465151-B2 OR US-20230408850-A1 OR US-11500227-B2 OR US-20120133885-A1 OR US-20150085245-A1 OR US-20130201440-A1 OR US-20130308089-A1 OR US-	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 08:54 AM
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L2683	49	20110187990-A1 OR US-20170090219-A1 OR US-20180335650-A1 OR US- 20050264752-A1 OR US-7581833-B2 OR US-20070046887-A1 OR CN-108472686-B OR US-7922321-B2 OR EP-3242153-A1 OR US-20190364352-A1 OR US-10531173-B2 OR US-10338394-B2 OR EP-3320832-A1 OR US-11204512-B2).did. (Artificial Intelligence) Similar to: 18/597,874 with 2 CPC Selections and 3 Text Selections Text: (US-20240036361-A1 OR US-11921355-B2 OR US-20230273464-A1 OR US- 20170131575-A1 OR US-9690121-B2 OR US-20210364827-A9 OR US-20190187492-A1 OR US- 20170146829-A1 OR US-11829518-B1 OR US-20210314698-A1 OR US-20230359266-A1 OR US- 20150253590-A1 OR US-20160370606-A1 OR CN-113330355-A OR US-8465151-B2 OR US-20220260859-A1 OR US-11733549-B2 OR US-10025119-B2 OR US-10330956-B2 OR US-20120133885-A1 OR US- 20180143451-A1 OR US-11086147-B2 OR US-20230408850-A1 OR US-9033493-B2 OR US-20130201440-A1 OR US-20210364828-A1 OR US-11762224-B2 OR US-8109629-B2 OR US-9897822-B2 OR US-20150346511-A1 OR US-20070046887-A1 OR US-7581833-B2	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 08:57 AM
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L2684	48	OR US-9158116-B1 OR US-20150309317-A1 OR WO-2016205601-A1 OR CN-113454521-A OR US-9423842-B2 OR WO-2021222214-A1 OR EP-4144099-A1 OR US-20210341762-A1 OR US-20230412967-A1 OR US-11500227-B2 OR US-20160085278-A1 OR US-20200249733-A1 OR US-20220167077-A1 OR CN-114222941-A OR WO-2022109190-A1 OR US-20170031395-A1 OR US-20150309534-A1 OR WO-2015031107-A1).did. (Artificial Intelligence) Similar to: 18/597,874 with 4 CPC Selections and 3 Text Selections Text: (US-20240036361-A1 OR US-11921355-B2 OR US-20230273464-A1 OR US-20170131575-A1 OR US-9690121-B2 OR US-20190187492-A1 OR US-20210364827-A9 OR US-20170146829-A1 OR US-11829518-B1 OR US-20210314698-A1 OR US-20230359266-A1 OR US-20150253590-A1 OR US-10330956-B2 OR US-11086147-B2 OR US-11762224-B2 OR US-9033493-B2 OR US-20220260859-A1 OR US-11733549-B2 OR US-8109629-B2 OR US-20210364828-A1 OR US-20230408850-A1 OR US-8465151-B2 OR US-20120133885-A1 OR US-20130201440-A1 OR US-7581833-B2 OR	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 08:57 AM
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L2685	47	US-20070046887-A1 OR US-20230412967-A1 OR US-20220167077-A1 OR WO-2022109190-A1 OR US-11653140-B2 OR WO-2021222214-A1 OR US-20160370606-A1 OR EP-4144099-A1 OR US-20180143451-A1 OR CN-113330355-A OR US-20220011603-A1 OR US-9897822-B2 OR US-10025119-B2 OR US-20210341762-A1 OR US-9158116-B1 OR US-20150346511-A1 OR DE-202022101915-U1 OR US-20150309317-A1 OR US-11500227-B2 OR US-20240094800-A1 OR US-20110187990-A1 OR US-7806525-B2 OR WO-2021254359-A1 OR US-11668958-B2 OR JP-2023538681-A).did. (Artificial Intelligence) Similar to: 18/597,874 with 6 CPC Selections and 3 Text Selections Text: (US-20240036361-A1 OR US-11921355-B2 OR US-20170131575-A1 OR US-20230273464-A1 OR US-9690121-B2 OR US-20210364827-A9 OR US-20190187492-A1 OR US-20170146829-A1 OR US-20150253590-A1 OR US-10330956-B2 OR US-11762224-B2 OR US-11086147-B2 OR US-8109629-B2 OR US-20210364828-A1 OR US-9033493-B2 OR US-20120133885-A1 OR US-20230408850-A1 OR US-11733549-B2 OR US-	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 08:57 AM
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		20220260859-A1 OR US-20130201440-A1 OR US-8465151-B2 OR CN-113330355-A OR US-11829518-B1 OR US-7581833-B2 OR US-20070046887-A1 OR US-20210314698- A1 OR US- 20230359266-A1 OR WO-2021222214-A1 OR EP-4144099-A1 OR DE-202022101915-U1 OR US-20210341762- A1 OR US- 20190204617-A1 OR US-11500227-B2 OR FR-3126050-A3 OR ES-1289195-U OR CA- 3149165-A1 OR US- 11849273-B2 OR GB- 2609686-A OR NL- 2031025-A OR NL- 2031025-B1 OR US- 20230040338-A1 OR CH-718869-A2 OR US- 20210191159-A1 OR JP-3237752-U OR US- 11668958-B2 OR KR- 20210080253-A OR AT-525342-B1 OR US- 20220113562-A1 OR DE-102020102281-A1 OR CA-3103299- A1).did.					
L2686	0	98 AND (button near5 piezo\$6)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 09:02 AM
L2687	7	98 AND ((button OR switch) near5 piezo\$6)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV,	OR	ON	ON	2024/05/15 09:02 AM

L2688	13	"20130329183"	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)) (US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 09:04 AM
L2689	11	"49715056".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/05/15 09:04 AM
L2690	36	(Artificial Intelligence) More like doc: US-20130329183-A1 Text: (WO-2013188343-A9 OR EP-2859405-A1 OR WO-2013188343-A1 OR TW-201415113-A OR JP-2015522841-A OR JP-6158317-B2 OR AR-091410-A1 OR WO- 2017221247-A1 OR GB-2472120-A OR EP- 2859405-A4 OR CN- 104914578-A OR EP- 2927735-B1 OR EP- 2927735-A2 OR CN- 104914578-B OR EP- 2927735-A3 OR US- 20220163806-A1 OR WO-2022219405-A1 OR US-20150261015- A1 OR WO-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 09:04 AM

L2691	147	2017216629-A1 OR EP-3469462-A1).did. 142 AND ((button OR switch) near5 piezo\$6)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 09:08 AM
L2692	9	122 AND ((button OR switch) near5 piezo\$6)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2024/05/15 09:11 AM
L2693	174	(eyewear\$4 OR glasses\$4 OR spectacl\$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 ((button OR switch) near5 piezo\$6)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 09:19 AM
L2695	174	(eyewear\$4 OR glasses\$4 OR spectacl\$4 OR eyegals\$4) AND frame AND circuit AND control\$4 AND batter\$4 AND connect\$4 AND (audio OR speak\$4) AND ((button OR switch) near5 piezo\$6)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO,	OR	ON	ON	2024/05/15 09:22 AM

L2696	195	(eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND frame AND circuit AND control\$4 AND batter\$4 AND ((button OR switch) near5 piezo\$6)	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	2024/05/15 09:22 AM
L2697	280	(eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND control\$4 AND batter\$4 AND ((button OR switch) near5 piezo\$6)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 09:23 AM
L2698	23	"2005086522"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/05/15 09:26 AM
L2699	3	"34225259".fmid.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2024/05/15 09:27 AM

L2700	6	"20050052537"	AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/05/15 09:34 AM
L2701	44	(Artificial Intelligence) More like doc: <u>US-20050052537-A1</u> Text: (JP-2005086522-A OR JP-2009049584-A OR JP-4433015-B2 OR JP-2019040202-A OR JP-2017530389-A OR JP-6431185-B2 OR US-20060056830-A1 OR US-7499635-B2 OR CN-100435022-C OR JP-2017068184-A OR JP-6677370-B2 OR KR-101821968-B1 OR KR-20170041225-A OR JP-2017068175-A OR CN-100410804-C OR EP-3198851-B1 OR TW-201626055-A OR EP-3198851-A1 OR WO-2016048546-A1 OR JP-3843035-B2).did.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; JPO)	OR	ON	ON	2024/05/15 09:34 AM

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N1	13414	((("HOWELL") near3	(US-PGPUB; USPAT)	OR	ON	ON	2024/02/05

N2	143	("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. (((("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	01:06 PM 2024/02/05 01:06 PM
N3	129	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR 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	2024/02/05 01:06 PM
N4	125	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3 ("David")) OR (("THOMAS") near3 ("C")) OR (("TONG") near3 ("Peter"))).INV. AND (eyewear\$4 OR glasses\$4 OR 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	(US-PGPUB; USPAT)	OR	ON	ON	2024/02/05 01:06 PM

N5	103	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	2024/02/05 01:06 PM
N6	821	((eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND frame AND control\$4 AND (memor\$4 OR stor\$4)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/02/05 02:21 PM
N7	165	((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	2024/02/05 02:21 PM
N8	128	((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 connect\$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/02/05 02:21 PM
N9	41	((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).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/02/27 08:30 AM

N10	36	((eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND (temple SAME (speakers WITH audio))).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/02/27 08:30 AM
N11	86	((("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	2024/05/14 11:15 AM
N12	86	((("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)	OR	ON	ON	2024/05/14 11:15 AM
N13	81	((("HOWELL") near3 ("Thomas")) OR (("CHAO") near3	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/14 11:15 AM

N14	12	("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 ((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)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/14 12:07 PM
N15	8	((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)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/14 12:07 PM
N16	6	((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	2024/05/14 12:07 PM
N17	5	((eyewear\$4 OR glasses\$4 OR spetac\$4 OR	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/14 01:01 PM

N18	4	eyegalss\$4) AND frame AND circuit AND control\$4 AND (memor\$4 OR stor\$4) AND batter\$4 AND connect\$4 AND communicat\$4 AND (audio OR speak\$4) AND wireless\$4 AND embed\$4).clm. ((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	2024/05/14 01:01 PM
N19	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	2024/05/14 01:01 PM
N20	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	2024/05/14 01:38 PM
N21	0	((eyewear\$4 OR glasses\$4 OR spetac\$4 OR	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/14 01:38 PM

N22	0	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. ((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	2024/05/14 01:38 PM
N23	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	2024/05/14 02:27 PM
N24	0	((eyewear\$4 OR glasses\$4 OR spetac\$4 OR eyegalss\$4) AND frame AND (circuit near10	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/14 02:27 PM

N374	0	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 spetacl\$4 OR eyegalss\$4) AND frame AND (circuit near10 board) AND (electric\$4 WITH control\$4) AND (memor\$4 OR stor\$4) AND (batter\$4 near10 rechargeable) AND connect\$4 AND communicat\$4 AND (audio OR speak\$4) AND wireless\$4 AND embed\$4 AND microphone AND left AND right AND first AND second AND bridge AND partial\$4 AND impair\$4 AND compensat\$4 AND amplif\$6 AND customiz\$4).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/15 08:53 AM
N375	0	((eyewear\$4 OR glasses\$4 OR spetacl\$4 OR eyegalss\$4) AND frame AND (circuit near10 board) AND (electric\$4 WITH control\$4) AND (memor\$4 OR stor\$4) AND (batter\$4 near10 rechargeable) AND connect\$4 AND communicat\$4 AND (audio OR speak\$4) AND wireless\$4 AND embed\$4 AND microphone AND left AND right AND first AND second AND bridge AND partial\$4	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/15 08:53 AM

N376	0	AND impair\$4 AND compensat\$4 AND (amplif\$6 WITH customiz\$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 WITH customiz\$4) AND (detect\$3 WITH infrared)).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2024/05/15 08:53 AM
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PE2E SEARCH - Search History (Similarity Search)

Ref #	Sort and Retrieval Information	Text Selections	CPC Selections
L2677	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	No selections	No selections
L2678	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	(Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical	No selections

		components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) 1. A system, comprising: a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating	
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		to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus in the charging apparatus, electrical connection results at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed in the charging apparatus. (Claims) 2. A head-worn	
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		personal electronic apparatus, comprising: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and	
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L2679	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	wireless communication circuitry at least partially contained within the head-worn structure. (Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) 1. A system, comprising: a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-	(G02C11/10) Electronic devices other than hearing aids (G02C11/06) Hearing aids
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		worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery;	
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		and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus in the charging apparatus, electrical connection results at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed in the charging apparatus. (Claims) 2. A head-worn personal electronic apparatus, comprising: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure;	
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L2683	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. (Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) 1. A system, comprising:	(G02C5/143) Side-members having special ear pieces (G02C5/146) Side-members having special front end
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		a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically	
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		connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus in the charging apparatus, electrical connection results at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed in the charging apparatus. (Claims) 2. A head-worn personal electronic apparatus, comprising: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the	
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		user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure.	
L2684	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	(Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can	(G02C5/143) Side-members having special ear pieces (G02C5/146) Side-members having special front end

		provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) 1. A system, comprising: a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the	(G02C11/06) Hearing aids (G02C11/10) Electronic devices other than hearing aids
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		head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus in the charging apparatus, electrical connection results at least from the at least one conductive element	
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		connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed in the charging apparatus. (Claims) 2. A head-worn personal electronic apparatus, comprising: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus;	
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L2685	Sort results by: Similarity to Application # 18/597,874 Retrieve results by: Application # 18/597,874	a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure. (Abstract) Techniques for providing eyewear or other head-worn personal electronic apparatus with electrical components are disclosed. The electrical components can provide electrical technology to eyewear or other head-worn personal electronic apparatus without having to substantially compromise aesthetic design principles. The electrical components can be partially or completely internal to eyewear or other head-worn personal electronic apparatus. The electrical components can operate independently or together with other electrical components provided elsewhere. Apparatus for presenting after-market electrical components are also disclosed. (Claims) 1. A system, comprising: a head-worn personal electronic apparatus, including at least: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker	(G02C5/143) Side-members having special ear pieces (G02C5/146) Side-members having special front end (G02C11/06) Hearing aids (G02C11/10) Electronic devices other than hearing aids (G02C2200/08) Modular frames, easily exchangeable frame parts and lenses (H02J7/0045) Circuit arrangements for charging or depolarising batteries or for supplying loads from batteries characterised by the mechanical construction concerning the insertion or the connection of the batteries
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		being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus; a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; wireless communication circuitry at least partially contained within the head-worn structure, the wireless communication circuitry being electrically connected to at least the rechargeable battery; and	
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		at least one conductive element at least partially included within the head-worn structure, the at least one conductive element being at least partially exposed to enable interconnection therewith, the at least one conductive element being electrically connected to at least the rechargeable battery; and a charging apparatus having at least a charging connector, wherein on placement of the head-worn personal electronic apparatus in the charging apparatus, electrical connection results at least from the at least one conductive element connecting with the charging connector, and thereby the rechargeable battery of the head-worn personal electronic apparatus is able to be recharged while the head-worn personal electronic apparatus is placed in the charging apparatus. (Claims) 2. A head-worn personal electronic apparatus, comprising: a head-worn structure configured to be worn by a user; a speaker at least partially contained within the head-worn structure, the speaker being configured to be worn proximate to an ear of the user when the head-worn structure is being worn by the user; a motion detector at least partially contained within the head-worn structure and configured to provide motion data pertaining to the head-worn personal electronic apparatus;	
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		a first microphone at least partially contained within the head-worn structure, the first microphone being positioned to pick up at least audio input from at least the user; a second microphone at least partially contained within the head-worn structure; a piezoelectric device configured to receive a user input based on a force induced on the piezoelectric device, the piezoelectric device being at least partially contained within the head-worn structure, wherein the received user input operating to at least alter operation of the head-worn electronic personal audio apparatus; a rechargeable battery contained within the head-worn structure; electronic circuitry contained within the head-worn structure, the electronic circuitry being electrically connected to at least the rechargeable battery; and wireless communication circuitry at least partially contained within the head-worn structure.	
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: HOWELL et al. Attorney Docket No.: IPVCP003X1C4X1C2

Application No.: Not Yet Assigned Examiner: Not Yet Assigned

Filed: Herewith Group: Not Yet Assigned

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

**INFORMATION DISCLOSURE STATEMENT
37 CFR §§1.56 AND 1.97(b)**

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

Dear Sir:

The references listed in the attached PTO Form 1449 may be material to examination of the above-identified patent application. Applicants submit the list of these references in compliance with their duty of disclosure pursuant to 37 CFR §§1.56 and 1.97. The Examiner is requested to make these references of official record in this application. The above-identified application is a Continuation of prior application U.S. Patent Application No. 18/375,893. This prior application is being relied upon for an earlier filing date under 35 U.S.C. § 120. Because the listed references (to the extent that copies are required) were either cited by the PTO, or submitted to the PTO in the prior application, under 37 CFR § 1.98(d) Applicants submit that copies need not be provided.

This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material

Appln. No. Not Yet Assigned

1

Atty. Docket No. IPVCP003X1C4X1C2

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

to the examination of this application does not exist, or that these references indeed constitute prior art.

This Information Disclosure Statement is: (i) filed within three (3) months of the filing date of the above-referenced application, (ii) believed to be filed before the mailing date of a first Office Action on the merits, or (iii) believed to be filed before the mailing of a first Office Action after the filing of a Request for Continued Examination under §1.114.

Accordingly, it is believed that no fees are due in connection with the filing of this Information Disclosure Statement. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 50-3874 (Order No. IPVCP003X1C4X1C2).

Respectfully submitted,

/C. Douglass Thomas/

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/JIE LEI/ 05/15/2024

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVCP003X1C4X1C2
	Application No.:	18/597,874
	Applicant	HOWELL et al.
	Filing Date	March 6, 2024
	Group	OPAP
		Page 1 of 3

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	1.	2003/0030597 A1	Feb-03	Geist			
	2.	2005/0281440 A1	Dec-05	Pemer			
	3.	2006/0203183 A1	Sep-06	Jannard et al.			
	4.	2007/0182812 A1	Aug-07	Ritchey			
	5.	2008/0024594 A1	Jan-08	Ritchey			
	6.	2020/0363835 A1	Nov-20	Blum et al.			
	7.	4,852,988	Aug-89	Velez et al.			
	8.	4,882,598	Nov-89	Wulf			
	9.	4,975,584	Dec-90	Benjamin et al.			
	10.	5,184,156	Feb-93	Black et al.			
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	12.	5,583,795	Dec-96	Smyth			
	13.	5,841,507	Nov-98	Barnes			
	14.	5,966,680	Oct-99	Butnaru			
	15.	6,099,124	Aug-00	Hidaji			
	16.	6,163,281	Dec-00	Torch			
	17.	6,244,703 B1	Jun-01	Resnikoff et al.			
	18.	6,433,760 B1	Aug-02	Vaissie et al.			
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	20.	6,563,532 B1	May-03	Strub et al.			
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	26.	7,150,526 B2	Dec-06	Jannard et al.			
	27.	7,278,734 B2	Oct-07	Jannard et al			

Examiner	Date Considered
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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./

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVCP003X1C4X1C2
	Application No.:	18/597,874
	Applicant	HOWELL et al.
	Filing Date	March 6, 2024
	Group	OPAP
		Page 2 of 3

	28.	7,347,551 B2	Mar-08	Ferguson et al.			
	29.	7,488,294 B2	Feb-09	Torch			
	30.	7,651,220 B1	Jan-10	Pattikonda			
	31.	8,408,699 B2	Apr-13	Blum et al.			
	32.	8,931,896 B2	Jan-15	Blum et al.			

Foreign Documents

							Translation	
Init.		Document No.	Date	Country	Class	Subclass	Yes	No
		CA 2,233,047C	Mar-98	Canada				
		CA 2,316,473 A1	Jul-00	Canada				
		CA 2,362,895 A1	Dec-02	Canada				
		CA 2,388,766 A1	Dec-03	Canada				
		CA 2,435,873C	Mar-04	Canada				
		EP 0441791B1	Aug-91	Europe				
		H02-102521 U	Aug-90	Japan			X	
		H02-159272 A	Jun-90	Japan			X	
		JP 6275987	Feb-18	Japan			X	
		JP 63-153218	Oct-88	Japan			X	
		WO 01/84095 A1	Nov-01	WIPO				
		WO 02/086599 A1	Oct-02	WIPO				
		WO 03/062906 A1	July-03	WIPO				
		WO 04/001373 A2	Dec-03	WIPO				
		WO 05/036110 A1	Apr-05	WIPO				

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

A	US Provisional Appl. No. 60/460154 filed April 3, 2003, to Jannard.
B	Respondent's Disclosure of Invalidity Contentions with Exhibits A1-A13, Exhibits B1-B5, and Exhibits C1-C6, International Trade Commission Investigation No. 337-TA-1383, filed February 29, 2024, pp. 1-1516.
C	Höllerer, T. and Feiner, S., "Mobile augmented reality." <i>Telegeoinformatics: Location-based computing and services</i> 21 (2004), pp. 1-39.
D	Mann, Steve and S. Mann. <i>Intelligent image processing</i> . IEEE, 2002, 121 pgs. [Part 1 of 3]
E	Mann, Steve and S. Mann. <i>Intelligent image processing</i> . IEEE, 2002, 130 pgs. [Part 2 of 3]

Examiner	Date Considered
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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.

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Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVCP003X1C4X1C2
	Application No.:	18/597,874
	Applicant	HOWELL et al.
	Filing Date	March 6, 2024
	Group	OPAP
		Page 3 of 3

	F	Mann, Steve and S. Mann. <i>Intelligent image processing</i> . IEEE, 2002, 110 pgs. [Part 3 of 3]
	G	Mann, S., & Fung, J. "VideoOrbits on Eye Tap devices for deliberately diminished reality or altering the visual perception of rigid planar patches of a real world scene." <i>EYE</i> , 3, pp. 1-8.
	H	Milgram, Paul, and Fumio Kishino. "A taxonomy of mixed reality visual displays." <i>IEICE TRANSACTIONS on Information and Systems</i> 77.12 (1994), pp. 1-15.
	I	DeVaul et al. MITHril Project Overview. https://www.media.mit.edu/wearables/mithril/overview.html , downloaded March 2, 2022, pp. 1-5.
	J	Rolland, Jannick P., and Hong Hua. "Head-mounted display systems." <i>Encyclopedia of optical engineering</i> 2 (2005), pp. 1-14.
	K	Rolland, Jannick P., et al. "High-resolution inset head-mounted display." <i>Applied optics</i> 37.19 (1998), pp. 1-11.
	L	Yoshida, Akitoshi, Jannick P. Rolland, and John H. Reif. "Design and Applications of a High Resolution Inset Head Mounted Display." (1994), pp. 1-13.
	M	Nortel 922, Mobile Phone Museum, pp. 1-3.

Examiner	/JIE LEI/	Date Considered	05/15/2024
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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.

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Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVCP003X1C4X1C2
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	Filing Date	March 6, 2024
	Group	OPAP
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U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	1.						
	2.						

Foreign Documents

Translation							
Init.		Document No.	Date	Country	Class	Subclass	Yes No
		CA 2 487 391	Dec-03	Canada			
		CN 88203065	Nov-88	China			X abstract
		CN 89214222.7	Mar-90	China			X abstract
		CN 90208199.3	Nov-90	China			X abstract
		DE 10123226 A1	Nov-02	Germany			X
		EP 1027626 B1	Mar-16	Europe			
		EP 1134491 A2	Sep-01	Europe			
		EP 2290433 B1	Apr-16	Europe			
		FR 2530039 A1	Jan-84	France			X abstract
		GB 1467982	Mar-77	Great Britain			
		JP 02-181722	Jul-90	Japan			X abstract
		JP 09-017204	Jan-97	Japan			X
		JP 10-161072	Jun-98	Japan			X
		JP 2000-039595	Feb-00	Japan			X
		JP 2002 341059 A	Nov-02	Japan			X
		JP 2002-02511706 A	Apr-02	Japan			X
		JP 2005-151292	Jun-05	Japan			X abstract
		JP 2005-167902	Jun-05	Japan			X
		JP 58-113912	Jul-83	Japan			X
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		KR 2002-0044416 A	Jun-02	Korea			X
		TW 484711	Jun-01	Taiwan			X abstract

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Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVCP003X1C4X1C2
	Application No.:	18/597,874
	Applicant	HOWELL et al.
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		WO 97/12205 A1	Apr-97	WIPO				
		WO 01/06298 A1	Jan-01	WIPO				
		WO 01/24576 A1	Apr-01	WIPO				
		WO 02/06881 A2	Jan-02	WIPO				
		WO 03/069394 A1	Aug-03	WIPO			X abstract	
		WO 03/100368 A1	Dec-03	WIPO				
		WO 03/100503 A2	Dec-03	WIPO				
		WO 04/012477 A2	Feb-04	WIPO				
		WO 04/025554 A1	Mar-04	WIPO				
		WO 99/50706 A1	Oct-99	WIPO				

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

A	Notice of Allowance for U.S. Patent Application No. 11/183,269, dated December 10, 2010.
B	Office Action for U.S. Patent Application No. 11/183,269, dated May 25, 2010.
C	Final Office Action for U.S. Patent Application No. 11/183,269, dated February 17, 2010.
D	Office Action for U.S. Patent Application No. 11/183,269, dated June 23, 2009.
E	Office Action for U.S. Patent Application No. 11/183,269, dated December 4, 2008.
F	Final Office Action for U.S. Patent Application No. 11/183,269, dated June 5, 2008.
G	Office Action for U.S. Patent Application No. 11/183,269, dated October 18, 2007.
H	Restriction Requirement for U.S. Patent Application No. 11/183,269, dated June 25, 2007.
I	Office Action for U.S. Patent Application No. 13/085,402, dated April 19, 2012.
J	Notice of Allowance for U.S. Patent Application No. 13/085,402, dated August 2, 2012.
K	Notice of Allowance for U.S. Patent Application No. 13/085,402, dated November 13, 2012.
L	Notice of Allowance for U.S. Patent Application No. 13/085,402, dated February 20, 2013.
M	Notice of Allowance for U.S. Patent Application No. 13/085,402, dated June 14, 2013.
N	Office Action for U.S. Patent Application No. 13/955,336, dated December 5, 2013.
O	Notice of Allowance for U.S. Patent Application No. 13/955,336, dated April 28, 2014.
P	Notice of Allowance for U.S. Patent Application No. 13/955,336, dated August 18, 2014.
Q	Notice of Allowance for U.S. Patent Application No. 13/955,336, dated October 7, 2014.
R	Notice of Allowance for U.S. Patent Application No. 13/955,336, dated November 3, 2014.
S	Office Action for U.S. Patent Application No. 14/557,409, dated June 11, 2015.
T	Notice of Allowance for U.S. Patent Application No 14/557,409, dated January 14, 2016.

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	Applicant	HOWELL et al.
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	U	Notice of Allowance for U.S. Patent Application No. 14/557,409, dated April 28, 2016.
	V	Notice of Allowance for U.S. Patent Application No. 14/557,409, dated August 8, 2016.
	W	Notice of Allowance for U.S. Patent Application No. 14/557,409, dated November 4, 2016.
	X	Corrected Notice of Allowance for U.S. Patent Application No. 14/557,409, dated December 12, 2016.
	Y	Office Action for U.S. Patent Application No. 15/375,423, dated March 27, 2017.
	Z	Notice of Allowance for U.S. Patent Application No. 15/375,423, dated July 5, 2017.
	AA	Notice of Allowance for U.S. Patent Application No. 15/375,423, dated October 31, 2017.
	AB	Notice of Allowance for U.S. Patent Application No. 15/375,423, dated March 23, 2018.
	AC	Notice of Allowance for U.S. Patent Application No. 15/375,423, dated July 13, 2018.
	AD	Office Action for U.S. Patent Application No. 16/049,120, dated February 28, 2020.
	AE	Notice of Allowance for U.S. Patent Application No. 16/049,120, dated June 3, 2020.
	AF	Notice of Allowance for U.S. Patent Application No. 16/049,120, dated September 21, 2020.
	AG	Notice of Allowance for U.S. Patent Application No. 16/049,120, dated February 23, 2021.
	AH	Notice of Allowance for U.S. Patent Application No. 16/049,120, dated June 3, 2021.
	AI	Notice of Allowance for U.S. Patent Application No. 16/049,120, dated September 20, 2021.
	AJ	Notice of Allowance for U.S. Patent Application No. 16/574,254, dated April 16, 2021.
	AK	Notice of Allowance for U.S. Patent Application No. 16/574,254, dated August 9, 2021.
	AL	Office Action for U.S. Patent Application No. 16/821,810, dated February 2, 2022.
	AM	Notice of Allowance for U.S. Patent Application No. 16/821,810, dated April 6, 2022.
	AN	Notice of Allowance for U.S. Patent Application No. 16/821,810, dated October 19, 2022.
	AO	Office Action for U.S. Patent Application No. 17/484,080, dated January 21, 2022.
	AP	Notice of Allowance for U.S. Patent Application No. 17/484,080, dated May 31, 2022.
	AQ	Notice of Allowance for U.S. Patent Application No. 17/484,080, dated September 13, 2022.
	AR	Notice of Allowance for U.S. Patent Application No. 17/484,080, dated January 31, 2023.
	AS	Notice of Allowance for U.S. Patent Application No. 17/484,080, dated June 1, 2023.
	AT	Office Action for U.S. Patent Application No. 17/949,029, dated November 23, 2022.
	AU	Notice of Allowance for U.S. Patent Application No. 17/949,029, dated March 1, 2023.
	AV	Notice of Allowance for U.S. Patent Application No. 17/949,029, dated July 3, 2023.
	AW	Notice of Allowance for U.S. Patent Application No. 17/949,029, dated October 30, 2023.
	AX	Office Action for U.S. Patent Application No. 17/873,104, dated October 6, 2022.
	AY	Office Action for U.S. Patent Application No. 17/873,104, dated November 4, 2022.

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	AZ	Notice of Allowance for U.S. Patent Application No. 17/873,104, dated December 16, 2022.
	BA	Notice of Allowance for U.S. Patent Application No. 17/873,104, dated March 22, 2023.
	BB	Office Action for U.S. Patent Application No. 18/144,557, dated August 23, 2023.
	BC	Office Action for U.S. Patent Application No. 18/144,557, dated November 24, 2023.
	BD	Restriction Requirement for U.S. Patent Application No. 11/580,222, dated June 18, 2008.
	BE	Office Action for U.S. Patent Application No. 11/580,222, dated September 12, 2008.
	BF	Office Action for U.S. Patent Application No. 11/580,222, dated January 28, 2009.
	BG	Notice of Allowance for U.S. Patent Application No. 11/580,222, dated April 20, 2009.
	BH	U.S. Patent Application No. 12/462,286, filed July 31, 2009.
	BI	Restriction Requirement for U.S. Patent Application No. 12/462,286, dated September 17, 2010.
	BJ	Office Action for U.S. Patent Application No. 12/462,286, dated January 13, 2011.
	BK	Notice of Allowance for U.S. Patent Application No. 12/462,286, dated June 24, 2011.
	BL	Notice of Allowance for U.S. Patent Application No. 12/462,286, dated November 22, 2011.
	BM	Office Action for U.S. Patent Application No. 13/367,346, dated May 15, 2013.
	BN	Notice of Allowance for U.S. Patent Application No. 13/367,346, dated October 10, 2013.
	BO	Office Action for U.S. Patent Application No. 13/367,346, dated January 28, 2014.
	BP	Notice of Allowance for U.S. Patent Application No. 13/367,346, dated August 15, 2014.
	BQ	Notice of Allowance for U.S. Patent Application No. 13/367,346, dated March 19, 2015.
	BR	Office Action for U.S. Patent Application No. 14/715,501, dated September 23, 2015.
	BS	Office Action for U.S. Patent Application No. 14/715,501, dated March 25, 2016.
	BT	Office Action for U.S. Patent Application No. 14/715,501, dated October 17, 2016.
	BU	Office Action for U.S. Patent Application No. 14/715,501, dated July 20, 2017.
	BV	Office Action for U.S. Patent Application No. 14/715,501, dated January 8, 2018.
	BW	Notice of Allowance for U.S. Patent Application No. 14/715,501, dated May 9, 2018.
	BX	Notice of Allowance for U.S. Patent Application No. 14/715,501, dated September 11, 2018.
	BY	Office Action for U.S. Patent Application No. 16/127,957, dated June 4, 2020.
	BZ	Office Action for U.S. Patent Application No. 16/127,957, dated September 30, 2020.
	CA	Notice of Allowance for U.S. Patent Application No. 16/127,957, dated December 21, 2020.
	CB	Notice of Allowance for U.S. Patent Application No. 17/395,509, dated May 6, 2022.
	CC	Notice of Allowance for U.S. Patent Application No. 17/395,509, dated September 9, 2022.

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	CD	Notice of Allowance for U.S. Patent Application No. 17/395,509, dated December 19, 2022.
	CE	Notice of Allowance for U.S. Patent Application No. 17/395,509, dated April 26, 2023.
	CF	Notice of Allowance for U.S. Patent Application No. 17/737,866, dated September 16, 2022.
	CG	Notice of Allowance for U.S. Patent Application No. 17/737,866, dated January 17, 2023.
	CH	Notice of Allowance for U.S. Patent Application No. 17/737,866, dated May 15, 2023.
	CI	Notice of Allowance for U.S. Patent Application No. 18/238,467, dated November 21, 2023.
	CJ	Notice of Allowance for U.S. Patent Application No. 16/182,969, dated January 28, 2022.
	CK	Office Action for U.S. Patent Application No. 16/182,969, dated June 24, 2020.
	CL	Notice of Allowance for U.S. Patent Application No. 16/182,969, dated October 14, 2020.
	CM	Notice of Allowance for U.S. Patent Application No. 16/182,969, dated September 1, 2021.
	CN	Office Action for U.S. Patent Application No. 16/182,969, dated January 24, 2023.
	CO	Notice of Allowance for U.S. Patent Application No. 16/182,969, dated June 30, 2023.
	CP	Notice of Allowance for U.S. Patent Application No. 16/182,969, dated October 25, 2023.
	CQ	Election of Species Requirement for U.S. Patent Application No. 18/375,893, dated November 14, 2023.
	CR	Office Action for U.S. Patent Application No. 18/375,893, dated December 14, 2023.
	CS	U.S. Patent Application No. 12/806,312, filed August 10, 2010.
	CT	Office Action for U.S. Patent Application No. 12/806,312, dated April 20, 2012.
	CU	Office Action for U.S. Patent Application No. 12/806,312, dated September 25, 2012.
	CV	Notice of Allowance for U.S. Patent Application No. 12/806,312, dated December 14, 2012.
	CW	Notice of Allowance for U.S. Patent Application No. 12/806,312, dated March 29, 2013.
	CX	U.S. Patent Application No. 13/831,512, filed March 14, 2013.
	CY	Office Action for U.S. Patent Application No. 13/831,512, dated June 4, 2013.
	CZ	Office Action for U.S. Patent Application No. 13/831,512, dated February 24, 2014.
	DA	Office Action for U.S. Patent Application No. 13/831,512, dated July 2, 2014.
	DB	Office Action for U.S. Patent Application No. 13/831,512, dated January 21, 2015.
	DC	Office Action for U.S. Patent Application No. 13/831,512, dated May 29, 2015.
	DD	Office Action for U.S. Patent Application No. 13/831,512, dated February 24, 2016.
	DE	Notice of Allowance for U.S. Patent Application No. 13/831,512, dated August 1, 2016.
	DF	Notice of Allowance for U.S. Patent Application No. 13/831,512, dated October 25, 2016.
	DG	Notice of Allowance for U.S. Patent Application No. 13/831,512, dated January 30, 2017.

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	DH	Notice of Allowance for U.S. Patent Application No. 13/831,512, dated February 21, 2017.
	DI	Office Action for U.S. Patent Application No. 15/396,428, dated February 16, 2018.
	DJ	Office Action for U.S. Patent Application No. 15/396,428, dated June 21, 2018.
	DK	Office Action for U.S. Patent Application No. 15/409,723, dated April 23, 2018.
	DL	Office Action for U.S. Patent Application No. 15/409,723, dated October 31, 2018.
	DM	Notice of Allowance for U.S. Patent Application No. 11/183,256, dated January 13, 2009.
	DN	Office Action for U.S. Patent Application No. 11/183,256, dated September 12, 2008.
	DO	Notice of Allowance for U.S. Patent Application No. 11/183,256, dated July 8, 2008.
	DP	Office Action for U.S. Patent Application No. 11/183,256, dated January 25, 2008.
	DQ	Restriction Requirement for U.S. Patent Application No. 11/183,256, dated October 17, 2007.
	DR	Restriction Requirement for U.S. Patent Application No. 11/183,256, dated June 28, 2007.
	DS	Notice of Allowance for U.S. Patent Application No. 11/546,685, dated February 17, 2010.
	DT	Notice of Allowance for U.S. Patent Application No. 11/546,685, dated September 18, 2009.
	DU	Office Action for U.S. Patent Application No. 11/546,685, dated March 5, 2009.
	DV	Restriction Requirement for U.S. Patent Application No. 11/546,685, dated January 27, 2009.
	DW	US Patent Application No. 12/803,732, filed July 1, 2010.
	DX	Notice of Allowance for U.S. Patent Application No. 12/803,732, dated September 1, 2011.
	DY	Notice of Allowance for U.S. Patent Application No. 12/803,732, dated November 15, 2011.
	DZ	Notice of Allowance for U.S. Patent Application No. 12/803,732, dated January 30, 2012.
	EA	Notice of Allowance for U.S. Patent Application No. 12/803,732, dated April 17, 2012.
	EB	Notice of Allowance for U.S. Patent Application No. 12/803,732, dated July 5, 2012.
	EC	Notice of Allowance for U.S. Patent Application No. 12/803,732, dated October 19, 2012.
	ED	Notice of Allowance for U.S. Patent Application No. 12/803,732, dated February 13, 2013.
	EE	Office Action for U.S. Patent Application No. 13/291,020, dated June 4, 2012.
	EF	Office Action for U.S. Patent Application No. 13/291,020, dated April 23, 2012.
	EG	Notice of Allowance for U.S. Patent Application No. 13/291,020, dated August 2, 2012.
	EH	Notice of Allowance for U.S. Patent Application No. 13/291,020, dated November 2, 2012.
	EI	Notice of Allowance for U.S. Patent Application No. 13/291,020, dated February 11, 2013.
	EJ	U.S. Patent Application No. 13/831,419, filed March 14, 2013.
	EK	Office Action for U.S. Patent Application No. 13/831,419, dated April 27, 2015.
	EL	Office Action for U.S. Patent Application No. 13/831,419, dated August 12, 2015.
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	EM	Notice of Allowance for U.S. Patent Application No. 13/831,419, dated January 28, 2016.
	EN	Office Action for U.S. Patent Application No. 13/831,419, dated April 28, 2016.
	EO	Office Action for U.S. Patent Application No. 13/831,419, dated November 17, 2016.
	EP	Office Action for U.S. Patent Application No. 13/831,419, dated February 1, 2017.
	EQ	Notice of Allowance for U.S. Patent Application No. 13/831,419, dated June 6, 2017.
	ER	Office Action for U.S. Patent Application No. 13/831,419, dated October 20, 2017.
	ES	Office Action for U.S. Patent Application No. 13/831,419, dated June 8, 2018.
	ET	U.S. Patent Application No. 13/831,445, filed March 14, 2013.
	EU	Office Action for U.S. Patent Application No. 13/831,445, dated February 20, 2015.
	EV	Notice of Allowance for U.S. Patent Application No. 13/831,445, dated October 21, 2016.
	EW	Notice of Allowance for U.S. Patent Application No. 13/831,445, dated January 9, 2017.
	EX	Corrected Notice of Allowance for U.S. Patent Application No. 13/831,445, dated January 23, 2017.
	EY	Notice of Allowance for U.S. Patent Application No. 13/831,445, dated April 25, 2017.
	EZ	Office Action for U.S. Patent Application No. 13/831,445, dated February 6, 2018.
	FA	Notice of Allowance for U.S. Patent Application No. 13/831,445, dated August 8, 2018.
	FB	Office Action for U.S. Patent Application No. 16/429,181, dated September 30, 2020.
	FC	Notice of Allowance for U.S. Patent Application No. 16/429,181, dated February 1, 2021.
	FD	Notice of Allowance for U.S. Patent Application No. 16/429,181, dated June 17, 2021.
	FE	Notice of Allowance for U.S. Patent Application No. 16/429,181, dated August 19, 2021.
	FF	Notice of Allowance for U.S. Patent Application No. 16/429,181, dated October 4, 2021.
	FG	Office Action for U.S. Patent Application No. 16/429,181, dated February 9, 2022.
	FH	Notice of Allowance for U.S. Patent Application No. 16/429,181, dated August 10, 2022.
	FI	Office Action for U.S. Patent Application No. 16/424,018, dated June 10, 2020.
	FJ	Notice of Allowance for U.S. Patent Application No. 16/424,018, dated October 20, 2020.
	FK	Notice of Allowance for U.S. Patent Application No. 16/424,018, dated March 8, 2021.
	FL	Office Action for U.S. Patent Application No. 16/424,018, dated May 13, 2021.
	FM	Office Action for U.S. Patent Application No. 16/424,018, dated September 3, 2021.
	FN	Notice of Allowance for U.S. Patent Application No. 16/424,018, dated November 2, 2021.
	FO	Office Action for U.S. Patent Application No. 16/424,018, dated January 24, 2022.
	FP	Notice of Allowance for U.S. Patent Application No. 16/424,018, dated June 10, 2022.
	FQ	Office Action for U.S. Patent Application No. 16/424,018, dated September 6, 2022.
	FR	Office Action for U.S. Patent Application No. 16/424,018, dated November 25, 2022.
	FS	Notice of Allowance for U.S. Patent Application No. 16/424,018, dated February 21, 2023.
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FT	Notice of Allowance for U.S. Patent Application No. 17/942,347, dated April 19, 2023.
FU	Notice of Allowance for U.S. Patent Application No 17/942,347, dated July 3, 2023.
FV	Notice of Allowance for U.S. Patent Application No. 17/942,347, dated August 14, 2023.
FW	Notice of Allowance for U.S. Patent Application No.17/964,853, dated March 8, 2023.
FX	Office Action for U.S. Patent Application No. 17/964,853, dated September 15, 2023.
FY	Office Action for U.S. Patent Application No. 18/129,660, dated May 19, 2023.
FZ	Office Action for U.S. Patent Application No. 18/129,660, dated July 7, 2023.
GA	Notice of Allowance for U.S. Patent Application No. 18/129,660, dated August 24, 2023.
GB	Office Action for U.S. Patent Application No. 18/224,793, dated September 7, 2023.
GC	Notice of Allowance for U.S. Patent Application No. 18/224,793, dated October 2, 2023.
GD	"±1.5g Dual Axis Micromachined Accelerometer", Freescale Semiconductor, Inc., Motorola Semiconductor Technical Data, MMA6260Q, June 2004, pp. 1-7.
GE	"APA Announces Shipment of the SunUV™ Personal UV Monitor", Press Release, November 7, 2003, pp. 1-3.
GF	"Camera Specs Take Candid Snaps", BBC News, 18 September 2003, pp. 1-3.
GG	"Cardo Wireless Attaching Clips and Wearing Headset", Cardo Systems, Inc., http://www.cardowireless.com/clips.php , downloaded Nov. 27, 2004, pp. 1-3.
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GM	"Industrial UV Measurements", APA Optics, Inc., http://www.apaoptics.com/uv/ , downloaded 7/12/2004, p.1.
GN	"Motorola and Oakley Introduce First Bluetooth Sunglasses-Cutting Edge RAZRWire Line Offers Consumers On-The-Go Connections", Motorola Mediacenter-Press Release, February 14, 2005, pp. 1-2.
GO	"Oakley Thump: Sunglasses Meet MP3 Player", with image, http://news.designtechnica.com/article4665.html , July 13, 2004.
GP	"Personal UV monitor," Optics.org, http://optics.org/articles/news/6/6/7/1 (downloaded 12/20/03), June 9, 2000, pp. 1-2.
GQ	"SafeSun Personal Ultraviolet Light Meter", http://healthchecksyste.ms.com/safesun.htm , downloaded July 12, 2004, pp. 1-4.

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	Group	OPAP
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	GR	"SafeSun Personal UV Meter", Introduction, Optix Tech Inc., http://www.safesun.com , downloaded February 5, 2004, pp. 1-2.
	GS	"SafeSun Personal UV Meter, features, Optix Tech Inc., http://www.safesun.com/features.html , downloaded May 1, 2004, pp. 1-2.
	GT	"Sharper Image - The FM Pedometer", e-Corporate Gifts.com, http://www.e-corporategifts.com/sr353.html , downloaded January 22, 2005, pp. 1-2.
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	HB	Abrisa Product Information: Commercial Hot Mirror, Abrisa, June 2001, p. 1.
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	HD	Altimeter and Compass Watches, http://store.yahoo.com/snowshack/altimeter-watches.html , downloaded 5/3/04, pp. 1-2.
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	HJ	Dickie et al. "Eye Contact Sensing Glasses for Attention-Sensitive Wearable Video Blogging," Human Media Lab, Queen's University, Kingston, ON K7L 3N6, Canada, est. April 2004, pp. 1-2.
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	HL	Global Solar UV Index, A Practical Guide, World Health Organization, 2002, pages 1-28.
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.

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

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVCP003X1C4X1C2
	Application No.:	18/597,874
	Applicant	HOWELL et al.
	Filing Date	March 6, 2024
	Group	OPAP
		Page 10 of 11

	HM	Grobart, Sam, "Digit-Sizing Your Computer Data", News Article, September, 2004, p. 1.
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	HY	Questions Answers, Pedometer.com, http://www.pedometer.com , downloaded May 5, 2005.
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	IA	SafeSun Personal UV Meter, Scientific Data, Optix Tech Inc., http://www.safesun.com/scientific.html , downloaded May 1, 2004, pp. 1-3.
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	IG	Steele, Bonnie G. et al., "Bodies in motion: Monitoring daily activity and exercise with motion sensors in people with chronic pulmonary disease", VA Research & Development, Journal of Rehabilitation Research & Development, Vol. 40, No. 5, September/October 2003, Supplement 2, pages 45-58.
	IH	Stevens, Kathy, "Should I Use a Pedometer When I Walk?", Healtheon/WebMD, April 14, 2000.

Examiner	Date Considered
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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./

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVCP003X1C4X1C2
	Application No.:	18/597,874
	Applicant	HOWELL et al.
	Filing Date	March 6, 2024
	Group	OPAP
		Page 11 of 11

II	Sundgot, Jørgen "2nd-gen Motorola Bluetooth headset", InfoSync World, March 1, 2003, http://www.infosync.no/news/2002/n/2841.html , pp. 1-2.
IJ	SunSensors, Segan Industries, Inc., http://www.segan-ind.com/sunsensor.htm , downloaded February 5, 2004, pp. 1-3.
IK	SunUV™, Personal UV Monitor User's Guide, APA Optics, Inc., 2003 pp. 1-52.
IL	SunUV™, Personal UV Monitor, APA Optics, Inc., http://www.apaoptics.com/sunuv/models.html , downloaded December 20, 2003.
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IO	Top Silicon PIN Photodiode, PD93-21C, Technical Data Sheet, Everlight Electronics Co., Ltd., 2004, pp 1-9.
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IQ	UV-Smart, UVA/B Monitor, Model EC-960-PW, Instruction Manual, Tanita Corporation of America, Inc., downloaded November 16, 2001.
IR	Vitaminder Personal Carb Counter, http://www.auravita.com/products/AURA/ORBU11420.asp . Downloaded November 15, 2005, pp. 1-4.
IS	Yamada et al. "Development of an eye-movement analyser possessing functions for wireless transmission and autocalibration," Med. Biol. Eng. Comput., No. 28, v.4, July 28, 1990, http://link.springer.com/article/10.1007%2FBF02446149?LI=true , pp. 1-2.

Examiner /JIE LEI/	Date Considered 05/15/2024
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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO.	TOT CLAIMS	IND CLAIMS
18/597,874	03/06/2024	2872	1820	IPVCP003X1C4X1C2	4	3

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

CONFIRMATION NO. 7223
CORRECTED FILING RECEIPT



0000000073493408

Date Mailed: 06/04/2024

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Thomas A. Howell, San Jose, CA;
David Chao, Saratoga, CA;
C. Douglass Thomas, Saratoga, CA;
Peter P. Tong, Mountain View, CA;

Applicant(s)

IngenioSpec, LLC, San Jose, CA;

Power of Attorney: The patent practitioners associated with Customer Number 34071

Domestic Priority data as claimed by applicant

and said 18/375,893 10/02/2023 is a CON of 16/182,969 11/07/2018
which is a CON of 16/127,957 09/11/2018 PAT 11,086,147
which is a CON of 14/715,501 05/18/2015 PAT 10,330,956
which is a CON of 13/367,346 02/06/2012 PAT 9,033,493
which is a CON of 12/462,286 07/31/2009 PAT 8,109,629
which is a CON of 11/580,222 10/11/2006 PAT 7,581,833
which claims benefit of 60/725,999 10/11/2005
and claims benefit of 60/725,896 10/11/2005
and claims benefit of 60/787,850 04/01/2006
and claims benefit of 60/846,150 09/20/2006
and said 16/182,969 11/07/2018 is a CON of 16/049,120 07/30/2018 PAT 11,243,416
which is a CON of 15/375,423 12/12/2016 PAT 10,061,144
which is a CON of 14/557,409 12/01/2014 PAT 9,547,184

page 1 of 4

which is a CON of 13/955,336 07/31/2013 PAT 8,905,542
which is a CON of 13/085,402 04/12/2011 PAT 8,500,271
and said 16/182,969 11/07/2018 is a CON of 15/409,723 01/19/2017 ABN
which is a CON of 13/831,512 03/14/2013 PAT 9,690,121
which is a CON of 12/806,312 08/10/2010 PAT 8,465,151
which is a CIP of 12/462,286 07/31/2009 PAT 8,109,629
and is a CIP of 12/317,043 12/18/2008 PAT 7,771,046
which is a CON of 12/214,435 06/19/2008 PAT 7,481,531
which is a CON of 11/891,411 08/09/2007 PAT 7,401,918
This application is a CON of 18/375,893 10/02/2023

Foreign Applications for which priority is claimed (You may be eligible to benefit from the Patent Prosecution Highway program at the USPTO. Please see <http://www.uspto.gov> for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 03/18/2024

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 18/597,874**

Projected Publication Date: 06/27/2024

Non-Publication Request: No

Early Publication Request: No

Title

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

Preliminary Class

351

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: HOWELL et al.

Attorney Docket No.: IPVCP003X1C4X1C2

Application No.: 18/597,874

Examiner: JIE, LEI

Filed: March 6, 2024

Group: 2872

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

REQUEST FOR CORRECTED OFFICIAL FILING RECEIPT

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

Sir:

Applicants hereby request a Corrected Official Filing Receipt for the above-referenced patent application. Since this request is being made within 4 months of filing, no petition is required. Please process and issue a corrected Official Filing Receipt.

Respectfully submitted,

/C. Douglass Thomas/

C. Douglass Thomas
Registration No. 32,947

4010 Moorpark Avenue
Suite 211
San Jose, CA 95117

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Corrected Application Data Sheet 37 CFR 1.76		Attorney Docket Number	IPVCP003X1C4X1C2
		Application Number	18/597,874
Title of Invention	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2:

☐	Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)
--------------------------	---

Inventor Information:

Inventor 1					Remove	
Legal Name						
Prefix	Given Name	Middle Name	Family Name	Suffix		
	Thomas	A.	Howell			
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service						
City	San Jose	State/Province	CA	Country of Residence	US	
Mailing Address of Inventor:						
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Address 2						
City	San Jose	State/Province	CA			
Postal Code	95112	Country	US			
Inventor 2					Remove	
Legal Name						
Prefix	Given Name	Middle Name	Family Name	Suffix		
	David		Chao			
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service						
City	Saratoga	State/Province	CA	Country of Residence	US	
Mailing Address of Inventor:						
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Address 2						
City	Saratoga	State/Province	CA			
Postal Code	95070	Country	US			
Inventor 3					Remove	
Legal Name						
Prefix	Given Name	Middle Name	Family Name	Suffix		
	C.	Douglass	Thomas			
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Corrected Application Data Sheet 37 CFR 1.76		Attorney Docket Number		IPVCP003X1C4X1C2	
		Application Number		18/597,874	
Title of Invention		SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS			
City	Saratoga	State/Province	CA	Country of Residence	UA
Mailing Address of Inventor:					
Address 1		4010 Moorpark Avenue			
Address 2		Suite 211			
City	San Jose	State/Province	CA		
Postal Code	95117	Country i	US		
Inventor 4					Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Peter	P.	Tong		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
City	Mountain View	State/Province	CA	Country of Residence	US
Mailing Address of Inventor:					
Address 1		1807 Limetree Lane			
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City	Mountain View	State/Province	CA		
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☐ An Address is being provided for the correspondence Information of this application.			
Customer Number	34071		
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Application Information:

Title of the Invention	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS		
Attorney Docket Number	IPVCP003X1C4X1C2	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	28	Suggested Figure for Publication (if any)	4

Corrected Application Data Sheet 37 CFR 1.76		Attorney Docket Number	IPVCP003X1C4X1C2
		Application Number	18/597,874
Title of Invention	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS		

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	☒ Customer Number	☐ US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	34071		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
18597874	Continuation of	18375893	2023-10-02

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Corrected Application Data Sheet 37 CFR 1.76		Attorney Docket Number	IPVCP003X1C4X1C2
		Application Number	18/597,874
Title of Invention	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS		

Prior Application Status	Pending		Remove		
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
18375893	Continuation of	16182969	2018-11-07		
Prior Application Status	Pending		Remove		
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
16182969	Continuation of	16127957	2018-09-11		
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16127957	Continuation of	14715501	2015-05-18	10330956	2019-06-25
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14715501	Continuation of	13367346	2012-02-06	9033493	2015-05-19
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13367346	Continuation of	12462286	2009-07-31	8109629	2012-02-07
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
12462286	Continuation of	11580222	2006-10-11	7581833	2009-09-01
Prior Application Status	Expired		Remove		
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
11580222	Claims benefit of provisional	60725999	2005-10-11		
Prior Application Status	Expired		Remove		
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
11580222	Claims benefit of provisional	60725896	2005-10-11		
Prior Application Status	Expired		Remove		
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
11580222	Claims benefit of provisional	60787850	2006-04-01		

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Corrected Application Data Sheet 37 CFR 1.76		Attorney Docket Number		IPVCP003X1C4X1C2	
		Application Number		18/597,874	
Title of Invention	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS				

Prior Application Status		Expired		Remove	
Application Number		Continuity Type		Prior Application Number	
11580222		Claims benefit of provisional		60846150	
Filing or 371(c) Date (YYYY-MM-DD)		2006-09-20			
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16182969	Continuation of	16049120	2018-07-30	11243416	2022-02-08
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16049120	Continuation of	15375423	2016-12-12	10061144	2018-08-28
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15375423	Continuation of	14557409	2014-12-01	9547184	2017-01-17
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14557409	Continuation of	13955336	2013-07-13	8905542	2014-12-09
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13955336	Continuation of	13085402	2011-04-12	8500271	2013-08-06
Prior Application Status		Abandoned		Remove	
Application Number		Continuity Type		Prior Application Number	
16182969		Continuation of		15409723	
Filing or 371(c) Date (YYYY-MM-DD)		2017-01-19			
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15409723	Continuation of	13831512	2013-03-14	9690121	2017-06-27
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13831512	Continuation of	12806312	2010-08-10	8465151	2013-06-18
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
12806312	Continuation in part of	12462286	2009-07-31	8109629	2012-02-07

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Corrected Application Data Sheet 37 CFR 1.76		Attorney Docket Number	IPVCP003X1C4X1C2		
		Application Number	18/597,874		
Title of Invention	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS				

Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
12462286	Continuation of	11580222	2006-10-11	7581833	2009-09-01
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
12806312	Continuation in part of	12317043	2008-12-18	7771046	2010-08-10
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
12317043	Continuation of	12214435	2008-06-19	7481531	2009-01-27
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
12214435	Continuation of	11891411	2007-08-09	7401918	2008-07-22
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.					

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)ⁱ the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Remove			
Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ^j (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<u>Corrected</u> Application Data Sheet 37 CFR 1.76		Attorney Docket Number	IPVCP003X1C4X1C2
		Application Number	18/597,874
Title of Invention	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS		

This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.



NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Corrected Application Data Sheet 37 CFR 1.76		Attorney Docket Number	IPVCP003X1C4X1C2
		Application Number	18/597,874
Title of Invention	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS		

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

Corrected Application Data Sheet 37 CFR 1.76		Attorney Docket Number	IPVCP003X1C4X1C2
		Application Number	18/597,874
Title of Invention	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS		

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

☒ Assignee☐ Legal Representative under 35 U.S.C. 117☐ Joint Inventor☐ Person to whom the inventor is obligated to assign.☐ Person who shows sufficient proprietary interest

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name

IngenioSpec, LLC

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Country

US

Postal Code

95117

Phone Number

650-903-9200

Fax Number

650-903-9800

Email Address

doug@ipventure.com

Additional Applicant Data may be generated within this form by selecting the Add button.

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Corrected Application Data Sheet 37 CFR 1.76		Attorney Docket Number	IPVCP003X1C4X1C2
		Application Number	18/597,874
Title of Invention	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS		

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	Given Name	Middle Name	Family Name	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		State/Province	
Country ⁱ		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/C. Douglass Thomas/		Date (YYYY-MM-DD)	2024-05-31	
First Name	C.	Last Name	Thomas	Registration Number	32947

Additional Signature may be generated within this form by selecting the Add button.

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<u>Corrected</u> Application Data Sheet 37 CFR 1.76		Attorney Docket Number	IPVCP003X1C4X1C2
		Application Number	18/597,874
Title of Invention	SYSTEM FOR CHARGING EMBEDDED BATTERY IN WIRELESS HEAD-WORN PERSONAL ELECTRONIC APPARATUS		

This collection of information is required by 37 CFR 1.76. 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 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet 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.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1 The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
- 2 A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3 A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4 A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5 A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6 A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7 A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8 A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
- 9 A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: HOWELL et al. Attorney Docket No.: IPVCP003X1C4X1C2

Application No.: 18/597,874 Examiner: JIE, LEI

Filed: March 6, 2024 Group: 2872

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

**REQUEST TO RESCIND THE STATEMENT UNDER §§ 1.55/1.78 FOR AIA (FIRST
INVENTOR TO FILE) TRANSITION APPLICATIONS**

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

Sir:

Applicants hereby rescind the AIA transition statement under § 1.55/1.78 made in the originally filed web-ADS for the above-referenced application and assert that the statement was made in error. This application should undergo pre-AIA examination. A Corrected ADS and Request for Corrected Official Filing Receipt are being submitted concurrently herewith.

Respectfully submitted,

/C. Douglass Thomas/
C. Douglass Thomas
Registration No. 32,947

4010 Moorpark Avenue
Suite 211
San Jose, CA 95117