

Boletín VT COCHE ELÉCTRICO

4^{er} trimestre 2017

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Vigilancia Tecnológica

Noticias

El pasado noviembre se lanzó un nuevo plan de incentivos para la adquisición de vehículos de bajas emisiones, el denominado [Plan MOVALT](#). El éxito de este plan ha sido tal que los 20 millones de euros presupuestados [se agotaron en 24 horas](#). A este respecto la Asociación Española de Fabricantes de Automóviles y Camiones (ANFAC) ha puesto de manifiesto la necesidad de mantener y aumentar este tipo de ayudas, con el fin de estimular la transición hacia estas tecnologías.

La mayor feria de la tecnología que se celebra en Las Vegas, CES 2018, se ha convertido en un escaparate de las [innovaciones en el sector de la automoción](#), especialmente de la mano de los vehículos autónomos y eléctricos. No solo los fabricantes tradicionales, sino [nuevos "jugadores"](#) se suben al tren de la automoción con nuevos modelos y rediseños de modelos tradicionales.

El concepto de "sharing" como alternativa de transporte público se refuerza en Madrid con la incorporación de un nuevo proveedor de "carsharing" eléctrico: [Zity](#), que viene a complementar a los proveedores ya existentes (Car2Go, Emov). Frente a los anteriores, Zity permitirá desplazamientos no solo dentro de la ciudad sino por toda la Comunidad.

Los coches eléctricos estarán [obligados a hacer algún tipo de sonido desde julio de 2019](#). La medida afecta a vehículos híbridos, híbridos enchufables, 100% eléctricos, eléctricos de autonomía extendida y de pila de hidrógeno cuyo peso esté por debajo de las 4,5 toneladas y que circulen por debajo de los 30 km/h tanto hacia delante como marcha atrás. Con esta medida se pretende disminuir la probabilidad de atropello de peatones, debido a la conducción silenciosa que caracteriza a los vehículos eléctricos.

Aunque pareciera que la movilidad eléctrica es un invento de reciente creación, desde los inicios de la automoción estuvo presente la idea de la propulsión eléctrica. Entre estos pioneros encontramos la figura del inventor español [Francisco Domínguez-Adame](#), quien en 1946 diseñó y fabricó, de manera casi artesanal, el modelo que denominó DAR. Más recientemente otros fabricantes han experimentado con diversos modelos eléctricos, entre ellos el [EV1 de General Motors](#), que sin embargo, y debido a múltiples circunstancias, tampoco alcanzaron el éxito esperado.

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 - [Convertidores, inversores](#)
- INFRAESTRUCTURAS DE CARGA
 - [Recarga de baterías](#)
 - [Cambio de baterías](#)

Solicitudes de Patente Publicadas

Los datos que aparecen en la tabla corresponden a una selección de las solicitudes de patentes publicadas durante el trimestre. Se puede acceder al documento completo haciendo doble clic sobre el mismo.

BATERÍAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2017167638	SONY CORP SONY EUROPE LTD	Non-aqueous electrolytes and uses thereof
WO 2017178564	HUGO BENZING GMBH & CO KG	Pressure relief device for a battery housing, battery housing comprising the pressure relief device, battery, and method for battery pressure relief
WO 2017201031	JOHNSON CONTROLS TECH CO LE DANIEL B BOONE DAVID R	Dual energy storage system and starter battery module
WO 2017203140	RENAULT SAS	Portable device for reeling an electrical cable, in particular a charging cable for an electric or hybrid vehicle
WO 2017207125	THYSSENKRUPP STEEL EUROPE AG THYSSENKRUPP AG	Battery housing for a vehicle battery, and vehicle battery
WO 2017207502	THYSSENKRUPP STEEL EUROPE AG THYSSENKRUPP AG	Battery holder and use of a battery holder
WO 2017216822	NEC CORP	Fast chargeable lithium ion batteries with nano-carbon coated anode material and imide anion based lithium salt electrolyte
WO 2017220975	KOOLKWIC LTD	Battery pack
WO 2017222219	SAMSUNG SDI CO LTD	Secondary battery
WO 2017168330	UNIV WARSZAWSKI INST TECH MATERIAŁÓW ELEKTRONICZNYCH INST CHEMII PRZEMYSŁOWEJ	Lithium-ion cell
WO 2017182156	VOLKSWAGEN AG	Cooling arrangement for at least one battery module, battery module, and battery unit
WO 2017188582	SAMSUNG SDI CO LTD	Secondary battery
WO 2017213988	NANOTEK INSTRUMENTS INC	Graphene-metal hybrid foam-based electrode for an alkali metal battery
WO 2017216331	SANDVIK MINING & CONSTRUCTION OY	Charging notification arrangement in underground mining vehicle
WO 2017215738	VOLVO TRUCK CORP	A method and a device for controlling the operation of an energy storage system in a vehicle
WO 2017222296	SAMSUNG SDI CO LTD	Rechargeable battery
WO 2017222378	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST-NATUURWETENSCHAP PELIJK ONDERZOEK TNO	A method of manufacturing a lithium battery
WO 2017221379	ELIY POWER CO LTD	Power storage device
WO 2017194305	BAYERISCHE MOTOREN WERKE AG	Vehicle having a high-voltage accumulator
WO 2017203420	UMICORE NV UMICORE KOREA LTD	Positive electrode for lithium ion battery
WO 2017217643	LG CHEMICAL LTD	Battery module, and battery pack and vehicle comprising same
WO 2017217408	NEC CORP	Lithium ion secondary cell
WO 2017217625	RESEARCH INSTITUTE OF INDUSTRIAL SCIENCE & TECH	Saggar for firing active material of lithium secondary battery, and method for manufacturing active material using same
WO 2017217641	LG CHEMICAL LTD	Battery module, and battery pack and vehicle comprising same

WO 2017182306	BOSCH GMBH ROBERT	Electrochemical cell including electrode isolation frame
WO 2017188647	SAMSUNG SDI CO LTD	Rechargeable battery having protection circuit module
WO 2017194373	BAYERISCHE MOTOREN WERKE AG	Heatable battery
WO 2017198599	FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E V	Electrical bypass device for bypassing an electrical energy source or an energy consumer
WO 2017201033	JOHNSON CONTROLS TECH CO SOLESKI EDWARD J DEKEUSTER RICHARD M	Push fit main battery terminal connectors with geometrical lockout features
WO 2017213352	SAMSUNG SDI CO LTD	Rechargeable battery
WO 2017213959	NANOTEK INSTRUMENTS INC	Alkali metal battery having an integral 3d graphene-carbon-metal hybrid foam-based electrode
WO 2017218374	KEY SAFETY SYSTEMS INC	Battery control system
WO 2017217652	LG CHEMICAL LTD	Battery module comprising external members coupled by means of clamping-type coupling members
WO 2017222077	YAZAKI CORP	Vehicle circuit structure
WO 2017222261	SAMSUNG SDI CO LTD	Rechargeable battery
WO 2017194378	BAYERISCHE MOTOREN WERKE AG	Heatable battery
WO 2017209895	3M INNOVATIVE PROPERTIES CO UMICORE NV	Lithium ion batteries, electronic devices, and methods
WO 2017213147	NIPPON STEEL & SUMITOMO METAL CORP	Negative terminal active substance material, negative terminal, and battery
WO 2017213061	MITSUBISHI ELECTRIC CORP	Method and system for estimating state of charge of a battery using gaussian process regression
WO 2017217823	LG CHEMICAL LTD	Electrode for secondary battery and method for manufacturing same
WO 2017182753	RENAULT SAS	Protection for the electrical power supply of a vehicle
WO 2017190907	BOSCH GMBH ROBERT	Cooling arrangement for energy storage device
WO 2017213149	KANEKA CORP	Lithium-ion secondary battery and assembled battery
WO 2017213462	IUCF-HYU(INDUSTRY-UNIVERSITY COOPERATION FOUND HANYANG UNIVERSITY)	Positive electrode active material for sodium secondary battery, and method for preparing same
WO 2017217769	LG CHEMICAL LTD	Electrode for secondary battery, and lithium secondary battery comprising same
WO 2017217319	MURATA MANUFACTURING CO	Lithium ion secondary cell
WO 2017216558	NEXEON LTD	Electrodes for metal-ion batteries
WO 2017222199	SAMSUNG SDI CO LTD	Secondary battery
WO 2017178543	FORTU NEW BATTERY TECH GMBH	Electrolyte for rechargeable electrochemical battery cells
WO 2017213344	LG CHEMICAL LTD	Battery module comprising buffering and cooling member having porous structure
WO 2017213325	LG CHEMICAL LTD	Self-assembled composite of carbon nitride and graphene oxide, manufacturing method for same, positive electrode having same applied thereto, and lithium-sulfur battery comprising same
WO 2017217596	SAMSUNG SDI CO LTD	Composite electrolyte for lithium metal battery, method for manufacturing same, and lithium metal battery comprising same
WO 2017217633	LG CHEMICAL LTD	Battery module, and battery pack and vehicle which comprise same module
WO 2017182307	BOSCH GMBH ROBERT	Low profile sensor and electrochemical cell including same
WO 2017207878	KELIBER OY	Method of producing non-conductive lithium metal phosphates
WO 2017213083	SHOWA DENKO KK	Negative electrode for lithium ion secondary cell, and lithium ion secondary cell

WO 2017214885	BOSCH GMBH ROBERT HAO XIAOGANG JIANG RONGRONG DOU YUQIAN WANG LEI	Lithium ion battery and producing method thereof
WO 2017217822	LEE NAM JAE	System and method for replacing electric car battery
WO 2017215736	BAYERISCHE MOTOREN WERKE AG TOYOTA MOTOR CORP	Galvanic metal-oxygen cell and battery module and vehicle comprising same
WO 2017194414	BOSCH GMBH ROBERT	Prismatic electrochemical cell
WO 2017195253	CONNEXX SYSTEMS CORP	Discharge characteristic calculation device for composite battery
WO 2017195979	SK INNOVATION CO LTD	Method for evaluating secondary battery active material
WO 2017209218	DAINIPPON PRINTING CO LTD	Battery packaging material, production method therefor, battery, and polyester film
WO 2017209365	LG CHEMICAL LTD	Battery module, battery pack comprising same, and automobile
WO 2017208740	SANYO ELECTRIC CO	Management device and power supply system
WO 2017209217	DAINIPPON PRINTING CO LTD	Battery packaging material, production method therefor, battery, and polyester film
WO 2017209327	KOREA TRANSP SAFETY AUTHORITY	Battery flammability test apparatus and method
WO 2017177036	CROMPTON KYLE LANDI BRIAN	Near zero volt storage tolerant electrochemical cells through reversible ion management
WO 2017179869	LG CHEMICAL LTD	Apparatus and method for protecting MOSFET relay by using voltage detector and signal fuse
WO 2017181832	MICROVAST POWER SYSTEMS CO LTD	Composite separator containing aromatic polyamide and manufacturing method thereof, and secondary battery
WO 2017196799	BLUEGENTECH LLC	Electric utility terrain vehicle
WO 2017200177	LG CHEMICAL LTD	Lead welding apparatus, battery module manufactured through same lead welding apparatus, and battery pack comprising same battery module
WO 2017204334	UMICORE NV	Method for producing nickel lithium metal complex oxide powder of small particle size
WO 2017208944	CENTRAL GLASS CO LTD	Nonaqueous electrolyte solution and nonaqueous electrolyte battery using same
WO 2017209495	LG CHEMICAL LTD	Lithium secondary battery separator and lithium secondary battery comprising same
WO 2017175979	IUCF-HYU(INDUSTRY-UNIVERSITY COOP FOUND HANYANG UNIVERSITY)	Positive electrode active material, method for manufacturing same, and lithium secondary battery containing same
WO 2017190700	DONGFENG AGRICULTURAL EQUIPMENT (XIANGYANG) CO LTD	Electric high-speed rice seedling planter
WO 2017193571	HUAWEI TECH CO LTD	Conductive adhesive for lithium-ion battery and preparation method therefor, lithium-ion battery electrode plate and preparation method therefor, and lithium-ion battery
WO 2017194790	VITO NV VRIJE UNIV BRUSSEL	Method and apparatus of a modular management system for energy storage cells
WO 2017199821	FUJIFILM CORP	Solid electrolyte composition, solid electrolyte-containing sheet, all-solid-state secondary battery, method for producing solid electrolyte-containing sheet, and method for producing all-solid-state secondary battery
WO 2017200046	NIPPON STEEL & SUMITOMO METAL CORP	Negative electrode active substance material, negative electrode, and battery
WO 2017204458	SAMSUNG SDI CO LTD	Battery pack
WO 2017204027	FUJIFILM CORP	Solid electrolyte composition, electrode sheet for all-solid-state secondary battery, all-solid-state secondary battery, and method for producing electrode sheet for all-solid-state secondary battery and all-solid-state secondary battery
WO 2017209388	LG CHEMICAL LTD	Battery module, battery pack comprising same, and automobile

WO 2017209735	FORD GLOBAL TECH LLC	Mobile charging for electric vehicles
WO 2017209423	AMOGREENTECH CO LTD	Heat-radiating cartridge and electric car battery pack using same
WO 2017206479	BEIJING CHJ AUTOMOTIVE TECH CO LTD	Power supply system, vehicle, and method and device for controlling power supply system of vehicle
WO 2017185806	HUAWEI TECH CO LTD	Charging wakeup apparatus and control method for charging wakeup apparatus
WO 2017190642	WANG WUSHENG	Method for prolonging service life of lithium ion battery
WO 2017204028	FUJIFILM CORP	Solid electrolyte composition, solid electrolyte-containing sheet, all-solid-state secondary battery, and method for producing solid electrolyte-containing sheet and all-solid-state secondary battery
WO 2017209517	INDUSTRY-UNIV COOPERATION FOUNDATION HANYANG UNIV ERICA CAMPUS	Heat treatment method and nitrogen-doped metal oxide structure
WO 2017171389	AMOGREENTECH CO LTD	Heat-radiating cartridge, and battery pack for electric vehicle using same
WO 2017175978	IUCF-HYU(INDUSTRY-UNIVERSITY COOP FOUND HANYANG UNIVERSITY)	Positive electrode active material, method for manufacturing same, and lithium secondary battery containing same
WO 2017198750	BOSCH GMBH ROBERT	Staircase charging
WO 2017204096	NEC CORP	Stacked secondary battery, and bag-like separator
WO 2017208799	SUMITOMO WIRING SYSTEMS	Charging connector
WO 2017191820	HITACHI CHEMICAL CO LTD	Negative electrode material for lithium ion secondary cell, method for manufacturing negative electrode material for lithium ion secondary cell, negative electrode for lithium ion secondary cell, and lithium ion secondary cell
WO 2017191679	TOSHIBA KK TOSHIBA INFRASTRUCTURE SYSTEMS & SOLUTIONS CORP	Lithium ion battery pack
WO 2017194411	BOSCH GMBH ROBERT	Prismatic electrochemical cell
WO 2017205634	IONIC MAT INC	ELECTROCHEMICAL CELL HAVING SOLID IONICALLY CONDUCTING POLYMER MATERIAL
WO 2017203921	BROTHER IND LTD	Vanadium redox secondary battery and method for producing vanadium redox secondary battery
WO 2017169845	TORAY INDUSTRIES	Secondary-battery separator and secondary battery
WO 2017175977	IUCF-HYU(INDUSTRY-UNIVERSITY COOP FOUND HANYANG UNIVERSITY)	Positive electrode active material, method for manufacturing same, and lithium secondary battery containing same
WO 2017195546	AUTONETWORKS TECHNOLOGIES LTD SUMITOMO WIRING SYSTEMS SUMITOMO ELECTRIC INDUSTRIES	Connection module
WO 2017203954	AIST	Lowly symmetric garnet-related structured solid electrolyte and lithium secondary battery
WO 2017208916	NIPPON KODOSHI CORP TOYOTA MOTOR CO LTD	Battery negative electrode active material, battery, and method for producing battery negative electrode active material
WO 2017209219	DAINIPPON PRINTING CO LTD	Packaging material for batteries, method for producing same and battery
WO 2017170944	MITANI SATOSHI UNIV OSAKA CITY	Aqueous secondary cell
WO 2017171294	LG CHEMICAL LTD	Method for manufacturing electrode
WO 2017171433	LG CHEMICAL LTD	Method for producing secondary battery

WO 2017171409	LG CHEMICAL LTD	Anode for secondary battery, manufacturing method therefor, and secondary battery comprising same
WO 2017179777	SAMSUNG SDI CO LTD	Secondary battery
WO 2017179267	SHOWA DENKO PACKAGING CO	Outer package material for electricity storage devices, and electricity storage device
WO 2017199629	HITACHI AUTOMOTIVE SYSTEMS LTD	Battery control device
WO 2017199583	MURATA MANUFACTURING CO	Cell, cell pack, electronic device, electric vehicle, electricity storage apparatus, and power system
WO 2017204466	LG CHEMICAL LTD	Anode active material and lithium secondary battery comprising same
WO 2017169145	PANASONIC IP MAN CO LTD	Non-aqueous electrolyte secondary battery
WO 2017168982	SONY CORP	Secondary battery negative electrode, secondary battery, battery pack, electric vehicle, power storage system, electric tool and electronic device
WO 2017171459	LG CHEMICAL LTD	High-flexibility electrode assembly and battery cell comprising same
WO 2017175487	SONY CORP	Battery pack and electronic device having same
WO 2017179636	DAINIPPON PRINTING CO LTD	Packaging material for batteries, method for producing same and battery
WO 2017179898	LG CHEMICAL LTD	Apparatus and method for molding pouch exterior material for secondary battery
WO 2017190366	SHENZHEN INSTITUTE OF ADVANCED TECH SHENZHEN (CN)	Secondary battery and preparation method therefor
WO 2017200018	NEMOTO YUTAKA	Power generating rechargeable electric vehicle
WO 2017169684	HITACHI MAXELL	Nonaqueous electrolyte primary battery and method for manufacturing same
WO 2017171158	LSIS CO LTD	Obc module assembly for electric vehicle
WO 2017171335	LG CHEMICAL LTD	Method for preparing electrode slurry
WO 2017171383	AMOGREENTECH CO LTD	Heat-radiation module and electric vehicle battery pack using same
WO 2017183241	SUMITOMO ELECTRIC INDUSTRIES	State-of-charge calculation device, computer program, and state-of-charge calculation method
WO 2017203747	MURATA MANUFACTURING CO	Lithium-ion secondary cell
WO 2017171003	KK TOYOTA JIDOSHOKKI	Power storage apparatus
WO 2017171457	LG CHEMICAL LTD	High-flexibility electrode assembly and battery cell comprising same
WO 2017179266	SONY CORP	Analyzing device, analysis method, manufacturing method, electricity storage device, electricity storage system, electronic instrument, electric vehicle, and electric power system
WO 2017184611	FARADAY&FUTURE INC	Liquid temperature sensor
WO 2017195071	SEMICONDUCTOR ENERGY LAB	Negative electrode to be used in power storage device, power storage device, and electrical device
WO 2017195480	SONY CORP	Film-exterior-type cell, cell pack, electronic device, electric vehicle, power storage device, and electric power system
WO 2017200283	SAMSUNG SDI CO LTD	Secondary battery, bipolar electrode, and method for manufacturing bipolar electrode
WO 2017169164	FDK CORP	Negative electrode for alkali secondary battery, alkali secondary battery including negative electrode and method for producing negative electrode
WO 2017170464	KYOCERA CORP	Management system, management method, apparatus, and management device
WO 2017179468	DAIKIN IND LTD	Electrolyte solution, electrochemical device, lithium ion secondary battery and module
WO 2017179917	INDUSTRY-ACADEMIA COOP GROUP OF SEJONG UNIV	Sodium-based electrode active material and secondary battery comprising same
WO 2017179768	SAMSUNG SDI CO LTD	Secondary battery

WO 2017179457	SHIN-ETSU CHEMICAL CO LTD MITSUI CHEMICALS INC	Method for producing negative electrode active material for nonaqueous electrolyte secondary batteries and method for producing negative electrode for nonaqueous electrolyte secondary batteries
WO 2017181266	BLUE SOLUTIONS CANADA INC	Pressurized lithium metal polymer battery
WO 2017188396	DAINIPPON PRINTING CO LTD	Battery covering material, method for manufacturing same, battery, and method for manufacturing same
WO 2017199572	SONY CORP	Secondary battery, battery pack, electric vehicle, electrical energy storage system, electric tool and electronic device
WO 2017201208	FARADAY&FUTURE INC	Battery monitor protection
WO 2017169028	SHOWA DENKO PACKAGING CO	Exterior material for power storage device, and power storage device
WO 2017169163	FDK CORP	Negative electrode for alkali secondary cell and alkali secondary cell including negative electrode
WO 2017170741	KYOCERA CORP	Power management apparatus, power management system, and power management method
WO 2017188445	DAINIPPON PRINTING CO LTD	Battery packaging material and battery
WO 2017188533	SAMSUNG SDI CO LTD	Rechargeable battery having membrane
WO 2017188563	SAMSUNG SDI CO LTD	Rechargeable battery having protection member
WO 2017169022	HITACHI LTD	Method for manufacturing lithium ion secondary cell, and lithium ion secondary cell
WO 2017179492	TOYO KOHAN CO LTD	Metal sheet for battery container, and method of manufacturing metal sheet for battery container
WO 2017198423	BOSCH GMBH ROBERT	Battery module including cover assembly
WO 2017168976	SONY CORP	Positive electrode active material for polyvalent ion secondary batteries, positive electrode for polyvalent ion secondary batteries, polyvalent ion secondary battery, battery pack, electric vehicle, electrical energy storage system, electric tool and electronic device
WO 2017171002	KK TOYOTA JIDOSHOKKI	Electric storage device
WO 2017175837	DAINIPPON PRINTING CO LTD	Battery packaging material, method for manufacturing same, and battery
WO 2017179395	DENSO CORP	Nonaqueous electrolyte secondary battery and method for manufacturing same
WO 2017183805	LS MTRON LTD	Low-resistance ultra capacitor
WO 2017188560	LG CHEMICAL LTD	Battery pack and vehicle comprising battery pack
WO 2017200338	LG CHEMICAL LTD	Composite anode material for secondary battery, anode comprising same, and lithium secondary battery
WO 2017197299	NAVITAS SYSTEMS LLC	Compositions and methods for electrode fabrication
WO 2017169599	UNIV OSAKA PREFECT PUBLIC CORP	Amorphous oxide-based positive electrode active material, method for producing same and use of same
WO 2017179158	TOSHIBA KK TOSHIBA INFRASTRUCTURE SYSTEMS & SOLUTIONS CORP	Battery module
WO 2017173420	FARADAY & FUTURE INC	Electric vehicle battery management
WO 2017193888	NINGBO GEELY AUTOMOBILE RES & DEVELOPMENT CO LTD	Battery fastening system and method
WO 2017169162	BROTHER IND LTD	Vanadium redox secondary battery
WO 2017179879	KOREA ELECTRONICS TECHNOLOGY	Battery heater, battery system comprising same, and manufacturing method therefor
WO 2017179650	AUTONETWORKS TECHNOLOGIES LTD SUMITOMO WIRING SYSTEMS SUMITOMO ELECTRIC INDUSTRIES HONDA MOTOR CO LTD	Power storage device

WO 2017182274	MAHLE INT GMBH	Battery-operated motor vehicle having a heat pump
WO 2017168983	SONY CORP	Secondary battery, battery pack, electric vehicle, power storage system, electric tool and electronic device
WO 2017179637	AUTONETWORKS TECHNOLOGIES LTD SUMITOMO WIRING SYSTEMS SUMITOMO ELECTRIC INDUSTRIES	Wiring module
WO 2017180943	APPLIED MATERIALS INC	Energy storage device having an interlayer between electrode and electrolyte layer
WO 2017181284	CORVUS ENERGY INC	Battery cell carrier and enclosure for stack assembly comprising multiple battery cell carriers

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SUPERCONDENSADORES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2017222186	LG CHEMICAL LTD	Driving circuit for electric vehicle and control method therefor
WO 2017205526	CNH IND AMERICA LLC TAYLOR NATHAN	Multipurpose agricultural vehicle with reconfigurable power
WO 2017219706	HUAWEI TECH CO LTD	Drive system and drive method for electric vehicle
WO 2017204426	FOUND OF SOONGSIL UNIVERSITY-INDUSTRY COOPERATION	Active clamp full bridge converter and driving method therefor
WO 2017208610	NIPPON ELECTRIC GLASS CO	Wound type film capacitor and method for manufacturing same
WO 2017195760	HITACHI AUTOMOTIVE SYSTEMS LTD	Battery condition estimation device
WO 2017176371	PENN STATE RES FOUND	Thin film capacitors
WO 2017188268	CALSONIC KANSEI CORP	Power conversion device

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SISTEMAS DE RECUPERACIÓN DE ENERGÍA; FRENOS REGENERATIVOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2017211751	DANA BELGIUM N V	Transmission arrangement for a parallel hybrid vehicle
WO 2017218225	POLARIS INC	Hybrid utility vehicle
WO 2017219117	JEBARI JAMEL	Machine generating centrifugal forces from effective elliptic trajectory
WO 2017211752	DANA BELGIUM N V	Axial transmission arrangement for a parallel hybrid device
WO 2017202537	BOSCH GMBH ROBERT	Motor vehicle on-board system having at least two energy stores, method for operating a motor vehicle on-board system; and means for the implementation thereof
WO 2017216114	PERKINS ENGINES CO LTD	Kinetic energy recovery system
WO 2017198560	JAGUAR LAND ROVER LTD	Vehicle control system and method
WO 2017202576	JAGUAR LAND ROVER LTD	Apparatus, system and method for braking
WO 2017183698	DENSO CORP	Control device for dynamoelectric machine
WO 2017184317	ARTISAN VEHICLE SYSTEMS INC HUFF BRIAN R KASABA MICHAEL E	System and method for providing power to a mining operation
WO 2017169180	PANASONIC IP MAN CO LTD	Vehicle drive device and electric vehicle
WO 2017183699	DENSO CORP	Control device for dynamoelectric machine
WO 2017169239	MITSUBISHI MOTORS CORP	Regenerated energy display device
WO 2017200126	FANTA WORLD ENERGY CO LTD	Electricity generation apparatus using vehicle load
WO 2017169238	MITSUBISHI MOTORS CORP	Regenerated energy display device

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MÁQUINAS ELÉCTRICAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2017182293	BOSCH GMBH ROBERT	Temperature sensor, battery system and method for fitting a battery system
WO 2017213573	SCANIA CV AB	A cooling system for an electric power unit in a vehicle
WO 2017211487	VOLKSWAGEN AG	Method and protective device for limiting the torque for an electrical machine
WO 2017182016	SCHAEFFLER TECHNOLOGIES AG	Method for assembling a drive unit
WO 2017190869	BOSCH GMBH ROBERT	Electric machine assembly having an asymmetric multi-phase system
WO 2017207982	ARRIVAL LTD	Vehicle sleep mode
WO 2017213850	FCA US LLC	Response amplitude modification for hybrid electric vehicle misfire detections
WO 2017217066	MITSUBISHI MOTORS CORP MITSUBISHI JIDOSHA ENGINEERING KK	Transaxle device
WO 2017215966	BLUEBUS	Method and system of smart management of electrochemical batteries for an electric vehicle
WO 2017220430	JAGUAR LAND ROVER LTD	Electrical machine
WO 2017178202	CONTINENTAL AUTOMOTIVE GMBH	Drive unit and method for operation for a motor vehicle having reduced coupling complexity
WO 2017211360	PULS RAINER PULS OLIVER	Cooling housing for an electric motor
WO 2017217065	MITSUBISHI MOTORS CORP MITSUBISHI JIDOSHA ENGINEERING KK	Transaxle device
WO 2017215968	BLUEBUS	Method and system for managing the electrochemical batteries of an electric vehicle in the event of battery failure
WO 2017215703	SCHAEFFLER TECHNOLOGIES AG	Motor vehicle transmission
WO 2017217067	MITSUBISHI MOTORS CORP MITSUBISHI JIDOSHA ENGINEERING KK	Transaxle device
WO 2017217664	LG INNOTEK CO LTD	Motor connector and motor having same
WO 2017214191	SAPPHIRE MOTORS	Stator assembly with stack of coated conductors
WO 2017217064	MITSUBISHI MOTORS CORP MITSUBISHI JIDOSHA ENGINEERING KK	Transaxle device
WO 2017191124	VALEO SIEMENS EAUTOMOTIVE GERMANY GMBH	Rotating electric machine
WO 2017213331	NEW MOTECH CO LTD	Spoke type rotor
WO 2017167617	DEREGLALLERA HOLDINGS LTD BOUGHTWOOD MARTIN HUGH	In-wheel electric motor unit
WO 2017192631	FARADAY&FUTURE INC	Operating point determination in an electric motor system
WO 2017196269	OZYEGIN UNIV	Radial flux motor with a conical stator and rotor assembly
WO 2017175536	NTN TOYO BEARING CO LTD	In-wheel motor drive device
WO 2017200138	KANG MYUNGKOO JEON HYO JUNG KANG SEUNGMO KANG SOO JUNG	Power transmission structure for hybrid vehicle comprising two motor generators and three clutches
WO 2017209303	AISIN AW CO	Rotor
WO 2017195627	DENSO CORP	Engine control device
WO 2017209302	AISIN AW CO	Rotor
WO 2017202317	BYD CO LTD	Double-antipode motor and electric vehicle
WO 2017170441	HONDA MOTOR CO LTD	Electric motor unit
WO 2017173785	SHENZHEN A&E MOTOR TECH CO LTD	Electric vehicle and wheel, switched reluctance motor thereof and switched reluctance motor system

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WO 2017190569	HAN LEI	System for shielding external electromagnetic pulse attack of electric motor controller of electric vehicle
WO 2017200071	HONDA MOTOR CO LTD	Vehicle
WO 2017204220	HITACHI AUTOMOTIVE SYSTEMS LTD	Vehicle linear motor
WO 2017171061	AISIN AW CO	Rotor production method
WO 2017187861	HITACHI AUTOMOTIVE SYSTEMS ENG LTD	Electric motor
WO 2017170999	ISUZU MOTORS LTD	Clutch durability assessment system, vehicle, and clutch durability assessment method
WO 2017188143	NASHIKI MASAYUKI	Motor
WO 2017202316	BYD CO LTD	Double-antipode permanent magnet synchronous motor and electric vehicle
WO 2017202320	BYD CO LTD	Motor rotor, motor, and electric vehicle
WO 2017170078	MAZDA MOTOR	Hybrid car and vehicle
WO 2017191790	SHIN-ETSU CHEMICAL CO LTD	Rare-earth permanent magnet, and method for manufacturing same
WO 2017202319	BYD CO LTD	Permanent magnet synchronous motor and electric vehicle
WO 2017179670	MINEBEA MITSUMI INC	Wheel module
WO 2017202321	BYD CO LTD	Motor and electric vehicle
WO 2017191341	PEREZ VERA AQUILINO	Conversion kit for a combustion type urban maintenance vehicle for the optional fuel/electric hybrid operation thereof
WO 2017188359	ISUZU MOTORS LTD	Hybrid vehicle
WO 2017202318	BYD CO LTD	Punching plate for motor rotor, motor rotor, motor, and electric vehicle
WO 2017170286	KOMATSU MFG CO LTD	Hybrid work vehicle and method of controlling hybrid work vehicle
WO 2017173188	ADVANCED MAGNET LAB INC MEINKE RAINER MANIKONDA SHASHI	Dual-rotor synchronous electrical machines

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CONVERTIDORES, INVERSORES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2017186436	ZAHNRADFABRIK FRIEDRICHSHAFEN	System for actively short-circuiting phases of an inverter and motor vehicle drive
WO 2017213264	AIR WATER INC	Method for producing substrate
WO 2017202900	KOSTAL LEOPOLD GMBH & CO KG	Bidirectional dc converter assembly having cascade of isolated resonant converter and step-up/step-down converter
WO 2017213073	KK TOYOTA JIDOSHOKKI	Power output device
WO 2017186391	BOSCH GMBH ROBERT	Switching element having temperature monitoring and method for temperature monitoring
WO 2017186419	BOSCH GMBH ROBERT	Inverter arrangement, electric drive system, and method for discharging a dc link capacitor in an inverter arrangement
WO 2017187902	AUTONETWORKS TECHNOLOGIES LTD SUMITOMO WIRING SYSTEMS SUMITOMO ELECTRIC INDUSTRIES	Conduction path having noise filter
WO 2017203708	MITSUBISHI ELECTRIC CORP	Electric car propulsion control device
WO 2017175542	DENSO CORP	Electronic device and method for manufacturing same
WO 2017199641	HITACHI AUTOMOTIVE SYSTEMS LTD	Electric motor control device and electric vehicle equipped with same
WO 2017183430	AUTONETWORKS TECHNOLOGIES LTD SUMITOMO WIRING SYSTEMS SUMITOMO ELECTRIC INDUSTRIES	Conduction path with noise filter
WO 2017204023	DENSO CORP	Power conversion device and method for manufacturing same
WO 2017203666	MITSUBISHI ELECTRIC CORP	Flyback power supply, inverter, and electric vehicle
WO 2017199626	HITACHI AUTOMOTIVE SYSTEMS LTD	Current detection device and power conversion device provided with same
WO 2017166956	BYD CO LTD	Single-phase interleaved pfc circuit and on-board charger and electric automobile using same
WO 2017188741	M2 POWER CO LTD	Forward-flyback bus converter
WO 2017187781	HITACHI AUTOMOTIVE SYSTEMS LTD	Power conversion device
WO 2017168840	JX NIPPON MINING & METALS CORP	Electromagnetic wave shielding material
WO 2017168951	MITSUBISHI ELECTRIC CORP	Overheat protection control device
WO 2017179200	MITSUBISHI ELECTRIC CORP	On-board charger
WO 2017187478	MITSUBISHI ELECTRIC CORP	Power conversion device
WO 2017175538	HITACHI AUTOMOTIVE SYSTEMS LTD	Case, semiconductor device, method for manufacturing case
WO 2017187954	SUMITOMO WIRING SYSTEMS	Conductive member
WO 2017183429	DENSO CORP	Power storage device
WO 2017187925	AUTONETWORKS TECHNOLOGIES LTD SUMITOMO WIRING SYSTEMS SUMITOMO ELECTRIC INDUSTRIES	Reactor

WO 2017179394	DENSO CORP	Electronic device and method for manufacturing same
WO 2017199643	HITACHI AUTOMOTIVE SYSTEMS LTD	Inverter control device and power conversion device
WO 2017175516	FURUKAWA ELECTRIC CO LTD FURUKAWA MAGNET WIRE CO LTD	Insulated wire, coil, and electric/electronic apparatus
WO 2017187955	SUMITOMO WIRING SYSTEMS	Conductive member
WO 2017201373	ABB SCHWEIZ AG	Resonant converters including flying capacitors
	LIANG JIAQI	
WO 2017201265	ABB SCHWEIZ AG SURYANARAYANA HARISH LIANG JIAQI KITTILA JUKKA-PEKKA OUYANG WEN	Resonant converters with variable inductor

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RECARGA DE BATERÍAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2017182127	KUKA ROBOTER GMBH	Supplying electric energy and/or fuel to a motor vehicle by means of a robot
WO 2017194388	AUDI AG	Method for operating a motor vehicle, and motor vehicle
WO 2017222458	JOHANSSON ROLAND	Electrical outlet
WO 2017173287	LUTRON ELECTRONICS CO	Wireless power supply for electrical devices
WO 2017203236	SEVCON LTD	Methods and apparatus for the provision of ac power
WO 2017220277	BOSCH GMBH ROBERT	Apparatus for inductive energy transfer
WO 2017178324	LICHTBLICK SE	Electric vehicle with feedback to the power supply system and provision of control power
WO 2017182146	INNOGY SE	Charging system and method for operating a charging system
WO 2017182484	PHOENIX CONTACT E-MOBILITY GMBH	Plug-in connector part with a cooled contact element
WO 2017211557	BOSCH GMBH ROBERT	Transmission system for contactlessly transmitting energy
WO 2017214035	AEROENVIRONMENT INC	Residual current detecting (rcd) and ground impedance monitoring transformer and control methods
WO 2017213805	QUALCOMM INC	Apparatus and methods for reducing magnetic field emissions between wireless power transmitters
WO 2017218831	EVATRAN GROUP INC	Passive alignment system and method
WO 2017216454	RENAULT SAS	Portable device for paying out an electric cable, particularly a charging cable for an electric or hybrid vehicle
WO 2017167777	BOSCH GMBH ROBERT	Battery management system with multiple observers
WO 2017217259	AUTONETWORKS TECHNOLOGIES LTD SUMITOMO WIRING SYSTEMS SUMITOMO ELECTRIC INDUSTRIES HONDA MOTOR CO LTD	Communication apparatus, charging communication system, transportation device, and failure diagnosing method
WO 2017218424	QUALCOMM INC	Double-d coil arrangement recessed into ferrite base pad for reduced emissions in flush mounted and buried wireless power transfer applications
WO 2017222755	QUALCOMM INCORPORATED	Base side vehicle identification using vehicle controller switching frequency
WO 2017184268	QUALCOMM INC	Systems and methods for identifying an ideal operation frequency for wireless power transfer
WO 2017211655	CONTINENTAL AUTOMOTIVE GMBH	On-board vehicle power system having an inverter, energy store, electric machine and ac transmission connection
WO 2017216260	ABB SCHWEIZ AG	Device for charging an electric vehicle and a method for verifying the contact between a device for charging an electric vehicle and the electric vehicle
WO 2017216458	GULPLUG	Electrical connection system
WO 2017178259	CONTINENTAL AUTOMOTIVE GMBH	Coil positioning device
WO 2017186460	AUDI AG	Method for controlling a state of charge of an energy storage means of a motor vehicle
WO 2017190784	ALFRED KÄRCHER GMBH & CO KG	Floor treatment system
WO 2017215450	ZTE CORP	Motor controller, motor control system and electric vehicle
WO 2017218093	QUALCOMM INC	Methods and apparatus for positioning a vehicle
WO 2017218122	INTEL CORP	Vehicular inductive power transfer systems and methods
WO 2017167727	ELONROAD AB	Method for activating a powering segment in an electric road system and an electric road system
WO 2017211657	CONTINENTAL AUTOMOTIVE GMBH	Vehicle supply system comprising an inverter, energy store, electric machine and dc transmission link
WO 2017216205	BOMBARDIER PRIMOVE GMBH	A secondary unit, a system for inductive power transfer and a method for operating a secondary unit and a system for inductive power transfer

WO 2017216329	SANDVIK MINING & CONSTRUCTION OY	Charging connector arrangement in underground vehicle
WO 2017167473	BAYERISCHE MOTOREN WERKE AG	Primary coil unit
WO 2017178320	PHOENIX CONTACT E-MOBILITY GMBH	Charging cable for transmitting electrical energy, charging plug and charging station for discharging electrical energy to a recipient of electrical energy
WO 2017208588	MURATA MANUFACTURING CO	Charging apparatus, charging method, power storage apparatus, electronic device, electric vehicle, and power system
WO 2017196539	QUALCOMM INC	Methods and apparatus for reducing flux cancellation in ferrite of double couple inductive power transfer systems
WO 2017207034	VOLVO TRUCK CORP	A method and system for thermal conditioning of a battery pack
WO 2017208405	HITACHI CONSTRUCTION MACH CO	Hybrid construction machine
WO 2017178122	INNOGY SE	Charging station and method for operating a charging station
WO 2017178019	CONTI TEMIC MICROELECTRONIC GMBH	Method and device for supporting an operator after a fueling or charging process of a vehicle
WO 2017203616	NISSAN MOTOR	Non-contact power receiving device
WO 2017209736	FORD GLOBAL TECH LLC	Mobile charging for electric vehicles
WO 2017182130	SEW-EURODRIVE GMBH & CO KG	Method for operating a production plant comprising a vehicle and at least one charging point, and production plant having a vehicle for carrying out said method
WO 2017204796	FORD GLOBAL TECH LLC	Methods and apparatus to charge electric vehicles
WO 2017196466	QUALCOMM INC	Methods and apparatus for wirelessly transferring power
WO 2017188073	SANYO ELECTRIC CO	Management device and power supply system
WO 2017190704	DONGFENG AGRICULTURAL EQUIPMENT (XIANGYANG) CO LTD	Agricultural machinery power system, an electric apparatus thereof, and agricultural machinery having agricultural machinery power system
WO 2017192751	INVENTUS HOLDINGS LLC	Control of parallel battery utilization
WO 2017205690	CHARGEPOINT INC	Dynamic allocation of power modules for charging electric vehicles
WO 2017205495	AEROENVIRONMENT INC	Shock-resistant electrical switch
WO 2017181189	MENASKIAN VALOD	Wind turbine panel
WO 2017201125	UNIV CALIFORNIA	Battery energy storage control systems and methods
WO 2017205878	WIRELESS ADVANCED VEHICLE ELECTRIFICATION INC	Checking alignment of inductive charge pads in motion
WO 2017169127	HITACHI LTD	Secondary battery system
WO 2017204797	FORD GLOBAL TECH LLC	Methods and apparatus to charge electric vehicles
WO 2017191339	TORROT ELECTRIC EUROPA S L	System for managing, identifying and interconnecting a plurality of propulsion batteries of an electric vehicle
WO 2017197919	ZTE CORP	Wireless charging positioning method, device, and system, and electric vehicle
WO 2017179153	MITSUBISHI ELECTRIC CORP	Charger/discharger
WO 2017169185	PANASONIC IP MAN CO LTD	Charging device
WO 2017175496	SONY CORP	Battery module and battery device
WO 2017196254	BOSCH GMBH ROBERT	Battery disconnect circuits and methods for controlling a battery disconnect circuit
WO 2017174803	FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E V	Electrically heatable latent heat storage device with short charging times
WO 2017180048	CHARGE-AMPS AB	A vehicle charging connector comprising a visual indicator part
WO 2017168875	TOSHIBA KK	Switching control device and switching control method
WO 2017201017	TOSHIBA INFRASTRUCTURE SYSTEMS & SOLUTIONS CORP	Liquid cooled charging cable system

	SOUTHWIRE CO LLC	
WO 2017169042	SONY CORP	Power supply device, charging device, control method, electronic equipment, and electric vehicle
WO 2017178373	BAYERISCHE MOTOREN WERKE AG	Charging connection module for a vehicle

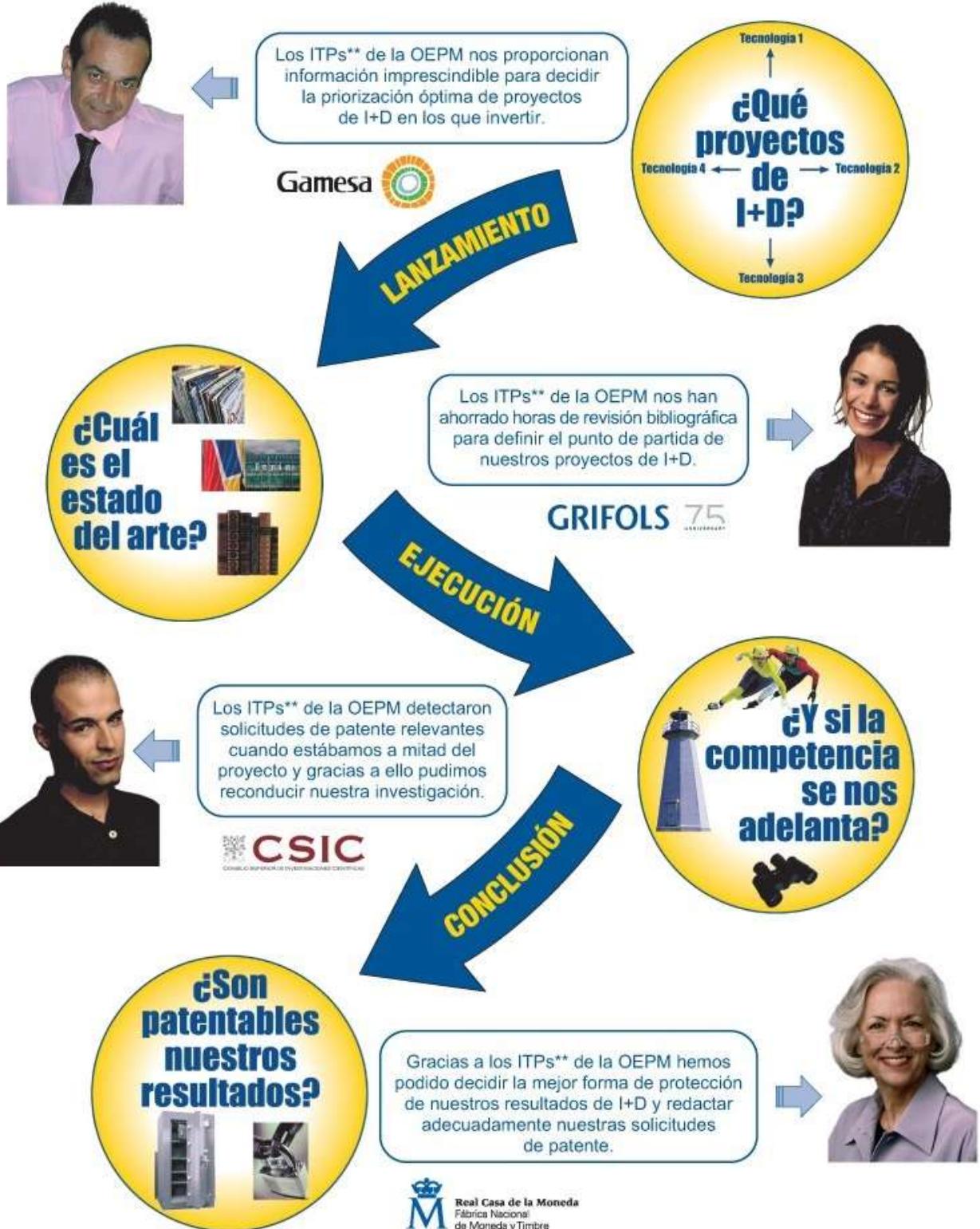
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CAMBIO DE BATERÍAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2017207997	ARRIVAL LTD	Electric vehicle battery management apparatus and method
WO 2017207996	ARRIVAL LTD	Electric vehicle battery management apparatus and method
WO 2017185914	HAN LEI	Electric automobile energy monitoring and swapping network in remote monitoring of cloud computing network architecture

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