

Boletín VT COCHE ELÉCTRICO

3^{er} trimestre 2016

27

Vigilancia Tecnológica

Noticias

En el [Salón del Automóvil de París](#) celebrado recientemente los prototipos de nuevos coches eléctricos ha sido los protagonistas. Los grandes desafíos que plantea el coche eléctrico siguen siendo la autonomía y las limitaciones de la red de recarga. Sin embargo los expertos destacan el potencial de crecimiento futuro de estos vehículos.

La cantidad de vehículos eléctricos que circulan por las carreteras españolas sigue en aumento. [Barcelona](#) es líder en número de vehículos de este tipo matriculados este año, con un 15% del total. Asimismo, el 40% de los vehículos eléctricos vendidos en 2016 se han adquirido en Cataluña.

Desde la diputación de Alicante se anuncia la creación de un [mapa provincial de postes de recarga](#) para coches eléctricos con el objetivo de impulsar el uso este tipo de vehículos. El presidente de la Diputación, César Sánchez ya ha concretado que los presupuestos de la institución de 2017 contarán con una partida específica para poner en marcha este plan, al que podrán acogerse todos los municipios interesados.

El mercado del vehículo eléctrico ha experimentado [una caída del 2 %](#), debida en parte al fin del plan Movea. Por otro lado, los vehículos híbridos mantienen su

tendencia al alza. Globalmente, los vehículos híbridos y eléctricos ocuparon el 3,6% del mercado global en el pasado mes de septiembre.

De acuerdo con el rotativo inglés "The Guardian", la CE estaría trabajando en crear una normativa para que, tanto en los edificios nuevos como los que se sometan a una remodelación, [incluyan en sus instalaciones una estación de recarga](#) para coches eléctricos, con el objetivo de incentivar el crecimiento de este tipo de vehículos. A pesar de que la nueva disposición todavía se encuentra en sus primeras instancias, se trabaja para que la nueva medida entre en vigor a más tardar en el 2019.

De acuerdo con un reciente informe, el [parque de vehículos eléctricos rondara las 500.000 unidades](#) a finales de 2016. El incremento ha sido especialmente notable en los vehículos híbridos y eléctricos enchufables, cuyas ventas se han duplicado en 2015, alcanzando las 145.000 unidades vendidas.

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 - [Convertidores, inversores](#)
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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 2016143678	HITACHI AUTOMOTIVE SYSTEMS LTD	Battery managing device, battery monitoring circuit, control system
WO 2016148383	LG CHEMICAL LTD	Electrode with multilayer structure and lithium secondary battery having same
WO 2016148387	LG CHEMICAL LTD	Battery compression inhibitor and battery module comprising same
WO 2016143171	TAIHEIYO CEMENT CORP	Positive electrode active substance for secondary cell and method for producing same
WO 2016143519	FDK CORP	Hydrogen storage alloy powder and nickel hydrogen secondary battery using this hydrogen storage alloy powder
WO 2016143400	OMRON TATEISI ELECTRONICS CO	Battery, system, battery damage detection device, battery management method, battery management program, and recording medium
WO 2016144232	INNVENTIA AB	Electrode active coating for a lithium-ion battery and method of production therefore
WO 2016147900	AUTONETWORKS TECH LTD SUMITOMO WIRING SYSTEMS SUMITOMO ELECTRIC INDUSTRIES	Electrical storage pack
WO 2016143375	OMRON TATEISI ELECTRONICS CO	Information processing device, information processing method, program, and recording medium
WO 2016147967	HITACHI AUTOMOTIVE SYSTEMS LTD	Secondary cell
WO 2016137248	LG CHEMICAL LTD	Function verification system for secondary battery management device
WO 2016143399	OMRON TATEISI ELECTRONICS CO	Battery, system, battery management method, battery management program, and recording medium
WO 2016147861	AUTONETWORKS TECH LTD SUMITOMO WIRING SYSTEMS SUMITOMO ELECTRIC INDUSTRIES	Electrical storage pack
WO 2016145374	UNIV WASHINGTON	Electrochemical cell diagnostic systems and methods using second order and higher harmonic components
WO 2016143801	NIPPON KODOSHI CORP	Separator and nonaqueous battery
WO 2016147955	KK TOYOTA JIDOSHOKKI	Power storage device
WO 2016144357	HEWLETT PACKARD ENTPR DEV LP	Power distribution plan
WO 2016143679	HITACHI AUTOMOTIVE SYSTEMS LTD	Battery management device, battery monitoring circuit, control system
WO 2016147227	SANYO ELECTRIC CO	Power supply device
WO 2016148400	LG CHEMICAL LTD	Pack case and battery pack comprising same
WO 2016147966	HITACHI AUTOMOTIVE SYSTEMS LTD	Secondary cell module
WO 2016148408	LG CHEMICAL LTD	Integrated electrode assembly and electrochemical device comprising same
WO 2016132932	NAT UNIV CORP HOKKAIDO UNIV	Catalyst for oxygen reduction reaction and air electrode for metal-air secondary batteries
WO 2016135924	KK TOSHIBA	Battery module and vehicle

WO 2016135328	IMERYS GRAPHITE & CARBON SWITZERLAND LTD ETH ZÜRICH	Nanoparticle surface-modified carbonaceous material and methods for producing such material
WO 2016135691	AVENTOR SA	Electric single-seater vehicle
WO 2016134487	WETROK AG	Method and apparatus for controlling and monitoring batteries
WO 2016129629	HITACHI MAXELL	Non-aqueous secondary cell
WO 2016129777	LG CHEMICAL LTD	Secondary battery
WO 2016132405	SANYO ELECTRIC CO	Power source device
WO 2016140311	NEC CORP	Separator, manufacturing method for said separator, and lithium ion secondary battery using said separator
WO 2016140168	JX NIPPON OIL & ENERGY CORP UNIV WASEDA	Composite film and method for manufacturing same
WO 2016139855	HITACHI CHEMICAL CO LTD	Lead storage cell
WO 2016129260	PANASONIC IP MAN CO LTD	Battery class determination device and battery class determination method
WO 2016129459	HITACHI CHEMICAL CO LTD	Positive electrode for lithium ion secondary batteries, electrode for lithium ion secondary batteries, and lithium ion secondary battery
WO 2016132641	HONDA MOTOR CO LTD	Vehicular power source device and cooling circuit
WO 2016140431	LG CHEMICAL LTD	Battery pack
WO 2016106658	SHENZHEN INST OF ADV TECH CAS	Electric vehicle battery pack
WO 2016126969	AXIUM IP LLC	Silicon-carbon nanostructured composites
WO 2016140453	LG CHEMICAL LTD	Irregularly structured battery cell capable of efficiently forming electric connection structure through electrode lead
WO 2016125819	TOSOH CORP	Composite active material for lithium secondary cell and method for manufacturing same
WO 2016129126	SYSTEM DESIGN PLATFORM LABORATORY LTD	Thin-film type electricity storage device
WO 2016132404	SANYO ELECTRIC CO	Power source device
WO 2016140454	LG CHEMICAL LTD	Battery cell comprising separator with reinforced adhesive strength
WO 2016140430	LG CHEMICAL LTD	Battery pack
WO 2016129557	SHOWA DENKO KK	Carbon material, method for producing same, and use for same
WO 2016132903	RICOH CO LTD ABE NAOTO ITOH YOSHIO DAN TATSUYA ARAKI YUKA TAKESHITA SHUHEI	Nonaqueous electrolyte electricity storage element
WO 2016139957	KK TOYOTA JIDOSHOKKI	Positive electrode for lithium ion secondary batteries, method for producing same and lithium ion secondary battery
WO 2016129769	KOREA ELECTRONICS TECH INST	Electrolyte for lithium ion secondary battery, and lithium ion secondary battery comprising same
WO 2016140434	LG CHEMICAL LTD	Clamping device, and battery module comprising same
WO 2016129427	FUJIFILM CORP	Solid electrolyte composition, battery electrode sheet and all solid state secondary battery obtained using same, and methods for producing battery electrode sheet and all solid state secondary battery
WO 2016111605	LG CHEMICAL LTD	Electrode, method for manufacturing same, electrode manufactured by same, and secondary battery comprising same
WO 2016114147	NEC CORP	Storage cell control system, storage cell control method, and recording medium
WO 2016121315	PANASONIC IP MAN CO LTD	Electricity storage device
WO 2016121383	DENSO CORP	Non-contact power-supply device
WO 2016121711	SHOWA DENKO KK	Method for manufacturing graphite powder for negative-electrode material for lithium-ion secondary battery, negative electrode for lithium-ion secondary battery, and lithium-ion secondary battery

WO 2016126075	LG CHEMICAL LTD	Method for determining resistance factor of secondary battery, and apparatus and method for estimating charging power using resistance factor
WO 2016132872	FUJIFILM CORP	Solid electrolyte composition, cell electrode sheet and all-solid-state secondary cell in which said solid electrolyte composition is used, and method for manufacturing cell electrode sheet and all-solid-state secondary cell
WO 2016136089	FUJIFILM CORP	Solid electrolyte composition, battery electrode sheet and manufacturing method thereof, and all-solid-state secondary battery and manufacturing method thereof
WO 2016108375	ECOPRO CO LTD	Method for producing positive active material precursor and positive active material for lithium secondary batteries, exhibiting concentration gradient, and positive active material precursor and positive active material for lithium secondary batteries, exhibiting concentration gradient, produced by same
WO 2016111606	LG CHEMICAL LTD	Heat-diffusible separation film and secondary cell comprising same
WO 2016119627	HUAWEI TECH CO LTD	Device containing rechargeable battery and energy management method thereof
WO 2016121585	NEC ENERGY DEVICES LTD	Negative electrode for lithium ion secondary battery, and lithium ion secondary battery
WO 2016122238	LG CHEMICAL LTD	Device and method for estimating state of battery
WO 2016126046	LG CHEMICAL LTD	Secondary battery including high-capacity anode and manufacturing method therefor
WO 2016130980	CAMPBELL BRENNAN BELL JEFFREY BAY HAMED HOSSEINI FAVORS ZACHARY OZKAN CENGIZ S	Coated sulfur particle electrode and method
WO 2016136211	SANYO ELECTRIC CO	Nonaqueous electrolyte secondary battery
WO 2016136524	SHOWA DENKO KK	Carbon material, method for manufacturing same, and use thereof
WO 2016114141	UNIV TOKYO	Aqueous electrolyte solution for electrical storage device, and electrical storage device including said aqueous electrolyte solution
WO 2016114529	LS MTRON LTD	Electrical energy storage apparatus having improved coupling structure of internal terminal
WO 2016121350	SANYO ELECTRIC CO	Non-aqueous electrolyte secondary battery positive electrode and non-aqueous electrolyte secondary battery
WO 2016125389	HONDA MOTOR CO LTD	Power source device for a vehicle
WO 2016135269	JAGUAR LAND ROVER LTD	Control strategy for plug-in hybrid electric vehicle
WO 2016137401	NAT UNIV OF SINGAPORE	Sodium-ion battery anode
WO 2016135968	KK TOSHIBA	Battery module structure and vehicle
WO 2016135783	ASAHI CARBON CO LTD	Electrode active material, electrode for secondary batteries, and secondary battery
WO 2016114315	HITACHI CHEMICAL CO LTD	Lead-acid battery, micro-hybrid vehicle, and vehicle having idling stop system
WO 2016117950	LG CHEMICAL LTD	Lithium secondary battery having improved output characteristics
WO 2016125230	FUJITSU LTD	Solid electrolyte and all-solid-state battery
WO 2016125716	FUJIFILM CORP	All-solid secondary cell, solid electrolyte composition and cell electrode sheet used in same, and method for manufacturing cell electrode sheet and all-solid secondary cell
WO 2016129939	LG CHEMICAL LTD	Cable type secondary battery
WO 2016136803	NIPPON STEEL & SUMIKIN CHEM CO	Active material for negative electrode of lithium-ion secondary battery, secondary battery negative electrode using same, and secondary battery
WO 2016114426	ORANGE POWER LTD	Three-dimensional electrode assembly and method for manufacturing same
WO 2016114472	LS MTRON LTD	Electric energy storage device having improved terminal structure
WO 2016114513	LG CHEMICAL LTD	Ovvoltage protection circuit, control method therefor and battery pack

WO 2016121947	TOSHIBA KK	Battery assembly and cell pack
WO 2016123276	FAA LLC	Battery charging systems and associated methods of use
WO 2016136212	SANYO ELECTRIC CO	Nonaqueous electrolyte secondary cell
WO 2016136210	SANYO ELECTRIC CO	Nonaqueous electrolyte secondary battery
WO 2016135786	SANYO ELECTRIC CO	Power supply device, and vehicle equipped with same
WO 2016112474	LIU YANCHENG LIU LISHANG YIN MUYUN	System for collecting vibrational energy and airflow energy of electric vehicle
WO 2016117873	LG CHEMICAL LTD	Lithium-air battery
WO 2016121339	SANYO ELECTRIC CO	Nonaqueous electrolyte secondary battery
WO 2016121510	HITACHI CHEMICAL CO LTD	Lead storage cell and automobile provided with same
WO 2016121965	TOYOTA JIDOSHKI KK	Electricity storage device
WO 2016122239	LG CHEMICAL LTD	Apparatus and method for sensing opening of current interrupt device of battery unit
WO 2016125392	IHI CORP	Contactless power supply system
WO 2016137141	LG CHEMICAL LTD	Pouch-type secondary battery
WO 2016108385	SAMSUNG SDI CO LTD	Precursor of cathode active material for lithium secondary batteries, method of preparing same, cathode active material for lithium secondary batteries, method of preparing same, and lithium secondary battery comprising said cathode active material
WO 2016114316	HITACHI CHEMICAL CO LTD	Lead-acid battery, micro-hybrid vehicle, and vehicle having idling stop system
WO 2016114321	NAKAJIMA JUNJI FUJIWARA YOSHIMASA DEGAWA AKIMICHI	Secondary battery
WO 2016125388	HONDA MOTOR CO LTD	Battery cooling structure for vehicle
WO 2016125718	PI R&D CO LTD TOP BATTERY CO LTD	Binder resin for lithium secondary battery electrode, electrode for lithium secondary battery, and lithium secondary battery
WO 2016125912	DAINIPPON PRINTING CO LTD	Packaging material for battery
WO 2016123471	UNIV FLORIDA STATE RES FOUND	Electrochemical energy storage device
WO 2016125217	SONY CORP	Electrode, method for manufacturing same, and electrochemical device
WO 2016125726	HITACHI MAXELL	Lithium secondary battery
WO 2016133360	LG ELECTRONICS INC	Battery pack for electric vehicle
WO 2016136090	FUJIFILM CORP	Solid electrolyte composition, electrode active substance and production method thereof, battery electrode sheet and manufacturing method thereof, and all-solid-state secondary battery and manufacturing method thereof
WO 2016122129	LG CHEMICAL LTD	Battery pack
WO 2016137287	LG CHEMICAL LTD	Cathode active material, cathode comprising same, and lithium secondary battery
WO 2016135927	KK TOSHIBA	Battery module structure and vehicle

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SUPERCONDENSADORES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2016135352	GESTIMA SOLAR S L	Device and method for managing the charging and discharging of ultracapacitors without control wiring
WO 2016137230	LG CHEMICAL LTD	Battery device
WO 2016114603	LS MTRON LTD	External terminal, having structure for preventing leakage of electrolyte, for electric energy storage device

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SISTEMAS DE RECUPERACIÓN DE ENERGÍA; FRENOS REGENERATIVOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2016142594	BARBARIE YVES	On-board system for recharging on-board batteries in an electric vehicle
WO 2016121632	MITSUBISHI ELECTRIC CORP	Power conversion device
WO 2016131078	KERBS AUTOTECH PTY LTD	Constantly variable transmission device
WO 2016136815	HONDA MOTOR CO LTD	Electric power system
WO 2016137604	LLOYD ROBERT H F	Hydro-mechanical regenerative braking unit and transmission for electric and other vehicles

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MÁQUINAS ELÉCTRICAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2016148541	KOH-A JUNG GONG CO LTD	Motor rotor including rotor core and manufacturing method therefor
WO 2016147215	TBK CO LTD	Vehicle drive device and vehicle provided with same
WO 2016147216	TBK CO LTD	Vehicle drive device and vehicle provided with same
WO 2016147727	JATCO LTD NISSAN MOTOR	Control device for hybrid vehicle
WO 2016127207	ELECTRIC VEHICLE SYSTEMS AND TECH PTY LTD	Electric motor
WO 2016129318	JATCO LTD NISSAN MOTOR	Vehicle driving force control device
WO 2016119811	VOLVO TRUCK CORP	Electric propulsion system for a vehicle
WO 2016140027	JATCO LTD NISSAN MOTOR	Hybrid vehicle control device
WO 2016114353	MITSUBISHI ELECTRIC CORP	Pole-number-changing rotating electric machine, and method for driving pole-number-changing rotating electric machine
WO 2016124901	GREEN MOTORSPORT LTD FOAT GORDON	Liquid cooled motor
WO 2016112827	GER CHIH-CHAN	Replacement battery pack for electric vehicle, and control method thereof
WO 2016115722	ZHEJIANG TOPMOTORING TECHNOLOGY CO LTD	Permanent magnet synchronous motor
WO 2016137177	HANON SYSTEMS	Motor stator assembly
WO 2016121032	HONDA MOTOR CO LTD	Drive device for hybrid vehicle
WO 2016133353	TAESEONG HI-TECH CO LTD	Augmentor for rotational force of motor
WO 2016111570	PARK GYE JEUNG	Electricity generation system using tire deformation

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CONVERTIDORES, INVERSORES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2016146171	SIEMENS AG	Highly efficient power converter with single-phase systems
WO 2016128028	PIERBURG PUMP TECH GMBH	Electric motor vehicle auxiliary unit and method for commutating a motor vehicle auxiliary unit
WO 2016132851	HITACHI AUTOMOTIVE SYSTEMS LTD	Power conversion device
WO 2016126937	UNIV NORTHEASTERN UNIV ILLINOIS	Highly reliable and compact universal power converter
WO 2016117403	HITACHI AUTOMOTIVE SYSTEMS LTD	Power conversion device
WO 2016126289	SABIC GLOBAL TECHNOLOGIES BV SANNER MARK PFEIFFENBERGER NEAL NIEMEYER MATTHEW F	Polyetherimide miscible polymer blends for capacitor films
WO 2016123283	FAA LLC	Power generator system and associated methods of use and manufacture
WO 2016136115	HITACHI AUTOMOTIVE SYSTEMS LTD	Electric power converting device
WO 2016117313	PANASONIC IP MAN CO LTD	Cooling device, electronic apparatus equipped with same, and electric automobile
WO 2016121445	HITACHI AUTOMOTIVE SYSTEMS LTD	Power conversion device

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RECARGA DE BATERÍAS

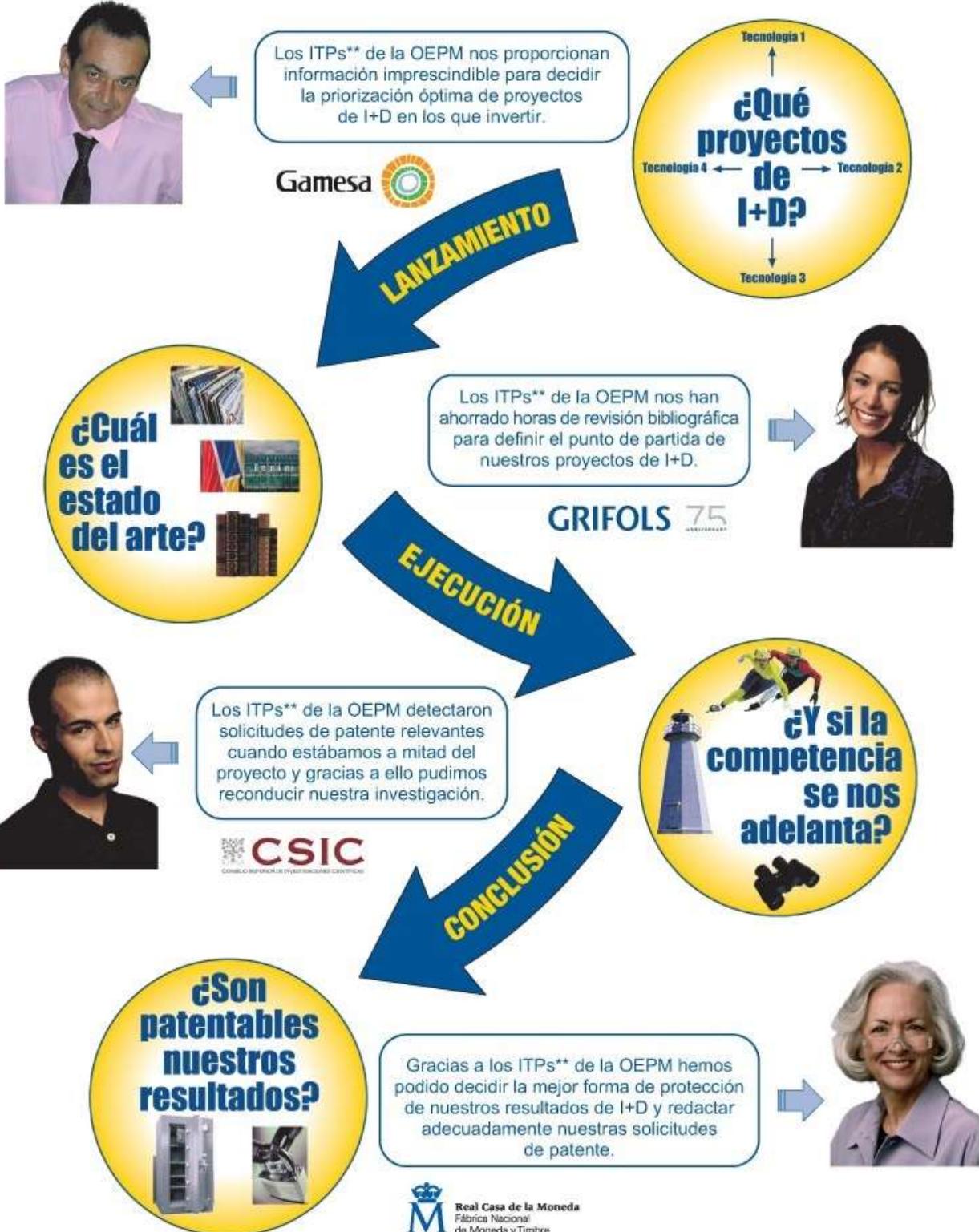
Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2016128939	EC ENG SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ	Rapid charging assembly for vehicles equipped with electric drive
WO 2016141298	MAXWELL LAB	Systems and methods for improving cell balancing and cell failure detection
WO 2016113766	SEQUOIA AUTOMATION S R L	Electrically charging system for drones
WO 2016125107	BIPCO SOFT R3 INC	Demand response implemented in an infrastructure having a dc link
WO 2016127484	CHENGDU UNI-LINK ENERGY CO LTD	Mechanical parallel modularization combined electric drive system adopting battery as energy
WO 2016132414	SONY CORP	Electricity storage module, electricity storage device, electricity storage system, control method, electronic device, electric vehicle, and power system
WO 2016140152	HITACHI AUTOMOTIVE SYSTEMS LTD	Battery control device and vehicle system
WO 2016140148	HITACHI AUTOMOTIVE SYSTEMS LTD	Battery control device and vehicle system
WO 2016132444	NISSAN MOTOR	Lithium ion secondary battery production method and lithium ion secondary battery
WO 2016114528	AMOGREENTECH CO LTD	Heat radiation unit and wireless power transmitting and receiving device having same
WO 2016125945	HANWHA TECHWIN CO LTD	Electric vehicle
WO 2016117438	MITSUBISHI ELECTRIC CORP	Power conversion device
WO 2016117446	IHI CORP	Power transmission system, foreign matter detection device, and coil device
WO 2016133452	SCANIA CV AB	Method and control system for charging a vehicle
WO 2016132739	PANASONIC IP MAN CO LTD	Power conversion device
WO 2016113804	PANASONIC IP MAN CO LTD	Communication terminal, communication terminal with electrode, communication system, electrically driven vehicle, and charging apparatus
WO 2016119000	FLECHL CHRISTIAN	Charger device and method for charging

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CAMBIO DE BATERÍAS

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