

# Boletín VT COCHE ELÉCTRICO

2º trimestre 2021

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## Vigilancia Tecnológica

### Noticias

El 13 de abril se aprobó el Real Decreto que regula las bases de la tercera edición del Programa de Movilidad Eficiente y Sostenible ([MOVES III](#)). Se financiará la compra de vehículos eléctricos e híbridos enchufables como turismos, furgonetas o motos, así como la adquisición e instalación de infraestructuras de recarga de acceso público y de uso privado.

El plan subvenciona con hasta 9.000 euros la compra de furgonetas eléctricas y con hasta 7.000 la adquisición de vehículos eléctricos, en caso de que el comprador achatarre un vehículo de más de 7 años de antigüedad.

Para autónomos, particulares, comunidades de propietarios y entidades locales que no desarrollen actividad empresarial, las ayudas cubrirán el 70% del coste de la instalación de infraestructuras de recarga de vehículos eléctricos o de las actuaciones de preinstalación de recarga en comunidades de propietarios, siempre que no se superen los límites establecidos, fijados en 800.000 euros por expediente, salvo para autónomos, que tendrán el límite por solicitante que les es de aplicación por Reglamento de minimis de 200.000 euros de ayudas bajo este régimen en tres años fiscales, y para particulares, que podrán beneficiarse de una ayuda de hasta 5.000 euros por expediente.

La nueva edición de MOVES también incluye una cuantía adicional del 10% en las ayudas a la compra de turismos eléctricos destinados al uso de taxi o servicio de VTC.

El 19 de mayo se firmó un convenio entre El Ministerio de Industria, Comercio y Turismo, a través de la Escuela de Organización Industrial (EOI), y EIT InnoEnergy, por el cual España será el primer país europeo donde se despliegue la [EBA250 Battery Academy](#), una plataforma de formación para todos los empleos necesarios en la cadena de valor de las baterías.

### [BOLETINES OEPM](#)

NIPO: 116-19-009-9

## CONTENIDO:

- TECNOLOGÍAS VEHICULARES
  - [Baterías](#)
  - [Supercondensadores](#)
  - [Sistemas de recuperación de energía, p.ej. frenos regenerativos](#)
  - [Máquinas eléctricas](#)
  - [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
<a href="#">WO 2021129896 A2</a>	BENAN ENERGY	Aqueous intercalation battery and manufacturing method therefor
<a href="#">WO 2021117549 A1</a>	PANASONIC IP MAN CO LTD	Non-aqueous electrolyte secondary battery
<a href="#">WO 2021111257 A1</a>	SEMICONDUCTOR ENERGY LAB	Secondary battery, mobile information terminal, and vehicle
<a href="#">WO 2021124812 A1</a>	CANON Optron Inc	Ion conductive solid and all-solid-state battery
<a href="#">WO 2021124522 A1</a>	ADEKA CORP	Electrode active material, method for producing same, composition for forming electrode mixture layer, electrode for nonaqueous electrolyte secondary batteries, and nonaqueous electrolyte secondary battery
<a href="#">WO 2021124809 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021111551 A1</a>	TOSHIMA MFG CO LTD	Electrode member, all-solid-state battery, powder for electrode member, method for manufacturing electrode member, and method for manufacturing all-solid-state battery
<a href="#">WO 2021110246 A1</a>	WEBASTO SE	Supporting structure for receiving battery cells
<a href="#">WO 2021125286 A1</a>	APB CORP	Coated positive electrode active material particles for lithium ion batteries, positive electrode for lithium ion batteries, and method for producing coated positive electrode active material particles for lithium ion batteries
<a href="#">WO 2021125882 A2</a>	POSCO	Positive electrode active material, method for preparing same, and lithium secondary battery comprising same
<a href="#">WO 2021137938 A2</a>	NANOGRAF CORP	Thermally disproportionated anode active material including turbostratic carbon coating
<a href="#">WO 2021124828 A1</a>	MURATA MANUFACTURING CO	Secondary battery, manufacturing method for secondary battery, electronic device, and electric tool
<a href="#">WO 2021111850 A1</a>	MITSUBISHI MOTORS CORP	Vehicle battery pack
<a href="#">WO 2021125337 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021125711 A2</a>	POSCO	Method for manufacturing anode active material for lithium secondary battery, anode active material, manufactured by same method, for lithium secondary battery, and lithium secondary battery comprising anode active material
<a href="#">WO 2021125898 A2</a>	POSCO	Cathode active material and lithium secondary battery comprising same
<a href="#">WO 2021111822 A1</a>	DENSO CORP	Battery monitoring device
<a href="#">WO 2021123581 A1</a>	VALEO SYSTEMES THERMIQUES	Device for thermally regulating an electrical or electronic component and method for operating such a device
<a href="#">WO 2021129905 A1</a>	FRAUNHOFER GES FORSCHUNG	Electrochemical sodium metal halide battery, and method for producing same
<a href="#">WO 2021108983 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Secondary battery, device, artificial graphite, and preparation method therefor
<a href="#">WO 2021102638 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Battery cell, battery module, battery pack, device using battery cell as power supply, and method for assembling battery cell
<a href="#">WO 2021123716 A1</a>	DYSON TECHNOLOGY LTD	Battery pack
<a href="#">WO 2021123713 A1</a>	DYSON TECHNOLOGY LTD	Battery pack
<a href="#">WO 2021125870 A1</a>	POSCO	Positive electrode active material, method for producing same, and lithium secondary battery including same
<a href="#">WO 2021125590 A1</a>	HANON SYSTEMS	Heat exchanger and heat exchanger arrangement comprising a plurality of heat exchangers
<a href="#">WO 2021069115 A1</a>	SABIC GLOBAL TECHNOLOGIES BV	Battery assembly for electric vehicle

<a href="#">WO 2021114746 A1</a>	BTR NANO TECH CO LTD	Method for repairing surface structure of high-nickel positive electrode material, high-nickel positive electrode material obtained therefrom, and lithium ion battery
<a href="#">WO 2021119582 A1</a>	UNIV PITTSBURGH COMMONWEALTH SYS HIGHER EDUCATION	Identification and methods of fabrication of novel scalable, economic complex framework material (cfm) based cathodes for lithium-sulfur batteries
<a href="#">WO 2021116723 A1</a>	HEATVENTORS KFT	Method and assembly for thermal regulation of parts of an electrical vehicle
<a href="#">WO 2021120155 A1</a>	INST PHYSICS CAS	Nano-tin-silicon composite negative electrode material, and preparation method therefor and use thereof
<a href="#">WO 2021122458 A1</a>	RENAULT SAS	Method for charging an electric battery of a vehicle
<a href="#">WO 2021071113 A1</a>	LG CHEMICAL LTD	Battery module comprising busbar plate, battery pack comprising battery module, and electronic device
<a href="#">WO 2021116629 A1</a>	VALEO SYSTEMES THERMIQUES	Device for cooling a battery pack
<a href="#">WO 2021123712 A1</a>	DYSON TECHNOLOGY LTD	Battery module and battery pack
<a href="#">WO 2021073782 A1</a>	KAUTEX TEXTRON GMBH & CO KG	Housing device for traction battery with fluid-based cooling function, comprising evaporation device with microchannels
<a href="#">WO 2021123715 A1</a>	DYSON TECHNOLOGY LTD	Battery pack
<a href="#">WO 2021102747 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Electrolyte for lithium ion battery, lithium ion battery, battery module, battery pack, and device
<a href="#">WO 2021105071 A1</a>	BOSCH GMBH ROBERT	Method for estimating the state of an energy store
<a href="#">WO 2021116297 A1</a>	RENAULT SAS	Battery pack with cooling circuit
<a href="#">WO 2021119066 A1</a>	DARTMOUTH COLLEGE	Polyester-based solid polymer composite electrolytes for energy storage devices
<a href="#">WO 2021119134 A1</a>	LORD CORP	Uv coating for dielectric insulation
<a href="#">WO 2021123714 A1</a>	DYSON TECHNOLOGY LTD	Battery pack
<a href="#">WO 2021108981 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Secondary battery, device, artificial graphite, and preparation method
<a href="#">WO 2021123722 A1</a>	DYSON TECHNOLOGY LTD	Battery pack with failure detection system
<a href="#">WO 2021074566 A1</a>	DYSON TECHNOLOGY LTD	Battery module and battery cell carrier
<a href="#">WO 2021074567 A1</a>	DYSON TECHNOLOGY LTD	Battery pack and battery module
<a href="#">WO 2021106534 A1</a>	MURATA MANUFACTURING CO	Secondary battery
<a href="#">WO 2021125633 A2</a>	RES INST IND SCIENCE & TECH	Method for treating wastewater of waste lithium ion battery
<a href="#">WO 2021112516 A2</a>	LG ENERGY SOLUTION LTD	Negative electrode active material, method for producing same, and negative electrode and secondary battery including same
<a href="#">WO 2021100213 A1</a>	CHEMSOL INC	Sealing film and tab lead and secondary battery using same
<a href="#">WO 2021066360 A1</a>	LG CHEMICAL LTD	Cylindrical battery and battery pack including same
<a href="#">WO 2021125634 A2</a>	POSCO	Cathode active material, method for manufacturing same, and lithium secondary battery comprising same
<a href="#">WO 2021069517 A1</a>	IMERTECH	Graphite compositions and uses in battery technology
<a href="#">WO 2021103934 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Composite material having core-shell structure for battery, secondary battery, battery module, battery pack and apparatus
<a href="#">WO 2021125585 A1</a>	LG ENERGY SOLUTION LTD	Cylindrical battery and method for manufacturing cylindrical battery
<a href="#">WO 2021110247 A1</a>	WEBASTO SE	Battery housing for a battery system
<a href="#">WO 2021074568 A1</a>	DYSON TECHNOLOGY LTD	Battery pack
<a href="#">WO 2021074497 A1</a>	ARKEMA FRANCE	Method for controlling the temperature of a battery in a motor vehicle
<a href="#">WO 2021107563 A2</a>	UNIV ULSAN FOUND IND COOP	Li2S-MAXB-P2S5 type solid electrolyte and lithium ion battery comprising same
<a href="#">WO 2021110821 A1</a>	AUTONEUM MAN AG	Exterior thermal battery-cover
<a href="#">WO 2021112435 A1</a>	ENERGY MATERIAL TECH CO LTD	Positive electrode active material for lithium ion secondary battery, positive electrode comprising same, and lithium ion secondary battery comprising same and production method thereof

<a href="#">WO 2021125869 A1</a>	POSCO	Cathode active material, preparation method therefor, and lithium secondary battery comprising same
<a href="#">WO 2021074238 A1</a>	VOLKSWAGEN AG	Method for producing an energy cell, and energy cell
<a href="#">WO 2021074498 A1</a>	ARKEMA FRANCE	Method for controlling the temperature of a battery comprising a lithium salt
<a href="#">WO 2021074575 A1</a>	DYSON TECHNOLOGY LTD	Battery pack
<a href="#">WO 2021122430 A1</a>	RENAULT SAS	Housing for a cooling system for a battery
<a href="#">WO 2021074571 A1</a>	DYSON TECHNOLOGY LTD	Battery module and battery pack
<a href="#">WO 2021074734 A1</a>	3M INNOVATIVE PROPERTIES CO	Compositions comprising cyclic olefins and thermally conductive filler
<a href="#">WO 2021074569 A1</a>	DYSON TECHNOLOGY LTD	Battery module and battery pack
<a href="#">WO 2021112596 A1</a>	LG ENERGY SOLUTION LTD	Method for preparing positive electrode active material for lithium secondary battery, and positive electrode active material prepared thereby
<a href="#">WO 2021084957 A1</a>	PANASONIC IP MAN CO LTD	Nonaqueous electrolyte secondary battery
<a href="#">WO 2021084368 A1</a>	SEMICONDUCTOR ENERGY LAB	Power storage device and method for operating power storage device
<a href="#">WO 2021100198 A1</a>	NIPPON TELEGRAPH & TELEPHONE	Lithium secondary battery and method for producing the same
<a href="#">WO 2021102557 A1</a>	UTI LP	Sulfur cathode
<a href="#">WO 2021103867 A1</a>	BYD CO LTD	Battery pack and electric vehicle
<a href="#">WO 2021118144 A1</a>	LG ENERGY SOLUTION LTD	Anode active material, preparation method therefor, and anode and secondary battery each comprising same
<a href="#">WO 2021087188 A1</a>	PACIFIC IND DEVELOPMENT CORPORATION	Inorganic materials for use in a lithium-ion secondary battery
<a href="#">WO 2021125916 A1</a>	LG ENERGY SOLUTION LTD	Membrane for electrochemical device, electrochemical device including membrane, and method for manufacturing electrochemical device
<a href="#">WO 2021061741 A1</a>	COVESTRO LLC	Electric vehicle battery cooling channels using welded plastic films
<a href="#">WO 2021064222 A1</a>	MEXICHEM FLUOR SA DE CV	Composition
<a href="#">WO 2021084873 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Battery monitoring device
<a href="#">WO 2021085205 A1</a>	MURATA MANUFACTURING CO	Secondary battery and battery pack
<a href="#">WO 2021125654 A1</a>	LG ENERGY SOLUTION LTD	Cylindrical secondary battery having flexible input part
<a href="#">WO 2021067292 A1</a>	CPS TECH HOLDINGS LLC	Active material having oxidized fiber additive & electrode and battery having same
<a href="#">WO 2021078477 A1</a>	BAYERISCHE MOTOREN WERKE AG	Method for producing an electrode for a storage device for storing electrical energy, use of an electrode of this kind, and electrode
<a href="#">WO 2021106342 A1</a>	SANKEI GIKEN KOGYO CO LTD	Battery insulation structure
<a href="#">WO 2021108973 A1</a>	MICROVAST POWER SYSTEMS CO LTD	Electric vehicle thermal management system, battery thermal management method and electric vehicle
<a href="#">WO 2021059206 A1</a>	3M INNOVATIVE PROPERTIES CO	Detection and capture of fluorine containing toxic byproducts of electrochemical cell packs
<a href="#">WO 2021085344 A1</a>	ZEON CORP	Paste for secondary batteries, slurry for secondary battery positive electrodes, positive electrode for secondary batteries, secondary battery and method for producing paste for secondary batteries
<a href="#">WO 2021084958 A1</a>	PANASONIC IP MAN CO LTD	Non-aqueous electrolyte secondary battery
<a href="#">WO 2021104064 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Secondary battery and device comprising the secondary battery
<a href="#">WO 2021118312 A1</a>	LG ENERGY SOLUTION LTD	Battery management system, battery pack, electric vehicle, and battery management method
<a href="#">WO 2021067774 A1</a>	CPS TECH HOLDINGS LLC	Spiral wound battery & cell with carbonised fiber mat current collector
<a href="#">WO 2021118311 A1</a>	LG ENERGY SOLUTION LTD	Battery management system, battery management method, battery pack, and electric vehicle

<a href="#">WO 2021118028 A1</a>	LG ENERGY SOLUTION LTD	Battery module capable of preventing gas migration to nearby modules
<a href="#">WO 2021058541 A1</a>	PHADATARE MANISHA	Silicon-nanographite aerogel-based anodes for batteries
<a href="#">WO 2021072497 A1</a>	RELECTRIFY HOLDINGS PTY	Electronics assembly
<a href="#">WO 2021099103 A1</a>	COMMISSARIAT ENERGIE ATOMIQUE	Method and system for controlling an electric battery
<a href="#">WO 2021124914 A1</a>	TOYO SYSTEM CO LTD	State output system
<a href="#">WO 2021078509 A1</a>	DAIMLER AG	Electrical energy store and method for operating an electrical energy store
<a href="#">WO 2021085201 A1</a>	SANYO ELECTRIC CO	Non-aqueous electrolyte secondary battery
<a href="#">WO 2021085347 A1</a>	DENSO CORP	Battery monitoring device
<a href="#">WO 2021123151 A1</a>	ARKEMA FRANCE	Alkali metal electrodes and methods for preparing the same
<a href="#">WO 2021085549 A1</a>	FUJIFILM CORP	Inorganic solid electrolyte-containing composition, sheet for all-solid-state secondary battery and all-solid-state secondary battery, and methods for manufacturing sheet for all-solid-state secondary battery and for manufacturing all-solid-state secondary battery
<a href="#">WO 2021074749 A1</a>	3M INNOVATIVE PROPERTIES CO	Methods, articles and adhesive composition comprising unpolymerized cyclic olefin, catalyst, and adhesion promoter polymer
<a href="#">WO 2021123711 A1</a>	DYSON TECHNOLOGY LTD	Battery module and battery pack
<a href="#">WO 2021064117 A1</a>	CENTRE NAT RECH SCIENT	Use of a transition metal sulphide compound in a positive electrode for solid state batteries
<a href="#">WO 2021069894 A1</a>	MEXICHEM FLUOR SA DE CV	Non-aqueous electrolytic composition and use therefor
<a href="#">WO 2021071737 A1</a>	RFNAV INC	Apparatuses and methods for acoustic and current manipulation of anode interface deposits in lithium anode batteries and other battery systems
<a href="#">WO 2021107318 A1</a>	LG ENERGY SOLUTION LTD	Battery module and battery pack including same
<a href="#">WO 2021112657 A1</a>	LG ENERGY SOLUTION LTD	Battery module, and battery pack and vehicle comprising same battery module
<a href="#">WO 2021074263 A1</a>	KAUTEX TEXTRON GMBH & CO KG	Cooling device for a traction battery of a vehicle
<a href="#">WO 2021112606 A1</a>	LG ENERGY SOLUTION LTD	Cathode active material for lithium secondary battery and method for preparing cathode active material
<a href="#">WO 2021118020 A1</a>	LG ENERGY SOLUTION LTD	Secondary battery and device including same
<a href="#">WO 2021085646 A1</a>	NEXT E SOLUTIONS INC	Energy storage system
<a href="#">WO 2021085488 A1</a>	FUJIFILM CORP	Lithium ion secondary battery and method for producing same, and solid electrolyte membrane for lithium ion secondary batteries and method for producing same
<a href="#">WO 2021125827 A1</a>	LG ENERGY SOLUTION LTD	Negative electrode, and secondary battery comprising same negative electrode
<a href="#">WO 2021079859 A1</a>	HITACHI ASTEMO LTD	Vehicle control device
<a href="#">WO 2021083782 A1</a>	BAYERISCHE MOTOREN WERKE AG	Storage device for storing electric energy for a motor vehicle, motor vehicle, and method for producing a storage housing for a storage device
<a href="#">WO 2021085141 A1</a>	ZEON CORP	Binder composition for all-solid-state secondary batteries, slurry composition for all-solid-state secondary batteries, solid electrolyte-containing layer, and all-solid-state secondary battery
<a href="#">WO 2021099804 A1</a>	HYPERRIVE INNOVATION LTD	Battery assembly
<a href="#">WO 2021059685 A1</a>	HONDA MOTOR CO LTD	Charger for portable battery
<a href="#">WO 2021060542 A1</a>	FUJIFILM CORP	Inorganic solid electrolyte-containing composition, sheet for all-solid-state secondary batteries, electrode sheet for all-solid-state secondary batteries, all-solid-state secondary battery, method for producing sheet for all-solid-state secondary batteries, and method for producing all-solid-state secondary battery
<a href="#">WO 2021100736 A1</a>	APB CORP	Lithium ion battery pack
<a href="#">WO 2021106729 A1</a>	SANYO ELECTRIC CO	Sealed battery
<a href="#">WO 2021104721 A1</a>	BOSCH GMBH ROBERT	Battery diagnosis for an electrically driven vehicle
<a href="#">WO 2021059654 A1</a>	HONDA MOTOR CO LTD	Charger for portable battery
<a href="#">WO 2021060008 A1</a>	SANYO ELECTRIC CO	Secondary battery
<a href="#">WO 2021060062 A1</a>	PANASONIC IP MAN CO LTD	Impact detection device and power storage pack

<a href="#">WO 2021074572 A1</a>	DYSON TECHNOLOGY LTD	Battery pack and battery module
<a href="#">WO 2021075665 A1</a>	LG ENERGY SOLUTION LTD	Battery pack and manufacturing method thereof
<a href="#">WO 2021075942 A1</a>	ECOPRO BM CO LTD	Positive electrode active material for lithium secondary battery, preparation method therefor, and lithium secondary battery comprising same
<a href="#">WO 2021106763 A1</a>	MURATA MANUFACTURING CO	Secondary battery, electronic device, and electric power tool
<a href="#">WO 2021060043 A1</a>	ADEKA CORP	Sulfur-modified polyacrylonitrile
<a href="#">WO 2021091108 A1</a>	LG ENERGY SOLUTION LTD	Manufacturing method of lithium secondary battery
<a href="#">WO 2021094149 A1</a>	DAIMLER AG	Storage device for storing electrical energy for a motor vehicle, in particular for an automobile, and motor vehicle
<a href="#">WO 2021100690 A1</a>	VALEO JAPAN CO LTD	Heat exchange unit for battery cooling
<a href="#">WO 2021060108 A1</a>	SEKISUI CHEMICAL CO LTD	Negative electrode material for secondary batteries, negative electrode for secondary batteries, and secondary battery
<a href="#">WO 2021070927 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021100819 A1</a>	APB CORP	Inspection method and manufacturing method of battery pack
<a href="#">WO 2021058915 A1</a>	VALEO SYSTEMES THERMIQUES	Device for the thermal management of an electric or hybrid motor vehicle comprising a heat-transfer fluid circuit
<a href="#">WO 2021101188 A1</a>	LG ENERGY SOLUTION LTD	Anode and secondary battery comprising same
<a href="#">WO 2021106993 A1</a>	3DOM INC	Battery pack and method for producing same
<a href="#">WO 2021125825 A1</a>	LG ENERGY SOLUTION LTD	Anode and secondary battery comprising anode
<a href="#">WO 2021059974 A1</a>	MURATA MANUFACTURING CO	Active material, method for producing same, electrode and secondary battery
<a href="#">WO 2021060010 A1</a>	SANYO ELECTRIC CO	Secondary battery and method of manufacturing same
<a href="#">WO 2021060349 A1</a>	FUJI PIGMENT	Composite oxide powder, method for producing composite oxide powder, method for producing solid electrolyte object, and method for producing lithium ion secondary battery
<a href="#">WO 2021089574 A1</a>	DAIMLER AG	Storage device for storing electrical energy, for a motor vehicle, in particular for a car, and motor vehicle
<a href="#">WO 2021107094 A1</a>	NIPPON GRAPHITE IND CO LTD	Electrode conductive agent for lithium ion battery, electrode composition, and electrode
<a href="#">WO 2021071071 A1</a>	LG CHEMICAL LTD	Battery pack and vehicle comprising same
<a href="#">WO 2021070706 A1</a>	AIST	Positive electrode-side electrolyte solution and nonaqueous secondary battery using same
<a href="#">WO 2021115694 A1</a>	BAYERISCHE MOTOREN WERKE AG	Method, apparatus, system, electric vehicle, computer program and storage medium for charging or discharging a cell of an electric energy store
<a href="#">WO 2021059949 A1</a>	PANASONIC IP MAN CO LTD	Energy transfer circuit, and electricity storage system
<a href="#">WO 2021087327 A1</a>	UNIV CITY NEW YORK RES FOUND	Mitigating the zincate effect in energy dense manganese dioxide electrodes
<a href="#">WO 2021070530 A1</a>	KOBE STEEL LTD	Battery case for electric vehicle and method for manufacturing battery case
<a href="#">WO 2021071057 A1</a>	LG ENERGY SOLUTION LTD	Battery module and battery pack including same
<a href="#">WO 2021071120 A1</a>	LG CHEMICAL LTD	Battery pack having reinforced short-circuit prevention and shock protection structure
<a href="#">WO 2021100520 A1</a>	SUMITOMO SEIKA CHEMICALS	Binder for secondary batteries
<a href="#">WO 2021070601 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021091762 A1</a>	ENEVATE CORP	Catalysts and methods for lowering electrode pyrolysis temperature
<a href="#">WO 2021059727 A1</a>	PANASONIC IP MAN CO LTD	Secondary battery
<a href="#">WO 2021074570 A1</a>	DYSON TECHNOLOGY LTD	Battery module and battery pack
<a href="#">WO 2021074592 A1</a>	ECHION TECH LIMITED	Active electrode material
<a href="#">WO 2021077273 A1</a>	NINGDE AMPEREX TECHNOLOGY LTD	Charging method, electronic device and storage medium
<a href="#">WO 2021091507 A1</a>	IZMIR YUEKSEK TEKNOLOJİ ENSTİTÜSÜ	A battery with dendritic shaped tabs

<a href="#">WO 2021100598 A1</a>	TOYOTA JIDOSHKI KK	Electricity storage device and method for manufacturing electricity storage device
<a href="#">WO 2021101114 A1</a>	LG ENERGY SOLUTION LTD	Battery module and battery pack including same
<a href="#">WO 2021106343 A1</a>	SANKEI GIKEN KOGYO CO LTD	Battery heat exchange structure
<a href="#">WO 2021071099 A1</a>	LG CHEMICAL LTD	Connection member connected to electrode lead by physical coupling, and battery cell stack comprising same
<a href="#">WO 2021075181 A1</a>	DENSO CORP	Refrigeration cycle device
<a href="#">WO 2021100272 A1</a>	HITACHI LTD	Secondary battery and method for producing same
<a href="#">WO 2021101026 A1</a>	LG ENERGY SOLUTION LTD	Electrode assembly and method for manufacturing same
<a href="#">WO 2021060762 A1</a>	LG CHEMICAL LTD	Positive electrode for lithium-sulfur secondary battery having pattern, manufacturing method therefor, and lithium-sulfur secondary battery including same
<a href="#">WO 2021070944 A1</a>	UNIV OSAKA PUBLIC CORP	Electrode active material for alkali metal battery, and electrode and alkali metal battery including same
<a href="#">WO 2021084547 A1</a>	CHANAGALA SATYANARAYANA	Battery management system for electric vehicles
<a href="#">WO 2021101915 A1</a>	CORESHELL TECH INC	Solution-phase deposition of thin films on solid-state electrolytes
<a href="#">WO 2021060045 A1</a>	ADEKA CORP	Electrode for nonaqueous electrolyte secondary batteries and nonaqueous electrolyte secondary battery using said electrode
<a href="#">WO 2021070600 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021070933 A1</a>	IBIDEN CO LTD	Heat insulation sheet for battery packs, and battery pack
<a href="#">WO 2021059444 A1</a>	SHOWA DENKO MAT 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
<a href="#">WO 2021070929 A1</a>	MURATA MANUFACTURING CO	Solid battery
<a href="#">WO 2021070311 A1</a>	SUMITOMO ELECTRIC INDUSTRIES	Electrode, battery cell, cell stack, and redox-flow battery system
<a href="#">WO 2021071082 A1</a>	LG CHEMICAL LTD	Battery pack, electronic device, and vehicle
<a href="#">WO 2021075690 A1</a>	LG ENERGY SOLUTION LTD	Battery module
<a href="#">WO 2021080005 A1</a>	NGK SPARK PLUG CO	Lithium ion conductive solid electrolyte and production method for lithium ion conductive solid electrolyte
<a href="#">WO 2021091326 A1</a>	LG CHEMICAL LTD	Crosslinked polyolefin separator, method for manufacturing crosslinked polyolefin separator, and electrochemical device comprising same
<a href="#">WO 2021065320 A1</a>	PANASONIC IP MAN CO LTD	Positive electrode for non-aqueous electrolyte secondary battery and non-aqueous electrolyte secondary battery
<a href="#">WO 2021067127 A1</a>	YAZAKI CORP	High purity swcnt additive for performance enhancement in lithium ion battery
<a href="#">WO 2021112459 A1</a>	LG ENERGY SOLUTION LTD	Battery management system, battery pack, electric vehicle, and battery management method
<a href="#">WO 2021066010 A1</a>	TOYOTA TEKKO KK	Battery cooler
<a href="#">WO 2021066101 A1</a>	UBE INDUSTRIES	Negative electrode active material layer and method for manufacturing negative electrode active material layer, electrode mixture paste for power storage device negative electrode, power storage device negative electrode, and power storage device
<a href="#">WO 2021066495 A1</a>	LG CHEMICAL LTD	Electrode and secondary battery comprising same
<a href="#">WO 2021095652 A1</a>	TORAY INDUSTRIES	Graphene dispersion liquid and positive electrode paste
<a href="#">WO 2021113093 A1</a>	EXXONMOBIL CHEMICAL PATENTS INC	Methylparaffins obtained through isomerization of linear olefins and use thereof in thermal management
<a href="#">WO 2021065333 A1</a>	MURATA MANUFACTURING CO	Negative electrode for secondary batteries, and secondary battery
<a href="#">WO 2021075743 A1</a>	LG CHEMICAL LTD	Battery pack and vehicle comprising battery pack
<a href="#">WO 2021091328 A1</a>	LG CHEMICAL LTD	Battery rack and power storage device comprising same
<a href="#">WO 2021095651 A1</a>	TORAY INDUSTRIES	Graphene dispersion, positive electrode paste, and lithium ion battery positive electrode
<a href="#">WO 2021101075 A1</a>	LG ENERGY SOLUTION LTD	Battery module, and battery pack and vehicle including battery module
<a href="#">WO 2021075597 A1</a>	GRINERGY CO LTD	Organic-inorganic composite solid polymer electrolyte, integrated electrode structure and electrochemical element including same, and method for producing organic-inorganic composite solid polymer electrolyte

<a href="#">WO 2021091174 A1</a>	LG ENERGY SOLUTION LTD	Binder for lithium secondary battery electrode, lithium secondary battery positive electrode comprising same, and lithium secondary battery
<a href="#">WO 2021065844 A1</a>	NISSAN CHEMICAL CORP	Polymer, additive for nonaqueous electrolyte solutions, nonaqueous electrolyte solution, and lithium ion secondary battery
<a href="#">WO 2021068033 A1</a>	UNIV GRIFFITH	Anode material
<a href="#">WO 2021083199 A1</a>	BTR NEW MAT GROUP CO LTD	Negative electrode material and preparation method therefor, and lithium-ion battery
<a href="#">WO 2021091250 A1</a>	SK NEXILIS CO LTD	Electrolytic copper foil capable of preventing tearing or wrinkle defects, electrode containing same, secondary battery containing same, and method for manufacturing same
<a href="#">WO 2021066344 A1</a>	LG CHEMICAL LTD	Battery module, battery pack including battery module, and vehicle including battery pack
<a href="#">WO 2021071056 A1</a>	LG ENERGY SOLUTION LTD	Battery module and battery pack including same
<a href="#">WO 2021101176 A1</a>	SK NEXILIS CO LTD	Electrolytic copper foil proof against tear or wrinkle defects, electrode comprising same, secondary battery comprising same, and manufacturing method therefor
<a href="#">WO 2021100596 A1</a>	SANYO ELECTRIC CO	Electricity storage device and insulating holder
<a href="#">WO 2021059686 A1</a>	HONDA MOTOR CO LTD	Charger for portable battery
<a href="#">WO 2021065164 A1</a>	PANASONIC IP MAN CO LTD	Nonaqueous electrolyte secondary battery
<a href="#">WO 2021066060 A1</a>	FUJIFILM CORP	Inorganic solid electrolyte-containing composition, sheet for all-solid-state secondary battery, and all-solid-state secondary battery, and method for manufacturing inorganic solid electrolyte-containing composition, sheet for all-solid-state secondary battery, and all-solid-state secondary battery
<a href="#">WO 2021065231 A1</a>	DENSO CORP	Battery state estimation device
<a href="#">WO 2021092692 A1</a>	HYDRO QUEBEC	Methods for the alkalization or realkalization of an active electrode material
<a href="#">WO 2021113278 A1</a>	3M INNOVATIVE PROPERTIES CO	Flame resistant materials for electric vehicle battery applications
<a href="#">WO 2021066458 A1</a>	LG CHEMICAL LTD	Composite anode active material, preparation method therefor, and anode comprising same
<a href="#">WO 2021066493 A1</a>	LG CHEMICAL LTD	Electrode and secondary battery comprising same
<a href="#">WO 2021065228 A1</a>	FURUKAWA CO LTD	Phosphorus sulfide composition for sulfide-based inorganic solid electrolyte material
<a href="#">WO 2021066581 A1</a>	LG CHEMICAL LTD	Globular carbon-based anode active material, method for manufacturing same, and anode and lithium secondary battery comprising same
<a href="#">WO 2021066337 A1</a>	LG CHEMICAL LTD	Battery module, battery pack comprising battery module, and vehicle comprising battery pack
<a href="#">WO 2021071138 A1</a>	LG CHEMICAL LTD	Battery module including heat insulating member, and battery pack comprising same
<a href="#">WO 2021101082 A1</a>	LG ENERGY SOLUTION LTD	Secondary battery and device including same
<a href="#">WO 2021066557 A1</a>	LG CHEMICAL LTD	Electrode and secondary battery comprising same
<a href="#">WO 2021080358 A1</a>	LG CHEMICAL LTD	Device and method for balancing battery packs connected in parallel to each other
<a href="#">WO 2021066216 A1</a>	L&F CO LTD	Novel lithium complex metal oxide, and secondary lithium battery comprising same
<a href="#">WO 2021065128 A1</a>	SANYO ELECTRIC CO	Method for producing nonaqueous electrolyte secondary battery, and nonaqueous electrolyte secondary battery
<a href="#">WO 2021066229 A1</a>	POSCO	Cathode active material for lithium secondary battery, and lithium secondary battery including same
<a href="#">WO 2021071055 A1</a>	LG ENERGY SOLUTION LTD	Battery module and battery pack including same
<a href="#">WO 2021091329 A1</a>	LG CHEMICAL LTD	Battery module, battery rack comprising same, and power storage device
<a href="#">WO 2021095883 A1</a>	APB CORP	Lithium ion battery collector, production method for lithium ion battery collector, and lithium ion battery electrode
<a href="#">WO 2021066560 A1</a>	LG CHEMICAL LTD	Positive electrode and secondary battery including same
<a href="#">WO 2021066494 A1</a>	LG CHEMICAL LTD	Electrode and secondary battery comprising same
<a href="#">WO 2021066582 A1</a>	LG CHEMICAL LTD	Globular carbon-based anode active material, method for manufacturing same, and anode and lithium secondary battery comprising same

<a href="#">WO 2021075940 A1</a>	ECOPRO BM CO LTD	Positive electrode active material for lithium secondary battery, preparation method therefor, and lithium secondary battery comprising same
<a href="#">WO 2021107319 A1</a>	LG ENERGY SOLUTION LTD	Battery module, and battery pack and vehicle comprising same
<a href="#">WO 2021107305 A1</a>	LG ENERGY SOLUTION LTD	Battery module
<a href="#">WO 2021107586 A1</a>	LG ENERGY SOLUTION LTD	Positive electrode for secondary battery including flake graphite and secondary battery including same
<a href="#">WO 2021091364 A1</a>	LG ENERGY SOLUTION LTD	Battery pack and device including same
<a href="#">WO 2021094419 A1</a>	VITESCO TECHNOLOGIES GERMANY GMBH	Method for determining an open-circuit voltage, and store for electrical energy
<a href="#">WO 2021066462 A1</a>	LG CHEMICAL LTD	Non-aqueous electrolyte and lithium secondary battery comprising same
<a href="#">WO 2021112607 A1</a>	LG ENERGY SOLUTION LTD	Method for producing positive electrode material for secondary battery
<a href="#">WO 2021066085 A1</a>	UBE INDUSTRIES	Active material layer for negative electrode, method for producing same, electrode mix paste for power storage device negative electrode, negative electrode for power storage device, and power storage device
<a href="#">WO 2021066446 A1</a>	LG CHEMICAL LTD	Secondary battery electrode assembly comprising electrodes having different forms
<a href="#">WO 2021066584 A1</a>	LG CHEMICAL LTD	Globular carbon-based anode active material, method for manufacturing same, and anode and lithium secondary battery comprising same
<a href="#">WO 2021075770 A1</a>	SAMSUNG ELECTRONICS CO LTD	System and method for state estimation of battery of electronic device
<a href="#">WO 2021083991 A1</a>	PSA AUTOMOBILES SA	Method and device for cooling a motor vehicle battery
<a href="#">WO 2021081394 A1</a>	URBAN ELECTRIC POWER INC	Dual electrolyte approach for high voltage batteries
<a href="#">WO 2021090632 A1</a>	MITSUBISHI HEAVY IND LTD	Battery diagnosis device, forklift, charger, battery diagnosis method, and program
<a href="#">WO 2021083067 A1</a>	HANGZHOU SANHUA RES INST CO LTD	Thermal management system
<a href="#">WO 2021090680 A1</a>	MURATA MANUFACTURING CO	Positive electrode for secondary battery and secondary battery
<a href="#">WO 2021057457 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Positive electrode active material for sodium ion battery, sodium ion battery made from active material, battery module, battery pack and apparatus
<a href="#">WO 2021087619 A1</a>	TAIGA MOTORS INC	Battery cooling panel for electric vehicles
<a href="#">WO 2021075554 A1</a>	MURATA MANUFACTURING CO	Negative electrode active material, negative electrode, and secondary battery
<a href="#">WO 2021091045 A1</a>	LG CHEMICAL LTD	Apparatus for pressing battery cell
<a href="#">WO 2021077959 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Lithium metal composite electrode material, preparation method for same, and electrode, battery, battery module, battery pack and device comprising same
<a href="#">WO 2021091236 A1</a>	LG CHEMICAL LTD	Method for predicting lifespan characteristic of secondary battery including carbon-based hybrid anode
<a href="#">WO 2021065929 A1</a>	PANASONIC IP CORP AMERICA	Charging station, battery management system, and charging method
<a href="#">WO 2021086132 A1</a>	LG ENERGY SOLUTION LTD	Method for manufacturing negative electrode
<a href="#">WO 2021092695 A1</a>	IERADI GIUSEPPE	Electric vehicle battery system
<a href="#">WO 2021087620 A1</a>	TAIGA MOTORS INC	Thermal management system for electric vehicle
<a href="#">WO 2021096035 A1</a>	LG ENERGY SOLUTION LTD	Secondary battery and sealing block
<a href="#">WO 2021060911 A1</a>	LG CHEMICAL LTD	Cathode active material precursor for secondary battery, preparation method therefor, and method for preparing cathode active material
<a href="#">WO 2021060587 A1</a>	LG CHEMICAL LTD	Battery pack and vehicle comprising same battery pack
<a href="#">WO 2021080112 A1</a>	LG ENERGY SOLUTION LTD	Battery cell and battery module including same
<a href="#">WO 2021090571 A1</a>	DOWA ECO SYSTEM CO LTD	Method for separating lithium
<a href="#">WO 2021067504 A2</a>	ANZODE INC	Electrode assemblies incorporating ion exchange materials
<a href="#">WO 2021086070 A1</a>	LG ENERGY SOLUTION LTD	Battery module and battery pack including same

<a href="#">WO 2021096224 A1</a>	JINYOUNG GLOBAL CO LTD	Fuse element, flexible wiring board, and battery pack
<a href="#">WO 2021085807 A1</a>	SAMSUNG SDI CO LTD	Rechargeable battery and method for manufacturing same
<a href="#">WO 2021086098 A1</a>	LG ENERGY SOLUTION LTD	Anode active material, preparation method therefor, and anode and secondary battery which comprise same
<a href="#">WO 2021080384 A1</a>	LG CHEMICAL LTD	Cathode active material, and cathode and lithium secondary battery which comprise same
<a href="#">WO 2021085946 A1</a>	LG ENERGY SOLUTION LTD	Method for preparing anode active material, anode active material, anode comprising same, and secondary battery comprising the anode
<a href="#">WO 2021085911 A1</a>	LG CHEMICAL LTD	Battery module, and battery rack and power storage device comprising battery module
<a href="#">WO 2021096267 A1</a>	LG CHEMICAL LTD	Secondary battery
<a href="#">WO 2021085836 A1</a>	LG CHEMICAL LTD	Battery diagnostic apparatus and method
<a href="#">WO 2021085936 A1</a>	LG CHEMICAL LTD	Separator, lithium secondary battery including separator, and manufacturing method thereof
<a href="#">WO 2021096250 A1</a>	LG CHEMICAL LTD	Wireless battery management system, wireless battery management method and electric vehicle
<a href="#">WO 2021096313 A1</a>	LG CHEMICAL LTD	Electrolyte membrane for all-solid-state battery and all-solid-state battery comprising same
<a href="#">WO 2021060761 A1</a>	LG CHEMICAL LTD	Battery management system, battery management method, battery pack, and electric car
<a href="#">WO 2021096265 A1</a>	LG ENERGY SOLUTION LTD	Cathode active material for lithium secondary battery, and method for preparing cathode active material
<a href="#">WO 2021080374 A1</a>	LG CHEMICAL LTD	Method for preparing positive electrode active material precursor and positive electrode active material precursor
<a href="#">WO 2021086088 A1</a>	LG CHEMICAL LTD	Lithium secondary battery separator having enhanced adhesive strength to electrode and improved resistance characteristics, and lithium secondary battery comprising lithium secondary battery separator
<a href="#">WO 2021096223 A1</a>	JINYOUNG GLOBAL CO LTD	Laminated busbar, method for designing laminated busbar, and battery module
<a href="#">WO 2021080694 A2</a>	GEORGIA TECH RES INST	Deeply rechargeable battery systems and methods
<a href="#">WO 2021069904 A2</a>	SUMITOMO CHEMICAL CO	Metal battery

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## SUPERCONDENSADORES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2021121655 A1</a>	SEW EURODRIVE GMBH & CO	Method for operating an electric vehicle and electric vehicle
<a href="#">WO 2021125148 A1</a>	GS YUASA INT LTD	Power storage device
<a href="#">WO 2021125250 A1</a>	KURARAY CO	Polymer membrane and nonaqueous electrolyte battery
<a href="#">WO 2021111249 A1</a>	SEMICONDUCTOR ENERGY LAB	Positive electrode active material, secondary battery, and vehicle
<a href="#">WO 2021094897 A1</a>	FONDAZIONE ST ITALIANO TECNOLOGIA	Compositions for energy storage devices and methods of use
<a href="#">WO 2021065695 A1</a>	DENSO CORP	Capacitor
<a href="#">WO 2021065696 A1</a>	DENSO CORP	Capacitor
<a href="#">WO 2021106629 A1</a>	PANASONIC CORP	Power storage device
<a href="#">WO 2021060243 A1</a>	SEKISUI CHEMICAL CO LTD	Carbon material and electrode material for power storage device
<a href="#">WO 2021107684 A1</a>	LG CHEMICAL LTD	Method for preparing positive electrode active material for lithium secondary battery, and positive electrode active material prepared thereby for lithium secondary battery
<a href="#">WO 2021095293 A1</a>	GS YUASA INT LTD	Nonaqueous electrolyte electricity storage element
<a href="#">WO 2021065863 A1</a>	MU IONIC SOLUTIONS CORP	Non-aqueous electrolyte solution and power storage device using same

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## SISTEMAS DE RECUPERACIÓN DE ENERGÍA; FRENOS REGENERATIVOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2021080011 A1	DENSO CORP	Control device
WO 2021087621 A1	TAIGA MOTORS INC	Braking system for an off-road vehicle

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## MÁQUINAS ELÉCTRICAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2021069253 A1</a>	MAGNA PT BV & CO KG	Electric machine with integrated cooling system
<a href="#">WO 2021110199 A1</a>	SCHAEFFLER TECHNOLOGIES AG	Drive unit and drive assembly
<a href="#">WO 2021070017 A1</a>	TEXA DYNAMICS S R L	Cooling component for electric motor
<a href="#">WO 2021123528 A1</a>	NIDEC PSA EMOTORS	Rotor of a rotary electric machine
<a href="#">WO 2021121621 A1</a>	IPETRONIK GMBH & CO KG	Compressor and battery system for a motor vehicle
<a href="#">WO 2021105631 A1</a>	NIDEC PSA EMOTORS	Liquid-cooled electrical machine
<a href="#">WO 2021123539 A1</a>	NIDEC PSA EMOTORS	Rotor of a rotary electric machine
<a href="#">WO 2021081383 A1</a>	JACOBI MOTORS LLC	Methods of magnetizing and controlling a variable-flux memory motor
<a href="#">WO 2021123179 A1</a>	PUNCH POWERTRAIN PSA E TRANS NV	Drive unit for a vehicle
<a href="#">WO 2021063649 A1</a>	VALEO SIEMENS EAUTOMOTIVE GERMANY GMBH	Hairpin winding of a stator of an electric motor
<a href="#">WO 2021074563 A1</a>	DYSON TECHNOLOGY LTD	A stator assembly for an electric motor
<a href="#">WO 2021121693 A1</a>	DAIMLER AG	Method for operating a fleet management system with thermal pre-conditioning of motor vehicles, and fleet management system
<a href="#">WO 2021124020 A1</a>	NIDEC CORP	Electric motor having compact busbar unit
<a href="#">WO 2021121455 A1</a>	GENTHERM GMBH	Adjustment device for a vehicle seat
<a href="#">WO 2021109980 A1</a>	VALEO POWERTRAIN SHANGHAI CO LTD	Drivetrain system for an electrified vehicle and method of cooling the drivetrain system
<a href="#">WO 2021074562 A1</a>	DYSON TECHNOLOGY LTD	A stator assembly for an electric motor
<a href="#">WO 2021105593 A1</a>	NIDEC PSA EMOTORS	Rotary electric machine stator with asymmetric winding
<a href="#">WO 2021094670 A1</a>	NIDEC PSA EMOTORS	Liquid cooling machine
<a href="#">WO 2021116649 A1</a>	DYSON TECHNOLOGY LTD	An electric motor
<a href="#">WO 2021116648 A1</a>	DYSON TECHNOLOGY LTD	Electric drive unit
<a href="#">WO 2021116645 A1</a>	DYSON TECHNOLOGY LTD	Electric drive unit layout
<a href="#">WO 2021075217 A1</a>	NTN TOYO BEARING CO LTD	Electric actuator
<a href="#">WO 2021086374 A1</a>	CUMMINS INC	Method and system for controlling a pole switch in an electric motor
<a href="#">WO 2021092285 A1</a>	NEAPCO INTELLECTUAL PROPERTY HOLDINGS LLC	Lubricant supported electric motor with controlled and balanced lubricant flow
<a href="#">WO 2021126333 A1</a>	SCHAEFFLER TECHNOLOGIES AG	Dual motor coaxial e-axle with rotor shaft locking mechanism
<a href="#">WO 2021095857 A1</a>	NIPPON STEEL CORP	Stator core and rotary electric machine
<a href="#">WO 2021090884 A1</a>	DENSO CORP	Rotary electrical machine
<a href="#">WO 2021070535 A1</a>	HITACHI ASTEMO LTD	Drive system
<a href="#">WO 2021070453 A1</a>	PANASONIC IP MAN CO LTD	Information processing method, information processing device, and information processing system

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## CONVERTIDORES, INVERSORES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2021117674 A1</a>	KYOCERA CORP	Dielectric film, film capacitor using same, interlinked capacitor, inverter, and electric vehicle
<a href="#">WO 2021117098 A1</a>	MITSUBISHI ELECTRIC CORP	Power conversion device
<a href="#">WO 2021111547 A1</a>	SUMITOMO ELECTRIC INDUSTRIES	Power conversion device, vehicle including same, and control method
<a href="#">WO 2021124922 A1</a>	HITACHI ASTEMO LTD	Electric power conversion device
<a href="#">WO 2021111809 A1</a>	MITSUBISHI MOTORS CORP	Vehicle drive unit
<a href="#">WO 2021069324 A1</a>	BOSCH GMBH ROBERT	Electronic assembly, in particular for electric vehicles or hybrid vehicles
<a href="#">WO 2021126659 A1</a>	ABB SCHWEIZ AG	Multiple vehicle charging system
<a href="#">WO 2021063593 A1</a>	HELLA GMBH & CO KGAA	Bidirectional power converter having intermediate circuit
<a href="#">WO 2021108604 A1</a>	UNIV WAYNE STATE	Single-phase seven-level inverter
<a href="#">WO 2021078457 A1</a>	BOSCH GMBH ROBERT	Method for determining a target volumetric flow rate for a coolant
<a href="#">WO 2021084852 A1</a>	DENSO CORP	Power conversion device
<a href="#">WO 2021085515 A1</a>	DENSO CORP	Power conversion device
<a href="#">WO 2021121654 A1</a>	SEW EURODRIVE GMBH & CO	Method for operating an electric vehicle and electric vehicle
<a href="#">WO 2021078456 A1</a>	BOSCH GMBH ROBERT	Method for determining a volumetric flow rate of a coolant
<a href="#">WO 2021105016 A1</a>	UNIV DER BUNDESWEHR MUENCHEN	4-phase multilevel converter with neutral connection and cascaded h-bridges in the 3 AC phases
<a href="#">WO 2021102998 A1</a>	HUAWEI TECH CO LTD	Voltage regulation module, charging module, and charging pile
<a href="#">WO 2021130174 A1</a>	VITO NV	An electric machine with hybrid energy storage devices
<a href="#">WO 2021085267 A1</a>	DENSO CORP	Electronic apparatus
<a href="#">WO 2021117512 A1</a>	HITACHI ASTEMO LTD	Power conversion device
<a href="#">WO 2021106609 A1</a>	HITACHI ASTEMO LTD	Power converter
<a href="#">WO 2021059418 A1</a>	DENSO CORP	Electric power converter
<a href="#">WO 2021104886 A1</a>	BOSCH GMBH ROBERT	Reducing switching-on and switching-off processes in an electric drivetrain
<a href="#">WO 2021059336 A1</a>	DENSO CORP	Step-up converter device
<a href="#">WO 2021070244 A1</a>	MITSUBISHI ELECTRIC CORP	Power conversion device
<a href="#">WO 2021065234 A1</a>	DENSO CORP	Power conversion device
<a href="#">WO 2021125528 A1</a>	MANDO CORP	Double would motor control apparatus and method
<a href="#">WO 2021086808 A1</a>	CARRIER CORP	Stacked capacitive coupled resonant dual active bridge DC-DC converter
<a href="#">WO 2021065222 A1</a>	SOKEN INC	Power conversion device
<a href="#">WO 2021071207 A1</a>	SAMSUNG ELECTRONICS CO LTD	Apparatus and control method of the same
<a href="#">WO 2021069188 A1</a>	NW JOULES	Rapid charging device for a motor vehicle
<a href="#">WO 2021069189 A1</a>	NW JOULES	Rapid charging device for a motor vehicle
<a href="#">WO 2021089831 A1</a>	AROS ELECTRONICS AB	Safe active discharge circuit for inverter in vehicle
<a href="#">WO 2021065581 A1</a>	HITACHI ASTEMO LTD	Motor drive device
<a href="#">WO 2021059833 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Conversion device and conversion system
<a href="#">WO 2021074975 A1</a>	TOYOTA MOTOR CO LTD	Electric device
<a href="#">WO 2021078863 A1</a>	EPINOVATECH AB	AC-DC converter circuit
<a href="#">WO 2021089239 A1</a>	BOSCH GMBH ROBERT	Power converter and method for operating a power converter
<a href="#">WO 2021100802 A1</a>	DENSO CORP	Vehicular control device
<a href="#">WO 2021085440 A1</a>	DENSO CORP	Vehicular control device
<a href="#">WO 2021079625 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Isolated dc-dc converter
<a href="#">WO 2021090731 A1</a>	HITACHI LTD	Control device for electric motor, electric vehicle, and control method for electric motor
<a href="#">WO 2021090603 A1</a>	DENSO CORP	Sensor unit
<a href="#">WO 2021059950 A1</a>	PANASONIC IP MAN CO LTD	In-vehicle notification device, notification program, and calculation device

<a href="#">WO 2021090885 A1</a>	DENSO CORP	Vehicular control device
<a href="#">WO 2021077076 A1</a>	TEXAS INSTRUMENTS INC	Gate driver bootstrap circuits and related methods
<a href="#">WO 2021092658 A1</a>	INVERTEDPOWER PTY LTD	A multimodal converter for interfacing with multiple energy sources

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## RECARGA DE BATERÍAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2021122650 A1</a>	JOLT ENERGY GMBH	A local power supply grid for power supply of electrically powered devices
<a href="#">WO 2021123702 A1</a>	ZPN ENERGY LTD	Commissioning a system for charging electric vehicles
<a href="#">WO 2021121914 A1</a>	RENAULT SAS	Method for connecting an electrical outlet of a vehicle to a connector
<a href="#">WO 2021124159 A1</a>	ROBBY MOTOR GENERATOR S R L	Vehicle for distributed electric charging of electric car batteries and related management system
<a href="#">WO 2021094595 A1</a>	EVBOX INTELLIGENCE B V	Charge cable management system and method for retracting a charge cable
<a href="#">WO 2021116155 A1</a>	LEONI KABEL GMBH	Device and method for determining a temperature distribution of a sensor line
<a href="#">WO 2021126865 A1</a>	ENVISION SOLAR INT INC	Self-contained renewable inductive battery charger
<a href="#">WO 2021116280 A1</a>	ELECTRICITE DE FRANCE	Evaluation of the maximum real range of an electric vehicle
<a href="#">WO 2021089309 A1</a>	CONTITECH ANTRIEBSSYSTEME GMBH	System for generating a charging voltage for charging a battery of a vehicle
<a href="#">WO 2021094618 A1</a>	WEBASTO SE	Method and system for charging a battery of an electric vehicle
<a href="#">WO 2021080447 A1</a>	ELISEEV LEONID LEONIDOVICH	The method of parking and charging the vehicle
<a href="#">WO 2021074195 A1</a>	VITESCO TECH GMBH	Method for electrically charging vehicle batteries for a group of vehicles
<a href="#">WO 2021075233 A1</a>	DENSO CORP	Charging device
<a href="#">WO 2021075592 A1</a>	KIM SEONG DOO	Charging device
<a href="#">WO 2021089421 A1</a>	DRAEXLMAIER LISA GMBH	Method and device for charging an electrically driven vehicle
<a href="#">WO 2021074661 A1</a>	ZHU HUIBIN	Multibridge power converter with multiple outputs
<a href="#">WO 2021091190 A1</a>	KERI KOREA ELECTROTECHNOLOGY RES INST	Charging apparatus using ESS apparatus
<a href="#">WO 2021100112 A1</a>	TSUTSUMI HYDROGEN LABORATORY INC	DC power supply system
<a href="#">WO 2021094010 A1</a>	SEM AB	Battery assembly with controllable voltage and method related thereto

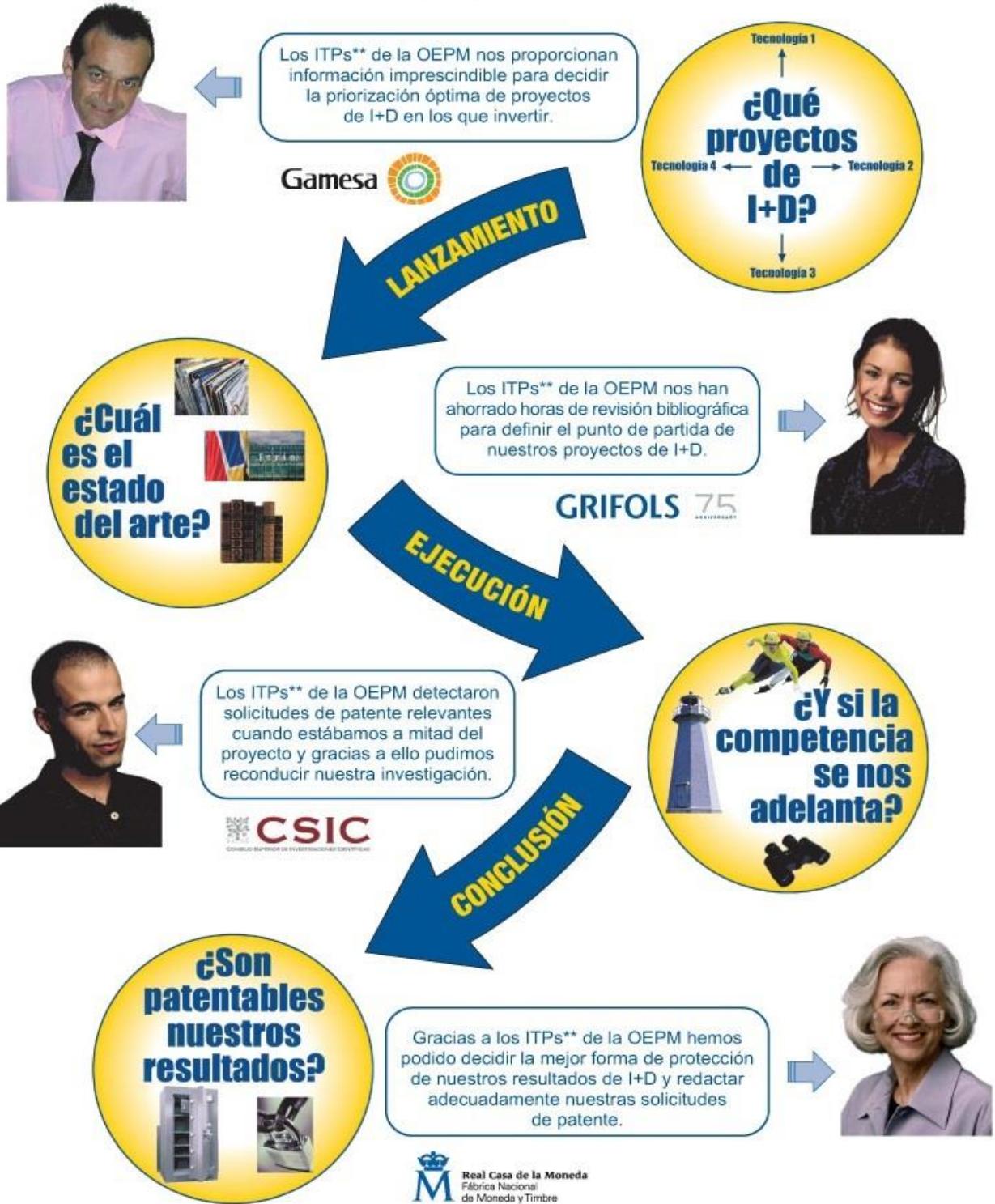
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## CAMBIO DE BATERÍAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2021129879 A1</a>	AULTON NEW ENERGY AUTOM TECH GROUP	Charging unit for quick-swapping battery of electric vehicle, electric vehicle battery swapping station, and energy storage station
<a href="#">WO 2021129875 A1</a>	AULTON NEW ENERGY AUTOM TECH GROUP	Charging unit temperature adjustment system, charging case, swapping station, and energy storage station
<a href="#">WO 2021094165 A1</a>	DUROS BENJAMIN	Vehicle for road traffic with an exchangeable replacement traction battery
<a href="#">WO 2021061060 A1</a>	T C PIRI REIS UNIV	A battery swap station
<a href="#">WO 2021095359 A1</a>	PANASONIC IP MAN CO LTD	Battery management system and battery management method
<a href="#">WO 2021071412 A1</a>	CORFITSEN STEN	Electric vehicle with modular battery system

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