

# Boletín VT

## COCHE ELÉCTRICO

3<sup>er</sup> trimestre 2021

47

### Vigilancia Tecnológica

#### Noticias

En el Consejo de Ministros que tuvo lugar el 13 de julio del 2021, se declaró como [Proyecto Estratégico para la Recuperación y Transformación Económica \(PERTE\)](#), el desarrollo de un ecosistema para la fabricación del Vehículo Eléctrico y Conectado.

El desarrollo de este proyecto prevé una inversión total de más de 24.000 millones de euros en el periodo 2021-2023, con una contribución del sector público de 4.300 millones de euros, que en su mayoría provendrá de los fondos europeos Next Generation, y una inversión privada de 19.700 millones de euros.

La creación de empleo generada por el PERTE podría alcanzar los 140.000 puestos de trabajo y la contribución al PIB se situaría entre el 1% y el 1,7%. Otros impactos esperados serían alcanzar en 2023 los 250.000 vehículos eléctricos matriculados y entre 80.000 y 110.000 puntos de recarga desplegados.

El PERTE se compondrá de dos ámbitos de actuación complementaria:

1.-Medidas transformadoras de impulso de la cadena de valor del vehículo eléctrico y conectado, como actuaciones integrales de la cadena industrial del vehículo eléctrico, un plan tecnológico de automoción sostenible, un programa de espacios de datos sectoriales y un programa para integrar la inteligencia artificial en procesos productivos.

2.- Medidas facilitadoras, como el Plan Moves III, el Moves singulares, la ley de Cambio Climático, la regulación de servicios de recarga de vehículos eléctricos, la hoja de ruta del 5G y su despliegue, y un plan de formación profesional.

La estructura del PERTE cuenta con bloques obligatorios como la fabricación de equipos originales y ensamblaje, la fabricación de baterías y equipos de hidrógeno, y la fabricación de otros componentes del vehículo eléctrico. Además, habrá otras actuaciones específicas que incluyan conectividad, microprocesadores, componentes del vehículo eléctrico inteligente, y fabricación de sistemas de recarga. También hay procesos transversales relacionados con la economía circular, la digitalización y la formación de trabajadores.

Para el desarrollo del PERTE y su actuación integral sobre toda la cadena de valor se debe constituir una agrupación de empresas con al menos, cinco empresas, que afecte al menos a dos comunidades autónomas (CCAA), que el 40% de las empresas sean pymes, que haya una entidad proveedora de conocimiento (I+D+i) y las empresas acrediten inversión propia y compromiso con el empleo.

Está prevista la creación de una Alianza para el Vehículo Eléctrico y Conectado para contar con la participación de todos los actores relevantes y garantizar un dialogo permanente y donde estarán representados los ministerios implicados y la mesa de automoción donde están presentes las asociaciones representativas del sector de la automoción, los sindicatos y las CCAA.

El Ministerio para la Transición Ecológica y Reto Demográfico, aprobó el 23 de julio la Orden TED/800/2021, por la que se aprueban las bases reguladoras del Programa de incentivos a proyectos singulares en movilidad eléctrica ([Programa MOVES Proyectos Singulares II](#)), dotado con 100 millones de euros y dirigido a la selección y concesión, en régimen de

conurrencia competitiva, de ayudas correspondientes a proyectos singulares y proyectos relativos a desarrollos experimentales e innovadores, llevados a cabo en el territorio nacional, relacionados con el vehículo eléctrico.

La Junta de Gobierno del Ayuntamiento de Madrid aprobó el 29 de julio de 2021, abrir la línea de ayudas del [plan Cambia 360 para instalar infraestructuras de recarga eléctrica](#).

Las ayudas dirigidas a empresas y profesionales autónomos contemplan un 70% del coste subvencionable, y para aparcamientos de uso privado, la cobertura llega hasta el 75% del gasto.

El límite de las ayudas es de 150.000 euros por destinatario y convocatoria.

El plazo de solicitud termina el 26 de noviembre y da cobertura a todas las instalaciones realizadas desde el 1 de enero de 2021.

Esta línea de ayudas será complementaria y compatible con las subvenciones para la renovación de vehículos particulares que se habilitará a principios de septiembre.

El 9 de septiembre de 2021, el Ayuntamiento de Madrid informó del Plan de [ayudas Cambia 360 para para los madrileños que renuevan su vehículo por otro menos contaminante](#).

El Ayuntamiento habilita 5,5 millones de euros en ayudas.

Se podrán percibir 6.000 euros por la adquisición de un vehículo nuevo CERO emisiones y 3.000 por uno ECO, cantidades que se incrementarían en 2.500 euros adicionales si se achatarra un vehículo sin distintivo ambiental.

Para la compra de vehículos C se podrán percibir 2.500 euros siempre que se entregue un vehículo "A" para achatarrar.

Para poder solicitar estas ayudas se establece como requisito obligatorio estar empadronado en Madrid y pagar el IVTM en la capital.

Estas ayudas se podrán solicitar en los concesionarios adheridos a Cambia 360 desde principios de octubre y se dispone de un mes para poder optar a esta convocatoria.

NIPO: 116-19-009-9

## [BOLETINES OEPM](#)



## 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 2021131240 A1</a>	PANASONIC IP MAN CO LTD	Non-aqueous electrolyte secondary battery
<a href="#">WO 2021133119 A1</a>	IUCF HYU	Fluorine-containing positive electrode active material for lithium secondary battery, and lithium secondary battery including same
<a href="#">WO 2021137642 A1</a>	LG ENERGY SOLUTION LTD	Battery management device and method
<a href="#">WO 2021145493 A1</a>	L&F CO LTD	Precursor particle for producing positive electrode active material comprising coating layer
<a href="#">WO 2021145647 A1</a>	LG ENERGY SOLUTION LTD	Method for preparing cathode active material for secondary battery
<a href="#">WO 2021149460 A1</a>	TDK CORP	Lithium ion secondary battery
<a href="#">WO 2021149903 A1</a>	LG ENERGY SOLUTION LTD	Battery module
<a href="#">WO 2021149467 A1</a>	PANASONIC IP MAN CO LTD	Authentication method for power storage pack, power storage pack, charging device, electric moving body, and control device for electric moving body
<a href="#">WO 2021154039 A1</a>	LG CHEMICAL LTD	Binder composition for negative electrode, negative electrode comprising same, and secondary lithium battery comprising same
<a href="#">WO 2021155499 A1</a>	DAR YUN ENERGY SCIENCE TECH CO LTD	Power supply battery for electric vehicle
<a href="#">WO 2021165403 A1</a>	VITO NV	Method for applying a functional compound on sulphur particles
<a href="#">WO 2021165649 A1</a>	DYSON TECHNOLOGY LTD	Reconfigurable battery pack
<a href="#">WO 2021192966 A1</a>	MITSUI MINING & SMELTING CO	Active material, electrode mixture containing said active material, and battery
<a href="#">WO 2021193096 A1</a>	SUMITOMO METAL MINING CO	Alloy treatment method
<a href="#">WO 2021131813 A1</a>	SHOWA DENKO KK	Copolymer for electrode binder, electrode binder resin composition, and electrode for non-aqueous secondary battery
<a href="#">WO 2021130920 A1</a>	EVERGRANDE NEOENERGY R&D INST JAPAN CO LTD	Power storage device, and sheet-form solid electrolyte for power storage device
<a href="#">WO 2021132500 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021145181 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Battery monitoring device
<a href="#">WO 2021149298 A1</a>	SANYO ELECTRIC CO	Power supply device, electric vehicle provided with power supply device, and power storage device
<a href="#">WO 2021151576 A1</a>	BAYERISCHE MOTOREN WERKE AG	Battery module for a traction battery, traction battery and motor vehicle
<a href="#">WO 2021163500 A1</a>	SENSATA TECHNOLOGIES INC	Communication in a wireless battery management system for a battery pack structure
<a href="#">WO 2021163827 A1</a>	DOW SILICONES CORP	Elastomeric silicone materials and their applications
<a href="#">WO 2021164595 A1</a>	BYD CO LTD	Battery case, battery, battery pack, battery module, and vehicle
<a href="#">WO 2021167544 A1</a>	MERTECH ELEKTRONIK ARGE SANAYI VE TICARET ANONIM	A battery management system
<a href="#">WO 2021192401 A1</a>	MURATA MANUFACTURING CO	Secondary battery
<a href="#">WO 2021132208 A1</a>	GS YUASA INT LTD	Electricity storage element
<a href="#">WO 2021137453 A1</a>	SK INNOVATION CO LTD	Fluidized bed reactor and method for recovering active metal from lithium secondary battery thereby
<a href="#">WO 2021141460 A1</a>	LG ENERGY SOLUTION LTD	Artificial graphite, method for preparing artificial graphite, anode comprising same, and lithium secondary battery
<a href="#">WO 2021140169 A1</a>	SOLVAY	Electrochemical device having at least one gelled electrode
<a href="#">WO 2021150847 A1</a>	CPS TECH HOLDINGS LLC	Cell swelling restraint with heat staked fixation

<a href="#">WO 2021154026 A1</a>	LG CHEMICAL LTD	Positive electrode active material precursor for secondary battery, positive electrode active material, and lithium secondary battery including same
<a href="#">WO 2021156034 A1</a>	BELENOS CLEAN POWER HOLDING AG	Thermal energy recovery and regulation device for an electric vehicle with an electrochemical generator with an hvac system
<a href="#">WO 2021164594 A1</a>	BYD CO LTD	Battery sequence, battery pack and vehicle
<a href="#">WO 2021192569 A1</a>	PANASONIC IP MAN CO LTD	Vehicle, heat exchanger plate and battery pack
<a href="#">WO 2021130523 A1</a>	ARCELORMITTAL	Protective element for a battery pack of a hybrid or electric vehicle and process for the assembling of a reinforced battery pack
<a href="#">WO 2021132848 A1</a>	LG ENERGY SOLUTION LTD	Apparatus and method for manufacturing electrode for secondary battery using laser, and electrode for secondary battery manufactured thereby
<a href="#">WO 2021143544 A1</a>	UNIV XIAMEN	Modified ceramic-coated separator, preparation method therefor and application thereof
<a href="#">WO 2021145204 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Battery management system
<a href="#">WO 2021153594 A1</a>	SUMITOMO CHEMICAL CO	Laminate
<a href="#">WO 2021153733 A1</a>	MITSUBISHI CHEM CORP	Non-aqueous electrolyte secondary battery and method for producing same
<a href="#">WO 2021152627 A1</a>	EXICOM TELE SYSTEMS LTD	System for balancing plurality of cells within battery pack and method thereof
<a href="#">WO 2021155906 A1</a>	VOLVO PENTA CORP	Vehicular energy storage module, battery pack and vehicle
<a href="#">WO 2021157647 A1</a>	APB CORP	Electrode for lithium-ion battery, and lithium-ion battery
<a href="#">WO 2021164568 A1</a>	BYD CO LTD	Battery pack and vehicle
<a href="#">WO 2021166662 A1</a>	FDK CORP	Nickel electrode for alkaline secondary cell and alkaline secondary cell including this nickel electrode
<a href="#">WO 2021193500 A1</a>	GS YUASA INT LTD	Positive electrode for energy storage element and energy storage element
<a href="#">WO 2021132512 A1</a>	SUMITOMO METAL MINING CO	Positive electrode active material for all solid-state lithium ion secondary battery, manufacturing method therefor, and all solid-state lithium ion secondary battery
<a href="#">WO 2021127997 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Secondary battery and device comprising the secondary battery
<a href="#">WO 2021140748 A1</a>	PANASONIC IP MAN CO LTD	Roll press device and control device
<a href="#">WO 2021144758 A1</a>	3M INNOVATIVE PROPERTIES CO	Thermal runaway barrier for a rechargeable electrical energy storage system
<a href="#">WO 2021149994 A1</a>	LG ENERGY SOLUTION LTD	Novel method for producing secondary battery
<a href="#">WO 2021152778 A1</a>	SHOWA DENKO MAT CO LTD	Negative-electrode material for lithium-ion secondary cell, method for manufacturing same, negative electrode for lithium-ion secondary cell, and lithium-ion secondary cell
<a href="#">WO 2021154021 A1</a>	LG CHEMICAL LTD	Positive electrode active material precursor for secondary battery, positive electrode active material, and lithium secondary battery comprising same
<a href="#">WO 2021159209 A1</a>	HYDRO QUEBEC	Surface-modified electrodes, preparation methods and uses in electrochemical cells
<a href="#">WO 2021166427 A1</a>	DENSO CORP	Battery module
<a href="#">WO 2021167433 A1</a>	IUCF HYU ERICA CAMPUS	Secondary battery having bending structure and method for manufacturing same
<a href="#">WO 2021185990 A1</a>	VALEO SYSTEMES THERMIQUES	Temperature control device
<a href="#">WO 2021192817 A1</a>	HONDA MOTOR CO LTD	Server, system and control method
<a href="#">WO 2021193590 A1</a>	MURATA MANUFACTURING CO	Electric power storage device, electrically powered vehicle, and electric power system
<a href="#">WO 2021133027 A1</a>	LG ENERGY SOLUTION LTD	Binder composition for anode, anode, and secondary battery
<a href="#">WO 2021133898 A1</a>	URBAN ELECTRIC POWER INC	Dual electrolyte approach to increase energy density of metal-based batteries
<a href="#">WO 2021141068 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Power path switching device for vehicle
<a href="#">WO 2021141463 A1</a>	LG CHEMICAL LTD	Method for preparing cathode active material for lithium secondary battery, cathode for lithium secondary battery, comprising cathode active material prepared by preparation method, and lithium secondary battery
<a href="#">WO 2021145271 A1</a>	GS YUASA INT LTD	Electrical storage device

<a href="#">WO 2021145592 A1</a>	LG CHEMICAL LTD	Pouch-type battery pack having folding structure, and manufacturing method therefor
<a href="#">WO 2021149555 A1</a>	MURATA MANUFACTURING CO	Secondary battery, electronic device, and electric tool
<a href="#">WO 2021153110 A1</a>	TORAY INDUSTRIES	Positive electrode active substance for lithium ion secondary battery and lithium ion secondary battery
<a href="#">WO 2021164559 A1</a>	BYD CO LTD	Battery, battery module, battery pack, and electric vehicle
<a href="#">WO 2021165490 A1</a>	WEBASTO SE	Battery module for constructing a battery system for a vehicle
<a href="#">WO 2021192620 A1</a>	SEKISUI CHEMICAL CO LTD	Battery box for electric automobiles
<a href="#">WO 2021130471 A1</a>	DYSON TECHNOLOGY LTD	A battery cell with internal swelling relief and external cooling features
<a href="#">WO 2021131184 A1</a>	VEHICLE ENERGY JAPAN INC	Battery control device and battery system
<a href="#">WO 2021141323 A1</a>	LG CHEMICAL LTD	Apparatus and method for detecting damage to battery pack case
<a href="#">WO 2021144718 A1</a>	3M INNOVATIVE PROPERTIES CO	Rapid venting of electrochemical cell packs
<a href="#">WO 2021145248 A1</a>	mitsubishi gas chemical co	Method for producing sulfide solid electrolyte including sn
<a href="#">WO 2021149541 A1</a>	MURATA MANUFACTURING CO	Secondary battery
<a href="#">WO 2021149554 A1</a>	MURATA MANUFACTURING CO	Secondary battery, electronic device, and electric tool
<a href="#">WO 2021153987 A1</a>	LG ENERGY SOLUTION LTD	Negative electrode active material, negative electrode comprising same, and secondary battery comprising same
<a href="#">WO 2021153376 A1</a>	ZEON CORP	Binder particles for all-solid-state battery, composition for all-solid-state battery, functional layer for all-solid-state battery, and all-solid-state battery
<a href="#">WO 2021155503 A1</a>	NINGDE AMPEREX TECHNOLOGY LTD	Negative electrode piece, electrode assembly, battery, and electronic device
<a href="#">WO 2021192394 A1</a>	HITACHI LTD	Secondary battery device, and control method for secondary battery
<a href="#">WO 2021192847 A1</a>	HONDA MOTOR CO LTD	Battery system
<a href="#">WO 2021132504 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021140899 A1</a>	NIPPON CATALYTIC CHEM IND	Composition, slurry, method for producing electrode, and alkaline secondary battery
<a href="#">WO 2021144660 A1</a>	SEMICONDUCTOR ENERGY LAB	Positive electrode active material, secondary battery, electronic device, and vehicle
<a href="#">WO 2021149468 A1</a>	PANASONIC IP MAN CO LTD	Energy storage pack authentication method, energy storage pack, charging device, electric mobile object, and control device for electric mobile object
<a href="#">WO 2021152381 A1</a>	UNIV KING ABDULLAH SCI & TECH	Nitrogen-doped carbonaceous anode for metal ion battery and method of making
<a href="#">WO 2021152417 A1</a>	SEMICONDUCTOR ENERGY LAB	Positive electrode active material, secondary battery, and electronic device
<a href="#">WO 2021157460 A1</a>	DAINIPPON INK & CHEMICALS	Low oxygen-type silicon nanoparticle-containing slurry, negative electrode active material, negative electrode and lithium ion secondary battery
<a href="#">WO 2021161787 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Battery connection system
<a href="#">WO 2021192428 A1</a>	HITACHI ASTEMO LTD	Battery monitoring device
<a href="#">WO 2021191921 A1</a>	TVS MOTOR CO LTD	Battery case structure
<a href="#">WO 2021145297 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Battery control device
<a href="#">WO 2021145059 A1</a>	MURATA MANUFACTURING CO	Secondary battery
<a href="#">WO 2021150772 A1</a>	CONAMIX INC	Salt additives for secondary sulfur batteries
<a href="#">WO 2021152998 A1</a>	PANASONIC IP MAN CO LTD	Negative electrode active material for aqueous secondary battery, negative electrode for aqueous secondary battery, and aqueous secondary battery
<a href="#">WO 2021157383 A1</a>	SANYO ELECTRIC CO	Secondary battery
<a href="#">WO 2021157741 A1</a>	APB CORP	Lithium ion battery system and battery state estimation system
<a href="#">WO 2021192645 A1</a>	PANASONIC IP MAN CO LTD	Lithium secondary battery
<a href="#">WO 2021193023 A1</a>	DKS CO LTD	Lithium ion secondary battery
<a href="#">WO 2021131257 A1</a>	PANASONIC IP MAN CO LTD	Negative electrode active material for secondary batteries, and secondary battery

<a href="#">WO 2021127999 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Secondary battery and apparatus containing secondary battery
<a href="#">WO 2021132581 A1</a>	SHOWA DENKO KK	Lithium ion-conductive oxide and use for same
<a href="#">WO 2021159955 A1</a>	NINGBO GEELY AUTOMOBILE RES & DEVELOPMENT CO LTD	A vehicle control system for optimizing energy consumption
<a href="#">WO 2021166465 A1</a>	PANASONIC IP MAN CO LTD	Calculation system, battery characteristic estimation method, and battery characteristic estimation program
<a href="#">WO 2021191615 A1</a>	JOHNSON MATTHEY PLC	Cathode material and process
<a href="#">WO 2021131482 A1</a>	MURATA MANUFACTURING CO	Secondary battery, electronic device, and electric tool
<a href="#">WO 2021145317 A1</a>	VALEO JAPAN CO LTD	Cooling heat exchanger
<a href="#">WO 2021145060 A1</a>	MURATA MANUFACTURING CO	Negative electrode for secondary batteries, and secondary battery
<a href="#">WO 2021145360 A1</a>	PANASONIC IP CORP AMERICA	Battery data management method, battery data management system, and program
<a href="#">WO 2021149539 A1</a>	SANYO ELECTRIC CO	Nonaqueous electrolyte secondary battery
<a href="#">WO 2021149488 A1</a>	PANASONIC IP MAN CO LTD	Power storage pack authentication method, power storage pack, charging device, electric mobile body, and electric mobile body control device
<a href="#">WO 2021154035 A1</a>	LG ENERGY SOLUTION LTD	Cathode active material for lithium secondary battery and method for producing same
<a href="#">WO 2021152999 A1</a>	PANASONIC IP MAN CO LTD	Negative electrode active material for aqueous secondary batteries, negative electrode for aqueous secondary batteries, and aqueous secondary battery
<a href="#">WO 2021153546 A1</a>	NICHIA CORP	Positive electrode active material for non-aqueous electrolyte secondary battery, and method for producing same
<a href="#">WO 2021157459 A1</a>	DAINIPPON INK & CHEMICALS	Secondary-battery negative-electrode active material, negative electrode, and secondary battery
<a href="#">WO 2021155877 A1</a>	KUFFERATH GEB GKD	Arrangement consisting of a battery and a cooling system, comprising a filler element for heat transfer from the battery to the cooling system
<a href="#">WO 2021159996 A1</a>	BYD CO LTD	Battery, battery module, battery pack, and electric vehicle
<a href="#">WO 2021159994 A1</a>	BYD CO LTD	Battery, battery module, battery pack and electric vehicle
<a href="#">WO 2021167247 A1</a>	LG ENERGY SOLUTION LTD	Battery apparatus and current sensor diagnosis method
<a href="#">WO 2021166812 A1</a>	JFE CHEMICAL CORP	Spheroidized graphite, coated spheroidized graphite, negative electrode for lithium-ion secondary battery, and lithium secondary battery
<a href="#">WO 2021195524 A1</a>	UNIV TEXAS	Low-cobalt and cobalt-free, high-energy cathode materials for lithium batteries
<a href="#">WO 2021191083 A1</a>	ELRINGKLINGER AG	Electrochemical cell and method for producing an electrochemical cell
<a href="#">WO 2021193095 A1</a>	SUMITOMO METAL MINING CO	Method for treating alloy
<a href="#">WO 2021132308 A1</a>	TORAY INDUSTRIES	Solid electrolyte, electrode, battery, capacitor and method for producing solid electrolyte
<a href="#">WO 2021130646 A1</a>	SEMICONDUCTOR ENERGY LAB	Method for producing electrode slurry, method for producing electrode, method for producing positive electrode, electrode for secondary battery, and positive electrode for secondary battery
<a href="#">WO 2021149774 A1</a>	DENSO CORP	Battery measurement device
<a href="#">WO 2021149299 A1</a>	SANYO ELECTRIC CO	Power supply device, and electric vehicle and power storage device equipped with this power supply device
<a href="#">WO 2021153593 A1</a>	SUMITOMO CHEMICAL CO	Solid electrolyte-containing layer
<a href="#">WO 2021154029 A1</a>	LG ENERGY SOLUTION LTD	Method for producing positive electrode active material for lithium secondary battery, and positive electrode active material for lithium secondary battery produced thereby
<a href="#">WO 2021162042 A1</a>	MURATA MANUFACTURING CO	Solid battery
<a href="#">WO 2021192402 A1</a>	MURATA MANUFACTURING CO	Secondary battery
<a href="#">WO 2021137635 A1</a>	LG ENERGY SOLUTION LTD	Positive electrode for lithium secondary battery and lithium secondary battery comprising same
<a href="#">WO 2021140747 A1</a>	PANASONIC IP MAN CO LTD	Roll press device, and control device
<a href="#">WO 2021142743 A1</a>	MICROVAST POWER SYSTEMS CO LTD	Battery pack and electric vehicle

<a href="#">WO 2021150901 A1</a>	UNIV CITY NEW YORK RES FOUND	Battery for achieving high cycle life and zinc utilization in secondary zinc anodes using electrocoagulants
<a href="#">WO 2021153191 A1</a>	MURATA MANUFACTURING CO	Battery pack and power tool
<a href="#">WO 2021153972 A1</a>	LG CHEMICAL LTD	Hollow particles, preparation method therefor, and heat-radiating fluid composition comprising same
<a href="#">WO 2021167345 A1</a>	SK INNOVATION CO LTD	Fluidized bed reactor and method for recovering active metal of lithium secondary battery using same
<a href="#">WO 2021167434 A1</a>	IUCF HYU ERICA CAMPUS	Metal negative electrode, secondary battery comprising same, and method for producing same
<a href="#">WO 2021193205 A1</a>	mitsui CHEMICALS INC	Self-extinguishable film for lithium ion battery, method for producing same, and lithium ion battery
<a href="#">WO 2021191733 A1</a>	SEMICONDUCTOR ENERGY LAB	Secondary cell, electronic equipment, vehicle, and method for producing secondary cell
<a href="#">WO 2021191611 A1</a>	JOHNSON MATTHEY PLC	Cathode material and process
<a href="#">WO 2021191281 A1</a>	ACCUMULATEURS FIXES	Improved current collector for a battery
<a href="#">WO 2021141376 A1</a>	LG CHEMICAL LTD	Pre-dispersing agent composition, and electrode and secondary battery comprising same
<a href="#">WO 2021141322 A1</a>	LG CHEMICAL LTD	Battery pack formed by laminating cells using flexible printed circuit board (fpcb)
<a href="#">WO 2021144098 A1</a>	BAYERISCHE MOTOREN WERKE AG	Housing cover for a battery housing with particle protection and heat protection, battery housing, traction battery and motor vehicle
<a href="#">WO 2021162128 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021183493 A1</a>	ROGERS CORP	Thermal management multilayer sheet for a battery
<a href="#">WO 2021191923 A1</a>	TVS MOTOR CO LTD	A battery module
<a href="#">WO 2021133075 A1</a>	JEJU NATIONAL UNIV INDUSTRYACADEMIC COOPERTATION FOUNDATION	Electric vehicle battery thermal management control apparatus using variable flow rate, and method for same
<a href="#">WO 2021145593 A1</a>	LG CHEMICAL LTD	Battery pack having bmu component damage prevention structure
<a href="#">WO 2021149975 A1</a>	LG ENERGY SOLUTION LTD	Battery pack having improved vibration resistance
<a href="#">WO 2021149644 A1</a>	MURATA MANUFACTURING CO	Secondary battery and manufacturing method for same
<a href="#">WO 2021148835 A1</a>	TOYOTA MOTOR EUROPE	Rechargeable non-aqueous lithium-air battery cell comprising a solid organic catalyst
<a href="#">WO 2021150110 A1</a>	ETERGO B V	Battery system and battery management method
<a href="#">WO 2021156553 A1</a>	PSA AUTOMOBILES SA	Method for pulse charging in voltage control mode with steps of variable amplitude
<a href="#">WO 2021156867 A1</a>	UNIV BAR ILAN	Method for production of Lix Siy Oz coatings using a single source for Li and Si and resultant coated products
<a href="#">WO 2021157075 A1</a>	HONDA MOTOR CO LTD	Charge/discharge control system, method for controlling charge/discharge control system, and program
<a href="#">WO 2021157091 A1</a>	AWA PAPER & TECH COMPANY INC	Heat-radiating sheet and heat-radiating device using same
<a href="#">WO 2021163576 A1</a>	SENSATA TECHNOLOGIES INC	Adaptive multipath control within an electric vehicle battery pack
<a href="#">WO 2021192667 A1</a>	SANYO ELECTRIC CO	Electrode body for secondary batteries
<a href="#">WO 2021130522 A1</a>	ARCELORMITTAL	Reinforced carrier device for a battery pack and process for the assembling of a reinforced battery pack
<a href="#">WO 2021132420 A1</a>	HONDA MOTOR CO LTD	Power apparatus and method for controlling same
<a href="#">WO 2021132582 A1</a>	SHOWA DENKO KK	Lithium-ion-conductive oxide sintered body and use thereof
<a href="#">WO 2021141784 A1</a>	A123 SYSTEMS LLC	Electrolyte compositions for lithium ion batteries
<a href="#">WO 2021141325 A1</a>	LG ENERGY SOLUTION LTD	Battery pack comprising hv wire assembly, and method for manufacturing battery pack
<a href="#">WO 2021145312 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021145273 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021157602 A1</a>	APB CORP	Lithium ion battery positive electrode and production method therefor
<a href="#">WO 2021157821 A1</a>	LG ENERGY SOLUTION LTD	Method for detecting lithium plating, and method and device for managing battery by using same
<a href="#">WO 2021163826 A1</a>	DOW SILICONES CORP	Elastomeric silicone materials and applications thereof
<a href="#">WO 2021166755 A1</a>	SUMITOMO METAL MINING CO	Method for treating alloy

<a href="#">WO 2021166663 A1</a>	TOYOTA JIDOSHOKKI KK	Lithium ion secondary battery
<a href="#">WO 2021193826 A1</a>	FUJIFILM CORP	Inorganic-solid-electrolyte-containing composition, all-solid-state secondary battery sheet, all-solid-state secondary battery, and method for manufacturing all-solid-state secondary battery sheet and all solid-state secondary battery
<a href="#">WO 2021128002 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Secondary battery and device comprising secondary battery
<a href="#">WO 2021128000 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Secondary battery and device containing secondary battery
<a href="#">WO 2021135921 A1</a>	SHENZHEN CAPCHEM TECHNOLOGY CO LTD	Lithium ion battery
<a href="#">WO 2021138370 A1</a>	UNIV LELAND STANFORD JUNIOR	High safety and high capacity lithium metal batteries in ionic liquid electrolyte with a sodium additive
<a href="#">WO 2021136013 A1</a>	LEADWAY NEW ENERGY TECH SUQIAN CO LTD	Electrode plates of bipolar battery and bipolar battery comprising the electrode plates
<a href="#">WO 2021145633 A1</a>	LG ENERGY SOLUTION LTD	Positive electrode active material for lithium secondary battery, method for producing same, and lithium secondary battery comprising same
<a href="#">WO 2021153938 A1</a>	SK INNOVATION CO LTD	Battery module
<a href="#">WO 2021152428 A1</a>	SEMICONDUCTOR ENERGY LAB	Secondary battery, mobile information terminal, vehicle, and positive electrode active material production method
<a href="#">WO 2021153044 A1</a>	MURATA MANUFACTURING CO	Secondary-battery positive electrode active material, secondary-battery positive electrode, and secondary battery
<a href="#">WO 2021157074 A1</a>	HONDA MOTOR CO LTD	Charger/discharger, and method and program for controlling charger/discharger
<a href="#">WO 2021157120 A1</a>	VEHICLE ENERGY JAPAN INC	Battery management device, battery management method, and electric power storage system
<a href="#">WO 2021159995 A1</a>	BYD CO LTD	Battery, battery module, battery pack and electric vehicle
<a href="#">WO 2021192403 A1</a>	MURATA MANUFACTURING CO	Secondary battery
<a href="#">WO 2021192406 A1</a>	MURATA MANUFACTURING CO	Secondary battery
<a href="#">WO 2021192453 A1</a>	HITACHI LTD	Negative electrode material for lithium ion secondary batteries
<a href="#">WO 2021193044 A1</a>	MURATA MANUFACTURING CO	Secondary battery, electronic device, and electric tool
<a href="#">WO 2021193662 A1</a>	TOSOH CORP	Composite active material for lithium secondary battery, electrode composition for lithium secondary battery, lithium secondary battery electrode, and method for manufacturing composite active material for lithium secondary battery
<a href="#">WO 2021195450 A1</a>	ZETA ENERGY LLC	Sulfurized-carbon cathode with conductive carbon framework
<a href="#">WO 2021171778 A1</a>	PANASONIC IP MAN CO LTD	Coating apparatus
<a href="#">WO 2021179220 A1</a>	NINGDE AMPEREX TECHNOLOGY LTD	Anode pole piece, battery using same, and electronic device
<a href="#">WO 2021182452 A1</a>	DOWA ECO SYSTEM CO LTD	Method for recovering lithium and method for processing lithium ion secondary battery
<a href="#">WO 2021172857 A1</a>	LG ENERGY SOLUTION LTD	Method for manufacturing secondary battery
<a href="#">WO 2021181383 A1</a>	SPARKION POWER ALGORITHMS LTD	Switch systems for rechargeable battery arrays
<a href="#">WO 2021181997 A1</a>	SASAKURA ENG CO LTD	Cobalt collection method
<a href="#">WO 2021182451 A1</a>	DOWA ECO SYSTEM CO LTD	Method for recovering valuable substance
<a href="#">WO 2021182561 A1</a>	MAXELL HOLDINGS LTD	Electrode for all-solid battery, and all-solid battery
<a href="#">WO 2021187963 A1</a>	LG CHEMICAL LTD	Method for preparing cathode active material precursor for lithium secondary battery, cathode active material precursor, cathode active material prepared using same, cathode, and lithium secondary battery
<a href="#">WO 2021177776 A1</a>	LG ENERGY SOLUTION LTD	Novel method for manufacturing secondary battery
<a href="#">WO 2021177561 A1</a>	SAMSUNG SDI CO LTD	Secondary battery
<a href="#">WO 2021176961 A1</a>	SANYO ELECTRIC CO	Secondary battery
<a href="#">WO 2021189425 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Secondary cell, and device comprising secondary cell
<a href="#">WO 2021182162 A1</a>	MTEK SMART CORP	Secondary battery manufacturing method or secondary battery

<a href="#">WO 2021179219 A1</a>	NINGDE AMPEREX TECHNOLOGY LTD	Anode plate and manufacturing method therefor, battery using anode plate, and electronic apparatus
<a href="#">WO 2021194212 A1</a>	LG CHEMICAL LTD	Method for manufacturing positive electrode active material
<a href="#">WO 2021170857 A1</a>	COGNITION ENERGY LTD	Battery architecture
<a href="#">WO 2021172308 A1</a>	NISSAN CHEMICAL CORP	Thin film forming composition for energy storage device electrodes
<a href="#">WO 2021185070 A1</a>	GUANGZHOU AUTOMOBILE GROUP CO	Method and apparatus for preventing battery thermal runaway, and battery system
<a href="#">WO 2021189450 A1</a>	NINGDE AMPEREX TECHNOLOGY LTD	Electrochemical device and electronic apparatus comprising same
<a href="#">WO 2021177134 A1</a>	UNIV OF SCIENCE TOKYO	Binder for positive electrode of lithium-ion battery, slurry for forming positive-electrode mix layer of lithium-ion battery, positive electrode for lithium-ion battery, and lithium-ion battery
<a href="#">WO 2021182488 A1</a>	GS YUASA INT LTD	Electricity storage element
<a href="#">WO 2021189381 A1</a>	NINGDE AMPEREX TECHNOLOGY LTD	Method for improving battery cycle performance and electronic device
<a href="#">WO 2021189459 A1</a>	NINGDE AMPEREX TECHNOLOGY LTD	Electrochemical device and electronic device comprising electrochemical device
<a href="#">WO 2021177761 A1</a>	LG ENERGY SOLUTION LTD	Battery rack and energy storage device comprising battery rack
<a href="#">WO 2021181563 A1</a>	TOSHIBA KK	Connection lead and battery
<a href="#">WO 2021194149 A1</a>	UNIV DONG A RES FOUND FOR IND ACAD COOP	Method for manufacturing porous silicon and secondary battery anode active material containing same
<a href="#">WO 2021151428 A1</a>	UNIV DRESDEN TECH	Bismuth ion accumulator
<a href="#">WO 2021171334 A1</a>	TOSHIBA KK	Connection lead and battery
<a href="#">WO 2021182415 A1</a>	MURATA MANUFACTURING CO	All-solid battery module and electronic apparatus
<a href="#">WO 2021182624 A1</a>	DAINIPPON PRINTING CO LTD	Outer package material for all-solid-state batteries, method for manufacturing same, and all-solid-state battery
<a href="#">WO 2021189380 A1</a>	NINGDE AMPEREX TECHNOLOGY LTD	Electrochemical device and electronic device
<a href="#">WO 2021173269 A1</a>	GENTHERM GMBH	Flex foil substrate connector for sensing battery voltage and temperature
<a href="#">WO 2021177200 A1</a>	DOWA ECO SYSTEM CO LTD	Method for concentrating valuable metal contained in lithium ion secondary battery
<a href="#">WO 2021189454 A1</a>	NINGDE AMPEREX TECHNOLOGY LTD	Electrode assembly, and electrochemical device and electronic device having same
<a href="#">WO 2021194205 A1</a>	LG ENERGY SOLUTION LTD	Method for manufacturing negative electrode
<a href="#">WO 2021177069 A1</a>	MURATA MANUFACTURING CO	Secondary battery, electronic device, and electric tool
<a href="#">WO 2021182741 A1</a>	LG ENERGY SOLUTION LTD	Secondary battery and lithium precipitation detection method therefor
<a href="#">WO 2021190635 A1</a>	SHENZHEN HAIHAN NEW ENERGY TECH CO LTD	Cold-press extension mechanism and cold-press device
<a href="#">WO 2021177149 A1</a>	MURATA MANUFACTURING CO	Secondary battery, electronic device, and electric tool
<a href="#">WO 2021182792 A1</a>	LG ENERGY SOLUTION LTD	Swelling test device for battery cell
<a href="#">WO 2021181951 A1</a>	SUMITOMO RIKO CO LTD	Thermal insulation material for battery pack, and battery pack
<a href="#">WO 2021181191 A1</a>	SEMICONDUCTOR ENERGY LAB	Secondary battery, method for producing secondary battery, electronic device and vehicle
<a href="#">WO 2021190490 A1</a>	BYD CO LTD	Lithium iron phosphate positive electrode sheet, preparation method therefor, and lithium iron phosphate lithium-ion battery
<a href="#">WO 2021172004 A1</a>	TOPPAN INC	Outer package material for all-solid-state batteries, and all-solid-state battery using same
<a href="#">WO 2021168553 A1</a>	GOVERNING COUNCIL UNIV TORONTO	Aluminum-ion battery using aluminum chloride/trimethylamine ionic liquid as electrolyte
<a href="#">WO 2021175782 A1</a>	CONSTELLIUM SINGEN GMBH	High flatness snapped-in and sealed bottom floor for battery enclosures encompassing an integrated cooling system
<a href="#">WO 2021177613 A1</a>	LG ENERGY SOLUTION LTD	Welding quality inspection device
<a href="#">WO 2021156095 A1</a>	FRITZMEIER GEORG GMBH & CO KG	Cover structure and method for producing a cover structure
<a href="#">WO 2021157915 A1</a>	LG ENERGY SOLUTION LTD	Electrode manufacturing method comprising cleaning step using laser, electrode manufactured by method, and secondary battery comprising same

<a href="#">WO 2021171911 A1</a>	MURATA MANUFACTURING CO	Secondary battery
<a href="#">WO 2021177291 A1</a>	UNIV TOKYO	Secondary battery electrode additive
<a href="#">WO 2021182012 A1</a>	DENSO CORP	Temperature detection device
<a href="#">WO 2021166705 A1</a>	MITSUBISHI GAS CHEMICAL CO	Ion conductor containing high-temperature phase of licb9h10 and method for producing same
<a href="#">WO 2021176906 A1</a>	MURATA MANUFACTURING CO	Secondary battery, electronic device, and electric tool
<a href="#">WO 2021195857 A1</a>	DONGGUAN NVT TECH LIMITED	Battery and electronic device using battery
<a href="#">WO 2021166771 A1</a>	UNIV TOKYO	Electrolytic solution for secondary cell containing cyclic phosphoric acid ester
<a href="#">WO 2021170337 A1</a>	AUTONEUM MAN AG	Automotive panel
<a href="#">WO 2021172383 A1</a>	SUMITOMO SEIKA CHEMICALS	Binding agent for secondary battery
<a href="#">WO 2021173142 A1</a>	CUMMINS INC	Battery pack selection for pre-charging of DC bus
<a href="#">WO 2021181536 A1</a>	MITSUBISHI ELECTRIC CORP	Deterioration degree diagnosis device
<a href="#">WO 2021177346 A1</a>	KANEKA CORP	Li ion conductor and method for producing same
<a href="#">WO 2021181406 A1</a>	TVS MOTOR CO LTD	End connections of a battery module
<a href="#">WO 2021188030 A1</a>	SCANIA CV AB	Coolant distribution manifold, propulsion battery cooling system, and vehicle
<a href="#">WO 2021189083 A1</a>	PIERSICA INC	High energy density lithium metal based anode for solid-state lithium-ion batteries
<a href="#">WO 2021187443 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021179261 A1</a>	NINGDE AMPEREX TECHNOLOGY LTD	Wound cell and electrochemical device
<a href="#">WO 2021184497 A1</a>	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Negative electrode tab, secondary battery, and device comprising secondary battery
<a href="#">WO 2021187494 A1</a>	MURATA MANUFACTURING CO	Solid-state battery
<a href="#">WO 2021174348 A1</a>	LI CYCLE CORP	A method for processing lithium iron phosphate batteries
<a href="#">WO 2021187367 A1</a>	KURARAY CO	Additive for electrochemical element positive electrode, composition for electrochemical element positive electrode including said additive, and electrochemical element
<a href="#">WO 2021186601 A1</a>	TOSHIBA KK	Secondary battery and battery pack
<a href="#">WO 2021187259 A1</a>	MURATA MANUFACTURING CO	Secondary battery, electronic device, and electric tool
<a href="#">WO 2021186290 A1</a>	SEMICONDUCTOR ENERGY LAB	Secondary battery, electronic device and vehicle
<a href="#">WO 2021185372 A1</a>	CHEN DAIJIU	Battery, manufacturing method therefor and use thereof
<a href="#">WO 2021187005 A1</a>	SANDEN AUTOMOTIVE CLIMATE SYSTEMS CORP	Vehicle air conditioner
<a href="#">WO 2021187961 A1</a>	LG CHEMICAL LTD	Positive electrode active material for secondary battery and lithium secondary battery comprising same
<a href="#">WO 2021186781 A1</a>	HITACHI HIGH TECH CORP	Capacity recovery device, capacity recovery method, and secondary battery system
<a href="#">WO 2021187607 A1</a>	ASAHI CHEMICAL IND	Separator for nonaqueous electrolyte battery, wound body, and nonaqueous electrolyte battery
<a href="#">WO 2021187715 A1</a>	LG ENERGY SOLUTION LTD	Apparatus and method for battery abnormal condition prediction, and battery management system providing same method
<a href="#">WO 2021186288 A1</a>	SEMICONDUCTOR ENERGY LAB	Secondary battery, electronic device, and vehicle
<a href="#">WO 2021184162 A1</a>	NINGDE AMPEREX TECHNOLOGY LTD	Electrode plate, cell, and electrochemical device
<a href="#">WO 2021168189 A1</a>	UNIV MARYLAND	High-performance microsized anodes and methods of making and using the same

[...volver a CONTENIDO](#)

## SUPERCONDENSADORES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2021152483 A1</a>	OUE SKELETON TECH GROUP	A charging system and method for ultra-fast supercapacitor-to-supercapacitor charging for electric vehicles
<a href="#">WO 2021153439 A1</a>	PANASONIC IP MAN CO LTD	Power storage device
<a href="#">WO 2021131907 A1</a>	KURARAY CO	Carbonaceous material, method for producing same, electrode active material for electric double layer capacitors, electrode for electric double layer capacitors, and electric double layer capacitor
<a href="#">WO 2021153147 A1</a>	TORAY INDUSTRIES	Resin composition, laminate and method for producing same, electrode, secondary battery, and electric double-layer capacitor
<a href="#">WO 2021193203 A1</a>	DKS CO LTD	Electrolyte and electricity storage device
<a href="#">WO 2021193184 A1</a>	GS YUASA INT LTD	Electricity storage element, electricity storage element production method and electricity storage device
<a href="#">WO 2021154024 A1</a>	LG CHEMICAL LTD	Positive electrode active material precursor for secondary battery, positive electrode active material, method for producing same, and lithium secondary battery including same
<a href="#">WO 2021150555 A1</a>	ENEVATE CORP	Silicon-based energy storage devices with electrolyte containing crown ether based compounds
<a href="#">WO 2021131910 A1</a>	KURARAY CO	Carbonaceous material, manufacturing method therefor, and electrode material for electrical double layer capacitor
<a href="#">WO 2021168063 A1</a>	FMC LITHIUM USA CORP	Fast charging pre-lithiated silicon anode
<a href="#">WO 2021182489 A1</a>	GS YUASA INT LTD	Nonaqueous electrolyte power storage element
<a href="#">WO 2021187237 A1</a>	DKS CO LTD	Polyurethane resin aqueous dispersion for secondary battery separator, secondary battery separator, and secondary battery

[...volver a CONTENIDO](#)

## SISTEMAS DE RECUPERACIÓN DE ENERGÍA; FRENOS REGENERATIVOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2021180300 A1</a>	VOLVO TRUCK CORP	Methods for controlling a power level in an energy source of a vehicle unit
<a href="#">WO 2021145301 A1</a>	HITACHI ASTEMO LTD	Electric vehicle control device, electric vehicle control method, and electric vehicle control system
<a href="#">WO 2021158432 A1</a>	NIO TECH ANHUI CO LTD	Predictive regenerative braking
<a href="#">WO 2021149797 A1</a>	ADVICS CO LTD	Braking control device
<a href="#">WO 2021171379 A1</a>	UNIVANCE CORP	Braking device

[...volver a CONTENIDO](#)

## MÁQUINAS ELÉCTRICAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2021191445 A1</a>	VALEO EQUIP ELECTR MOTEUR	Brushless DC electric motor
<a href="#">WO 2021191524 A1</a>	NIDEC PSA EMOTORS	Connection device for stator
<a href="#">WO 2021144084 A1</a>	MAHLE INT GMBH	Rotor of an electric motor
<a href="#">WO 2021152657 A1</a>	MITSUBISHI ELECTRIC CORP	Drive control device for electric vehicle
<a href="#">WO 2021130996 A1</a>	NISSAN MOTOR	Stator coil end structure and manufacturing method
<a href="#">WO 2021146663 A1</a>	SOUTHWEST RES INST	Simulating use and aging of immersive coolants for electric motors
<a href="#">WO 2021192528 A1</a>	HITACHI ASTEMO LTD	Hybrid control device and method for controlling hybrid control device
<a href="#">WO 2021192531 A1</a>	HITACHI ASTEMO LTD	Method for manufacturing stator for dynamo-electric machine, stator for dynamo-electric machine, and dynamo-electric machine
<a href="#">WO 2021183568 A1</a>	KARMA AUTOMOTIVE LLC	Vehicle battery system
<a href="#">WO 2021145100 A1</a>	DAIMLER AG	Electric vehicle driving device
<a href="#">WO 2021136952 A1</a>	NISSAN MOTOR	Electric motor unit
<a href="#">WO 2021143966 A1</a>	SCHAEFFLER TECHNOLOGIES AG	Stator for an electric motor
<a href="#">WO 2021136819 A1</a>	PUNCH POWERTRAIN NV	Motor and method for cooling a motor
<a href="#">WO 2021145119 A1</a>	HITACHI ASTEMO LTD	Rotating electric machine, and on-vehicle electric motor system
<a href="#">WO 2021155983 A1</a>	BAYERISCHE MOTOREN WERKE AG	Electric machine and motor vehicle
<a href="#">WO 2021142433 A1</a>	JACOBI MOTORS LLC	Curved magnets for a variable-flux memory motor
<a href="#">WO 2021187978 A1</a>	DAF TRUCKS NV	Power management system for electrical vehicles with multiple motors
<a href="#">WO 2021172608 A1</a>	LG ELECTRONICS INC	Stator and jig for manufacturing stator
<a href="#">WO 2021176823 A1</a>	HITACHI ASTEMO LTD	Rotary electric machine and rotor thereof
<a href="#">WO 2021176884 A1</a>	PANASONIC IP MAN CO LTD	Brushless motor and electrically powered tool
<a href="#">WO 2021173054 A1</a>	SCANIA CV AB	Rotor arrangement, electric propulsion motor arrangement, vehicle, set of rotors for electric motors
<a href="#">WO 2021170177 A1</a>	SCHAEFFLER TECHNOLOGIES AG	Electric drive assembly for a vehicle with transmission-side dissipation device

[...volver a CONTENIDO](#)

## CONVERTIDORES, INVERSORES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2021149440 A1</a>	DENSO CORP	Capacitor module and power conversion device
<a href="#">WO 2021149165 A1</a>	DENSO CORP	Power converter
<a href="#">WO 2021185431 A1</a>	HUAWEI TECH CO LTD	AC/DC converter stage for a converter system with an input series structure with improved common mode performance
<a href="#">WO 2021154356 A1</a>	UNIV ILLINOIS	Three phase AC/DC converter consisting of three single phase synchronous CUK converters
<a href="#">WO 2021166418 A1</a>	HITACHI ASTEMO LTD	Vehicle control device
<a href="#">WO 2021149214 A1</a>	TOYOTA MOTOR CO LTD	Electrical apparatus unit
<a href="#">WO 2021157238 A1</a>	DENSO CORP	Power conversion device
<a href="#">WO 2021159071 A1</a>	WANG YONGXIN	Power supply system for electric vehicles
<a href="#">WO 2021161797 A1</a>	DENSO CORP	Electric power converter control circuit
<a href="#">WO 2021191145 A1</a>	VITESCO TECH GMBH	AC/DC converter with power factor correction and method for calibrating such a converter
<a href="#">WO 2021131658 A1</a>	HITACHI ASTEMO LTD	Inverter control device and electric vehicle system
<a href="#">WO 2021130290 A1</a>	DANFOSS SILICON POWER GMBH	Power module with improved electrical characteristics
<a href="#">WO 2021152795 A1</a>	MITSUBISHI ELECTRIC CORP	Semiconductor device and power conversion device
<a href="#">WO 2021152734 A1</a>	MITSUBISHI ELECTRIC CORP	Overcurrent detection circuit and power conversion device
<a href="#">WO 2021157193 A1</a>	DENSO CORP	Power converter
<a href="#">WO 2021160022 A1</a>	NINGBO GEELY AUTOMOBILE RES & DEVELOPMENT CO LTD	Vehicle electrical system
<a href="#">WO 2021145029 A1</a>	AISIN AW CO	Rotating electrical machine control device
<a href="#">WO 2021157469 A1</a>	HITACHI LTD	Electronic circuit device
<a href="#">WO 2021192141 A1</a>	MITSUBISHI ELECTRIC CORP	Power conversion device
<a href="#">WO 2021166750 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Power supply system
<a href="#">WO 2021152867 A1</a>	DENSO CORP	Electric power converter
<a href="#">WO 2021152971 A1</a>	NIDEC ELESYS CORP	Motor driving circuit
<a href="#">WO 2021160529 A1</a>	SIEMENS AG	Current converter circuit
<a href="#">WO 2021161795 A1</a>	DENSO CORP	Electric power converter control circuit
<a href="#">WO 2021153484 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Power supply system
<a href="#">WO 2021161566 A1</a>	NIDEC CORP	Inverter device, motor, and motor unit
<a href="#">WO 2021165654 A1</a>	DYSON TECHNOLOGY LTD	Charging system
<a href="#">WO 2021148617 A1</a>	BUCHER HYDRAULICS AG	Power converter, charging post and vehicle
<a href="#">WO 2021161839 A1</a>	DENSO CORP	Power conversion device
<a href="#">WO 2021192218 A1</a>	MITSUBISHI ELECTRIC CORP	Semiconductor power module and power converter
<a href="#">WO 2021193587 A1</a>	MITSUBISHI ELECTRIC CORP	Semiconductor device, power conversion device, and method for manufacturing semiconductor device
<a href="#">WO 2021138912 A1</a>	SIEMENS AG	Direct current-direct current converter
<a href="#">WO 2021145057 A1</a>	MITSUBISHI MOTORS CORP	Arrangement structure of drive unit and power supply unit in electric vehicle
<a href="#">WO 2021162190 A1</a>	KOREA ATOMIC ENERGY RES	Electric vehicle charging device and method for controlling same
<a href="#">WO 2021131653 A1</a>	KYOCERA CORP	Dielectric film for film capacitors, film capacitor and connected capacitor each using same, inverter and electric vehicle
<a href="#">WO 2021130464 A1</a>	DYSON TECHNOLOGY LTD	Power supply unit
<a href="#">WO 2021127995 A1</a>	CREE INC	Circuits and methods for controlling bidirectional cllc converters
<a href="#">WO 2021157206 A1</a>	DENSO CORP	Power conversion device
<a href="#">WO 2021157222 A1</a>	HITACHI ASTEMO LTD	Voltage protection device and power converter
<a href="#">WO 2021161798 A1</a>	DENSO CORP	Power converter control circuit

<a href="#">WO 2021192530 A1</a>	HITACHI ASTEMO LTD	Semiconductor device, power module, inverter device, and electric vehicle
<a href="#">WO 2021154968 A1</a>	WITRICITY CORP	Auxiliary power dropout protection for a wireless power transfer system
<a href="#">WO 2021166611 A1</a>	MITSUBISHI ELECTRIC CORP	Power conversion device
<a href="#">WO 2021192145 A1</a>	MITSUBISHI ELECTRIC CORP	Power conversion device
<a href="#">WO 2021161794 A1</a>	DENSO CORP	Control circuit of power converter
<a href="#">WO 2021161796 A1</a>	DENSO CORP	Control circuit for power converter
<a href="#">WO 2021166284 A1</a>	SUMITOMO ELECTRIC INDUSTRIES	Power conversion device, vehicle including power conversion device, and control method
<a href="#">WO 2021171801 A1</a>	DENSO CORP	Power conversion device and method for manufacturing power conversion device
<a href="#">WO 2021175360 A1</a>	SCHAEFFLER TECHNOLOGIES AG	Electric motor device and method for controlling a motor braking procedure for an electric motor
<a href="#">WO 2021182447 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Power conversion device
<a href="#">WO 2021171902 A1</a>	FLOSFIA INC	Power conversion device and power conversion system
<a href="#">WO 2021172102 A1</a>	DENSO CORP	Cooling system
<a href="#">WO 2021174278 A1</a>	AVL LIST GMBH	Converter assembly and method for operating a converter assembly
<a href="#">WO 2021195436 A1</a>	KARMA AUTOMOTIVE LLC	Inverter system for an electric vehicle
<a href="#">WO 2021182448 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Power conversion device
<a href="#">WO 2021182114 A1</a>	AUTONETWORKS TECHNOLOGIES LTD	Power conversion device
<a href="#">WO 2021186935 A1</a>	FUJI ELECTRIC CO LTD	Power conversion device
<a href="#">WO 2021186842 A1</a>	HITACHI ASTEMO LTD	Synchronous machine control device, synchronous machine control method, and electric vehicle

[...volver a CONTENIDO](#)

## RECARGA DE BATERÍAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2021154090 A1</a>	SCANDINAVIAN MICROMOBILITY AS	A charging and transportation system
<a href="#">WO 2021165236 A1</a>	CHARGICITY LTD	Charging station and system for electric vehicles
<a href="#">WO 2021180371 A2</a>	ROETHLIN URS	Device for generating electrical energy, preferably by means of solar energy
<a href="#">WO 2021185480 A1</a>	PERKINS ENGINES CO LTD	Charging of electric vehicles and construction machines
<a href="#">WO 2021165655 A1</a>	DYSON TECHNOLOGY LTD	A system
<a href="#">WO 2021157184 A1</a>	IHI CORP	Contactless power feed facility
<a href="#">WO 2021171886 A1</a>	YAZAKI CORP	Charging authentication system, charging control device, and charging authentication method
<a href="#">WO 2021182815 A2</a>	LG INNOTEK CO LTD	Electric vehicle charging controller and electric vehicle charger comprising same
<a href="#">WO 2021176431 A1</a>	ZHEJIANG HANMINGBO NEW ENERGY CO LTD	System and method for charging electric vehicles
<a href="#">WO 2021181323 A1</a>	L&T TECH SERVICES LIMITED	A wireless charging system
<a href="#">WO 2021194267 A1</a>	LG ENERGY SOLUTION LTD	Battery performance management system and method using electric vehicle charging station
<a href="#">WO 2021175596 A1</a>	DAIMLER AG	A method for operating a battery charging assistance system external to a motor vehicle, as well as a battery charging assistance system

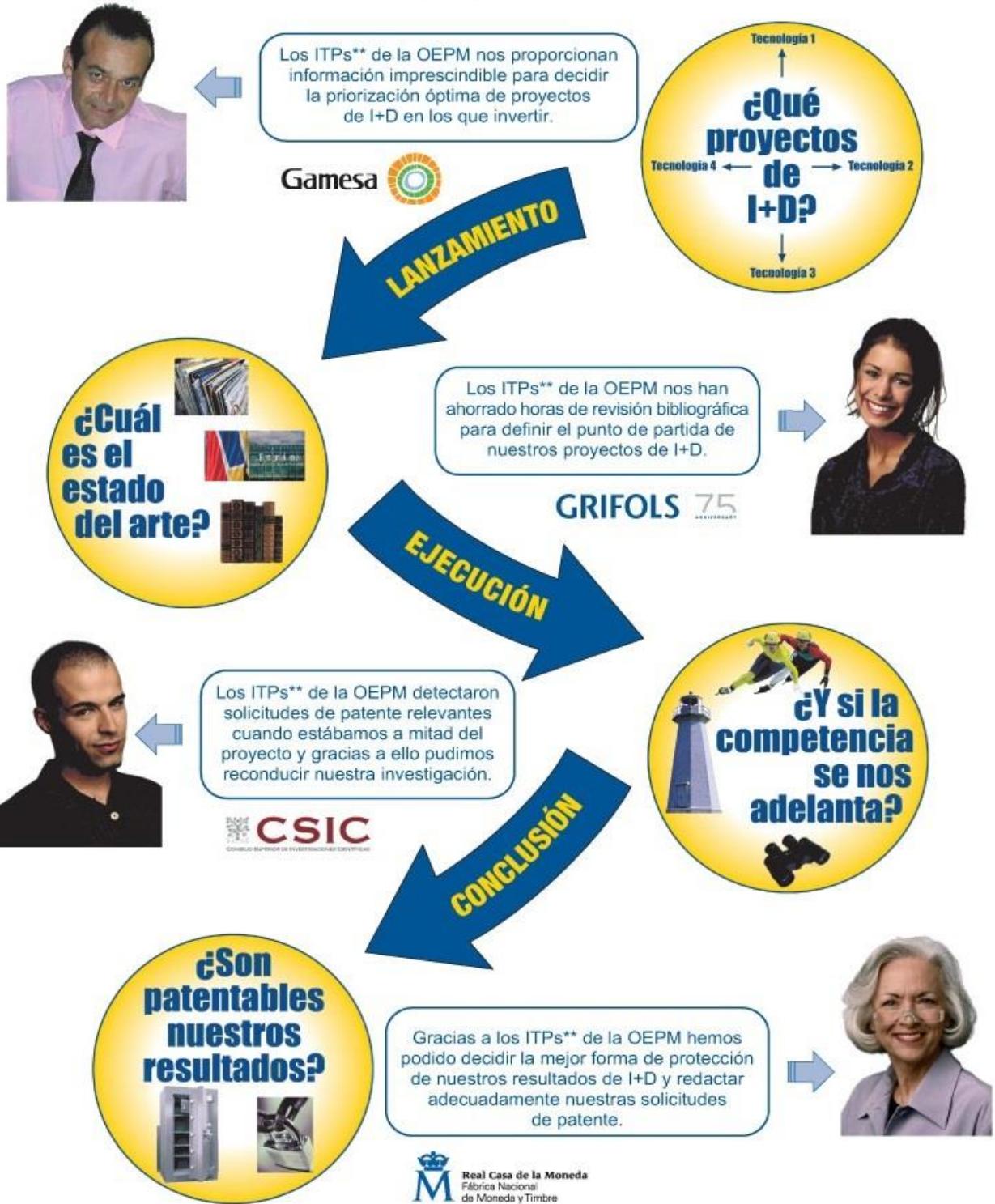
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## CAMBIO DE BATERÍAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2021136552 A1</a>	AULTON NEW ENERGY AUTOM TECH GROUP	Visual positioning method and system for battery replacement device
<a href="#">WO 2021152625 A1</a>	EXICOM TELE SYSTEMS LTD	A swappable battery pack system and a method thereof

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