

Noticias

Real Decreto 1009/2023, de 5 de diciembre, por el que se establece la estructura orgánica básica de los departamentos ministeriales. [BOE» núm. 291, de 6 de diciembre de 2023, páginas 161991 a 162009](#)

[Proyectos de producción de baterías aprobados en el PERTE VEC II](#), La propuesta de resolución definitiva de la convocatoria, publicada por el Ministerio de Industria, Comercio y Turismo, recoge ayudas concedidas a 26 proyectos de 21 empresas por un importe total de 528,7 millones de euros en forma de subvención, lo que representa más del 95% de los fondos europeos que recoge la convocatoria. A estos fondos hay que sumar otros 100 millones de euros concedidos en forma de crédito.

[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 |
|----------------------------------|--|--|
| WO 2023232719 A1 | DUKOSI LTD | IMPROVED BATTERY MANAGEMENT SYSTEM AND MONITORING DEVICES |
| WO 2023232385 A1 | BAYERISCHE MOTOREN WERKE AG | MODULAR SYSTEM FOR PRODUCING AT LEAST TWO DESIGN VARIANTS OF A STORAGE HOUSING FOR A MOTOR VEHICLE AND METHOD |
| WO 2023235074 A1 | COOPER STANDARD AUTOMOTIVE INC | APPARATUS AND METHOD FOR THE INTEGRATED CONTROL OF A THERMAL MANAGEMENT SYSTEM |
| WO 2023244658 A1 | TESLA INC | ENERGY STORAGE CELL |
| WO 2023237429 A1 | DIEHL AKO STIFTUNG GMBH & CO | CELL CONNECTOR FOR A CELL CONTACTING SYSTEM, AND ENERGY STORAGE DEVICE |
| WO 2023237430 A1 | DIEHL AKO STIFTUNG GMBH & CO | TEMPERATURE-CONTROL AND DEGASSING ASSEMBLY FOR ENERGY STORAGE CELLS, AND ENERGY STORE |
| WO 2023240191 A1 | TESLA INC | CARBONATE COMPOUNDS FOR ENERGY STORAGE DEVICE ELECTROLYTE COMPOSITIONS, AND METHODS THEREOF |
| WO 2023237385 A1 | VALEO SYSTEMES THERMIQUES | TRAY FOR ACCOMMODATING A PART CAPABLE OF GIVING OFF HEAT |
| WO 2023237527 A1 | WEBASTO SE | BATTERY HOUSING AND BATTERY SYSTEM COMPRISING SAME FOR A MOTOR VEHICLE |
| WO 2023234676 A1 | LG ENERGY SOLUTION LTD | POSITIVE ELECTRODE FOR ALL-SOLID-STATE BATTERY, METHOD FOR MANUFACTURING SAME, AND ALL-SOLID-STATE BATTERY COMPRISING POSITIVE ELECTRODE |
| WO 2023234709 A1 | LG ENERGY SOLUTION LTD | POLYMER SOLID ELECTROLYTE AND MANUFACTURING METHOD THEREFOR |
| WO 2023234711 A1 | LG ENERGY SOLUTION LTD | POLYMER SOLID ELECTROLYTE AND PREPARATION METHOD THEREFOR |
| WO 2023194869 A1 | NEMAK SAB DE CV | ONE-PIECE BATTERY CARRIER, AND METHOD FOR PRESSURE DIE CASTING A ONE-PIECE BATTERY CARRIER |
| WO 2023200236 A1 | LG ENERGY SOLUTION LTD | ELECTROLYTE FOR LITHIUM SECONDARY BATTERY, AND LITHIUM SECONDARY BATTERY COMPRISING SAME |
| WO 2023222439 A1 | VALEO SYSTEMES THERMIQUES | DEVICE FOR THERMALLY CONTROLLING A VEHICLE BATTERY PACK |
| WO 2023244020 A1 | LG ENERGY SOLUTION LTD | SIDE SEALING DEVICE FOR ELECTRODE STACK, SECONDARY BATTERY HAVING ELECTRODE STACK, AND MANUFACTURING METHOD THEREFOR |
| WO 2023205399 A1 | CPS TECH HOLDINGS LLC | BATTERY THERMAL EVENT DETECTION AND SUPPRESSION |
| WO 2023217687 A1 | UMICORE NV | METHOD FOR MANUFACTURING A SOLID SULFIDE ELECTROLYTE |
| WO 2023234594 A1 | LG ENERGY SOLUTION LTD | BATTERY MODULE AND ASSEMBLY METHOD THEREFOR |
| WO 2023205120 A1 | LUBRIZOL CORP | ORGANIC HEAT TRANSFER SYSTEM, METHOD, AND FLUID |
| WO 2023222459 A1 | VALEO SYSTEMES THERMIQUES | INTER-BATTERY SPACER AND THERMAL REGULATION SYSTEM FOR A SET OF BATTERIES |
| WO 2023234600 A1 | LG ENERGY SOLUTION LTD | BATTERY DIAGNOSIS APPARATUS AND METHOD |
| WO 2023230995 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY REGULATION SYSTEM, METHOD AND ELECTRIC APPARATUS USING SAME |
| WO 2023238510 A1 | TOYOTA JIDOSHOKKI KK | BATTERY TEMPERATURE ADJUSTMENT SYSTEM |
| WO 2023198629 A1 | MUEHLBAUER GMBH & CO KG | CONFIGURATION CHANGER MECHANISM, CARRIER DEVICES, AND SYSTEM FOR PROCESSING POUCH BATTERY CELL HOUSINGS |

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| WO 2023227311 A1 | BAYERISCHE MOTOREN WERKE AG | HOUSING EMERGENCY DRAINAGE FOR A MOTOR VEHICLE AND MOTOR VEHICLE HAVING SAME |
| WO 2023234593 A1 | LG ENERGY SOLUTION LTD | APPARATUS AND METHOD FOR DIAGNOSING BATTERY |
| WO 2023233520 A1 | TOSHIBA KK | BATTERY AND BATTERY PACK |
| WO 2023236598 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTRODE SHEET STRUCTURE AND PREPARATION METHOD THEREFOR, BATTERY CELL, AND SECONDARY BATTERY |
| WO 2023187090 A1 | AUTOMOTIVE CELLS COMPANY SE | BATTERY WITH LONGITUDINAL CLAMPING FOR AN ELECTRIC OR HYBRID VEHICLE, AND METHOD FOR ASSEMBLING SUCH A BATTERY |
| WO 2023225797 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | POSITIVE ELECTRODE SHEET USED FOR SECONDARY BATTERY, AND SECONDARY BATTERY |
| WO 2023235611 A1 | GILL PREET | STATE-OF-HEALTH ESTIMATION PIPELINE FOR LI-ION BATTERY PACKS WITH HETEROGENEOUS CELLS |
| WO 2023234223 A1 | PANASONIC IP MAN CO LTD | LITHIUM SECONDARY BATTERY AND COMPOSITE MEMBER |
| WO 2023234684 A1 | LG ENERGY SOLUTION LTD | ELECTRODE ASSEMBLY, METHOD FOR MANUFACTURING SAME, AND LITHIUM SECONDARY BATTERY COMPRISING SAME |
| WO 2023234754 A1 | LG ENERGY SOLUTION LTD | BATTERY RACK INCLUDING IMPROVED COOLING STRUCTURE |
| WO 2023234729 A1 | IUCF HYU | ANODE ACTIVE MATERIAL FOR LITHIUM SECONDARY BATTERY, AND PREPARATION METHOD THEREFOR |
| WO 2023236957 A1 | HUAWEI TECH CO LTD | THERMAL MANAGEMENT SYSTEM AND VEHICLE |
| WO 2023238580 A1 | PANASONIC HOLDINGS CORP | COATED ACTIVE MATERIAL, BATTERY USING SAME, AND METHOD FOR PRODUCING COATED ACTIVE MATERIAL |
| WO 2023213466 A1 | AUDI AG | CRASH SYSTEM |
| WO 2023234358 A1 | FUJIFILM CORP | ELECTRODE COMPOSITION FOR ALL-SOLID-STATE SECONDARY BATTERIES, ELECTRODE SHEET FOR ALL-SOLID-STATE SECONDARY BATTERIES, ALL-SOLID-STATE SECONDARY BATTERY, AND METHODS FOR PRODUCING ELECTRODE SHEET FOR ALL-SOLID-STATE SECONDARY BATTERIES AND FOR PRODUCING ALL-SOLID-STATE SECONDARY BATTERY |
| WO 2023234706 A1 | LG ENERGY SOLUTION LTD | DEVICE AND METHOD FOR MANUFACTURING ELECTRODE ASSEMBLY |
| WO 2023233874 A1 | NOK CORP | BUFFERING MATERIAL FOR BATTERIES |
| WO 2023239702 A1 | SAN DIEGO STATE UNIV RESEARCH FOUNDATION | POWER CONTROL SYSTEMS FOR BATTERY ENERGY STORAGE SYSTEMS USING SECOND-LIFE ELECTRIC VEHICLE (EV) BATTERIES |
| WO 2023198248 A1 | AZL AACHEN GMBH | BATTERY HOUSING AND BATTERY FOR AN ELECTRICALLY OPERATED VEHICLE AND METHOD |
| WO 2023198964 A1 | PSA AUTOMOBILES SA | METHOD FOR DETECTING A BLOCKED CLOSED STATE OF AN INTERMEDIATE MEMBER FOR CUTTING OFF AN ELECTRIC CURRENT ARRANGED WITHIN AN ELECTRIC BATTERY OF A VEHICLE |
| WO 2023227443 A1 | DIEHL AKO STIFTUNG GMBH & CO | CELL MANAGEMENT CONTROLLER FOR A BATTERY MODULE |
| WO 2023234722 A1 | SAMSUNG SDI CO LTD | BATTERY PACK |
| WO 2023187035 A1 | SOLVAY SPECIALTY POLYMERS IT | METHOD FOR SEPARATING THE ELECTRODE MATERIALS FROM THE CURRENT COLLECTOR IN ELECTRODES FROM SPENT LITHIUM-ION BATTERIES |
| WO 2023234756 A1 | LG ENERGY SOLUTION LTD | ELECTRODE ASSEMBLY TRANSFER TRAY |
| WO 2023232720 A1 | DUKOSI LTD | IMPROVED COMMUNICATION DEVICE FOR BATTERY PACKS |
| WO 2023234357 A1 | FUJIFILM CORP | ACTIVE MATERIAL RECOVERY METHOD |
| WO 2023243988 A1 | LG ENERGY SOLUTION LTD | ELECTRODE ASSEMBLY, AND METHOD FOR MANUFACTURING ELECTRODE ASSEMBLY |
| WO 2023203352 A1 | NEXEON LTD | PROCESS FOR THE PREPARATION OF SILICON-CONTAINING COMPOSITE PARTICLES |
| WO 2023203184 A1 | PLASTIC OMNIUM CLEAN ENERGY SYSTEMS RES | BATTERY MODULE FOR A MOTOR VEHICLE |
| WO 2023205403 A1 | LYTEN INC | CYLINDRICAL LITHIUM-SULFUR BATTERIES |
| WO 2023234296 A1 | NIPPON ELECTRIC GLASS CO | ELECTRODE MIX FOR SECONDARY BATTERY, ELECTRODE FOR ALL-SOLID-STATE SECONDARY BATTERY, AND ALL-SOLID-STATE SECONDARY BATTERY |

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| WO 2023234349 A1 | FUJIFILM CORP | ALL-SOLID-STATE LITHIUM-ION SECONDARY BATTERY AND METHOD FOR MANUFACTURING ALL-SOLID-STATE LITHIUM-ION SECONDARY BATTERY |
| WO 2023234708 A1 | LG ENERGY SOLUTION LTD | POLYMER SOLID ELECTROLYTE AND MANUFACTURING METHOD THEREFOR |
| WO 2023234712 A1 | LG ENERGY SOLUTION LTD | POLYMER SOLID ELECTROLYTE AND PREPARATION METHOD THEREFOR |
| WO 2023231591 A1 | BYD CO LTD | CHARGING CONTROL METHOD, CHARGING CONTROL APPARATUS, VEHICLE AND COMPUTER-READABLE STORAGE MEDIUM |
| WO 2023237045 A1 | HSU CHUN HSIANG | COOLING AND FIRE-EXTINGUISHING DEVICE FOR ELECTRIC POWER STORAGE SYSTEM |
| WO 2023186978 A1 | AUTOMOTIVE CELLS COMPANY SE | BATTERY WITH CROSS-MEMBERS AND CORNER MEMBERS FOR AN ELECTRIC OR HYBRID VEHICLE, AND METHOD FOR ASSEMBLING SUCH A BATTERY |
| WO 2023194039 A1 | MAHLE INT GMBH | RING FILTER ELEMENT |
| WO 2023203296 A1 | CONSTELLIUM NEUF BRISACH | HEAT EXCHANGER BASED ON AN ALUMINIUM ALLOY OBTAINED BY BRAZING |
| WO 2023222339 A1 | DRAEXLMAIER LISA GMBH | BATTERY CELL ASSEMBLY FOR A BATTERY OF A MOTOR VEHICLE WITH THERMAL INSULATION FOR PREVENTING HEAT TRANSFER BY THERMAL RADIATION |
| WO 2023222677 A1 | SHELL INT RESEARCH | THERMAL MANAGEMENT SYSTEM |
| WO 2023234716 A1 | LG ENERGY SOLUTION LTD | METHOD FOR MANUFACTURING COMPOSITE SOLID ELECTROLYTE |
| WO 2023234518 A1 | LG ENERGY SOLUTION LTD | SEPARATOR FOR LITHIUM SECONDARY BATTERY AND LITHIUM SECONDARY BATTERY COMPRISING SAME |
| WO 2023235992 A1 | AK MOTOR INT CORPORATION | AN AUXILIARY BATTERY SYSTEM AND METHODS OF USING SAME |
| WO 2023244095 A2 | KOREA ZINC CO LTD | AUTOMATIC BATTERY DISMANTLING SYSTEM |
| WO 2023187816 A1 | TVS MOTOR CO LTD | METHOD AND SYSTEM FOR MANAGING POWER IN A VEHICLE |
| WO 2023236101 A1 | NINGDE AMPEREX TECHNOLOGY LTD | ELECTROCHEMICAL DEVICE AND ELECTRONIC DEVICE |
| WO 2023239088 A1 | SAMSUNG ELECTRONICS CO LTD | ELECTRONIC APPARATUS AND CONTROLLING METHOD THEREOF |
| WO 2023203189 A1 | PLASTIC OMNIUM CLEAN ENERGY SYSTEMS RES | SYSTEM FOR THE THERMAL REGULATION OF A BATTERY |
| WO 2023229906 A1 | CPS TECH HOLDINGS LLC | SMART BATTERY MANAGEMENT |
| WO 2023234395 A1 | MURATA MANUFACTURING CO | POWER SUPPLY DEVICE, DIAGNOSIS DEVICE, AND DIAGNOSIS METHOD |
| WO 2023198891 A1 | CELLFORCE GROUP GMBH | SURFACE-COATED SILICON-CARBON COMPOSITE MATERIAL, METHOD FOR MANUFACTURING A SURFACE-COATED SILICON-CARBON COMPOSITE MATERIAL, ANODE ELECTRODE AND ELECTROCHEMICAL STORAGE DEVICE |
| WO 2023198918 A1 | CELLFORCE GROUP GMBH | ANODE FOR AN ELECTROCHEMICAL ENERGY STORAGE DEVICE |
| WO 2023203366 A1 | DACA I POWERTRAIN ENG S R L | METHOD OF MANAGING BATTERIES FOR ELECTRIC PROPULSION SYSTEMS |
| WO 2023217710 A1 | UMICORE NV | RECOVERY OF NICKEL AND COBALT FROM BLACK MASS |
| WO 2023234713 A1 | LG ENERGY SOLUTION LTD | COMPOSITE SOLID ELECTROLYTE FOR LITHIUM SECONDARY BATTERY AND METHOD FOR PREPARING SAME |
| WO 2023231483 A1 | BYD CO LTD | BATTERY CIRCUIT AND VEHICLE |
| WO 2023222326 A1 | BAYERISCHE MOTOREN WERKE AG | LITHIUM BATTERY COMPRISING A LITHIUM METAL ANODE WITH A POROUS CURRENT CONDUCTOR |
| WO 2023234283 A1 | UNIV YAMAGUCHI | AQUEOUS ELECTROLYTIC LIQUID AND SECONDARY BATTERY |
| WO 2023234350 A1 | FUJIFILM CORP | WOUND ALL-SOLID-STATE LITHIUM ION SECONDARY BATTERY AND METHOD FOR PRODUCING WOUND ALL-SOLID-STATE LITHIUM ION SECONDARY BATTERY |
| WO 2023234710 A1 | LG ENERGY SOLUTION LTD | POLYMER SOLID ELECTROLYTE AND METHOD FOR MANUFACTURING SAME |
| WO 2023230786 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BINDER AND PREPARATION METHOD THEREFOR, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK AND ELECTRIC DEVICE |
| WO 2023187042 A1 | AUTOMOTIVE CELLS COMPANY SE | BATTERY AND ASSOCIATED ASSEMBLY METHOD |

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| WO 2023193206 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | END COVER ASSEMBLY, BATTERY CELL, BATTERY AND ELECTRIC DEVICE |
| WO 2023206386 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | HEATING METHOD, HEATING APPARATUS AND HEATING SYSTEM FOR BATTERY |
| WO 2023207483 A1 | BYD CO LTD | BATTERY SELF-HEATING CONTROL METHOD AND SYSTEM, AND ELECTRIC VEHICLE |
| WO 2023225940 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BINDER, AND INSULATING FILM AND BATTERY MODULE USING SAME |
| WO 2023229442 A1 | LG ENERGY SOLUTION LTD | LITHIUM SECONDARY BATTERY |
| WO 2023239158 A1 | LG ENERGY SOLUTION LTD | BATTERY PACK AND VEHICLE INCLUDING SAME |
| WO 2023239187 A1 | LG ENERGY SOLUTION LTD | BATTERY PACK AND VEHICLE INCLUDING SAME |
| WO 2023196682 A1 | SUTARDJA SEHAT | ACTIVE BATTERY BALANCER USING SPARE CELL |
| WO 2023193152 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY CELL AS WELL AS MANUFACTURING METHOD AND MANUFACTURING APPARATUS THEREFOR, BATTERY, AND ELECTRIC APPARATUS |
| WO 2023213546 A1 | MERCEDES BENZ GROUP AG | METHOD FOR OPERATING A HIGH-VOLTAGE ENERGY STORAGE UNIT, HIGH-VOLTAGE ENERGY STORAGE UNIT AND MOTOR VEHICLE |
| WO 2023229300 A1 | LG CHEMICAL LTD | ELECTRODE FOR LITHIUM SECONDARY BATTERY AND LITHIUM SECONDARY BATTERY COMPRISING SAME |
| WO 2023237422 A2 | DIEHL AKO STIFTUNG GMBH & CO | TEMPERATURE SENSOR ASSEMBLY, ARRANGEMENT OF A CIRCUIT BOARD WITH A TEMPERATURE SENSOR ASSEMBLY AND ENERGY STORE |
| WO 2023205946 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | END COVER ASSEMBLY, BATTERY AND ELECTRIC DEVICE |
| WO 2023221073 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SEPARATOR AND PREPARATION METHOD THEREFOR, SECONDARY BATTERY, AND ELECTRIC DEVICE |
| WO 2023226944 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | TAB SHAPING DEVICE |
| WO 2023217786 A1 | UNIV PARIS VAL DE MARNE | BATTERIES PROVIDED WITH A THERMAL MANAGEMENT SYSTEM COMPRISING PHASE-CHANGE MATERIALS |
| WO 2023199544 A1 | PANASONIC IP MAN CO LTD | COMPOSITE ACTIVE MATERIAL PARTICLES, BATTERY, AND METHOD FOR PRODUCING COMPOSITE ACTIVE MATERIAL PARTICLES |
| WO 2023199894 A1 | SANOH IND CO LTD | COOLER |
| WO 2023216053 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | DEVICE AND METHOD FOR PREPARING BATTERY CELL |
| WO 2023216051 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY CONTAINING CYCLIC SILOXANE AND ELECTRIC DEVICE |
| WO 2023216255 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTRODE ASSEMBLY, BATTERY CELL, BATTERY AND ELECTRICAL DEVICE |
| WO 2023229400 A1 | LG ENERGY SOLUTION LTD | BATTERY PACK HAVING IMPROVED QUICK CHARGE FUNCTION |
| WO 2023211260 A1 | KOREA ZINC CO LTD | METHOD FOR PRODUCING MANGANESE(II) SULFATE MONOHYDRATE FROM BY-PRODUCT OF ZINC REFINING PROCESS |
| WO 2023216241 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY AND PREPARATION METHOD THEREFOR, AND BATTERY MODULE, BATTERY PACK AND ELECTRIC APPARATUS |
| WO 2023217482 A1 | BAYERISCHE MOTOREN WERKE AG | SUPPORT DEVICE FOR AN ACCUMULATOR COMPONENT WITH PROTECTIVE STRIP |
| WO 2023228413 A1 | IBEX CO LTD | SECONDARY BATTERY |
| WO 2023239144 A1 | LG CHEMICAL LTD | METHOD FOR PREPARING POSITIVE ELECTRODE ACTIVE MATERIAL AND POSITIVE ELECTRODE ACTIVE MATERIAL |
| WO 2023195751 A1 | IUCF HYU ERICA CAMPUS | POSITIVE ELECTRODE ACTIVE MATERIAL AND MANUFACTURING METHOD THEREFOR |
| WO 2023203941 A1 | SANDEN CORP | HEAT MANAGEMENT SYSTEM |

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| WO 2023206494 A1 | CONTEMPORARY AMPEREX ENERGY SERVICE TECH LIMITED | BATTERY MANAGEMENT DEVICE, ELECTRIC APPARATUS AND BATTERY |
| WO 2023206421 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY, AND BATTERY MODULE, BATTERY PACK AND ELECTRIC DEVICE COMPRISING SAME |
| WO 2023216209 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | PORE-FORMING AGENT FOR SECONDARY BATTERY, PREPARATION METHOD FOR PORE-FORMING AGENT, NEGATIVE ELECTRODE SHEET, ELECTRODE ASSEMBLY, AND SECONDARY BATTERY |
| WO 2023225917 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY SYSTEM AND CONTROL METHOD THEREFOR, AND ELECTRIC APPARATUS AND ELECTRONIC DEVICE |
| WO 2023227337 A1 | BAYERISCHE MOTOREN WERKE AG | METHOD, DEVICE, COMPUTER PROGRAM AND COMPUTER-READABLE STORAGE MEDIUM FOR REACTIVATING A CAPACITY OF A BATTERY |
| WO 2023230136 A1 | CPS TECH HOLDINGS LLC | BATTERY DIGITAL ASSETS, AND ACCOUNTABILITY |
| WO 2023231006 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | LITHIUM-COATED COMPOSITION, NEGATIVE ELECTRODE PLATE, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, ELECTRIC DEVICE, METHOD AND USE |
| WO 2023239000 A1 | LG ENERGY SOLUTION LTD | SYSTEM AND METHOD FOR CHARGING CONTROL BETWEEN BATTERY PACKS |
| WO 2023188772 A1 | PANASONIC IP MAN CO LTD | BATTERY ANALYSIS SYSTEM, BATTERY ANALYSIS METHOD, AND BATTERY ANALYSIS PROGRAM |
| WO 2023194710 A1 | UCL BUSINESS LTD | SOLID ELECTROLYTE FILM |
| WO 2023199942 A1 | GS YUASA INT LTD | NON-AQUEOUS ELECTROLYTE STORAGE ELEMENT |
| WO 2023205524 A1 | UNIV ARKANSAS | HIGH-PERFORMANCE LITHIUM-SULFUR BATTERIES ENABLED BY SUPERIOR LITHIUM ANODES AND SULFUR CATHODES |
| WO 2023225243 A1 | GOTION INC | APPARATUS AND METHOD FOR BATTERY SOH ESTIMATION, METHOD FOR FORMING A 2D-LUT THEREOF |
| WO 2023225975 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | THERMAL RUNAWAY DETECTION METHOD AND APPARATUS |
| WO 2023229299 A1 | LG CHEMICAL LTD | ELECTRODE FOR LITHIUM SECONDARY BATTERY, MANUFACTURING METHOD THEREFOR, AND LITHIUM SECONDARY BATTERY COMPRISING SAME |
| WO 2023214722 A1 | LG ENERGY SOLUTION LTD | ORGANIC/INORGANIC COMPOSITE POROUS COATING LAYER-CONTAINING SEPARATOR FOR ELECTROCHEMICAL DEVICE, AND ELECTROCHEMICAL DEVICE COMPRISING SAME |
| WO 2023216027 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY CONTAINING SILICATE ESTER AND ELECTRICAL DEVICE |
| WO 2023228475 A1 | PANASONIC IP MAN CO LTD | BATTERY |
| WO 2023195298 A1 | PANASONIC IP MAN CO LTD | NON-AQUEOUS ELECTROLYTE SECONDARY BATTERY |
| WO 2023199825 A1 | PANASONIC IP MAN CO LTD | NON-AQUEOUS ELECTROLYTE SECONDARY BATTERY |
| WO 2023204612 A1 | LG ENERGY SOLUTION LTD | BATTERY CONTROL APPARATUS AND BATTERY CONTROL METHOD |
| WO 2023212229 A1 | UNIV ARKANSAS | HIGH-ENERGY LITHIUM METAL BATTERIES ENABLING EXTREMELY FAST CHARGE AND DISCHARGE |
| WO 2023225928 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | TAB FLATTENING DEVICE |
| WO 2023230895 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BINDER COMPOSITION, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRIC APPARATUS |
| WO 2023187047 A1 | VITESCO TECH GMBH | METHOD FOR DETERMINING THE FUNCTIONAL OPERABILITY OF A PRESSURE SENSOR, AND BATTERY ARRANGEMENT |
| WO 2023195713 A1 | LG ENERGY SOLUTION LTD | SECONDARY BATTERY MODULE AND SECONDARY BATTERY PACK COMPRISING SAME |
| WO 2023199543 A1 | PANASONIC IP MAN CO LTD | COMPOSITE ACTIVE MATERIAL PARTICLES, BATTERY, AND METHOD FOR PRODUCING COMPOSITE ACTIVE MATERIAL PARTICLES |

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| WO 2023214132 A1 | ARKEMA FRANCE | COMPOSITIONS WITH LITTLE OR NO SOLVENT COMPRISING CARBON NANOTUBES AND AT LEAST ONE POLYMER |
| WO 2023218235 A1 | TOYOTA MOTOR CO LTD | ACTIVE MATERIAL, NEGATIVE ELECTRODE LAYER, BATTERY, AND METHOD FOR PRODUCING THE SAME |
| WO 2023229171 A1 | LG ENERGY SOLUTION LTD | BATTERY MODULE AND MANUFACTURING METHOD THEREFOR |
| WO 2023239219 A1 | LG ENERGY SOLUTION LTD | BATTERY CELL INSPECTION SYSTEM |
| WO 2023243327 A1 | AIST | OXIDE SINTERED BODY AND METHOD FOR PRODUCING OXIDE SINTERED BODY |
| WO 2023211230 A1 | LG ENERGY SOLUTION LTD | LITHIUM-SULFUR BATTERY HAVING HIGH ENERGY DENSITY |
| WO 2023215966 A1 | VOLINERGY TECH INC | BATTERY HAVING INSULATING SEPARATORS AND THERMAL CONDUCTORS FOR COOLING |
| WO 2023223356 A1 | ARYABHATTA MOTORS PRIVATE LTD | SYSTEM AND METHOD FOR COOLING BATTERY PACKS USING CELL PLACEHOLDERS WITH INTEGRATED FAN |
| WO 2023225716 A1 | GELION TECH PTY LTD | A RECYCLING METHOD FOR BATTERY MATERIALS |
| WO 2023184179 A1 | NINGDE AMPEREX TECHNOLOGY LTD | ELECTRODE ASSEMBLY, PREPARATION METHOD THEREFOR AND ELECTROCHEMICAL DEVICE |
| WO 2023195744 A1 | LG CHEMICAL LTD | MANUFACTURING METHOD OF POSITIVE ELECTRODE BINDER OR POSITIVE ELECTRODE INSULATING SOLUTION FOR LITHIUM SECONDARY BATTERY AND LITHIUM SECONDARY BATTERY CONTAINING POSITIVE ELECTRODE BINDER OR POSITIVE ELECTRODE INSULATING SOLUTION PREPARED THEREBY |
| WO 2023200941 A1 | CONAMIX INC | CARBON-FREE CATHODES FOR LITHIUM SULFUR BATTERIES |
| WO 2023204454 A1 | LS ELECTRIC CO LTD | COOLING MODULE AND BATTERY DISCONNECT DEVICE COMPRISING SAME |
| WO 2023207495 A1 | BYD CO LTD | BATTERY SELF-HEATING DEVICE AND METHOD, AND VEHICLE |
| WO 2023216824 A1 | ZHUHAI COSMX BATTERY CO LTD | ELECTROLYTE AND BATTERY |
| WO 2023187249 A1 | TURUN AMMATTIKORKEAKOULU OY | BATTERY LID MODULE, BATTERY CELL ARRANGEMENT, AND BATTERY PACK |
| WO 2023188397 A1 | VEHICLE ENERGY JAPAN INC | BATTERY SYSTEM MONITORING DEVICE |
| WO 2023197176 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | MATERIAL-STRIP FEEDING INSPECTION METHOD AND APPARATUS FOR STACKING MACHINE, AND STACKING MACHINE, DEVICE AND MEDIUM |
| WO 2023235978 A1 | BLUE SOLUTIONS CANADA INC | LAMINATES FOR LITHIUM-ION BATTERIES AND METHOD FOR PREPARING SAME |
| WO 2023240633 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY CELL, BATTERY, AND ELECTRIC DEVICE |
| WO 2023188395 A1 | VEHICLE ENERGY JAPAN INC | LITHIUM-ION SECONDARY BATTERY |
| WO 2023194506 A1 | NIOCYCLE TEKNOLOJITIC SAN A S | LITHIUM-ION BATTERY RECYCLING METHOD |
| WO 2023202740 A1 | SCHAEFFLER TECHNOLOGIES AG | THERMAL UNIT OF A THERMAL CIRCUIT |
| WO 2023212692 A2 | GEORGIA TECH RES INST | CATHODE MATERIALS FOR ALKALI METAL-ION BATTERIES AND METHODS OF MAKING THE SAME |
| WO 2023226597 A1 | BYD CO LTD | BATTERY ENERGY PROCESSING APPARATUS AND VEHICLE |
| WO 2023198004 A1 | BEIJING CHEHEJIA AUTOMOBILE TECH CO LTD | BATTERY ELECTROLYTE, AND LITHIUM ION BATTERY COMPRISING SAME |
| WO 2023201021 A1 | CONAMIX INC | CATHODE COMPOSITIONS WITH BLENDS OF INTERCALATION MATERIALS FOR USE IN A LITHIUM SULFUR BATTERY |
| WO 2023206410 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | CONTROL METHOD FOR HEATING SYSTEM OF BATTERY, AND HEATING SYSTEM |
| WO 2023210913 A1 | LG ENERGY SOLUTION LTD | CELL BALANCING METHOD AND BATTERY PACK EMPLOYING SAME |
| WO 2023213592 A1 | MAN TRUCK & BUS SE | METHOD FOR PRODUCING A COMPRESSED BATTERY CELL ASSEMBLY |

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| WO 2023225911 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY CELL, BATTERY, AND ELECTRICAL DEVICE |
| WO 2023225836 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | POSITIVE ELECTRODE ACTIVE MATERIAL, POSITIVE ELECTRODE SHEET, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRICAL APPARATUS |
| WO 2023188741 A1 | HONDA MOTOR CO LTD | STORAGE BATTERY, BATTERY MODULE, AND LAMINATED FILM |
| WO 2023191466 A1 | SAMSUNG SDI CO LTD | COOLING PLATE ARRANGEMENT, BATTERY SYSTEM, ELECTRIC VEHICLE AND METHOD FOR ASSEMBLING |
| WO 2023213726 A1 | SIEMENS ENERGY AS | ENERGY STORAGE SYSTEM |
| WO 2023221090 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY CELL, BATTERY, AND ELECTRIC DEVICE |
| WO 2023224414 A1 | LG ENERGY SOLUTION LTD | BATTERY DIAGNOSIS APPARATUS, BATTERY DIAGNOSIS METHOD, BATTERY PACK, AND VEHICLE |
| WO 2023228596 A1 | TOYOTA MOTOR CO LTD | VEHICLE, VEHICLE CONTROL DEVICE, AND VEHICLE CONTROL METHOD |
| WO 2023188728 A1 | MURATA MANUFACTURING CO | BATTERY PACK |
| WO 2023224071 A1 | GS YUASA INT LTD | NONAQUEOUS ELECTROLYTE POWER STORAGE ELEMENT |
| WO 2023229921 A1 | GOTION INC | APPARATUS AND METHOD FOR BATTERY SOC ESTIMATION |
| WO 2023221104 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | HOUSING, BATTERY CELL, BATTERY, AND ELECTRIC DEVICE |
| WO 2023185894 A1 | ZHAO YIJUN | SMART CELL, BATTERY MODULE COMPRISING SMART CELL, AND BATTERY PACK |
| WO 2023189709 A1 | MURATA MANUFACTURING CO | SECONDARY BATTERY ELECTROLYTE AND SECONDARY BATTERY |
| WO 2023223066 A1 | NISSAN MOTOR | SECONDARY BATTERY |
| WO 2023224283 A1 | LG ENERGY SOLUTION LTD | BATTERY PACK AND VEHICLE INCLUDING SAME |
| WO 2023224588 A1 | YESILOVA HOLDING ANONIM SIRKETI | A DEMOUNTABLE CONNECTION ASSEMBLY |
| WO 2023226354 A1 | REPT BATTERO ENERGY CO LTD | TOP COVER STRUCTURE OF SECONDARY BATTERY, TOP COVER ASSEMBLY, AND SECONDARY BATTERY |
| WO 2023190746 A1 | ASAHI CHEMICAL IND | NONAQUEOUS SECONDARY BATTERY |
| WO 2023192769 A1 | UNIV NORTHWESTERN | IONOGEL ELECTROLYTES, FORMING METHODS AND APPLICATIONS OF SAME |
| WO 2023201775 A1 | BTR NEW MAT GROUP CO LTD | NEGATIVE ELECTRODE MATERIAL AND PREPARATION METHOD THEREFOR, AND LITHIUM ION BATTERY |
| WO 2023206492 A1 | CONTEMPORARY AMPEREX ENERGY SERVICE TECH LIMITED | WIRELESS CONNECTION METHOD AND APPARATUS FOR BATTERY MANAGER DEVICE, AND BATTERY MANAGER DEVICE |
| WO 2023220116 A1 | GLOBAL GRAPHENE GROUP INC | RECHARGEABLE SODIUM BATTERY CONTAINING A SOLID ELASTOMER ELECTROLYTE AND MANUFACTURING METHOD |
| WO 2023239216 A1 | LG ENERGY SOLUTION LTD | BATTERY PACK AND VEHICLE COMPRISING SAME |
| WO 2023189101 A1 | PANASONIC ENERGY CO LTD | POWER SUPPLY DEVICE |
| WO 2023189708 A1 | MURATA MANUFACTURING CO | SECONDARY BATTERY |
| WO 2023197236 A1 | BOE TECHNOLOGY GROUP CO LTD | BATTERY ASSEMBLY AND MANUFACTURING METHOD THEREFOR |
| WO 2023207620 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY AND ELECTRIC DEVICE |
| WO 2023211227 A1 | KOREA RES INST CHEMICAL TECH | ELECTRODE PROTECTION LAYER BASED ON CARBOXYLATED POLYMER OF INTRINSIC MICROPOROSITY, AND MANUFACTURING METHOD THEREFOR |
| WO 2023223067 A1 | NISSAN MOTOR | LITHIUM SECONDARY BATTERY |
| WO 2023228492 A1 | HITACHI LTD | EV MANAGEMENT SYSTEM |
| WO 2023229244 A1 | LG ENERGY SOLUTION LTD | BATTERY MODULE |

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| WO 2023207866 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY AND ELECTRIC APPARATUS |
| WO 2023215476 A1 | UNIV MICHIGAN REGENTS | ARTIFICIAL SOLID ELECTROLYTE INTERPHASE FOR ENABLING ETHYLENE CARBONATE-FREE ELECTROLYTES IN LITHIUM-ION BATTERIES |
| WO 2023189375 A1 | MURATA MANUFACTURING CO | SOLID-STATE ELECTROLYTE FOR SOLID-STATE BATTERY, SOLID-STATE BATTERY, AND BATTERY PACKAGE |
| WO 2023188573 A1 | HONDA MOTOR CO LTD | BATTERY DEGRADATION STATE ESTIMATION DEVICE, DEGRADATION SUPPRESSION SYSTEM, DEGRADATION STATE ESTIMATION METHOD, AND DEGRADATION SUPPRESSION METHOD |
| WO 2023189693 A1 | MAXELL LTD | BATTERY AND METHOD FOR PRODUCING SAME |
| WO 2023190871 A1 | PANASONIC IP MAN CO LTD | SECONDARY BATTERY |
| WO 2023220857 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTROLYTE, SECONDARY BATTERY COMPRISING SAME, BATTERY MODULE, BATTERY PACK, AND ELECTRIC APPARATUS |
| WO 2023229254 A1 | LG ENERGY SOLUTION LTD | BATTERY MODULE THAT INTEGRATES GAS VENTING CHANNEL AND COOLING CHANNEL, BATTERY PACK INCLUDING SAME, AND METHOD FOR MANUFACTURING BATTERY MODULE |
| WO 2023196468 A1 | SION POWER CORP | LATERAL CONSTRAINT OF BATTERY COMPONENTS UNDER FORCE |
| WO 2023201393 A1 | UNIV ADELAIDE | IMPROVED ELECTROLYTE FOR BATTERIES |
| WO 2023204536 A1 | LG ENERGY SOLUTION LTD | SECONDARY BATTERY |
| WO 2023206449 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY AND BATTERY MODULE COMPRISING SAME, BATTERY PACK, AND ELECTRICAL DEVICE |
| WO 2023223581 A1 | PANASONIC IP MAN CO LTD | BATTERY |
| WO 2023195336 A1 | DENSO CORP | REMAINING BATTERY POWER ESTIMATION DEVICE |
| WO 2023206216 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | NON-AQUEOUS ELECTROLYTE, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRICAL DEVICE |
| WO 2023207619 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY, ELECTRIC DEVICE, AND SECONDARY UTILIZATION METHOD FOR WIRE HARNESS OF BATTERY |
| WO 2023223810 A1 | MURATA MANUFACTURING CO | SOLID ELECTROLYTE CERAMIC AND SOLID-STATE BATTERY |
| WO 2023224342 A1 | LG ENERGY SOLUTION LTD | ALL-SOLID-STATE BATTERY AND MANUFACTURING METHOD THEREFOR |
| WO 2023229044 A1 | IBIDEN CO LTD | HEAT-TRANSMISSION CONTROLLING SHEET AND BATTERY PACK |
| WO 2023229046 A1 | IBIDEN CO LTD | HEAT TRANSFER SUPPRESSION SHEET AND BATTERY PACK |
| WO 2023187875 A1 | HONDA MOTOR CO LTD | INFORMATION-PROVIDING DEVICE, INFORMATION PROVISION METHOD, AND PROGRAM |
| WO 2023211164 A1 | LG ENERGY SOLUTION LTD | LITHIUM-SULFUR BATTERY HAVING HIGH ENERGY DENSITY |
| WO 2023216703 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | NEGATIVE ELECTRODE SHEET, PREPARATION METHOD THEREFOR, AND RELATED DEVICE |
| WO 2023224125 A1 | IBIDEN CO LTD | BUS BAR AND PRODUCTION METHOD THEREFOR, AND POWER STORAGE DEVICE |
| WO 2023224223 A1 | PHILOPHOS INC | SECONDARY BATTERY IMPURITY INSPECTION METHOD AND SYSTEM BASED ON OPTICAL COHERENCE TOMOGRAPHY |
| WO 2023184784 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK AND ELECTRIC DEVICE |
| WO 2023189149 A1 | TOYOTA JIDOSHOKKI KK | POWER STORAGE DEVICE |
| WO 2023189678 A1 | MURATA MANUFACTURING CO | SOLID-STATE BATTERY AND ELECTRONIC DEVICE |
| WO 2023201774 A1 | BTR NEW MAT GROUP CO LTD | NEGATIVE ELECTRODE MATERIAL AND PREPARATION METHOD THEREFOR, AND LITHIUM ION BATTERY |
| WO 2023203795 A1 | PANASONIC IP MAN CO LTD | BATTERY AND METHOD FOR MANUFACTURING SAME |

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| WO 2023203796 A1 | PANASONIC IP MAN CO LTD | BATTERY AND METHOD FOR PRODUCING SAME |
| WO 2023205276 A1 | TAE TECH INC | PULSED CHARGING FOR ENERGY SOURCES OF CONNECTED MODULES |
| WO 2023216139 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY AND MANUFACTURING METHOD THEREFOR, BATTERY MODULE, BATTERY PACK AND ELECTRICAL DEVICE |
| WO 2023217762 A1 | RWTH AACHEN | BATTERY DEVICE |
| WO 2023224177 A1 | LPN CO LTD | NOVEL METHOD FOR PREPARING GRANULATED SPHERICAL GRAPHITE, GRANULATED SPHERICAL GRAPHITE PREPARED THEREBY, AND SECONDARY BATTERY COMPRISING SAME AS ANODE ACTIVE MATERIAL |
| WO 2023229047 A1 | IBIDEN CO LTD | HEAT TRANSFER SUPPRESSION SHEET AND BATTERY PACK |
| WO 2023229267 A1 | LG ENERGY SOLUTION LTD | BATTERY MANAGEMENT DEVICE AND OPERATION METHOD THEREOF |
| WO 2023197117 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | MEASUREMENT METHOD AND APPARATUS FOR TAB |
| WO 2023197162 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY CELL, BATTERY AND ELECTRIC DEVICE |
| WO 2023200194 A1 | LG ENERGY SOLUTION LTD | BATTERY CELL TRACKING DEVICE |
| WO 2023206483 A1 | CONTEMPORARY AMPEREX ENERGY SERVICE TECH LIMITED | BATTERY MANAGEMENT METHOD, BATTERY MANAGEMENT UNIT, AND ELECTRIC DEVICE |
| WO 2023220884 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY AND ELECTRIC DEVICE |
| WO 2023221113 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTROLYTE, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRIC DEVICE |
| WO 2023230930 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BINDER AND PREPARATION METHOD THEREFOR, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRIC APPARATUS |
| WO 2023239217 A1 | LG ENERGY SOLUTION LTD | BATTERY PACK, METHOD FOR MANUFACTURING BATTERY PACK, AND VEHICLE INCLUDING BATTERY PACK |
| WO 2023184497 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | DISPERSANT COMPOSITION, POSITIVE ELECTRODE PLATE, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRIC APPARATUS |
| WO 2023216100 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY PACK AND ELECTRIC DEVICE |
| WO 2023223064 A1 | NISSAN MOTOR | ALL-SOLID-STATE BATTERY |
| WO 2023223065 A1 | NISSAN MOTOR | SECONDARY BATTERY |
| WO 2023223582 A1 | PANASONIC IP MAN CO LTD | BATTERY AND PRODUCTION METHOD FOR BATTERY |
| WO 2023223712 A1 | MURATA MANUFACTURING CO | SOLID ELECTROLYTE CERAMICS AND SOLID-STATE BATTERY |
| WO 2023193213 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | METHOD AND APPARATUS FOR DETECTING DEFECT OF INSULATING COATING OF BATTERY ELECTRODE PLATE, AND COMPUTER DEVICE |
| WO 2023219283 A1 | LG ENERGY SOLUTION LTD | ALL-SOLID-STATE BATTERY |
| WO 2023189818 A1 | MAXELL LTD | ELECTRODE FOR ALL-SOLID-STATE BATTERY AND ALL-SOLID-STATE BATTERY |
| WO 2023189636 A1 | MURATA MANUFACTURING CO | SECONDARY BATTERY, BATTERY PACK, ELECTRONIC DEVICE, ELECTRIC TOOL, ELECTRIC AIRCRAFT, ELECTRIC VEHICLE, AND METHOD FOR MANUFACTURING ELECTRODE WINDING BODY FOR SECONDARY BATTERY |
| WO 2023204620 A1 | LG ENERGY SOLUTION LTD | POSITIVE ELECTRODE AND SECONDARY BATTERY COMPRISING SAME POSITIVE ELECTRODE |
| WO 2023208007 A1 | HUAWEI TECH CO LTD | COMPOSITE MATERIAL, PREPARATION METHOD THEREFOR AND APPLICATION THEREOF |
| WO 2023210636 A1 | GS YUASA INT LTD | LEAD-ACID BATTERY |
| WO 2023219325 A1 | LG ENERGY SOLUTION LTD | ELECTRODE ASSEMBLY, MANUFACTURING METHOD THEREFOR AND BATTERY CELL INCLUDING SAME |

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| WO 2023220102 A1 | LI IND INC | METHODS AND SYSTEMS FOR SCALABLE DIRECT RECYCLING OF BATTERY WASTE |
| WO 2023224070 A1 | GS YUASA INT LTD | NON-AQUEOUS ELECTROLYTE POWER STORAGE ELEMENT |
| WO 2023225937 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | NEGATIVE ELECTRODE PLATE AND PREPARATION METHOD THEREFOR, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK AND ELECTRIC DEVICE |
| WO 2023190517 A1 | MAXELL LTD | ALL-SOLID-STATE SECONDARY BATTERY |
| WO 2023195823 A1 | LG ENERGY SOLUTION LTD | POSITIVE ELECTRODE ACTIVE MATERIAL, POSITIVE ELECTRODE INCLUDING SAME, AND LITHIUM SECONDARY BATTERY |
| WO 2023193166 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTRODE ASSEMBLY AND SECONDARY BATTERY CONTAINING SAME, AND BATTERY MODULE, BATTERY PACK AND ELECTRIC APPARATUS |
| WO 2023203424 A1 | SEMICONDUCTOR ENERGY LAB | POSITIVE ELECTRODE ACTIVE MATERIAL AND SECONDARY BATTERY |
| WO 2023204504 A1 | KOREA MARITIME UNIV IND ACAD | BATTERY MODULE COMPRISING THREE-DIMENSIONAL PULSATING HEAT PIPE |
| WO 2023210635 A1 | GS YUASA INT LTD | LEAD STORAGE BATTERY |
| WO 2023210941 A1 | LG ENERGY SOLUTION LTD | ELECTRODE ASSEMBLY AND BATTERY CELL INCLUDING SAME |
| WO 2023216254 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTRODE ASSEMBLY, BATTERY CELL, BATTERY, AND ELECTRIC DEVICE |
| WO 2023224234 A1 | LG ENERGY SOLUTION LTD | METHOD AND SYSTEM FOR DRYING A BATTERY PART |
| WO 2023184328 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | LITHIUM ION BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRICAL DEVICE |
| WO 2023190576 A1 | HONDA MOTOR CO LTD | CHARGE CONTROL DEVICE |
| WO 2023200052 A1 | COSBON CO LTD | METHOD FOR MANUFACTURING BATTERY PACK BY USING RESIN MOLDING |
| WO 2023210232 A1 | ABRI CO LTD | LITHIUM SULFUR BATTERY POSITIVE ELECTRODE, LITHIUM SULFUR BATTERY, AND CHARGING/DISCHARGING METHOD FOR SAME |
| WO 2023210751 A1 | FUJIFILM CORP | BATTERY ELECTRODE PLATE GROUP MANUFACTURING METHOD AND BATTERY ELECTRODE PLATE GROUP MANUFACTURING DEVICE |
| WO 2023214991 A1 | HYZON MOTORS INC | SOLID STATE ELECTROLYTE FOR ENERGY STORAGE DEVICES |
| WO 2023218218 A1 | NISSAN MOTOR | LITHIUM SECONDARY BATTERY |
| WO 2023189374 A1 | MURATA MANUFACTURING CO | SOLID-STATE BATTERY ELECTRODE AND METHOD FOR MANUFACTURING SAME, SOLID-STATE BATTERY AND METHOD FOR MANUFACTURING SAME, AND BATTERY PACKAGE |
| WO 2023190872 A1 | PANASONIC IP MAN CO LTD | LITHIUM SECONDARY BATTERY |
| WO 2023191687 A1 | SCANIA CV AB | BATTERY PACK AND A VEHICLE COMPRISING A BATTERY PACK |
| WO 2023201467 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY TRANSMISSION SYSTEM, CONTROL METHOD, SIMULATION METHOD, DEVICE, PLC AND MEDIUM |
| WO 2023202238 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | NEGATIVE ELECTRODE SHEET, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRICAL DEVICE |
| WO 2023204163 A1 | MITSUBISHI GAS CHEMICAL CO | METHOD FOR PRODUCING LGPS-BASED SOLID ELECTROLYTE, AND METHOD FOR PRODUCING ALL-SOLID-STATE BATTERY |
| WO 2023204647 A1 | LG ENERGY SOLUTION LTD | ELECTRODE, SECONDARY BATTERY COMPRISING SAME, AND METHOD FOR MANUFACTURING SAME |
| WO 2023200305 A1 | LG ENERGY SOLUTION LTD | NEGATIVE ELECTRODE AND SECONDARY BATTERY COMPRISING SAME |
| WO 2023218864 A1 | TOYOTA JIDOSHOKKI KK | POWER STORAGE DEVICE |
| WO 2023189322 A1 | MAXELL LTD | LITHIUM ION SECONDARY BATTERY |
| WO 2023190502 A1 | HONDA MOTOR CO LTD | BATTERY PACK |
| WO 2023191235 A1 | SAMSUNG SDI CO LTD | ELECTROLYTE FOR LITHIUM SECONDARY BATTERY AND LITHIUM SECONDARY BATTERY COMPRISING SAME |
| WO 2023200108 A1 | SAMSUNG SDI CO LTD | SEPARATOR FOR LITHIUM SECONDARY BATTERY, AND LITHIUM SECONDARY BATTERY COMPRISING SAME |

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| WO 2023200272 A1 | LG ENERGY SOLUTION LTD | ELECTRODE ASSEMBLY INCLUDING ELECTRODE TAPE HAVING MOISTURE ABSORBENT LAYER, AND SECONDARY BATTERY COMPRISING SAME |
| WO 2023204009 A1 | AISIN CORP | VEHICLE BATTERY CASE |
| WO 2023219285 A1 | LG ENERGY SOLUTION LTD | BATTERY CELL, MANUFACTURING APPARATUS THEREFOR, AND MANUFACTURING METHOD THEREFOR |
| WO 2023184501 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | POSITIVE-ELECTRODE ACTIVE MATERIAL COMPOSITION, POSITIVE ELECTRODE PLATE, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK AND ELECTRIC APPARATUS |
| WO 2023190646 A1 | MINITUBISHI CHEM CORP | PARTITIONING MEMBER AND BATTERY ASSEMBLY |
| WO 2023191030 A1 | MINITUBISHI MATERIALS CORP | ELECTRODE MATERIAL LEACHING METHOD AND METHOD FOR SEPARATING COBALT AND NICKEL |
| WO 2023210658 A1 | NUVOTON TECH CORPORATION JAPAN | BATTERY MANAGEMENT SYSTEM |
| WO 2023215526 A1 | ZERO NOX INC | MODULARIZATION AND POWER MANAGEMENT OF BATTERY MODULES |
| WO 2023219304 A1 | SAMSUNG SDI CO LTD | SEPARATOR FOR LITHIUM SECONDARY BATTERY AND LITHIUM SECONDARY BATTERY COMPRISING SAME |
| WO 2023187804 A1 | TVS MOTOR CO LTD | A SYSTEM OF FASTENING A BATTERY PACK |
| WO 2023187824 A1 | ARYABHATTA MOTORS PRIVATE LTD | A DYNAMIC BATTERY COOLING SYSTEM AND METHOD THEREOF |
| WO 2023201726 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY CELL, BATTERY AND ELECTRICAL DEVICE |
| WO 2023210513 A1 | GS YUASA INT LTD | LEAD-ACID BATTERY AND METHOD FOR MANUFACTURING SAME, AND METHOD FOR USE THEREOF |
| WO 2023210931 A1 | LG ENERGY SOLUTION LTD | BATTERY MODULE, BATTERY PACK AND VEHICLE COMPRISING SAME |
| WO 2023216240 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY AND PREPARATION METHOD THEREFOR, BATTERY MODULE, BATTERY PACK, AND ELECTRIC DEVICE |
| WO 2023224330 A1 | LG ENERGY SOLUTION LTD | BATTERY PACK |
| WO 2023193227 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | APPARATUS AND METHOD FOR MANUFACTURING ELECTRODE ASSEMBLY |
| WO 2023193231 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY, PREPARATION METHOD FOR CORRESPONDING POSITIVE ELECTRODE ACTIVE MATERIAL, BATTERY MODULE, BATTERY PACK AND ELECTRIC DEVICE |
| WO 2023190363 A1 | RESONAC CORP | ELECTROCHEMICAL DEVICE, AND ELECTROLYTE FOR ELECTROCHEMICAL DEVICE |
| WO 2023196095 A1 | TOYOTA ENG & MFG NORTH AMERICA | MOVABLE RECEIVER COIL FOR IMPROVED WIRELESS COUPLING & CHARGING |
| WO 2023204566 A1 | LG CHEMICAL LTD | NEGATIVE ELECTRODE MATERIAL, MANUFACTURING METHOD THEREFOR, NEGATIVE ELECTRODE INCLUDING SAME, AND LITHIUM SECONDARY BATTERY INCLUDING SAME NEGATIVE ELECTRODE |
| WO 2023184397 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | POSITIVE ELECTRODE SHEET, SECONDARY BATTERY AND ELECTRIC DEVICE |
| WO 2023191200 A1 | SAMSUNG SDI CO LTD | CATHODE FOR RECHARGEABLE LITHIUM BATTERY AND RECHARGEABLE LITHIUM BATTERY INCLUDING SAME |
| WO 2023219307 A1 | SAMSUNG SDI CO LTD | SEPARATOR FOR LITHIUM SECONDARY BATTERY AND LITHIUM SECONDARY BATTERY INCLUDING SAME |
| WO 2023188949 A1 | MURATA MANUFACTURING CO | SECONDARY BATTERY ELECTROLYTE AND SECONDARY BATTERY |
| WO 2023190027 A1 | PANASONIC ENERGY CO LTD | NON-AQUEOUS ELECTROLYTE SECONDARY BATTERY |
| WO 2023204260 A1 | MITSUBI CHEMICALS INC | TEMPERATURE CONTROL HOLDER STRUCTURE, TEMPERATURE CONTROL PACK, AND METHOD FOR PRODUCING TEMPERATURE CONTROL HOLDER |
| WO 2023206427 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY, BATTERY MODULE COMPRISING SAME, BATTERY PACK, AND ELECTRIC DEVICE |
| WO 2023189179 A1 | DENSO CORP | IMPEDANCE MEASUREMENT DEVICE FOR SECONDARY BATTERY |
| WO 2023191098 A1 | VEHICLE ENERGY JAPAN INC | BATTERY CONTROL DEVICE |

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| WO 2023211179 A1 | LG ENERGY SOLUTION LTD | SIDE SEALING DEVICE FOR STACKED ELECTRODE BODY, SECONDARY BATTERY HAVING STACKED ELECTRODE BODY, AND METHOD FOR MANUFACTURING SAME |
| WO 2023214860 A1 | LG ENERGY SOLUTION LTD | ELECTRODE PRE-LITHIATION METHOD, PRE-LITHIATED ELECTRODE FOR LITHIUM SECONDARY BATTERY, AND ELECTRODE PRE-LITHIATION DEVICE |
| WO 2023191416 A1 | SOLIVIS INC | METHOD FOR PREPARING SULFIDE-BASED SOLID ELECTROLYTE |
| WO 2023204550 A1 | LG ENERGY SOLUTION LTD | BATTERY MODULE AND BATTERY PACK INCLUDING SAME |
| WO 2023216028 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | POLYMER AND PREPARATION THEREOF, AND ELECTROLYTE MEMBRANE AND PREPARATION THEREOF |
| WO 2023191541 A1 | LG ENERGY SOLUTION LTD | NONAQUEOUS ELECTROLYTE AND LITHIUM SECONDARY BATTERY COMPRISING SAME |
| WO 2023191269 A1 | LG ENERGY SOLUTION LTD | GEL POLYMER ELECTROLYTE COMPOSITION HAVING REDUCED CROSSLINKING TIME, SECONDARY BATTERY COMPRISING SAME, AND METHOD FOR MANUFACTURING SECONDARY BATTERY |
| WO 2023191540 A1 | LG ENERGY SOLUTION LTD | NON-AQUEOUS ELECTROLYTE FOR LITHIUM SECONDARY BATTERY AND LITHIUM SECONDARY BATTERY INCLUDING SAME |
| WO 2023197859 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY CELL, BATTERY AND ELECTRIC DEVICE |
| WO 2023206949 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | CYLINDRICAL ELECTRODE ASSEMBLY, BATTERY CELL, BATTERY, ELECTRICAL DEVICE, AND MANUFACTURING METHOD |
| WO 2023214703 A1 | LG ENERGY SOLUTION LTD | SECONDARY BATTERY |
| WO 2023191246 A1 | LG ENERGY SOLUTION LTD | BATTERY CASE AND SECONDARY BATTERY |
| WO 2023206397 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK AND ELECTRICAL DEVICE |
| WO 2023184506 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK AND ELECTRIC DEVICE |
| WO 2023204412 A1 | LG ENERGY SOLUTION LTD | LAMINATION APPARATUS AND UNIT CELL MANUFACTURING METHOD |
| WO 2023214844 A1 | LG ENERGY SOLUTION LTD | METHOD FOR MANUFACTURING ELECTRODE ASSEMBLY, ELECTRODE ASSEMBLY, AND LITHIUM SECONDARY BATTERY COMPRISING SAME |
| WO 2023216052 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTROLYTE, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRIC APPARATUS |
| WO 2023211126 A1 | LG ENERGY SOLUTION LTD | BATTERY MODULE, BATTERY PACK AND VEHICLE INCLUDING SAME |
| WO 2023191517 A1 | STANDARD ENERGY INC | SYSTEMS CONFIGURED FOR THERMAL MANAGEMENT OF BATTERY CELLS |
| WO 2023216130 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTROLYTE, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK AND ELECTRICAL DEVICE |
| WO 2023191199 A1 | SAMSUNG SDI CO LTD | EXTERIOR MATERIAL FOR RECHARGEABLE LITHIUM BATTERY AND RECHARGEABLE LITHIUM BATTERY INCLUDING SAME |
| WO 2023191595 A1 | SK ON CO LTD | POSITIVE ELECTRODE ACTIVE MATERIAL |
| WO 2023224384 A1 | LG ENERGY SOLUTION LTD | PRISMATIC SECONDARY BATTERY |
| WO 2023187192 A1 | PLASTIC OMNIUM CLEAN ENERGY SYSTEMS RES | BATTERY ASSEMBLY FOR A MOTOR VEHICLE |
| WO 2023216029 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK AND ELECTRIC APPARATUS |
| WO 2023191185 A1 | SAMSUNG SDI CO LTD | SEPARATOR FOR RECHARGEABLE LITHIUM BATTERY AND RECHARGEABLE LITHIUM BATTERY INCLUDING SAME |
| WO 2023216039 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | NEGATIVE POLE PIECE, ELECTRODE ASSEMBLY, BATTERY CELL, BATTERY AND ELECTRICAL APPARATUS |

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| WO 2023221120 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | NON-AQUEOUS ELECTROLYTE, SECONDARY BATTERY COMPRISING SAME, BATTERY MODULE, BATTERY PACK, AND ELECTRIC DEVICE |
| WO 2023184294 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | POSITIVE ELECTRODE SHEET, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRIC DEVICE |
| WO 2023184408 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | POSITIVE ELECTRODE ACTIVE MATERIAL AND PREPARATION METHOD THEREFOR, POSITIVE ELECTRODE PLATE COMPRISING SAME, SECONDARY BATTERY AND ELECTRIC DEVICE |
| WO 2023216142 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRICAL DEVICE |
| WO 2023191240 A1 | LG ENERGY SOLUTION LTD | ANODE, MANUFACTURING METHOD THEREFOR, SECONDARY BATTERY COMPRISING SAME, AND SECONDARY BATTERY MANUFACTURING METHOD |
| WO 2023191604 A1 | LG CHEMICAL LTD | CATHODE ACTIVE MATERIAL, PREPARATION METHOD THEREFOR, AND LITHIUM SECONDARY BATTERY COMPRISING SAME |
| WO 2023201094 A2 | FORGE NANO INC | METHODS OF REACTIVE DRYING A SEPARATOR DURING BATTERY MANUFACTURING, DRIED SEPARATORS, AND BATTERIES CONTAINING THE SEPARATOR |
| WO 2023216101 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | POSITIVE ELECTRODE SLURRY, POSITIVE ELECTRODE SHEET, AND SECONDARY BATTERY COMPRISING POSITIVE ELECTRODE SHEET |
| WO 2023191253 A1 | LG ENERGY SOLUTION LTD | BATTERY CONTROL SYSTEM FOR PREVENTING IMBALANCE BETWEEN BATTERY CELLS, AND CONTROL METHOD THEREFOR |
| WO 2023184154 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTROLYTE AND SECONDARY BATTERY THEREOF, BATTERY MODULE, BATTERY PACK AND ELECTRIC DEVICE |
| WO 2023191198 A1 | SAMSUNG SDI CO LTD | SHEET FOR RECHARGEABLE LITHIUM BATTERY AND RECHARGEABLE LITHIUM BATTERY INCLUDING SAME |
| WO 2023200083 A1 | LG ENERGY SOLUTION LTD | LITHIUM SECONDARY BATTERY HAVING IMPROVED STABILITY |
| WO 2023191386 A1 | SEOUL NAT UNIV R&DB FOUNDATION | ELECTROLYTE ADDITIVE FOR LITHIUM ION BATTERY, ELECTROLYTE COMPRISING SAME, AND LITHIUM ION BATTERY COMPRISING SAME |
| WO 2023184355 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | POSITIVE ELECTRODE ACTIVE MATERIAL, PREPARATION METHOD THEREFOR, AND POSITIVE ELECTRODE PLATE, SECONDARY BATTERY, AND ELECTRIC DEVICE COMPRISING SAME |
| WO 2023184494 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | POSITIVE ELECTRODE ACTIVE MATERIAL AND PREPARATION METHOD THEREFOR, POSITIVE ELECTRODE PLATE COMPRISING SAME, SECONDARY BATTERY AND ELECTRIC DEVICE |
| WO 2023216143 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTRODE PLATE AND PREPARATION METHOD THEREFOR, AND SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK AND ELECTRIC APPARATUS |
| WO 2023211011 A1 | LG ENERGY SOLUTION LTD | PRISMATIC SECONDARY BATTERY WITH HEAT ABSORBER EMBEDDED THEREIN |
| WO 2023191270 A1 | LG ENERGY SOLUTION LTD | GEL POLYMER ELECTROLYTE COMPOSITION ATTAINING SHORTENED CROSSLINKING TIME, SECONDARY BATTERY COMPRISING SAME, AND MANUFACTURING METHOD FOR SECONDARY BATTERY |
| WO 2023193230 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTROLYTE SOLUTION, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRIC DEVICE |
| WO 2023201491 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTRODE ACTIVE MATERIAL AND PREPARATION METHOD THEREFOR, POLE PIECE AND BATTERY |
| WO 2023211033 A1 | LG ENERGY SOLUTION LTD | BATTERY PACK WITH ENHANCED COOLING PERFORMANCE |
| WO 2023193335 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY CELL, BATTERY, AND ELECTRIC APPARATUS |
| WO 2023184541 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY PACK AND ELECTRIC DEVICE COMPRISING SAME |

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| WO 2023184335 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | POSITIVE ELECTRODE SHEET, SECONDARY BATTERY, AND ELECTRICAL APPARATUS |
| WO 2023184903 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | ELECTRODE ASSEMBLY, BATTERY CELL, BATTERY, ELECTRIC DEVICE, WINDING DEVICE, AND METHOD |
| WO 2023200082 A1 | LG ENERGY SOLUTION LTD | LITHIUM SECONDARY BATTERY ALLOWING EASY STATE ESTIMATION |
| WO 2023184304 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | NEW POSITIVE ELECTRODE PLATE, SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK AND ELECTRIC DEVICE |
| WO 2023184496 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | SECONDARY BATTERY, BATTERY MODULE, BATTERY PACK, AND ELECTRIC DEVICE |

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SUPERCONDENSADORES

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| WO 2023228196 A1 | CHIRAL LTD | A METHOD FOR CONTROLLING A WORK FUNCTION OF AT LEAST ONE SURFACE, ELECTRODE, ELECTROCHEMICAL CELL ENERGY STORAGE DEVICE, PHOTOVOLTAIC CELL AND ELECTRICAL COMPONENT THEREOF |
| WO 2023213932 A1 | KAYHAN SWISS GMBH | POLYMER SYNTHETIC STONES WITH THE ABILITY TO STORE ELECTRICAL ENERGY, AND THEIR MANUFACTURING |
| WO 2023238926 A1 | MAXELL LTD | ELECTRODE STACK, METHOD FOR PRODUCING SAME AND ELECTROCHEMICAL ELEMENT |
| WO 2023243336 A1 | GS YUASA INT LTD | NEGATIVE ELECTRODE FOR ENERGY STORAGE ELEMENT AND ENERGY STORAGE ELEMENT |
| WO 2023195434 A1 | GS YUASA INT LTD | POWER STORAGE ELEMENT AND POWER STORAGE DEVICE |
| WO 2023223125 A1 | SEMICONDUCTOR ENERGY LAB | ELECTRIC POWER STORAGE MODULE |
| WO 2023189249 A1 | TOYOTA JIDOSHOKKI KK | POWER STORAGE DEVICE |
| WO 2023216004 A1 | UNIV CONCEPCION | METHOD FOR PRODUCING GRAPHENE-BASED MATERIALS AND USE THEREOF IN THE MANUFACTURE OF ELECTRODES FOR ELECTROCHEMICAL CAPACITORS |

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SISTEMAS DE RECUPERACIÓN DE ENERGÍA; FRENOS REGENERATIVOS

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| WO 2023242423 A1 | NEW H POWERTRAIN HOLDING S L U | METHOD AND SYSTEM FOR CONTROLLING A HYBRID MOTOR VEHICLE DURING DECELERATIONS |
| WO 2023238119 A1 | NENNER WEIL MICHAEL | ELECTRICAL MOTOR TRANSMISSION |
| WO 2023186672 A1 | JAGUAR LAND ROVER LTD | CONTROLLING THERMAL ENERGY FROM VEHICLE REGENERATIVE BRAKING |
| WO 2023196164 A1 | UNIV IOWA RES FOUND | USING 'DYNAMIC REGENERATIVE BRAKING' TO ENHANCE CRASH AVOIDANCE |
| WO 2023215216 A1 | CONS METCO INC | VEHICLE ELECTRICAL POWER APPARATUS |
| WO 2023213955 A2 | LEIBER THOMAS | DRIVING DYNAMICS SYSTEM, VEHICLE AND METHOD FOR OPERATING A |

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| WO 2023232566 A1 | RENAULT SAS | HALF-HOUSING FOR AN ELECTRIC MOTOR |
| WO 2023233247 A1 | INVACTION S R L | ELECTRIC MACHINE DEVICE, USE AND OPERATING METHOD |
| WO 2023227279 A1 | VALEO SYSTEMES DE CONTROLE MOTEUR | ACTUATOR FOR A PARKING LOCK SYSTEM OF A VEHICLE GEARBOX |
| WO 2023213579 A1 | RENAULT SAS | CASING FOR A MECHANICAL OR ELECTRICAL PART, AND OIL PUMP |
| WO 2023202775 A1 | SCHUNK TRANSIT SYS GMBH | DISSIPATION DEVICE AND METHOD FOR DISSIPATING ELECTRICAL CURRENTS |
| WO 2023222532 A1 | ZAHNRADFABRIK FRIEDRICHSHAFEN | DUAL-LAYER WAVE WINDING MAT AND POWER-DEPENDENT COMPONENT HAVING A DUAL-LAYER WAVE WINDING MAT |
| WO 2023186210 A1 | SCHAEFFLER TECHNOLOGIES AG | STATOR |
| WO 2023227464 A1 | KASPER ROLAND | WINDING, ELECTRIC MACHINE AND MANUFACTURING METHOD |
| WO 2023187390 A1 | SAIETTA GROUP PLC | A ROTOR FOR AN ELECTRICAL MACHINE |
| WO 2023227616 A1 | SOGEFI AIR & COOLING | FLUID CIRCULATION MODULE HAVING AT LEAST TWO PUMPS AND COOLING SYSTEM HAVING AT LEAST ONE SUCH MODULE |
| WO 2023214302 A1 | TORINO POLITECNICO | ELECTRIC MOTOR ADAPTED TO BE MOUNTED IN A WHEEL OF A VEHICLE AND BRAKING SYSTEM THEREOF |
| WO 2023195502 A1 | KOKUSAI KEISOKUKI KK | ELECTRIC ACTUATOR AND ELECTRIC MOBILITY VEHICLE |
| WO 2023204958 A1 | CANOO TECH INC | COST-EFFECTIVE ELECTRIC VEHICLE DRIVE UNIT COOLING AND LUBRICATION SYSTEM |
| WO 2023223359 A1 | ARYABHATTA MOTORS PRIVATE LTD | A HUBLESS RIM ASSEMBLY AND A METHOD THEREOF |
| WO 2023189824 A1 | NIPPON STEEL CORP | ROTATING ELECTRIC MACHINE |
| WO 2023195439 A1 | NIHON PARKERIZING | ELECTRONIC COMPONENT |
| WO 2023195548 A1 | VEHICLE ENERGY JAPAN INC | BATTERY CONTROL DEVICE AND BATTERY SYSTEM |
| WO 2023225478 A2 | UNIV CALIFORNIA | AN AIR-CORE-STATOR ELECTRIC MACHINE WITH SUPERCONDUCTING CIRCUITS AND SHIELDING |

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CONVERTIDORES, INVERSORES

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| WO 2023237502 A1 | VALEO EAUTOMOTIVE FRANCE SAS | ELECTRONIC POWER DEVICE FOR A DRIVE DEVICE OF A MOBILITY VEHICLE |
| WO 2023237405 A1 | BRUSA HYPOWER AG | CHARGING SYSTEM, VOLTAGE CONVERTER UNIT, AND ACCUMULATOR UNIT |
| WO 2023243138 A1 | MITSUBISHI HEAVY IND LTD | SUBSTRATE FOR POWER MODULE |
| WO 2023243169 A1 | HITACHI ASTEMO LTD | POWER CONVERSION DEVICE |
| WO 2023208531 A1 | SIEMENS MOBILITY GMBH | METHOD FOR CONTROLLING AN ELECTRODYNAMIC BRAKE APPARATUS OF A RAIL VEHICLE |
| WO 2023196767 A1 | TEXAS INSTRUMENTS INC | PULSE WIDTH MODULATOR FOR A STACKED HALF BRIDGE |
| WO 2023217470 A1 | BAYERISCHE MOTOREN WERKE AG | SUPPLYING POWER TO A LV ONBOARD ELECTRICAL SUBSYSTEM OF A VEHICLE FROM THE HV ONBOARD ELECTRICAL SUBSYSTEM THEREOF |
| WO 2023202867 A1 | MAGNA POWERTRAIN GMBH & CO KG | METHOD FOR PRODUCING AN INVERTER AND INVERTER |
| WO 2023215657 A1 | TRANSPHORM TECH INC | CASCADE NORMALLY OFF SWITCH WITH DRIVER AND SELF BIAS |
| WO 2023186368 A1 | BOSCH GMBH ROBERT | CONTROL DEVICE FOR A DC-DC CONVERTER AND METHOD FOR CONTROLLING A DC-DC CONVERTER |
| WO 2023227205 A1 | HUAWEI DIGITAL POWER TECH CO LTD | TECHNIQUES FOR POWER CONVERSION IN SINGLE-PHASE AND MULTI-PHASE POWER NETWORKS |
| WO 2023210439 A1 | HINO MOTORS LTD | CRUISING RANGE CALCULATION DEVICE AND METHOD FOR CALCULATING CRUISING RANGE |
| WO 2023229476 A1 | EUROLOOP SP Z O O | ELECTRIC VEHICLE DC CHARGER |
| WO 2023219595 A1 | ASELSAN ELEKTRONIK SANAYI VE TICARET ANONIM SIRKETI | TRANSFORMERLESS 3-PHASE, 3-LEVEL T-TYPE NPC UNFOLDING INVERTER WITH 3 HF SWITCHES ON DC SIDE |
| WO 2023222963 A1 | NIDEC PSA EMOTORS | DEVICE FOR MAKING AN ELECTRICAL CONNECTION BETWEEN AN ELECTRIC MOTOR AND AN INVERTER |
| WO 2023186423 A1 | BOSCH GMBH ROBERT | DC/DC CONVERTERS WITH COMBINED CURRENT AND VOLTAGE REGULATION |
| WO 2023186878 A1 | VALEO EAUTOMOTIVE FRANCE SAS | METHOD FOR ESTIMATING AN OUTPUT ELECTRIC CURRENT OF A POWER CONVERTER |
| WO 2023187976 A1 | HITACHI ASTEMO LTD | TRANSFORMATION CONTROL DEVICE AND POWER CONVERSION DEVICE |
| WO 2023204081 A1 | DENSO CORP | LOAD DRIVING DEVICE |
| WO 2023205550 A1 | PARKER HANNIFIN CORP | BIDIRECTIONAL ISOLATED HIGH VOLTAGE DC-DC CONVERTER |
| WO 2023227278 A1 | BOSCH GMBH ROBERT | ELECTRIC CIRCUIT FOR AN ELECTRIC DRIVE, AND METHOD FOR OPERATING THE ELECTRIC CIRCUIT |
| WO 2023228639 A1 | SANDEN CORP | INVERTER DEVICE AND ELECTRIC COMPRESSOR PROVIDED WITH SAME |
| WO 2023192396 A1 | TAE TECH INC | SYSTEMS, DEVICES, AND METHODS FOR PULSE CHARGING AND PULSE HEATING OF RECHARGEABLE ENERGY SOURCES |
| WO 2023203901 A1 | FCC KK | ELECTRIC VEHICLE |
| WO 2023228642 A1 | SANDEN CORP | INVERTER DEVICE AND ELECTRIC COMPRESSOR COMPRISING SAME |
| WO 2023228649 A1 | SANDEN CORP | ELECTRIC COMPRESSOR AND METHOD FOR MANUFACTURING SAME |
| WO 2023218059 A1 | PRODRIVE TECH INNOVATION SERVICES B V | POLYPHASE CONVERTER WITH HIGH-FREQUENCY ISOLATION |
| WO 2023187274 A1 | NIDEC PSA EMOTORS | METHOD FOR CONTROLLING AN INVERTER COMPRISING SELECTING A SAFETY MODE |
| WO 2023189182 A1 | DENSO CORP | DC-DC CONVERTER CONTROL DEVICE AND PROGRAM |
| WO 2023228436 A1 | MITSUBISHI ELECTRIC CORP | ELECTRIC POWER CONVERSION DEVICE |
| WO 2023200103 A1 | LS ELECTRIC CO LTD | DC-DC CONVERTER OF POWER CONVERSION SYSTEM |

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| WO 2023232214 A1 | SOZEN MURAT | INTELLIGENT ELECTRICAL VEHICLE CHARGING INFRASTRUCTURE |
| WO 2023237633 A1 | SCHNEIDER THORSTEN | DIAGNOSTICS FOR ELECTRICAL VEHICLE |
| WO 2023237621 A1 | BOSCH GMBH ROBERT | WALL-MOUNTED CHARGING STATION FOR ELECTRIC VEHICLES |
| WO 2023237963 A1 | STELLANTIS EUROPE S P A | SYSTEM FOR CHARGING ELECTRIC VEHICLES |
| WO 2023242486 A1 | STELLANTIS AUTO SAS | ONBOARD CHARGER FOR USE WITH DIFFERENT TERMINAL VOLTAGES, AND SYSTEM, VEHICLE AND METHOD BASED ON SUCH A CHARGER |
| WO 2023232755 A1 | BAYERISCHE MOTOREN WERKE AG | ELECTRIC VEHICLE WITH SOLAR PANELS |
| WO 2023237501 A1 | VALEO EAUTOMOTIVE GERMANY GMBH | ELECTRIC MACHINE CONTROL CIRCUIT, ELECTRIC DRIVE ASSEMBLY SYSTEM AND VEHICLE |
| WO 2023194859 A1 | PENCZEK JAN | ELECTRIC VEHICLE CHARGER AND NETWORK OF ELECTRIC VEHICLE CHARGERS |
| WO 2023199100 A1 | VOLVO TRUCK CORP | SMART PREDICTIVE BATTERY DOCK AND SWAP MODULE TO RECHARGE A COMMERCIAL VEHICLE WHEN THE COMMERCIAL VEHICLE IS IN MOTION |
| WO 2023220371 A1 | ENEL X WAY S R L | SYSTEM AND METHOD FOR AUTHORIZING AN ELECTRIC VEHICLE TO RECEIVE CHARGE AT A CHARGING STATION |
| | KLEINERMAN ROMAN | |
| WO 2023222496 A1 | NEXT E GO MOBILE SE | BATTERY FOR A MOTOR VEHICLE, MOTOR VEHICLE, AND METHOD FOR CHARGING SUCH A BATTERY |
| WO 2023243942 A1 | STANDARD ENERGY INC | APPARATUS AND METHOD FOR CHARGING ELECTRIC VEHICLES BY USING VIB ESS |
| WO 2023194000 A1 | MAHLE INT GMBH | STATIONARY INDUCTIVE CHARGING DEVICE |
| WO 2023194011 A1 | DRAEXLMAIER LISA GMBH | BUS-BAR HAVING ACTIVE COOLING |
| WO 2023208900 A1 | CARICO GMBH | APPARATUS FOR SIMULATING A BATTERY-ELECTRIC VEHICLE AT A CHARGING STATION |
| WO 2023223160 A1 | STELLANTIS EUROPE S P A | RECHARGING UNIT FOR AN ELECTRICALLY POWERED MOTOR VEHICLE |
| WO 2023194012 A1 | DRAEXLMAIER LISA GMBH | BUS BAR WITH PASSIVE COOLING |
| WO 2023222338 A1 | DRAEXLMAIER LISA GMBH | METHOD FOR DETERMINING THE TEMPERATURE IN A CHARGING SOCKET OF AN ELECTRIC VEHICLE, AND CHARGING SOCKET FOR AN ELECTRIC VEHICLE |
| WO 2023198465 A1 | BOSCH GMBH ROBERT | METHOD FOR DETERMINING A SETPOINT VALUE OF A CHARGING OUTPUT FOR CHARGING A BATTERY OF A VEHICLE BY MEANS OF A CHARGING DEVICE |
| WO 2023239017 A1 | PARK IN SOK | ELECTRIC VEHICLE CHARGING SYSTEM IN PARKING LOT |
| WO 2023243895 A1 | PMGROW CORP | BATTERY CHARGING VOUCHER PROVISION METHOD |
| WO 2023194155 A1 | MAHLE INT GMBH | INDUCTION CHARGING UNIT AND ENERGY TRANSMISSION SYSTEM COMPRISING SAME |
| WO 2023238134 A1 | BATTERI THOMAS LTD | A MOBILE AUTONOMOUS CHARGING SYSTEM FOR ELECTRIC VEHICLES AND METHOD OF USING THEREOF |
| WO 2023194151 A1 | MAHLE INT GMBH | INDUCTION CHARGING APPARATUS, VEHICLE INDUCTION CHARGING APPARATUS, ENERGY TRANSMITTER APPARATUS, COMBINATION OF AN ENERGY TRANSMITTER APPARATUS AND A BATTERY ELECTRIC VEHICLE, AND METHOD FOR BRINGING A BATTERY ELECTRIC VEHICLE EQUIPPED WITH A VEHICLE INDUCTION CHARGING APPARATUS TO AN INDUCTION CHARGING APPARATUS |
| WO 2023198462 A1 | BOSCH GMBH ROBERT | METHOD FOR DETERMINING A CHARGING POWER FOR CHARGING A BATTERY OF A VEHICLE BY MEANS OF A CHARGING DEVICE |
| WO 2023194004 A1 | MAHLE INT GMBH | STATIONARY INDUCTIVE CHARGING DEVICE |
| WO 2023198428 A1 | MERCEDES BENZ GROUP AG | METHOD FOR ASSIGNING VEHICLES TO CHARGING STATIONS, AND CHARGING SYSTEM |
| WO 2023227285 A1 | VOLKSWAGEN AG | METHOD FOR DETERMINING THE LOCATION OF A CHARGING STATION AND DETERMINING THE PARKING POSITION OF AN ELECTRIC VEHICLE |

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| WO 2023227515 A1 | NEXT E GO MOBILE SE | METHOD FOR OPERATING A HYBRID ENERGY STORAGE SYSTEM, HYBRID ENERGY STORAGE SYSTEM AND MOTOR VEHICLE |
| WO 2023234234 A1 | HITACHI ASTEMO LTD | VEHICLE CHARGING DEVICE, VEHICLE CHARGING CONTROL METHOD, AND VEHICLE CHARGING SYSTEM |
| WO 2023194383 A1 | MAHLE INT GMBH | INDUCTION CHARGING DEVICE |
| WO 2023236918 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | CHARGING COMPARTMENT AND BATTERY SWAPPING SYSTEM |
| WO 2023243893 A1 | PMGROW CORP | PATH SCHEDULING METHOD FOR MOVING OBJECT ON BASIS OF STATE OF BATTERY |
| WO 2023187815 A1 | TVS MOTOR CO LTD | METHOD AND SYSTEM FOR MANAGING BATTERIES IN A VEHICLE |
| WO 2023186421 A1 | BOSCH GMBH ROBERT | CHARGING CIRCUIT AND METHOD FOR CHARGING A TRACTION BATTERY, ELECTRIC VEHICLE |
| WO 2023189724 A1 | TOYOTA CHUO KENKYUSHO KK | BATTERY MANAGEMENT PROGRAM AND BATTERY MANAGEMENT APPARATUS |
| WO 2023194048 A1 | MAHLE INT GMBH | STATIONARY INDUCTIVE CHARGING DEVICE |
| WO 2023229414 A1 | LG ENERGY SOLUTION LTD | BATTERY SWAPPING STATION |
| WO 2023209281 A1 | KEMPOWER OYJ | SYSTEM AND METHOD FOR DYNAMIC CHARGING OF BATTERY DRIVEN VEHICLES AND A SWITCH ARRANGEMENT IN SUCH A SYSTEM |
| WO 2023239018 A1 | PARK IN SOK | ELECTRIC VEHICLE BATTERY CHARGING DEVICE AND CHARGING METHOD THEREOF |
| WO 2023215255 A1 | ENPHASE ENERGY INC | METHODS AND APPARATUS FOR PROVIDING CHARGING-RELATED BENEFITS TO AN ELECTRIC VEHICLE USER |
| WO 2023215691 A1 | FCA US LLC | INTEGRATION OF DIRECT CURRENT BOOST CHARGING IN A CHARGING MODULE FOR ELECTRIFIED VEHICLE HIGH VOLTAGE BATTERY SYSTEMS |
| WO 2023225419 A1 | CANOO TECH INC | SYSTEM AND METHOD FOR CHARGING VEHICLE'S HIGHER-VOLTAGE POWER SUPPLY USING LOWER-VOLTAGE CHARGING STATION |
| WO 2023220420 A1 | R A PHILLIPS IND INC | SYSTEM AND METHOD FOR CHARGING AN AUXILIARY BATTERY OF A VEHICLE |
| WO 2023200133 A1 | LS AUTOMOTIVE TECH CO LTD | VEHICULAR SOLAR POWER CONTROL SYSTEM |
| WO 2023218471 A1 | TVS MOTOR CO LTD | A SYSTEM FOR MANAGING POWER IN A VEHICLE AND METHOD THEREOF |
| WO 2023209030 A2 | GE T GMBH | ENERGY SUPPLY SYSTEM AND METHOD FOR OPERATING AN ENERGY SUPPLY SYSTEM |

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| WO 2023236919 A1 | CONTEMPORARY AMPEREX TECHNOLOGY CO LTD | BATTERY SWAPPING STATION AND BATTERY SWAPPING METHOD |
| WO 2023233416 A1 | TVS MOTOR CO LTD | EXTENDING RANGE OF ELECTRIC VEHICLES |
| WO 2023211059 A1 | LG ENERGY SOLUTION LTD | SWAPPABLE BATTERY MODULE |
| WO 2023211058 A1 | LG ENERGY SOLUTION LTD | REPLACEABLE BATTERY MODULE |
| WO 2023211378 A1 | SUN MOBILITY PTE LTD | PRE-AUTHENTICATION OF BATTERY PACK(S) FOR AN UPCOMING SWAP AT A BATTERY CHARGING AND SWAPPING STATION |
| WO 2023198000 A1 | CONTEMPORARY AMPEREX ENERGY SERVICE TECH LIMITED | METHOD FOR SWAPPING BATTERY OF POWER CONSUMING DEVICE AND BATTERY SWAP STATION |

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LANZAMIENTO



Los ITPs** de la OEPM nos han ahorrado horas de revisión bibliográfica para definir el punto de partida de nuestros proyectos de I+D.



EJECUCIÓN



Los ITPs** de la OEPM detectaron solicitudes de patente relevantes cuando estábamos a mitad del proyecto y gracias a ello pudimos reconducir nuestra investigación.



CONCLUSIÓN



Gracias a los ITPs** de la OEPM hemos podido decidir la mejor forma de protección de nuestros resultados de I+D y redactar adecuadamente nuestras solicitudes de patente.



* La OEPM cuenta con más de 150 examinadores de patentes especializados en los diversos sectores tecnológicos y en la búsqueda de información científico-técnica.

** Los Informes Tecnológicos de Patentes o ITPs son estudios a la medida que incluyen una búsqueda de patentes y de literatura científica con un análisis en profundidad de los documentos más relevantes. Su coste es de 440 euros más IVA.