

| Symbol | Typ | Titel |
|------------------|---------------------|--|
| H | Sektion | SECTION H — ELECTRICITY |
| H01 | Klasse | BASIC ELECTRIC ELEMENTS |
| H01M | Unterklasse | PROCESSES OR MEANS, e.g. BATTERIES, FOR THE DIRECT CONVERSION OF CHEMICAL ENERGY INTO ELECTRICAL ENERGY (electrochemical processes or apparatus in general C25; semiconductor or other solid state devices for converting light or heat into electrical energy H01L, e.g. H01L 31/00, H01L 35/00, H01L 37/00) [2] |
| H01M 2/00 | Hauptgruppe | Constructional details, or processes of manufacture, of the non-active parts [2] |
| H01M 2/02 | 1-Punkt Untergruppe | . Cases, jackets, or wrappings (working of plastics or substances in a plastic state B29) [2] |
| H01M 2/04 | 2-Punkt Untergruppe | . . Lids or covers [2] |
| H01M 2/06 | 2-Punkt Untergruppe | . . Arrangements for introducing electric connectors into or through cases [2] |
| H01M 2/08 | 2-Punkt Untergruppe | . . Sealing materials [2] |
| H01M 2/10 | 1-Punkt Untergruppe | . Mountings; Suspension devices; Shock absorbers; Transport or carrying devices; Holders (structural combination of accumulators with charging apparatus H01M 10/46) [2] |
| H01M 2/12 | 1-Punkt Untergruppe | . Vent plugs or other mechanical arrangements for facilitating escape of gases [2] |
| H01M 2/14 | 1-Punkt Untergruppe | . Separators; Membranes; Diaphragms; Spacing elements [2] |
| H01M 2/16 | 2-Punkt Untergruppe | . . characterised by the material [2] |
| H01M 2/18 | 2-Punkt Untergruppe | . . characterised by the shape [2] |
| H01M 2/20 | 1-Punkt Untergruppe | . Current-conducting connections for cells [2] |
| H01M 2/22 | 2-Punkt Untergruppe | . . Fixed connections, i.e. not intended for disconnection [2] |
| H01M 2/24 | 3-Punkt Untergruppe | . . . Intercell connections through partitions, e.g. in a battery case [2] |
| H01M 2/26 | 3-Punkt Untergruppe | . . . Electrode connections [2] |
| H01M 2/28 | 4-Punkt Untergruppe | for lead-acid accumulators [2] |
| H01M 2/30 | 2-Punkt Untergruppe | . . Terminals [2] |
| H01M 2/32 | 2-Punkt Untergruppe | . . Methods or arrangements for affording protection against corrosion; Selection of materials therefor [2] |
| H01M 2/34 | 2-Punkt Untergruppe | . . with provision for preventing undesired use or discharge [2] |
| H01M 2/36 | 1-Punkt Untergruppe | . Arrangements for filling, topping-up or emptying cases with or of liquid, e.g. for filling with electrolytes, for washing-out [2] |
| H01M 2/38 | 1-Punkt Untergruppe | . Arrangements for moving electrolytes [2] |
| H01M 2/40 | 2-Punkt Untergruppe | . . with external circulating path (H01M 8/04 takes precedence) [2] |
| H01M 4/00 | Hauptgruppe | Electrodes (electrodes for electrolytic processes C25) [2] |
| H01M 4/02 | 1-Punkt Untergruppe | . Electrodes composed of, or comprising, active material [2] |
| H01M 4/04 | 2-Punkt Untergruppe | . . Processes of manufacture in general [2] |
| H01M 4/06 | 2-Punkt Untergruppe | . . Electrodes for primary cells [2] |
| H01M 4/08 | 3-Punkt Untergruppe | . . . Processes of manufacture [2] |
| H01M 4/10 | 4-Punkt Untergruppe | of pressed electrodes with central core, i.e. dollies [2] |

| Symbol | Typ | Titel |
|-----------|---------------------|---|
| H01M 4/12 | 4-Punkt Untergruppe | of consumable metal or alloy electrodes (use of alloy compositions as active materials H01M 4/38) [2] |
| H01M 4/14 | 2-Punkt Untergruppe | . . Electrodes for lead-acid accumulators [2] |
| H01M 4/16 | 3-Punkt Untergruppe | . . . Processes of manufacture [2] |
| H01M 4/18 | 4-Punkt Untergruppe | of Plante electrodes [2] |
| H01M 4/20 | 4-Punkt Untergruppe | of pasted electrodes [2] |
| H01M 4/21 | 5-Punkt Untergruppe | Drying of pasted electrodes [2] |
| H01M 4/22 | 4-Punkt Untergruppe | Forming of electrodes [2] |
| H01M 4/23 | 5-Punkt Untergruppe | Drying or preserving electrodes after forming [2] |
| H01M 4/24 | 2-Punkt Untergruppe | . . Electrodes for alkaline accumulators [2] |
| H01M 4/26 | 3-Punkt Untergruppe | . . . Processes of manufacture [2] |
| H01M 4/28 | 4-Punkt Untergruppe | Precipitating active material on the carrier [2] |
| H01M 4/29 | 5-Punkt Untergruppe | by electrochemical methods [2] |
| H01M 4/30 | 4-Punkt Untergruppe | Pressing [2] |
| H01M 4/32 | 3-Punkt Untergruppe | . . . Nickel oxide or hydroxide electrodes [2] |
| H01M 4/34 | 3-Punkt Untergruppe | . . . Silver oxide or hydroxide electrodes [2] |
| H01M 4/36 | 2-Punkt Untergruppe | . . Selection of substances as active materials, active masses, active liquids [2] |
| H01M 4/38 | 3-Punkt Untergruppe | . . . of elements or alloys [2] |
| H01M 4/40 | 4-Punkt Untergruppe | Alloys based on alkali metals [2] |
| H01M 4/42 | 4-Punkt Untergruppe | Alloys based on zinc [2] |
| H01M 4/44 | 4-Punkt Untergruppe | Alloys based on cadmium [2] |
| H01M 4/46 | 4-Punkt Untergruppe | Alloys based on magnesium or aluminium [2] |
| H01M 4/48 | 3-Punkt Untergruppe | . . . of inorganic oxides or hydroxides [2] |
| H01M 4/50 | 4-Punkt Untergruppe | of manganese [2] |
| H01M 4/52 | 4-Punkt Untergruppe | of nickel, cobalt, or iron [2] |
| H01M 4/54 | 4-Punkt Untergruppe | of silver [2] |
| H01M 4/56 | 4-Punkt Untergruppe | of lead [2] |
| H01M 4/57 | 5-Punkt Untergruppe | of "grey lead", i.e. powders containing lead and lead oxide [2] |
| H01M 4/58 | 3-Punkt Untergruppe | . . . of inorganic compounds other than oxides or hydroxides [2] |
| H01M 4/60 | 3-Punkt Untergruppe | . . . of organic compounds [2] |
| H01M 4/62 | 2-Punkt Untergruppe | . . Selection of inactive substances as ingredients for active masses, e.g. binders, fillers [2] |
| H01M 4/64 | 2-Punkt Untergruppe | . . Carriers or collectors [2] |
| H01M 4/66 | 3-Punkt Untergruppe | . . . Selection of materials [2] |

| Symbol | Typ | Titel |
|------------------|---------------------|---|
| H01M 4/68 | 4-Punkt Untergruppe | for use in lead-acid accumulators [2] |
| H01M 4/70 | 3-Punkt Untergruppe | . . . characterised by shape or form [2] |
| H01M 4/72 | 4-Punkt Untergruppe | Grids [2] |
| H01M 4/73 | 5-Punkt Untergruppe | for lead-acid accumulators, e.g. frame plates [2] |
| H01M 4/74 | 5-Punkt Untergruppe | Meshes or woven material; Expanded metal [2] |
| H01M 4/75 | 4-Punkt Untergruppe | Wires, rods, or strips [2] |
| H01M 4/76 | 4-Punkt Untergruppe | Containers for holding the active material, e.g. tubes, capsules [2] |
| H01M 4/78 | 4-Punkt Untergruppe | Shapes other than plane or cylindrical, e.g. helical [2] |
| H01M 4/80 | 4-Punkt Untergruppe | Porous plates, e.g. sintered carriers [2] |
| H01M 4/82 | 3-Punkt Untergruppe | . . . Multi-step processes for manufacturing carriers for lead-acid accumulators (single-step processes, <u>see</u> the relevant subclasses, e.g. B21D, B22D) [2] |
| H01M 4/84 | 4-Punkt Untergruppe | involving casting [2] |
| H01M 4/86 | 1-Punkt Untergruppe | . Inert electrodes with catalytic activity, e.g. for fuel cells [2] |
| H01M 4/88 | 2-Punkt Untergruppe | . . Processes of manufacture [2] |
| H01M 4/90 | 2-Punkt Untergruppe | . . Selection of catalytic material [2] |
| H01M 4/92 | 3-Punkt Untergruppe | . . . Metals of platinum group (H01M 4/94 takes precedence) [2] |
| H01M 4/94 | 2-Punkt Untergruppe | . . Non-porous diffusion electrodes, e.g. palladium membranes, ion exchange membranes [2] |
| H01M 4/96 | 2-Punkt Untergruppe | . . Carbon-based electrodes [2] |
| H01M 4/98 | 2-Punkt Untergruppe | . . Raney-type electrodes [2] |
| H01M 6/00 | Hauptgruppe | Primary cells; Manufacture thereof [2] |
| H01M 6/02 | 1-Punkt Untergruppe | . Details (of non-active parts H01M 2/00, of electrodes H01M 4/00) [2] |
| H01M 6/04 | 1-Punkt Untergruppe | . Cells with aqueous electrolyte [2] |
| H01M 6/06 | 2-Punkt Untergruppe | . . Dry cells, i.e. cells wherein the electrolyte is rendered non-fluid [2] |
| H01M 6/08 | 3-Punkt Untergruppe | . . . with cup-shaped electrodes [2] |
| H01M 6/10 | 3-Punkt Untergruppe | . . . with wound or folded electrodes [2] |
| H01M 6/12 | 3-Punkt Untergruppe | . . . with flat electrodes [2] |
| H01M 6/14 | 1-Punkt Untergruppe | . Cells with non-aqueous electrolyte [2] |
| H01M 6/16 | 2-Punkt Untergruppe | . . with organic electrolyte (H01M 6/18 takes precedence) [2] |
| H01M 6/18 | 2-Punkt Untergruppe | . . with solid electrolyte [2] |
| H01M 6/20 | 3-Punkt Untergruppe | . . . working at high temperature (deferred-action thermal cells H01M 6/36) [2] |
| H01M 6/22 | 1-Punkt Untergruppe | . Immobilising of electrolyte [2] |
| H01M 6/24 | 1-Punkt Untergruppe | . Cells comprising two different electrolytes [2] |

| Symbol | Typ | Titel |
|-------------------|---------------------|---|
| H01M 6/26 | 1-Punkt Untergruppe | . Cells without oxidising active material, e.g. Volta cells [2] |
| H01M 6/28 | 1-Punkt Untergruppe | . Standard cells, e.g. Weston cells [2] |
| H01M 6/30 | 1-Punkt Untergruppe | . Deferred-action cells [2] |
| H01M 6/32 | 2-Punkt Untergruppe | . . activated through external addition of electrolyte or of electrolyte components [2] |
| H01M 6/34 | 3-Punkt Untergruppe | . . . Immersion cells, e.g. sea-water cells [2] |
| H01M 6/36 | 2-Punkt Untergruppe | . . containing electrolyte and made operational by physical means, e.g. thermal cells (thermoelectric solid state devices H01L 35/00, H01L 37/00) [2] |
| H01M 6/38 | 3-Punkt Untergruppe | . . . by mechanical means [2] |
| H01M 6/40 | 1-Punkt Untergruppe | . Printed batteries [2] |
| H01M 6/42 | 1-Punkt Untergruppe | . Grouping of primary cells into batteries (H01M 6/40 takes precedence) [2] |
| H01M 6/44 | 2-Punkt Untergruppe | . . of tubular or cup-shaped cells [2] |
| H01M 6/46 | 2-Punkt Untergruppe | . . of flat cells [2] |
| H01M 6/48 | 3-Punkt Untergruppe | . . . with bipolar electrodes [2] |
| H01M 6/50 | 1-Punkt Untergruppe | . Methods or arrangements for servicing or maintenance, e.g. maintaining operating temperature [2] |
| H01M 6/52 | 1-Punkt Untergruppe | . Reclaiming serviceable parts of waste cells or batteries [2] |
| H01M 8/00 | Hauptgruppe | Fuel cells; Manufacture thereof [2] |
| H01M 8/02 | 1-Punkt Untergruppe | . Details (of non-active parts H01M 2/00, of electrodes H01M 4/00) [2] |
| H01M 8/04 | 1-Punkt Untergruppe | . Auxiliary arrangements or processes, e.g. for control of pressure, for circulation of fluids [2] |
| H01M 8/06 | 1-Punkt Untergruppe | . Combination of fuel cell with means for production of reactants or for treatment of residues (regenerative fuel cells H01M 8/18; production of reactants <u>per se</u> , <u>see</u> sections B or C) [2] |
| H01M 8/08 | 1-Punkt Untergruppe | . Fuel cells with aqueous electrolytes [2] |
| H01M 8/10 | 1-Punkt Untergruppe | . Fuel cells with solid electrolytes [2] |
| H01M 8/12 | 2-Punkt Untergruppe | . . operating at high temperature, e.g. with stabilised ZrO ₂ electrolyte [2] |
| H01M 8/14 | 1-Punkt Untergruppe | . Fuel cells with fused electrolytes [2] |
| H01M 8/16 | 1-Punkt Untergruppe | . Biochemical fuel cells, i.e. cells in which micro-organisms function as catalysts [2] |
| H01M 8/18 | 1-Punkt Untergruppe | . Regenerative fuel cells [2] |
| H01M 8/20 | 1-Punkt Untergruppe | . Indirect fuel cells, e.g. redox cells (H01M 8/18 takes precedence) [2] |
| H01M 8/22 | 1-Punkt Untergruppe | . Fuel cells in which the fuel is based on materials comprising carbon or oxygen or hydrogen and other elements; Fuel cells in which the fuel is based on materials comprising only elements other than carbon, oxygen, or hydrogen [2] |
| H01M 8/24 | 1-Punkt Untergruppe | . Grouping of fuel cells into batteries, e.g. modules [2] |
| H01M 10/00 | Hauptgruppe | Secondary cells; Manufacture thereof [2] |
| H01M 10/02 | 1-Punkt Untergruppe | . Details (of non-active parts H01M 2/00, of electrodes H01M 4/00) [2] |
| H01M 10/04 | 1-Punkt Untergruppe | . Construction or manufacture in general (H01M 10/12, H01M 10/28, H01M 10/38 take precedence) [2] |

| Symbol | Typ | Titel |
|-------------------|---------------------|--|
| H01M 10/06 | 1-Punkt Untergruppe | . Lead-acid accumulators (semi-lead accumulators H01M 10/20) [2] |
| H01M 10/08 | 2-Punkt Untergruppe | . . Selection of materials as electrolytes [2] |
| H01M 10/10 | 3-Punkt Untergruppe | . . . Immobilising of electrolyte [2] |
| H01M 10/12 | 2-Punkt Untergruppe | . . Construction or manufacture [2] |
| H01M 10/14 | 3-Punkt Untergruppe | . . . Assembling a group of electrodes or separators [2] |
| H01M 10/16 | 3-Punkt Untergruppe | . . . Suspending or supporting electrodes or groups of electrodes in the case [2] |
| H01M 10/18 | 2-Punkt Untergruppe | . . with bipolar electrodes [2] |
| H01M 10/20 | 1-Punkt Untergruppe | . Semi-lead accumulators, i.e. accumulators in which only one electrode contains lead [2] |
| H01M 10/22 | 2-Punkt Untergruppe | . . Selection of materials as electrolytes [2] |
| H01M 10/24 | 1-Punkt Untergruppe | . Alkaline accumulators [2] |
| H01M 10/26 | 2-Punkt Untergruppe | . . Selection of materials as electrolytes [2] |
| H01M 10/28 | 2-Punkt Untergruppe | . . Construction or manufacture [2] |
| H01M 10/30 | 2-Punkt Untergruppe | . . Nickel accumulators (H01M 10/34 takes precedence) [2] |
| H01M 10/32 | 2-Punkt Untergruppe | . . Silver accumulators (H01M 10/34 takes precedence) [2] |
| H01M 10/34 | 1-Punkt Untergruppe | . Gastight accumulators [2] |
| H01M 10/36 | 1-Punkt Untergruppe | . Accumulators not provided for in groups H01M 10/06-H01M 10/34 [2] |
| H01M 10/38 | 2-Punkt Untergruppe | . . Construction or manufacture [2] |
| H01M 10/39 | 2-Punkt Untergruppe | . . working at high temperature [2] |
| H01M 10/40 | 2-Punkt Untergruppe | . . with organic electrolytes [2] |
| H01M 10/42 | 1-Punkt Untergruppe | . Methods or arrangements for servicing or maintenance of secondary cells or secondary half-cells [2] |
| H01M 10/44 | 2-Punkt Untergruppe | . . Methods for charging or discharging (circuits for charging H02J 7/00) [2] |
| H01M 10/46 | 2-Punkt Untergruppe | . . Accumulators structurally combined with charging apparatus (circuits for charging H02J 7/00) [2] |
| H01M 10/48 | 2-Punkt Untergruppe | . . Accumulators combined with arrangements for measuring, testing, or indicating condition, e.g. level or density of the electrolyte (indicating or measuring level of liquid in general G01F 23/00; measuring density G01N, e.g. G01N 9/00; measuring electric variables G01R) [2] |
| H01M 10/50 | 2-Punkt Untergruppe | . . Heating or cooling or regulating temperature (control of temperature in general G05D 23/00) [2] |
| H01M 10/52 | 2-Punkt Untergruppe | . . Removing gases inside the secondary cell, e.g. by absorption (vent plugs or other mechanical arrangements for facilitating escape of gases H01M 2/12) [2] |
| H01M 10/54 | 1-Punkt Untergruppe | . Reclaiming serviceable parts of waste accumulators [2] |
| H01M 12/00 | Hauptgruppe | Hybrid cells; Manufacture thereof [2] |
| H01M 12/02 | 1-Punkt Untergruppe | . Details (of non-active parts H01M 2/00, of electrodes H01M 4/00) [2] |
| H01M 12/04 | 1-Punkt Untergruppe | . composed of a half-cell of the fuel-cell type and of a half-cell of the primary-cell type (methods or arrangements for servicing or maintenance H01M 6/50) [2] |
| H01M 12/06 | 2-Punkt Untergruppe | . . with one metallic and one gaseous electrode [2] |

| Symbol | Typ | Titel |
|-------------------|---------------------|--|
| H01M 12/08 | 1-Punkt Untergruppe | . composed of a half-cell of a fuel-cell type and a half-cell of the secondary-cell type (methods or arrangements for servicing or maintenance, e.g. for charging, H01M 10/42) [2] |
| H01M 14/00 | Hauptgruppe | Electrochemical current or voltage generators not provided for in groups H01M 6/00-H01M 12/00; Manufacture thereof [2] |
| H01M 16/00 | Hauptgruppe | Structural combinations of different types of electrochemical generators [2] |