Title (en)

SECONDARY BATTERY CELL FOR ELECTROMOBILES, COINTAINING AMORPHOUS GLASS MATERIALS AND MICRO- AND NANO MATERIALS, AND METHOD OF ITS PRODUCTION

Title (de)

SEKUNDÄRBATTERIEZELLE FÜR ELEKTROMOBILE, DIE AMORPHE GLASMATERIALIEN UND MIKRO- UND NANOMATERIALIEN ENTHÄLT, UND VERFAHREN ZU IHRER PRODUKTION

Title (fr)

CELLULE DE BATTERIE SECONDAIRE POUR ÉLÉMENTS ÉLECTROMOBILES, CONTENANT DES MATÉRIAUX EN VERRE AMORPHE ET DES MICROMATÉRIAUX ET DES NANOMATÉRIAUX, ET SON PROCÉDÉ DE PRODUCTION

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Application

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Abstract (en)

[origin: WO2021089066A1] The secondary battery cell (B, B1, B2, B3) is based on glass. Every composite layer (K1.1; K2.1, K2.2; K3.1, K3.2, K3.3) of the cathode (K; K1; K2; K3) or (E1.1; E2.1, E2.2; E3.1, E.2, E3.3) of the electrolyte (E; E1; E2; E3) or (A1.1; A2.1, A2.2; A3.1, A3.2, A3.3) of the anode (A; A1; A2; A3) contains: 0.1 to 10.0% volume of the first additive (A1K; A 1E; A1A) for an increase in electrochemical oxidation-reduction activity of these composite layers; 0.1 to 10.0% volume of the second additive (A2K; A2E; A2A) on the surface of micro- and nanofibres and micro- and nanoparticles for an increase in adhesion of these composite layers; and 80 to 99.8% by volume of selected glass (GMCK; GFIC; GMCA). Each of these composite layers of the cathode (K; K1; K2; K3), electrolyte (E; E1; E2; E3) and anode (A; A1; A2; A3) states a gradual change in the function-gradient concentration of immobile components of composite layers in the direction from the cathode (K) to the anode (A), depending on the distance between the collector (KK) of the cathode (K) and the opposite collector (KA) of the anode (A), and in the inverse direction, and the mobile component in these glass materials (GMCK; GMCA; GFIC) is either the lithium cation Li+ or the sodium cation Na+. The claims cover also the method of production of the secondary battery cell (B, B1, B2, B3).

IPC 8 full level

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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