Title (en)

METHOD FOR PRODUCING SEMICONDUCTIVE LAYERS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON HALBLEITENDEN SCHICHTEN

Title (fr)

PROCÉDÉ DE PRODUCTION DE COUCHES SEMI-CONDUCTRICES

Publication

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Application

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Abstract (en)

[origin: WO2010125011A2] The present invention relates to a method for producing a layer containing at least one semiconductive metal oxide on a substrate, comprising at least the steps of: (A) producing a solution containing at least one precursor compound of the at least one metal oxide selected from the group of carboxylates from monocarboxylic, dicarbonic, or polycarboxylic acids with at least three carbon atoms or derivatives of monocarboxylic, dicarbonic, or polycarboxylic acids, alcoholates, hydroxides, semicarbazides, carbamates, hydroxamates, isocyanates, amidins, amidrazones, carbamide derivatives, hydroxylamines, oximes, urethanes, ammonia, amines, phosphines, ammonium compounds, azides of the corresponding metal and compounds thereof, in at least one solvent; (B) application of the solvent of step (A) on the substrate; and (C) thermal treatment of the substrate of step (B) at a temperature of 20 to 200 degrees Celsius, in order to transfer the at least one precursor compound in at least one semiconductive metal oxide. In the event that in step (A), electrically neutral [(OH)x(NH3)yZn]z with x, y, and z independently from one another 0.01 to 10, is used as precursor compound, said precursor compound is obtained by conversion of zinc oxide or zinc hydroxide with ammonia; a substrate, which is coated with at least one semiconductive metal oxide, obtainable by said method; the application of said substrate in electronic components; and a method for producing electronically neutral [(OH)x(NH3)yZn]z with x, y, and z independently from one another 0.01 to 10, by conversion of zinc oxide and/or zinc hydroxide with ammonia.

IPC 8 full level

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CPC (source: EP US)

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