

Title (en)

METHOD FOR DEPOSITING NON-OXIDE CERAMIC COATINGS

Title (de)

VERFAHREN ZUR ABSCHIEDUNG VON NICHTOXIDKERAMIKBESCHICHTUNGEN

Title (fr)

PROCEDE DE DEPOT DE REVETEMENTS CERAMIQUES NON OXYDES

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2008009715A1] The invention relates to a method for depositing a non-oxide ceramic-type coating based on chrome carbides, nitrides or carbonitrides, by means of DLI-CVD carried out at a low temperature and atmospheric pressure on a metallic substrate, said method essentially comprising the following steps: a) a solution is prepared, containing a molecular compound which is a precursor of the metal to be deposited, belongs to the bis(arene) family, and has a decomposition temperature of between 300°C and 550°C, said compound being dissolved in a solvent which is depleted of oxygen atoms; b) said solution is introduced in the form of an aerosol into a heated evaporator (3) at a temperature between the boiling temperature of the solvent and the decomposition temperature of the precursor; and c) the precursor and the vapourised solvent are driven by a neutral gas flow from the evaporator (3) towards a CVD reactor (10) having cold walls and comprising a susceptor (13) carrying the substrate to be covered and heated to a temperature higher than the decomposition temperature of the precursor but to a maximum temperature of 550°C, the evaporator (3) and the CVD reactor (10) being subjected to the atmospheric pressure.

IPC 8 full level

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