Title (en)

ALUMINIUM-BASED DUPLEX-ALUMINIUM MATERIAL WITH A FIRST PHASE AND A SECOND PHASE AND METHOD FOR PRODUCING SAID DUPLEX-ALUMINIUM MATERIAL

Title (de)

DUPLEX-ALUMINIUM-WERKSTOFF AUF BASIS VON ALUMINIUM MIT EINER ERSTEN PHASE UND EINER ZWEITEN PHASE UND VERFAHREN ZUR HERSTELLUNG DES DUPLEX-ALUMINIUM-WERKSTOFFS

Title (fr)

MATÉRIAU ALUMINIUM DUPLEX À BASE D'ALUMINIUM PRÉSENTANT UNE PREMIÈRE ET UNE SECONDE PHASE ET PROCÉDÉ DE PRODUCTION D'UN MATÉRIAU ALUMINIUM DUPLEX

Publication

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Application

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Abstract (en)

[origin: WO2009010297A1] The invention relates to the processing of a composite material in particle or powder form, containing carbon nanotubes (CNT), said material having metal with a thickness of between 10 nm and 500,000 nm that is layered alternately with carbon nanotubes of a thickness of between 10 nm and 100,000 nm. The material is produced by mechanical alloying, i.e. by repeated deformation, breakage and welding of metal particles and CNT particles, preferably by milling in a pebble mill containing a milling chamber and milling pebbles as the milling bodies and to a rotating body for creating highly energetic pebble collisions. The invention discloses a method for producing duplex-aluminium, in which a material is alloyed as a combination of the composite material and an aluminium alloy with different characteristics in an Ospray process.

IPC 8 full level

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