

Title (en)

METHOD FOR PRODUCING COMPOSITE METAL MATERIALS BY CRYSTALLISATION IN A CENTRIFUGE FORCE FIELD

Title (de)

VERFAHREN ZUR HERSTELLUNG VON VERBUNDMETALLMATERIAL DURCH KRISTALLISATION IN EINEM ZENTRIFUGENKRAFTFELD

Title (fr)

PROCÉDÉ DE FABRICATION DE MATÉRIAUX MÉTALLIQUES STRATIFIÉS PAR CRISTALLISATION DANS LE CHAMP DE FORCES D UNE CENTRIFUGEUSE

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Application

EP 09727907 A 20090313

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Abstract (en)

The invention relates to metallurgy. The inventive method involves casting low-heated molten metals or alloys into the lined centrifuge crystalliser in a specified order and volumes and in the shortest time in such a way that a gradient smelt is formed along a casting-form radius. The thermodynamic characteristics of the crystalliser together with the superheat value of casted melts, when the greatest volume uniform cooling rate of the gradient melt is equal to or less than 0.5 DEG C/sec, provide the life time thereof which is sufficient for forming the gradient melt, carrying out diffusion processes therein and for organising a crystallisation front extending from the external ring-shaped part of the casting-form towards the center thereof, prior to the generation of natural crystallisation processes.

IPC 8 full level

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