

Title (en)

METHOD OF FORMING A STARTING MATERIAL FOR PRODUCING RARE EARTH PERMANENT MAGNETS FROM RECYCLED MATERIALS AND CORRESPONDING STARTING MATERIAL

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES AUSGANGSMATERIALS ZUR HERSTELLUNG VON SELTENERD-DAUERMAGNETEN AUS RECYCELTEN MATERIALIEN UND ENTSPRECHENDES AUSGANGSMATERIAL

Title (fr)

PROCÉDÉ DE FORMATION D'UN MATÉRIAU DE DÉPART POUR PRODUIRE DES AIMANTS PERMANENTS AUX TERRES RARES À PARTIR DE MATÉRIAUX RECYCLÉS ET MATÉRIAU DE DÉPART CORRESPONDANT

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Application

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Abstract (en)

The present invention relates to a method of forming a starting material for producing rare earth permanent magnets from recycled materials. The method comprises at least the steps of providing single Nd₂Fe₁₄B grains of end-of-life Nd₂Fe₁₄B magnets and/or magnet scraps and coating the grains with a single layer or with a layer sequence of one or several grain boundary materials such that said single layer or layer sequence is covering each individual grain. The grain boundary material of said single layer or of a lowermost layer of said layer sequence is selected from one or several metals or metal compounds or alloys. The coated grains are then condensed to bulk Nd-Fe-B permanent magnets, optionally via subsequent thermal treatments.

IPC 8 full level

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3. **B22F 2998/10** + **B22F 1/145** + **B22F 9/023** + **B22F 8/00**
4. **B22F 2999/00** + **B22F 1/145** + **C22C 2202/02** + **C22C 2200/00** + **B22F 1/05**
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