

Title (en)
METHOD FOR PREPARING A MAGNETIC MATERIAL BY FORGING AND MAGNETIC MATERIAL IN POWDER FORM

Title (de)
HERSTELLUNGSVERFAHREN FÜR EIN MAGNETMATERIAL DURCH SCHMIEDEN UND MAGNETMATERIAL IN PULVERFORM

Title (fr)
PROCEDE DE PREPARATION D'UN MATERIAU MAGNETIQUE PAR FORGEAGE ET MATERIAU MAGNETIQUE SOUS FORME DE POUDRE

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Abstract (en)
[origin: US6592682B1] The invention concerns a method for preparing a magnetic material by forging, characterised in that, in a first embodiment, it comprises the following steps; placing in a sheath an alloy based on at least one rare earth, at least one transition metal and at least one other element selected among boron and carbon; bringing the whole alloy to a temperature not less than 500° C.; forging the whole at a deformation speed of the material not less than 8 s-1. After forging, it is possible to subject the resulting product to at least one annealing and hydridation then dehydration, in another embodiment, it consists in starting with an alloy based on at least one rare earth and one transition metal and proceeding as in the first embodiment. After forging and, optionally, annealing, hydridation and dehydration treatments, the resulting material is subjected to nitriding. The invention also concerns a magnetic material in power form, characterised in that has a coercivity not less than 9 kOe and retentivity not less than 9 kG.

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