

Title (en)

METHOD FOR PRODUCING RARE EARTH SINTERED MAGNET AND POWDER CONTAINER FOR RARE EARTH SINTERED MAGNET PRODUCTION

Title (de)

VERFAHREN ZUR HERSTELLUNG GESINTERTER SELTENERDMAGNETEN UND PULVERBEHÄLTER ZUR HERSTELLUNG GESINTERTER SELTENERDMAGNETEN

Title (fr)

PROCÉDÉ DE PRODUCTION D'AIMANT FRITTÉ AUX TERRES RARES ET CONTENANT DE POUDRE POUR PRODUCTION D'AIMANT FRITTÉ AUX TERRES RARES

Publication

EP 2348518 A4 20150225 (EN)

Application

EP 09824563 A 20091029

Priority

- JP 2009005726 W 20091029
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Abstract (en)

[origin: EP2348518A1] The present invention is aimed at providing an easy and inexpensive method for producing a sintered rare-earth magnet having cavities, such as slits, for making the magnet less likely to be influenced from eddy currents and/or performing a grain boundary diffusion process. The method for producing a sintered rare-earth magnet according to the present invention is characterized by performing the following successive processes: a filling process ((a), (b)) for filling a powder 19 of rare-earth magnet alloy into a powder-filling container 10 together with a cavity-forming member 14; an aligning process (b) for aligning the rare-earth magnet alloy powder 19 in a magnetic field; and a sintering process (e) for sintering the rare-earth magnet alloy powder 19 by heating the rare-earth magnet alloy powder 19 in a state of being held in the powder-filling container 10, wherein (d) the cavity-forming member is removed after the aligning process is completed and before the rare-earth magnet alloy powder begins to be sintered.

IPC 8 full level

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Citation (search report)

- [XAI] US 2007245851 A1 20071025 - SAGAWA MASATO [JP], et al
- [A] US 2007017601 A1 20070125 - MIYATA KOJI [JP], et al
- [A] DE 10146986 A1 20030410 - SCHOTT GLAS [DE]
- See references of WO 2010052862A1

Cited by

EP2887504A3; US9825493B2; WO2023210842A1

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