

Title (en)  
NEODYMIUM/IRON/BORON-BASED PERMANENT MAGNET

Title (de)  
PERMANENTMAGNET AUF NEODYM/EISEN/BOR-BASIS

Title (fr)  
AIMANT PERMANENT À BASE DE NÉODYME/FER/BORE

Publication  
**EP 2721618 A4 20150708 (EN)**

Application  
**EP 12800074 A 20120615**

Priority  
• CN 201110172170 A 20110617  
• CN 2012077023 W 20120615

Abstract (en)  
[origin: WO2012171490A1] A sintered neodymium/iron/boron-based permanent magnet is provided. The permanent magnet comprises 16 to 25wt. % of Nd, 4 to 10 wt.% of Dy, 0 to 1.2 wt.% of Tb, 2 to 13 wt.% of component R, wherein component R is selected from Pr, Ce, Gd, or Y, or any combination thereof, 1.4 to 9 wt.% of component T, wherein component T is selected from Co, Cu, or Al, or any combination thereof, 0.1 to 0.6 wt. % of component M, wherein component M is selected from Zr, Ti, or Mo, or any combination thereof, 0.9 to 1.1 wt.% of B, and the balance of Fe. The permanent magnet only contains a limited amount of Dy and very little or even no Tb, and yet has high coercivity and high thermal stability. An electric motor, a generator and an integrated electromotor comprising the permanent magnet are also provided.

IPC 8 full level  
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CPC (source: EP)  
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Citation (search report)  
• [X] CN 101859639 A 20101013 - YANTAI ZHENGHAI MAGNETIC MATERIAL CO LTD & US 2013093551 A1 20130418 - PENG BUZHUANG [CN], et al  
• [X] EP 1961506 A1 20080827 - HITACHI METALS LTD [JP]  
• [I] JP 2000188213 A 20000704 - HITACHI METALS LTD  
• [A] EP 0430278 A1 19910605 - SUMITOMO SPEC METALS [JP]  
• See references of WO 2012171490A1

Designated contracting state (EPC)  
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**WO 2012171490 A1 20121220**; CN 102832003 A 20121219; EP 2721618 A1 20140423; EP 2721618 A4 20150708

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