

Title (en)  
METHOD FOR PRODUCING FE-BASED NANOCRYSTALLINE ALLOY CORE

Title (de)  
VERFAHREN ZUR HERSTELLUNG EINES FE-BASIERTEN NANOKRISTALLINEN LEGIERUNGSKERNS

Title (fr)  
PROCÉDÉ DE FABRICATION DE NOYAU EN ALLIAGE NANOCRISTALLIN À BASE DE FER

Publication  
**EP 3157021 A1 20170419 (EN)**

Application  
**EP 15807434 A 20150610**

Priority  
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• JP 2015066758 W 20150610

Abstract (en)  
A core is obtained by winding an Fe-based nanocrystalline alloy ribbon, the core having an impedance relative permeability  $\mu_r$  of 90,000 or more at a frequency of 10 kHz, 40,000 or more at a frequency of 100 kHz, and 8,500 or more at a frequency of 1 MHz. The Fe-based nanocrystalline alloy core is produced through a heat treatment step which includes a magnetic field application step of applying a magnetic field in a height direction of the core for not less than 10 minutes and not more than 60 minutes, within only a temperature range in a period of temperature elevation spanning from a temperature which is 25°C higher than a crystallization onset temperature by differential scanning calorimeter to a temperature which is 60°C higher than the crystallization onset temperature.

IPC 8 full level  
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Cited by  
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Designated extension state (EPC)  
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**EP 3157021 A1 20170419**; **EP 3157021 A4 20180523**; **EP 3157021 B1 20200325**; CN 106170837 A 20161130; CN 106170837 B 20180410; EP 3693980 A1 20200812; ES 2791885 T3 20201106; JP 6137408 B2 20170531; JP WO2015190528 A1 20170420; WO 2015190528 A1 20151217

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