

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

Title (de)
FE-BASIERTER NANOKRISTALLINER LEGIERUNGSKERN UND VERFAHREN ZUR HERSTELLUNG DES FE-BASIERTEN NANOKRISTALLINEN LEGIERUNGSKERNS

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

Publication
EP 3157021 A4 20180523 (EN)

Application
EP 15807434 A 20150610

Priority

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- JP 2015066758 W 20150610

Abstract (en)
[origin: EP3157021A1] A core is obtained by winding an Fe-based nanocrystalline alloy ribbon, the core having an impedance relative permeability μ_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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Citation (search report)

- [XD] JP 3719449 B2 20051124
- [X] JP H0917623 A 19970117 - HITACHI METALS LTD
- [X] EP 0625786 A2 19941123 - HITACHI METALS LTD [JP]
- [XI] EP 0473782 A1 19920311 - TOSHIBA KK [JP]
- See references of WO 2015190528A1

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US11749430B2

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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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EP 15807434 A 20150610; CN 201580019461 A 20150610; EP 20160649 A 20150610; ES 15807434 T 20150610; JP 2015066758 W 20150610; JP 2016527844 A 20150610