

Title (en)

A process for the production of a grain-oriented electrical steel

Title (de)

Verfahren zur Herstellung eines kornorientierten elektrischen Stahls

Title (fr)

Procédé de production d'un acier électrique à grains orientés

Publication

EP 2775007 A1 20140910 (EN)

Application

EP 13158409 A 20130308

Priority

EP 13158409 A 20130308

Abstract (en)

The invention relates to a process for the production of grain oriented electrical steel by providing a hot rolled strip having a carbon content of less than 0.006 wt.%, subjecting said strip to cold rolling, intermediate annealing, cold rolling to final thickness and thereafter subjecting the cold rolled strip to a batch annealing and a final continuous annealing in order to produce a final product having a maximum core loss at 1.7 T and 50 Hz (P 17/50) of < 2 W/kg and/or a minimum magnetic flux density at 800 A/m (J 800) of > 1.70 T.

IPC 8 full level

C22C 38/02 (2006.01); **C21D 8/12** (2006.01); **C21D 9/46** (2006.01); **C22C 38/04** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP)

C21D 8/12 (2013.01); **C21D 9/46** (2013.01); **C22C 38/001** (2013.01); **C22C 38/004** (2013.01); **C22C 38/008** (2013.01); **C22C 38/02** (2013.01);
C22C 38/04 (2013.01); **C22C 38/06** (2013.01); **C22C 38/16** (2013.01); **C22C 38/60** (2013.01)

Citation (applicant)

- US 2287467 A 19420623 - CARPENTER VICTOR W, et al
- EP 1577405 A1 20050921 - JFE STEEL CORP [JP]
- EP 0869190 A1 19981007 - KAWASAKI STEEL CO [JP]
- EP 0789093 A1 19970813 - NIPPON STEEL CORP [JP]

Citation (search report)

- [X] JP 2009228118 A 20091008 - JFE STEEL CORP
- [X] JP H10273725 A 19981013 - SUMITOMO METAL IND
- [X] JP H08134542 A 19960528 - SUMITOMO METAL IND
- [X] JP 2001107147 A 20010417 - KAWASAKI STEEL CO
- [A] EP 1004680 A1 20000531 - KAWASAKI STEEL CO [JP]
- [A] EP 0997540 A1 20000503 - KAWASAKI STEEL CO [JP]
- [A] EP 1279747 A2 20030129 - KAWASAKI STEEL CO [JP]
- [A] US 5840131 A 19981124 - YAKASHIRO KENICHI [JP], et al
- [AD] EP 0869190 A1 19981007 - KAWASAKI STEEL CO [JP]
- [AD] EP 1577405 A1 20050921 - JFE STEEL CORP [JP]

Cited by

CN108277429A; US2019032168A1; US10597749B2; CN106298221A; JP2019505671A; CN108138291A; JPWO2017073615A1; JP2019019358A; JP2019019359A; WO2016035530A1; US10907234B2; US10604818B2; US11377705B2; WO2017073615A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2775007 A1 20140910; EP 2775007 B1 20181205

DOCDB simple family (application)

EP 13158409 A 20130308