

Title (en)
METHOD FOR PRODUCING Fe-Ni-BASED ALLOY THIN PLATE AND Fe-Ni-BASED ALLOY THIN PLATE

Title (de)
VERFAHREN ZUR HERSTELLUNG VON DÜNNBLECH AUS FE-NI-BASIERTER LEGIERUNG SOWIE DÜNNBLECH AUS FE-NI-BASIERTER LEGIERUNG

Title (fr)
PROCÉDÉ DE PRODUCTION DE PLAQUE MINCE D'ALLIAGE À BASE DE Fe-Ni ET PLAQUE MINCE D'ALLIAGE À BASE DE Fe-Ni

Publication
EP 3521459 B1 20240214 (EN)

Application
EP 17855488 A 20170822

Priority
• JP 2016190743 A 20160929
• JP 2017029964 W 20170822

Abstract (en)
[origin: EP3521459A1] Provided are an Fe-Ni-based thin plate capable of having isotropic mechanical characteristics even if the plate is widened, and a method for producing the same. The Fe-Ni-based alloy thin plate and the method for producing the Fe-Ni-based alloy thin plate are characterized by the following: the thin plate is formed of, in terms of mass percentage, 35.0-43.0% of Ni + Co (Co is 0-6.0%), 0.5% or less of Si, 1.0% or less of Mn, with the remainder being Fe and impurities; a hot-rolled material is used as a material for cold rolling; first cold rolling is conducted on the material for cold rolling, with a rolling reduction ratio of 85% or higher; after the first cold rolling, recrystallization sintering is conducted on such material under conditions where the temperature is 800°C or higher and the retention time is 0.1-1.2 minutes; after the recrystallization sintering, a final cold rolling is conducted on such material with a rolling reduction ratio of 40% or less to obtain a Fe-Ni-based alloy thin plate having a thickness of 0.25 mm or less; and no heat treatment is conducted after the final cold rolling.

IPC 8 full level
C21D 9/46 (2006.01); **B21B 3/02** (2006.01); **C21D 6/00** (2006.01); **C21D 7/02** (2006.01); **C21D 8/02** (2006.01); **C21D 8/04** (2006.01); **C22C 38/00** (2006.01); **C22C 38/08** (2006.01); **C22C 38/10** (2006.01); **H01J 9/14** (2006.01); **H01J 29/07** (2006.01)

CPC (source: EP KR)
C21D 6/001 (2013.01 - EP); **C21D 8/0236** (2013.01 - EP); **C21D 8/0436** (2013.01 - EP); **C21D 8/0468** (2013.01 - EP); **C21D 9/46** (2013.01 - KR); **C22C 38/00** (2013.01 - EP); **C22C 38/02** (2013.01 - EP); **C22C 38/04** (2013.01 - EP); **C22C 38/08** (2013.01 - EP); **C22C 38/105** (2013.01 - EP KR); **H01J 9/142** (2013.01 - EP); **C21D 7/02** (2013.01 - EP); **C21D 9/46** (2013.01 - EP); **H01J 2229/0733** (2013.01 - EP)

Citation (examination)
JP H03281756 A 19911212 - NIPPON KOKAN KK

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

DOCDB simple family (publication)
EP 3521459 A1 20190807; **EP 3521459 A4 20200325**; **EP 3521459 B1 20240214**; CN 109804093 A 20190524; CN 118308655 A 20240709; EP 4328331 A2 20240228; EP 4328331 A3 20240522; JP 6781960 B2 20201111; JP WO2018061530 A1 20190624; KR 102244229 B1 20210426; KR 102244229 B9 20230303; KR 20190042659 A 20190424; WO 2018061530 A1 20180405

DOCDB simple family (application)
EP 17855488 A 20170822; CN 201780060482 A 20170822; CN 202410310690 A 20170822; EP 23217804 A 20170822; JP 2017029964 W 20170822; JP 2018541990 A 20170822; KR 20197008509 A 20170822