

Title (en)
STEEL SHEET

Title (de)
STAHLBLECH

Title (fr)
TÔLE D'ACIER

Publication
EP 3342891 A4 20190313 (EN)

Application
EP 15902194 A 20150821

Priority
JP 2015073490 W 20150821

Abstract (en)
[origin: EP3342891A1] A steel sheet includes: a predetermined chemical composition; and a steel structure containing, in are a fraction, 2% or more of ferrite and bainite, in whi ch an average dislocation density in the ferrite and an average dislocation density in the bainite are bot h 3×10^{12} m/m³ to 1×10^{14} m/m³, and an average grain diameter of the ferrite and the bainite is 5 μ m or less.

IPC 8 full level
C22C 38/00 (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/14** (2006.01); **C22C 38/28** (2006.01); **C22C 38/32** (2006.01); **C22C 38/58** (2006.01); **C23C 2/02** (2006.01); **C23C 2/40** (2006.01); **C23F 17/00** (2006.01); **C25D 5/36** (2006.01)

CPC (source: EP KR US)
C21D 8/0226 (2013.01 - EP US); **C21D 8/0236** (2013.01 - EP US); **C21D 8/0263** (2013.01 - EP US); **C21D 8/0278** (2013.01 - EP US); **C21D 9/46** (2013.01 - EP US); **C22C 38/00** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/005** (2013.01 - EP US); **C22C 38/008** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - EP US); **C22C 38/08** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP KR US); **C22C 38/14** (2013.01 - EP US); **C22C 38/16** (2013.01 - EP US); **C22C 38/28** (2013.01 - EP US); **C22C 38/32** (2013.01 - EP US); **C22C 38/58** (2013.01 - EP US); **C23C 2/02** (2013.01 - EP KR US); **C23C 2/0224** (2022.08 - EP KR US); **C23C 2/024** (2022.08 - EP KR US); **C23C 2/40** (2013.01 - US); **C23F 17/00** (2013.01 - US); **C25D 5/36** (2013.01 - US); **C21D 2211/002** (2013.01 - EP KR US); **C21D 2211/005** (2013.01 - EP KR US); **C21D 2211/008** (2013.01 - EP US)

Citation (search report)
• [X] EP 2757171 A1 20140723 - JFE STEEL CORP [JP]
• [X] JP 2015117404 A 20150625 - JFE STEEL CORP
• [A] EP 2873746 A1 20150520 - KOBE STEEL LTD [JP]
• [A] EP 2821517 A1 20150107 - KOBE STEEL LTD [JP]
• See references of WO 2017033222A1

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 3342891 A1 20180704; EP 3342891 A4 20190313; EP 3342891 B1 20211013; BR 112018003267 A2 20180925; CN 107923007 A 20180417; CN 107923007 B 20200505; JP WO2017033222 A1 20180712; KR 102132205 B1 20200710; KR 20180038030 A 20180413; MX 2018002142 A 20180618; US 2018237881 A1 20180823; WO 2017033222 A1 20170302

DOCDB simple family (application)
EP 15902194 A 20150821; BR 112018003267 A 20150821; CN 201580082468 A 20150821; JP 2015073490 W 20150821; JP 2017536066 A 20150821; KR 20187006629 A 20150821; MX 2018002142 A 20150821; US 201515753599 A 20150821