Title (en)

STEEL ROD

Title (de)

STAHLSTANGE

Title (fr)

TIGE EN ACIER

Publication

EP 3950970 A1 20220209 (EN)

Application

EP 20778583 A 20200325

Priority

- JP 2019060200 A 20190327
- JP 2020013242 W 20200325

Abstract (en)

A bar-shaped steel product extends unidirectionally and has a chemical composition including, by mass%, 0.001 to 0.20% of C, 0.01 to 3.0% of Si, 0.01 to 2.0% of Mn, 0.01 to 5.0% of Ni, 7.0 to 35.0% of Cr, 0.01 to 5.0% of Mo, 0.01 to 3.0% of Cu, 0.001 to 0.10% of N, 0.2 to 2.0% of Nb, optional element(s), and a balance consisting of Fe and inevitable impurities, and has 0.5 or less of a rolling-direction-crystal-orientation RD//<100> fraction (an area ratio of crystal having 20 degrees or less of an orientation difference between a <100> orientation and a rolling direction).

IPC 8 full level

C21D 8/06 (2006.01); **C22C 38/00** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP US)

C21D 8/065 (2013.01 - US); **C21D 9/0075** (2013.01 - US); **C22C 38/001** (2013.01 - US); **C22C 38/002** (2013.01 - EP US); **C22C 38/004** (2013.01 - EP); **C22C 38/005** (2013.01 - EP US); **C22C 38/008** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/34** (2013.01 - EP); **C22C 38/42** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US); **C22C 38/46** (2013.01 - EP US); **C22C 38/48** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP US); **C22C 38/52** (2013.01 - US); **C22C 38/54** (2013.01 - EP US); **C22C 38/58** (2013.01 - EP); C21D 1/28 (2013.01 - EP); C21D 8/065 (2013.01 - EP); C21D 9/0075 (2013.01 - EP); C21D 2201/05 (2013.01 - US)

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 3950970 A1 20220209; **EP 3950970 A4 20221123**; CN 113631733 A 20211109; JP 7077477 B2 20220530; JP WO2020196595 A1 20201001; MX 2021011568 A 20220826; US 2022170125 A1 20220602; WO 2020196595 A1 20201001

DOCDB simple family (application)

EP 20778583 A 20200325; CN 202080023939 A 20200325; JP 2020013242 W 20200325; JP 2021509487 A 20200325; MX 2021011568 A 20200325; US 202017442986 A 20200325