

Title (en)
STEEL MATERIAL

Title (de)
STAHL MATERIAL

Title (fr)
MATÉRIAU D'ACIER

Publication
EP 4269642 A1 20231101 (EN)

Application
EP 21914923 A 20210407

Priority
• JP 2020218859 A 20201228
• JP 2021014738 W 20210407

Abstract (en)
Provided is a steel material having a predetermined chemical composition satisfying
 $0.40[\text{Pr}] + 0.37[\text{Sm}] + 0.37[\text{Eu}] + 0.36[\text{Gd}] + 0.35[\text{Tb}] + 0.34[\text{Dy}] + 0.34[\text{Ho}] + 0.33[\text{Er}] + 0.33[\text{Tm}] + 0.3[\text{Yb}] + 0.32[\text{Lu}] + 1.24[\text{Sc}] - 2.33[\text{O}] - 3.99[\text{N}] - 1.74[\text{S}] \geq 0.0003$ (where [Pr], [Sm], [Eu], [Gd], [Tb], [Dy], [Ho], [Er], [Tm], [Yb], [Lu], [Sc], [O], [N], and [S] are the contents [mass%] of the elements).

IPC 8 full level
C22C 38/00 (2006.01); **C22C 19/03** (2006.01); **C22C 19/05** (2006.01); **C22C 38/06** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP KR)
C22C 19/055 (2013.01 - KR); **C22C 19/056** (2013.01 - KR); **C22C 19/057** (2013.01 - KR); **C22C 38/001** (2013.01 - KR);
C22C 38/02 (2013.01 - EP); **C22C 38/04** (2013.01 - EP); **C22C 38/06** (2013.01 - EP KR); **C22C 38/08** (2013.01 - EP); **C22C 38/12** (2013.01 - EP);
C22C 38/14 (2013.01 - EP); **C22C 38/16** (2013.01 - EP); **C22C 38/32** (2013.01 - EP); **C22C 38/34** (2013.01 - EP); **C22C 38/38** (2013.01 - EP);
C22C 38/42 (2013.01 - EP); **C22C 38/44** (2013.01 - EP KR); **C22C 38/46** (2013.01 - EP); **C22C 38/48** (2013.01 - EP); **C22C 38/50** (2013.01 - EP);
C22C 38/52 (2013.01 - EP KR); **C22C 38/54** (2013.01 - EP); **C22C 38/58** (2013.01 - EP KR)

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4269642 A1 20231101; **EP 4269642 A4 20240619**; CN 116745450 A 20230912; JP WO2022145061 A1 20220707;
KR 20230110325 A 20230721; WO 2022145061 A1 20220707

DOCDB simple family (application)
EP 21914923 A 20210407; CN 202180087857 A 20210407; JP 2021014738 W 20210407; JP 2022572887 A 20210407;
KR 20237020768 A 20210407