

Title (en)
FERRITIC STAINLESS STEEL

Title (de)
FERRITISCHER EDELSTAHL

Title (fr)
ACIER INOXYDABLE FERRITIQUE

Publication
EP 2902523 A1 20150805 (EN)

Application
EP 13842192 A 20130917

Priority
• JP 2012210492 A 20120925
• JP 2013005486 W 20130917

Abstract (en)
Provided is a ferritic stainless steel having a good thermal fatigue property and oxidation resistance while minimizing the contents of Mo, W, and Nb which are expensive elements and minimizing the content of Cu which deteriorates oxidation resistance and workability. A ferritic stainless steel comprises, in terms of % by mass, C: 0.020% or less, Si: 3.0% or less, Mn: 1.0% or less, P: 0.040% or less, S: 0.030% or less, Cr: 10.0% or more and less than 16.0%, N: 0.020% or less, Al: 1.4 to 4.0%, Ti: more than 0.15% and 0.5% or less, Ni: 0.05 to 0.5%, and the balance being Fe and unavoidable impurities, the ferritic stainless steel satisfying formula (1) below: $\frac{\text{Al}\%}{\text{Cr}\%} \leq 0.14 \cdots \cdots (1)$ where Al% and Cr% in the formula respectively denote an Al content and a Cr content (% by mass).

IPC 8 full level
C22C 38/00 (2006.01); **C21D 6/00** (2006.01); **C21D 9/46** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/52** (2006.01); **C22C 38/54** (2006.01)

CPC (source: CN EP US)
C21D 6/002 (2013.01 - EP US); **C21D 9/46** (2013.01 - CN); **C22C 38/001** (2013.01 - CN EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/004** (2013.01 - EP US); **C22C 38/005** (2013.01 - US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - CN EP US); **C22C 38/42** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US); **C22C 38/46** (2013.01 - US); **C22C 38/48** (2013.01 - EP US); **C22C 38/50** (2013.01 - CN EP US); **C22C 38/52** (2013.01 - US); **C22C 38/54** (2013.01 - CN EP US); **C21D 9/46** (2013.01 - EP US); **C21D 2211/005** (2013.01 - CN EP US)

Cited by
EP3369832A4; EP3604596A4; US11242578B2; WO2023208274A1; CN109844157A; EP3527683A4; US11008636B2

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 2902523 A1 20150805; **EP 2902523 A4 20160323**; **EP 2902523 B1 20180905**; CN 104662188 A 20150527; CN 104662188 B 20170915; ES 2693781 T3 20181213; JP 5700175 B2 20150415; JP WO2014050016 A1 20160822; KR 101673217 B1 20161107; KR 20150055028 A 20150520; MY 175890 A 20200714; TW 201420782 A 20140601; TW I493057 B 20150721; US 2015218683 A1 20150806; WO 2014050016 A1 20140403

DOCDB simple family (application)
EP 13842192 A 20130917; CN 201380049407 A 20130917; ES 13842192 T 20130917; JP 2013005486 W 20130917; JP 2014532184 A 20130917; KR 20157009436 A 20130917; MY PI2015700806 A 20130917; TW 102134479 A 20130925; US 201314431199 A 20130917