

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)  
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