

Title (en)  
FERRITIC STAINLESS STEEL AND PRODUCTION METHOD THEREFOR

Title (de)  
FERRITISCHER EDELSTAHL UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
ACIER INOXYDABLE À BASE DE FERRITE ET PROCÉDÉ DE PRODUCTION S'Y RAPPORTANT

Publication  
**EP 3121304 A4 20170426 (EN)**

Application  
**EP 15764119 A 20150225**

Priority  
• JP 2014058880 A 20140320  
• JP 2015000954 W 20150225

Abstract (en)  
[origin: EP3121304A1] Provided is a ferritic stainless steel that has excellent corrosion resistance and displays good brazing properties when brazing is carried out at high temperature using a Ni-containing brazing metal. These effects are obtained as a result of the steel having a chemical composition containing, in mass%: 0.003% to 0.020% of C; 0.05% to 1.00% of Si; 0.10% to 0.50% of Mn, 0.05% or less of P; 0.01% or less of S; 16.0% to 25.0% of Cr; 0.05% to 0.35% of Ti; 0.005% to 0.05% of Al; and 0.005% to 0.025% of N, the balance being Fe and incidental impurities, and as a result of a nitrogen-enriched layer being created that has a nitrogen concentration peak value of 0.05 mass% to 0.30 mass% at a depth of within 0.05 µm of a surface of the steel.

IPC 8 full level  
**C22C 38/00** (2006.01); **C21D 9/46** (2006.01); **C22C 38/28** (2006.01); **C22C 38/54** (2006.01)

CPC (source: EP KR US)  
**C21D 1/06** (2013.01 - EP US); **C21D 1/74** (2013.01 - EP US); **C21D 6/004** (2013.01 - EP US); **C21D 8/005** (2013.01 - EP US);  
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**C22C 38/004** (2013.01 - EP KR US); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - EP KR US);  
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Citation (search report)  
• [X] JP 2009197293 A 20090903 - NISSHIN STEEL CO LTD  
• [A] JP H10273760 A 19981013 - NISSHIN STEEL CO LTD  
• [A] JP H09202945 A 19970805 - NISSHIN STEEL CO LTD  
• [A] KR 20020052737 A 20020704 - POSCO [KR]  
• [A] JP 2005307293 A 20051104 - NISSHIN STEEL CO LTD  
• [A] US 2012085513 A1 20120412 - OKU MANABU [JP], et al  
• See references of WO 2015141145A1

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