

Title (en)  
STEEL ALLOY FOR FERRITIC STEEL HAVING EXCELLENT CREEP STRENGTH AND OXIDATION RESISTANCE AT ELEVATED USAGE TEMPERATURES

Title (de)  
STAHLLEGIERUNG FÜR EINEN FERRITISCHEN STAHL MIT AUSGEZEICHNETER ZEITSTANDFESTIGKEIT UND OXIDATIONSBESTÄNDIGKEIT BEI ERHÖHTEN EINSATZTEMPERATUREN

Title (fr)  
ALLIAGE D'ACIER POUR UN ACIER FERRITIQUE PRÉSENTANT UNE EXCELLENTE RÉSISTANCE AU FLUAGE ET UNE EXCELLENTE RÉSISTANCE À L'OXYDATION À DES TEMPÉRATURES D'UTILISATION ACCRUES

Publication  
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Application  
**EP 09775941 A 20090703**

Priority

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- DE 102008034817 A 20080723
- DE 102009031576 A 20090630

Abstract (en)  
[origin: WO2010009700A1] The invention relates to a steel alloy for steel that is ferritic at the usage temperature, having excellent creep strength and corrosion resistance, particularly at usage temperatures = 750°C, having the following chemical composition (in wt. %): C = 1.0%; Si = 1.0%; Mn = 1.0%; P max. 0.05%; S max. 0.01%; 2 = Al = 12%; 3 = Cr < 16%; 2 = Ni = 10% and/or 2 = CO = 10%, where 2 = Ni+Co = [%Cr] + 2,07x[%Al] >= 0.95x[%Ni] + [%Co]; N max. 0.0200%; the remainder being iron with steel production-related impurities, with the optional addition of one or more elements of V, Ti, Ta, Zr and Nb; with the optional addition of one or both elements of Mo and W; with the optional addition of one or more elements of Hf, B, Se, Y, Te, Sb, La and Zr in the range of a cumulative content of < 0.1%, with the proviso that the steel structure comprises uniformly distributed coherent precipitations based on a chromium-stabilized (Ni, Co)Al-B2 intermetallic order phase.

IPC 8 full level  
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**C22C 38/06** (2013.01 - EP US); **C22C 38/40** (2013.01 - EP US); **C22C 38/52** (2013.01 - EP US); **Y10T 428/12014** (2015.01 - EP US)

Citation (examination)  
SPIEKERMANN P: "Legierungen - ein besonderes patentrechtliches Problem?", MITTEILUNGEN DER DEUTSCHEN PATENTANWÄLTE, HEYMANN, KOLN, DE, vol. 34, 1 January 1993 (1993-01-01), pages 178 - 190, XP002152326, ISSN: 0026-6884

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