

Title (en)  
AUSTENITIC HEAT-RESISTANT ALLOY AND WELDED STRUCTURE

Title (de)  
AUSTENITISCHE HITZEBESTÄNDIGE LEGIERUNG UND GESCHWEISSTE STRUKTUR

Title (fr)  
ALLIAGE AUSTÉNITIQUE THERMORÉSISTANT ET STRUCTURE SOUDÉE

Publication  
**EP 3318650 B1 20191009 (EN)**

Application  
**EP 16817632 A 20160602**

Priority  
• JP 2015132552 A 20150701  
• JP 2016066458 W 20160602

Abstract (en)  
[origin: EP3318650A1] An austenitic heat-resistant alloy is provided that provides good crack resistance and high-temperature strength in a stable manner. The austenitic heat-resistant alloy has a chemical composition of, in mass %: 0.04 to 0.14 % C; 0.05 to 1 % Si; 0.5 to 2.5 % Mn; up to 0.03 % P; less than 0.001 % S; 23 to 32 % Ni; 20 to 25 % Cr; 1 to 5 % W; 0.1 to 0.6 % Nb; 0.1 to 0.6 % V; 0.1 to 0.3 % N; 0.0005 to 0.01 % B; 0.001 to 0.02 % Sn; up to 0.03 % Al; up to 0.02 % O; 0 to 0.5 % Ti; 0 to 2 % Co; 0 to 4 % Cu; 0 to 4 % Mo; 0 to 0.02 % Ca; 0 to 0.02 % Mg; 0 to 0.2 % REM; and the balance being Fe and impurities, the alloy having a microstructure with a grain size represented by a grain size number in accordance with ASTM E112 of 2.0 or more and less than 7.0.

IPC 8 full level  
**C22C 38/00** (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); **C22C 38/58** (2006.01)

CPC (source: EP KR US)  
**C22C 38/00** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP KR US); **C22C 38/005** (2013.01 - EP KR US); **C22C 38/008** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/42** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP KR US); **C22C 38/46** (2013.01 - EP KR US); **C22C 38/48** (2013.01 - EP KR US); **C22C 38/50** (2013.01 - EP KR US); **C22C 38/52** (2013.01 - EP KR US); **C22C 38/54** (2013.01 - EP KR US); **C22C 38/58** (2013.01 - EP KR US); **C22C 38/60** (2013.01 - KR); **C21D 2211/001** (2013.01 - EP KR US)

Cited by  
WO2023061673A1

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

DOCDB simple family (publication)  
**EP 3318650 A1 20180509**; **EP 3318650 A4 20181226**; **EP 3318650 B1 20191009**; CA 2988556 A1 20170105; CA 2988556 C 20200421; CN 107709595 A 20180216; CN 107709595 B 20190723; ES 2759543 T3 20200511; JP 6384610 B2 20180905; JP WO2017002523 A1 20180329; KR 102048479 B1 20191125; KR 20180012813 A 20180206; US 2018216215 A1 20180802; WO 2017002523 A1 20170105

DOCDB simple family (application)  
**EP 16817632 A 20160602**; CA 2988556 A 20160602; CN 201680037914 A 20160602; ES 16817632 T 20160602; JP 2016066458 W 20160602; JP 2017526238 A 20160602; KR 20177037401 A 20160602; US 201615736395 A 20160602