Title (en)

Cr-BASED TWO-PHASE ALLOY AND PRODUCT THEREOF

Title (de)

CR-BASIERTE ZWEIPHASIGE LEGIERUNG UND PRODUKT DARAUS

Title (fr)

ALLIAGE BIPHASÉ À BASE DE CHROME ET SON PRODUIT

Publication

EP 3438304 A4 20191218 (EN)

Application

EP 17773605 A 20170130

Priority

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- JP 2017003081 W 20170130

Abstract (en)

[origin: EP3438304A1] An object of the invention is to provide a two-phase alloy which contains inexpensive Cr as a main component, and which is superior in strength properties including corrosion resistance and toughness, and in abrasion resistance to conventional ones under a high corrosion circumstance such as in an oil well. The invention is a Cr based two-phase alloy including two phases of a ferrite phase and an austenite phase in a mixed state, in which a chemical composition of the Cr based two-phase alloy consists of a major component, an accessory component, impurities, a first optional accessory component, and a second optional accessory component, and the major component consists of 33% by mass or more and 65% by mass or less of Cr, 18% by mass or more and 40% by mass or less of Ni, and 10% by mass or more and 33% by mass or less of Fe.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

- [A] EP 2883630 A1 20150617 - NIPPON STEEL & SUMITOMO METAL CORP [JP]
- [A] JP 2006152412 A 20060615 - MITSUBISHI HEAVY IND LTD
- [A] JP H11302801 A 19991102 - SUMITOMO METAL IND
- [A] US 5543109 A 19960806 - SENBA HIROYUKI [JP], et al
- [A] JP H0770681 A 19950314 - SUMITOMO METAL IND
- [A] US 5695716 A 19971209 - KOEHLER MICHAEL [DE], et al
- See references of WO 2017169056A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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