

Title (en)

COPPER ALLOY MATERIAL FOR SEAWATER AND METHOD FOR PREPARING SAME

Title (de)

KUPFERLEGIERUNGSMATERIAL FÜR SEEWASSER UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

MATÉRIAUX D'ALLIAGE DE CUIVRE POUR L'EAU DE MER ET SON PROCÉDÉ DE PRÉPARATION

Publication

**EP 2670875 A4 20140813 (EN)**

Application

**EP 11857456 A 20110511**

Priority

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- KR 2011003449 W 20110511

Abstract (en)

[origin: WO2012105731A1] Disclosed are a copper alloy material for seawater comprising 25% to 40% by weight of zinc (Zn), 0.5% to 10% by weight of manganese (Mn), 0.1% to 5% by weight of nickel (Ni) and the remainder of copper (Cu), a method for preparing the same and a seawater structure manufactured from the same. In addition, the copper alloy material for seawater further comprises, in an amount of 1% by weight or less, at least one element selected from the group consisting of Sn, Al, Si, Co, Fe, P, Mg, Pb and Ca.

IPC 8 full level

**C22C 9/04** (2006.01); **C22F 1/08** (2006.01)

CPC (source: EP KR)

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Citation (search report)

- [XA] JP H10121168 A 19980512 - SANPO SHINDO KOGYO KK
- [XAY] US 3778236 A 19731211 - GOLDMAN A, et al
- [XA] JP S59159957 A 19840910 - MITSUBISHI METAL CORP
- [XA] EP 0931843 A1 19990728 - WIELAND WERKE AG [DE]
- [A] JP H10152735 A 19980609 - SANPO SHINDO KOGYO KK
- [XAY] TYLER D E ET AL: "Manganese in copper based alloys", JOURNAL OF METALS,, vol. 25, no. 1, 1 January 1973 (1973-01-01), pages 24 - 29, XP001263204
- [XA] POPPLEWELL J M ET AL: "Stress corrosion resistance of some copper base alloys in natural atmospheres", CORROSION, NACE INTERNATIONAL, HOUSTON, TX; US, US, vol. 31, no. 8, 1 August 1975 (1975-08-01), pages 279 - 286, XP009178566, ISSN: 0010-9312
- [A] MUKHERJEE D ET AL: "Corrosion resistant and antifouling behavior of Cu-Mn alloys in sea-water", BULLETIN OF ELECTROCHEMISTRY, KARAIKUDI, vol. 9, no. 8-10, 1 January 1993 (1993-01-01), pages 427 - 429, XP009122244, ISSN: 0256-1654
- [A] SCHMIDT ROBERT F ET AL: "MARINE CORROSION OF A WHITE COPPER-BASE ALLOY WITH ZINC, MANGANESE, NICKEL AND ALUMINUM", TRANSACTIONS OF THE AMERICAN FOUNDRYMEN'S SOCIETY,, vol. 81, 1 January 1973 (1973-01-01), pages 471 - 474, XP009178562, ISSN: 0065-8375
- See references of WO 2012105731A1

Cited by

EP3363922A4; EP3363922B1

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DOCDB simple family (application)

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