

Title (en)

HIGH WEAR RESISTANT HIGH ENTROPY ALLOY AND PREPARATION THEREOF

Title (de)

HOCHVERSCHLEISSBESTÄNDIGE HOCHENTROPISCHE LEGIERUNG UND DEREN HERSTELLUNG

Title (fr)

ALLIAGE D'ENTROPIE ÉLEVÉE RÉSISTANT À L'USURE ET SA PRÉPARATION

Publication

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Application

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Priority

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Abstract (en)

[origin: EP3670684A1] The present invention discloses high entropy alloys that consist of the following composition, wherein the percentages are expressed by weight with respect to the total weight of the alloy: 5-20wt.% Cr, 10-25wt.% Mn, 0.3-20wt.% Si, 0.2-6wt.% Fe and the balance Ni and unavoidable impurities. The invention also discloses a process for manufacturing these high entropy alloys with high hardness values. The invention also comprises submitting the alloys to a thermal treatment and achieving an improved hardness and very good corrosion resistance. Finally, the invention refers to the uses of these alloys for manufacturing parts for use for example cutting tools, high temperature heat exchange applications and high wear resistance components in machinery for construction and mining.

IPC 8 full level

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Cited by

CN112899603A; CN115717224A; CN116237214A; CN113621988A; CN114032482A; CN115491532A; CN117802436A

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