

Title (en)
NI-FE-CR ALLOY

Title (de)
NI-FE-CR-LEGIERUNG

Title (fr)
ALLIAGE NI-FE-CR

Publication
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Application
EP 16897119 A 20161228

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Abstract (en)
[origin: EP3438306A1] An objective of the present invention is to provide a Ni-Fe-Cr alloy having an excellent intergranular corrosion resistance. A Ni-Fe-Cr alloy of the present embodiment has a chemical composition consisting of, in mass percent, C: 0.005 to 0.015%, Si: 0.05 to 0.50%, Mn: 0.05 to 1.5%, P: 0.030% or less, S: 0.020% or less, Cu: 1.0 to 5.0%, Ni: 30.0 to 45.0%, Cr: 18.0 to 30.0%, Mo: 2.0 to 4.5%, Ti: 0.5 to 2.0%, N: 0.001 to 0.015%, and Al: 0 to 0.50%, with the balance being Fe and impurities. An average grain size d (μm) satisfies Formula (1): $d < 4.386 / C \text{ rel} + 0.15$ where, C rel in Formula (1) is defined by Formula (2): $C \text{ rel} = C \text{ \#} 0.125 \text{ \#} \text{Ti} + 0.8571 \text{ \#} \text{N}$ where, symbols of elements in Formula (1) and Formula (2) are to be substituted by contents of corresponding elements (mass%).

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