

Title (en)

Process for improving the corrosion resistance of a nickel based alloy and alloy thus produced.

Title (de)

Verfahren zur Verbesserung der Korrosionsbeständigkeit einer Legierung auf Nickelbasis und nach dem Verfahren hergestellte Legierung.

Title (fr)

Procédé d'amélioration de la résistance à la corrosion d'un alliage à base de nickel et alliage ainsi réalisé.

Publication

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Application

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Priority

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Abstract (en)

[origin: EP0424277A1] Process for improving the pitting and crevice corrosion resistance of a nickel-based alloy and also the alloy thus improved. Such an alloy contains at least 50% Ni and approximately 20% Cr, 4% Nb, 1% Ti and Al. According to the invention, when the alloy is being produced, the proportions of carbon and silicon are regulated within narrow limits which make it possible, when the metal solidifies, to avoid the formation by segregation of carbides of M₆C type, the proportion by weight of carbon being maintained at at least 0.03% without exceeding 0.05%, and the proportion by weight of silicon not exceeding 0.15%, the absence of carbides containing silicon being verified in the raw casting state. The invention applies especially to the alloys employed for the production of ingots or of cast pieces of large size.

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IPC 8 full level

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Cited by

JP2020117813A; EP2222884A4; EP2845916A3; EP0648850A1; US5529642A; JP2019052349A; US9017490B2; US10100392B2

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