Title (en)

Electrolytic stripping

Title (de)

Elektrolytisches Ablösen

Title (fr)

Procédé de décapage électrolytique

Publication

EP 2679705 A1 20140101 (EN)

Application

EP 12174048 A 20120628

Priority

EP 12174048 A 20120628

Abstract (en)

The present invention is directed towards an electrochemical process for stripping corrosion and oxide products and oxidation resistant metallic coatings from a superalloy test sample. The process involves connecting the test sample to a lead of a power supply and submerging a portion of the test sample into a bath of electrolytic stripping solution with a pH less than 1. The test sample is then subjected to combined cycles of anodic and cathodic polarisation steps for a period of time which is effective to strip the corrosion and the oxide products and oxidation resistant metallic coatings from the test sample. The open circuit potential is measured before and after at least one step of the combined cycle of polarisation in order to monitor the progress of the coating removal, and, the test sample is removed from the electrolytic stripping solution when the corrosion and oxide products and oxidation resistant metallic coatings are removed and the open circuit potential is close to that of the original superalloy test sample (or the current value is getting closer to the passivation current value of the base material). The test sample lastly undergoes a final cleaning and rinsing step.

IPC 8 full level

C25F 1/02 (2006.01); C25F 5/00 (2006.01)

CPC (source: EP)

C25F 1/02 (2013.01); C25F 5/00 (2013.01)

Citation (applicant)

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- "Controlled stripping of aluminide coatings on nickel superalloys through electrolytic techniques", J APPL ELECTROCHEM, vol. 38, 2008, pages 817
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Citation (search report)

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- [A] US 5202002 A 19930413 TSUCHINAGA MASAMITSU [US], et al
- [A] US 3409487 A 19681105 FRY JOHN S, et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2679705 A1 20140101; EP 2679705 B1 20150506; WO 2014001555 A1 20140103

DOCDB simple family (application)

EP 12174048 A 20120628; EP 2013063743 W 20130628