

Title (en)

Process and apparatus for regenerating a used etching solution for zirconium alloys

Title (de)

Verfahren und Vorrichtung zur Regenerierung von verbrauchten Ätzlösungen für Zirkoniumlegierungen

Title (fr)

Procédé et dispositif de régénération d'une solution usagée de décapage d'éléments en alliage de zirconium

Publication

EP 0723038 B1 20000412 (FR)

Application

EP 96400097 A 19960115

Priority

FR 9500783 A 19950124

Abstract (en)

[origin: EP0723038A1] Regenerating a spent HF-HNO₃ pickling soln., after being used for Zr alloy pickling, involves (a) vacuum evaporating and then condensing most of the water content of the soln. to obtain slightly acidic water and a conc. acid soln. contaminated by ZrF₄; (b) vacuum evaporating the conc. acid soln. in a crystalliser to obtain ZrF₄ crystals and a purified conc. acid soln.; and (c) mixing the slightly acidic water and the conc. acid soln. in the desired proportion to obtain a regenerated pickling soln. Also claimed is an appts. for carrying out the above process.

IPC 1-7

C23G 1/36

IPC 8 full level

C23G 1/36 (2006.01)

CPC (source: EP US)

C23F 1/46 (2013.01 - EP); **C23G 1/36** (2013.01 - EP US); **Y10S 423/01** (2013.01 - EP)

Cited by

CN103241784A; US7988946B2

Designated contracting state (EPC)

BE CH DE ES FR GB LI SE

DOCDB simple family (publication)

EP 0723038 A1 19960724; **EP 0723038 B1 20000412**; DE 69607660 D1 20000518; DE 69607660 T2 20001228; ES 2145390 T3 20000701; FR 2729676 A1 19960726; FR 2729676 B1 19970411; US 5788935 A 19980804

DOCDB simple family (application)

EP 96400097 A 19960115; DE 69607660 T 19960115; ES 96400097 T 19960115; FR 9500783 A 19950124; US 59086496 A 19960124