

Title (en)

Method for etching steel materials such as stainless steels and alloyed steels

Title (de)

Verfahren zum Beizen von Stahlwerkstoffen wie z.B. rostfreien und legierten Stählen

Title (fr)

Procédé de décapage de matériaux en acier tels que les aciers inoxydables et les aciers alliés

Publication

**EP 0501867 B1 19990107 (FR)**

Application

**EP 92400471 A 19920224**

Priority

- FR 9102222 A 19910225
- US 15025493 A 19931110

Abstract (en)

[origin: EP0501867A1] Process for pickling-descaling a material made of steel, chosen especially from stainless steels and alloy steels, permitting the removal of an internal oxidation layer, characterised in that the material is treated with a bath containing: - an acid chosen from a halogenated acid, sulphuric acid, phosphoric acid, formic acid and acetic acid, - ferric ions in a concentration of at least 20 g/l, and the reaction conditions are adjusted so as to have conjointly a reduction of the ferric iron to ferrous iron and a reaction of dissolution of the metallic elements of the matrix of the material while maintaining the redox potential of the bath at a value of 100 to 350 mV relative to Ag/AgCl, and the acid concentration so that the quantity of hydrogen released is from 0.1 to 5 ml/cm<sup>2</sup> of material (measured under normal conditions).

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**C23G 1/08**

IPC 8 full level

**C23G 1/08** (2006.01)

CPC (source: EP US)

**C23G 1/08** (2013.01 - EP US); **C23G 1/086** (2013.01 - EP US)

Cited by

DE4237021C1; EP0859671A4; EP0792949A1; FR2745301A1; IT202000005848A1; WO9931296A1; US6500328B1; WO9927162A1; EP0769574A1

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