Title (en)

INTEGRATION OF LIGHT METALS INTO STEEL PICKLING AND PRETREATING PROCESSES

Title (de)

AUFNAHME VON LEICHTMETALLEN IN BEIZ- UND VORBEHANDLUNGSVERFAHREN FÜR STAHL

Title (fr)

RÉCEPTION DE MÉTAUX LÉGERS DANS UN PROCÉDÉ DE PRÉTRAITEMENT ET DE DÉCAPAGE DE L'ACIER

Publication

EP 3230491 A1 20171018 (DE)

Application

EP 15804762 A 20151203

Priority

- DE 102014225237 A 20141209
- EP 2015078466 W 20151203

Abstract (en)

[origin: WO2016091703A1] The present invention concerns a method for wet-chemically pretreating a multiplicity of iron components and a multiplicity of aluminium components in series, with each of the iron components undergoing in immediate succession first a pickle (1) and then a reactive rinse (2), and with each of the aluminium components likewise undergoing this same reactive rinse (2), but without having undergone a pickle (1), the pickle (1) being effected by contacting the components with an aqueous bath solution (A) which is acidified with sulphuric acid and has a pH of below 1.0, and the reactive rinse (2) being effected by contacting the components with an aqueous bath solution (B) which is acidified with sulphuric acid and contains a total of at least 0.02 g/kg of water-soluble compounds of the elements Zr and/or Ti, based in each case on the respective elements, and has a pH of not below 1.0.

IPC 8 full level

C23C 22/78 (2006.01); **C23C 22/34** (2006.01); **C23C 22/73** (2006.01); **C23G 1/08** (2006.01)

CPC (source: EP)

C23C 22/34 (2013.01); **C23C 22/73** (2013.01); **C23C 22/78** (2013.01); **C23G 1/081** (2013.01)

Citation (search report)

See references of WO 2016091703A1

Cited by

US11408078B2; CN108823578A

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)

DE 102014225237 B3 20160428; EP 3230491 A1 20171018; EP 3230491 B1 20190220; ES 2718759 T3 20190704; WO 2016091703 A1 20160616

DOCDB simple family (application)

DE 102014225237 A 20141209; EP 15804762 A 20151203; EP 2015078466 W 20151203; ES 15804762 T 20151203