

Title (en)

TRIVALENT CHROMIUM PLATING SOLUTION AND CHROMIUM PLATING METHOD USING SAME

Title (de)

DREIWERTIGE CHROMPLATTIERUNGSLÖSUNG UND CHROMBESCHICHTUNGSVERFAHREN DAMIT

Title (fr)

SOLUTION DE PLACAGE AU CHROME TRIVALENT ET PROCÉDÉ DE PLACAGE AU CHROME FAISANT APPEL À CELLE-CI

Publication

EP 3819404 A4 20220209 (EN)

Application

EP 19830121 A 20190702

Priority

- JP 2018126508 A 20180703
- JP 2019026246 W 20190702

Abstract (en)

[origin: EP3819404A1] A trivalent chromium plating solution containing a trivalent chromium compound, a complexing agent, a conductive salt, and a pH-buffering agent, and further containing an organic compound having 2-4 carbon atoms and three or more chloro groups, and a trivalent chromium plating method using the same provide a practical trivalent chromium plating with enhanced corrosion resistance as compared to the ordinary trivalent chromium plating.

IPC 8 full level

C25D 3/06 (2006.01); **C25D 3/10** (2006.01); **C25D 5/48** (2006.01); **C25D 9/08** (2006.01)

CPC (source: EP US)

C25D 3/06 (2013.01 - EP US); **C25D 3/10** (2013.01 - EP US); **C25D 5/48** (2013.01 - EP); **C25D 9/08** (2013.01 - EP); **C25D 5/14** (2013.01 - EP)

Citation (search report)

- [XY] US 2003178314 A1 20030925 - POLINSKI PAMELA A [US], et al
- [Y] CN 105671599 A 20160615 - JINAN DILIGENCE TECH CO LTD
- [Y] JP 2009074170 A 20090409 - NISSAN MOTOR
- [A] CN 103014784 A 20130403 - HEFEI HUAQING FANGXING SURFACE TECHNOLOGY CO LTD
- See references of WO 2020009096A1

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

DOCDB simple family (publication)

EP 3819404 A1 20210512; EP 3819404 A4 20220209; CN 112368421 A 20210212; JP 7349427 B2 20230922; JP WO2020009096 A1 20210708; US 2021317589 A1 20211014; WO 2020009096 A1 20200109

DOCDB simple family (application)

EP 19830121 A 20190702; CN 201980040744 A 20190702; JP 2019026246 W 20190702; JP 2020529002 A 20190702; US 201917257348 A 20190702