Title (en)

SURFACE TREATMENT APPARATUS

Title (de

OBERFLÄCHENBEHANDLUNGSGERÄT

Title (fr)

APPAREIL DE TRAITEMENT DE SURFACE

Publication

EP 2578728 A1 20130410 (EN)

Application

EP 11786385 A 20110303

Priority

- JP 2010121414 A 20100527
- JP 2011054920 W 20110303

Abstract (en)

Disclosed is a surface treatment apparatus including one of a positive electrode member and a negative electrode member to be electrically connected to a treatment-object article made of metal and having an annular treatment-object area in an outer circumferential face thereof, a frame member having a non-conductive inner circumferential face opposed with a gap to the outer circumferential face and to the annular treatment-object area, a non-conductive elastic seal member capable of forming an electrolysis solution path along the annular treatment-object area by sealing the gaps between portions of the outer circumferential face opposed to each other across the annular treatment-object area and the inner circumferential face, the other one of the positive electrode member and the negative electrode member having a bar-like shape with a leading end portion that protrudes into the electrolysis solution path toward the treatment-object article, and an electrolysis solution circulating means for circulating an amount of electrolysis solution along the electrolysis solution path.

IPC 8 full leve

C25D 17/00 (2006.01); C25D 5/02 (2006.01); C25D 11/00 (2006.01)

CPC (source: EP US)

C25D 5/02 (2013.01 - EP US); C25D 11/005 (2013.01 - EP US); C25D 17/12 (2013.01 - EP US)

Citation (search report)

See references of WO 2011148685A1

Cited by

DE102015222862A1

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)

US 2013043122 A1 20130221; BR 112012029980 A2 20160802; CN 102869815 A 20130109; EP 2578728 A1 20130410; JP 2012007234 A 20120112; JP 5522482 B2 20140618; WO 2011148685 A1 20111201

DOCDB simple family (application)

US 201113583710 A 20110303; BR 112012029980 A 20110303; CN 201180021885 A 20110303; EP 11786385 A 20110303; JP 2011054920 W 20110303; JP 2011112575 A 20110519