

Title (en)

MANUFACTURE OF NOBLE METAL NANOPARTICLES

Title (de)

HERSTELLUNG VON EDELMETALL-NANOPARTIKELN

Title (fr)

FABRICATION DE NANOParticules DE MÉTAL NOBLE

Publication

EP 2934793 B1 20220601 (EN)

Application

EP 13819044 A 20131223

Priority

- FI 20126373 A 20121221
- US 201261740532 P 20121221
- FI 2013051201 W 20131223

Abstract (en)

[origin: WO2014096556A2] A method and an apparatus of extracting metal nanoparticles from electrolytic solutions containing metal ions through an electrochemical process on an electrode. The electrolytic solution undergoes potentiostatic pulse electrolysis in the presence of a first electrode and a second electrode, and the electrochemical nucleaction takes a place at the first electrode and the metal particles are extracted from the electrolytic solution. By means of the invention it is possible to produce nano-sized nobel metal or zinc particles in an efficient way.

IPC 8 full level

B22F 9/24 (2006.01); **C25C 1/14** (2006.01); **C25C 1/20** (2006.01); **C25C 5/02** (2006.01); **B22F 1/00** (2022.01)

CPC (source: EP FI US)

B22F 1/056 (2022.01 - EP FI US); **B22F 9/24** (2013.01 - EP US); **C25C 1/14** (2013.01 - EP); **C25C 1/20** (2013.01 - EP);
C25C 5/02 (2013.01 - EP FI); **C25C 7/02** (2013.01 - FI); **C25C 7/06** (2013.01 - FI); **B22F 2999/00** (2013.01 - EP)

C-Set (source: EP)

B22F 2999/00 + B22F 9/24 + B22F 2202/06

Citation (examination)

JP 2007327117 A 20071220 - UNIV WASEDA, et al

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)

WO 2014096556 A2 20140626; WO 2014096556 A3 20140821; EP 2934793 A2 20151028; EP 2934793 B1 20220601; FI 126197 B 20160815

DOCDB simple family (application)

FI 2013051201 W 20131223; EP 13819044 A 20131223; FI 20126373 A 20121221