

Title (en)

METHOD AND DEVICE FOR REMOVING RESIDUAL OXYGEN FROM INERT GASES BY SYNTHESIZING METAL NANOPARTICLES

Title (de)

VERFAHREN UND VORRICHTUNG ZUM ENTFERNEN VON RESTSAUERSTOFF AUS INERTGASEN MITTELS SYNTHESE VON METALLNANOPARTIKELN

Title (fr)

PROCÉDÉ ET DISPOSITIF POUR ÉLIMINER L'OXYGÈNE RÉSIDUEL DE GAZ INERTES PAR SYNTHÈSE DE NANOParticules MÉTALLIQUES

Publication

EP 4392164 A1 20240703 (DE)

Application

EP 22768693 A 20220822

Priority

- DE 102021121928 A 20210824
- EP 2022073308 W 20220822

Abstract (en)

[origin: WO2023025716A1] The aim of the invention is to remove residual oxygen from an inert gas (8). This is achieved in that a voltage is applied between two electrodes (5, 6) adjoining the inert gas (8), said voltage producing a direct gas discharge (9) in the inert gas (8). As a result of the gas discharge (9), metal is removed from at least one of the electrodes (5, 6). The metal forms nanoparticles (12) in the inert gas (8), said nanoparticles spontaneously oxidizing, thereby using the residual oxygen.

IPC 8 full level

B01D 53/32 (2006.01)

CPC (source: EP)

B01D 53/32 (2013.01); **B01D 2257/104** (2013.01); **B01D 2259/818** (2013.01)

Citation (search report)

See references of WO 2023025716A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

DE 102021121928 A1 20230302; EP 4392164 A1 20240703; WO 2023025716 A1 20230302

DOCDB simple family (application)

DE 102021121928 A 20210824; EP 2022073308 W 20220822; EP 22768693 A 20220822