

Title (en)

METHOD AND DEVICE FOR THE OUTER-WALL AND/OR INNER-WALL COATING OF HOLLOW BODIES

Title (de)

VERFAHREN UND VORRICHTUNG ZUR AUßENWAND- UND/ODER INNENWANDBESCHICHTUNG VON HOHLKÖRPERN

Title (fr)

PROCÉDÉ ET DISPOSITIF POUR LE REVÊTEMENT DE PAROIS EXTERNES ET/OU DE PAROIS INTERNES DE CORPS CREUX

Publication

**EP 4182490 A1 20230524 (DE)**

Application

**EP 21749105 A 20210709**

Priority

- DE 102020118718 A 20200715
- EP 2021069135 W 20210709

Abstract (en)

[origin: WO2022013087A1] The invention relates to a device and a method for the outer-wall and/or inner-wall coating of hollow bodies (4) made of an electrically nonconductive material, in particular plastic bottles or canisters, in which the hollow body (4) is placed into a process chamber (12), which is divided by the hollow body (4) into an inner and an outer reaction space (4a, 4b), wherein at least one process gas is introduced into one of the two reaction spaces (4a, 4b) under a process pressure, in particular while the other of the two reaction spaces (4b, 4a) is kept at a pressure less than or greater than the process pressure, wherein a plasma is generated in the reaction space (4a, 4b) that is kept under process pressure, and reaction products and/or fragments formed in the plasma are precipitated out of the at least one process gas to form a layer on that side of the wall of the hollow body (4) which is facing the plasma, characterized in that the plasma is influenced with respect to at least one operating parameter by means of a magnetic field permeating the two reaction spaces (4a, 4b).

IPC 8 full level

**C23C 16/04** (2006.01); **C23C 16/50** (2006.01); **C23C 16/511** (2006.01); **C23C 16/52** (2006.01); **H01J 37/32** (2006.01)

CPC (source: EP US)

**C23C 16/045** (2013.01 - EP US); **C23C 16/401** (2013.01 - US); **C23C 16/50** (2013.01 - EP); **C23C 16/511** (2013.01 - EP US); **C23C 16/52** (2013.01 - EP US); **H01J 37/32192** (2013.01 - EP); **H01J 37/32403** (2013.01 - EP); **H01J 37/32513** (2013.01 - EP); **H01J 37/3266** (2013.01 - US); **H01J 37/32669** (2013.01 - EP); **H01J 37/32816** (2013.01 - US); **H01J 37/32935** (2013.01 - EP US); **H01J 37/32192** (2013.01 - US); **H01J 2237/1825** (2013.01 - US); **H01J 2237/24578** (2013.01 - US)

Citation (search report)

See references of WO 2022013087A1

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 102020118718 A1 20220120**; CN 115605631 A 20230113; EP 4182490 A1 20230524; JP 2023533569 A 20230803; US 2023323529 A1 20231012; WO 2022013087 A1 20220120

DOCDB simple family (application)

**DE 102020118718 A 20200715**; CN 202180035288 A 20210709; EP 2021069135 W 20210709; EP 21749105 A 20210709; JP 2023501554 A 20210709; US 202118016328 A 20210709