

Title (en)
TREATMENT ASSEMBLY FOR TREATING THE SURFACE OF A BODY WITH A DIELECTRIC BARRIER DISCHARGE PLASMA

Title (de)
BEHANDLUNGSAUORDNUNG FÜR DIE BEHANDLUNG EINER OBERFLÄCHE EINES KÖRPERS MIT EINEM DIELEKTRISCH BEHINDERTEN PLASMA

Title (fr)
ENSEMBLE DE TRAITEMENT POUR LE TRAITEMENT D'UNE SURFACE D'UN CORPS AU MOYEN D'UN PLASMA À BARRIÈRE DIÉLECTRIQUE

Publication
EP 3957137 B1 20230125 (DE)

Application
EP 20720761 A 20200414

Priority
• DE 102019109940 A 20190415
• EP 2020060447 W 20200414

Abstract (en)
[origin: CA3136777A1] The invention relates to a treatment assembly for treating the surface of a body with a dielectrically limited plasma, comprising an electrode assembly (1), in which at least one electrode (1a, 1b) is arranged in a base section of the electrode assembly (1), which is completely shielded from the surface to be treated by a dielectricum (3), and a connection conductor (6a, 6b) of which extends into a contact projection (5) of the dielectricum (3). The treatment assembly also comprises a contact element (2, 2'), which has a receiving opening (18, 18') for the contact projection (5) and a lever assembly for opening and closing the receiving opening (18, 18') and for pressing a contact pin (31) through a prefabricated recess (14) of the dielectricum (3) onto the electrode (1a, 1b) in order to deliver a connection of a high-voltage AC source to the electrode (1a, 1b), allows a spatially close arrangement of two contact pins (31), which are connected to at least one high-voltage source, in close proximity to each other in that the electrode assembly (1) has at least two electrodes (1a, 1b), which are arranged in the base section and are insulated from each other by the dielectricum (3) and a connection conductor (6a, 6b) of each of which extends into the contact projection (5); a recess (14) is provided in the dielectricum (3) and a contact pin (31) is provided for each connection conductor (6a, 6b); at least one of the contact pins (31) is supported in the contacting element (2) by means of a dielectric casing (30) and is designed with a non-insulated end face (46) for producing a contact with the corresponding electrode (1a, 1b); and the at least one dielectric casing (30) is oversized with respect to the corresponding recess (14) in the dielectricum (3), said oversize allowing a press fit of the casing (30) in the dielectricum (3) by means of the lever assembly when the non-insulated end face (46) of the contact pin (31) contacts the corresponding electrode (1a, 1b), wherein the press fit prevents an air gap.

IPC 8 full level
H05H 1/24 (2006.01)

CPC (source: EP KR US)
H01R 12/774 (2013.01 - KR); **H01R 12/88** (2013.01 - KR); **H01R 13/24** (2013.01 - US); **H01R 13/62933** (2013.01 - KR);
H05H 1/2406 (2013.01 - EP KR US); **H05H 1/2418** (2021.05 - EP KR US); **H01R 12/774** (2013.01 - EP); **H01R 12/88** (2013.01 - EP);
H01R 13/62933 (2013.01 - EP); **H05H 2242/00** (2013.01 - EP KR); **H05H 2245/30** (2021.05 - KR US); **H05H 2245/34** (2021.05 - EP KR)

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)
DE 102019109940 A1 20201015; DE 102019109940 B4 20201210; AU 2020257974 A1 20211111; CA 3136777 A1 20201022;
CN 113826447 A 20211221; EA 202192675 A1 20220119; EP 3957137 A1 20220223; EP 3957137 B1 20230125; ES 2941616 T3 20230524;
JP 2022528905 A 20220616; KR 20210150514 A 20211210; US 2022304132 A1 20220922; WO 2020212338 A1 20201022;
ZA 202107811 B 20220831

DOCDB simple family (application)
DE 102019109940 A 20190415; AU 2020257974 A 20200414; CA 3136777 A 20200414; CN 202080028604 A 20200414;
EA 202192675 A 20200414; EP 2020060447 W 20200414; EP 20720761 A 20200414; ES 20720761 T 20200414; JP 2021559314 A 20200414;
KR 20217036489 A 20200414; US 202017604231 A 20200414; ZA 202107811 A 20211014