

Title (en)
ATMOSPHERIC-PRESSURE PLASMA GENERATION DEVICE

Title (de)
ATMOSPHÄHRENDRUCK-PLASMAERZEUGUNGSVORRICHTUNG

Title (fr)
DISPOSITIF DE GÉNÉRATION DE PLASMA À PRESSION ATMOSPHÉRIQUE

Publication
EP 3346806 A4 20190417 (EN)

Application
EP 15903005 A 20150902

Priority
JP 2015074919 W 20150902

Abstract (en)
[origin: EP3346806A1] Plasma emitting device 10 is provided with main body section 12, pair of electrodes 14 and 16, gas supply device 20, and laser emitting device 22. Gas supply device 20 supplies processing gas inside main body section 12. Then, voltage is applied to electrodes 14 and 16 such that electrical discharge occurs between electrodes 14 and 16, which causes the processing gas flowing inside cylindrical section 23 of main body section 12 to be plasmarized. Accordingly, plasma emitted from the opening on the end surface of cylindrical section 23 opposite to the end to which laser emitting device 22 is connected is emitted in an axial direction of cylindrical section 23. Also, laser emitting device 22 emits laser light in an axial direction of cylindrical section 23. Accordingly, due to the light, it is possible to visually check the plasma emission position, and it is possible to appropriately apply plasma to a target body.

IPC 8 full level
H05H 1/24 (2006.01); **H05H 1/46** (2006.01)

CPC (source: EP US)
H05H 1/2406 (2013.01 - EP US); **H05H 1/2443** (2021.05 - EP); **H05H 1/46** (2013.01 - EP); **H05H 1/466** (2021.05 - EP)

Citation (search report)
• [X] US 2014188195 A1 20140703 - JACOFSKY MARC C [US], et al
• [X] US 2003125727 A1 20030703 - TRUCKAI CSABA [US], et al
• [X] US 2015038790 A1 20150205 - RONTAL MICHAEL [US], et al
• [X] EP 2308415 A1 20110413 - YOSHIDA CREATION INC [JP], et al
• [A] US 7633231 B2 20091215 - WATSON GREGORY A [US]
• [A] WO 2015110787 A1 20150730 - LINDE AG [DE], et al
• [A] WO 2012172285 A1 20121220 - LINDE AG [DE], et al
• See references of WO 2017037885A1

Designated contracting state (EPC)
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DOCDB simple family (publication)
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DOCDB simple family (application)
EP 15903005 A 20150902; JP 2015074919 W 20150902; JP 2017537133 A 20150902