

Title (en)

Small-sized atmospheric plasma generating apparatus and surface processing method using the apparatus

Title (de)

Vorrichtung in Kleinbauweise zur Erzeugung eines atmosphärischen Plasmas und Verfahren zur Oberflächenbehandlung

Title (fr)

Dispositif de dimensions réduites pour engendrer un plasma atmosphérique et procédé de traitement de surfaces en faisant usage

Publication

EP 0789505 B1 20020710 (EN)

Application

EP 97101968 A 19970207

Priority

- JP 2387296 A 19960209
- JP 32140896 A 19961202

Abstract (en)

[origin: EP0789505A1] The plasma generating apparatus (1) is provided with a simple switching circuit (3) for generating AC power of high frequency by a magnet (16) for switch driving use for repeating the excitation and the demagnetization by AC power and a contact switch (S) to be opened or closed by the magnet (16), a simple voltage transforming circuit (4) for converting AC power of high frequency outputted from the switching circuit (3) into AC power of high voltage, a discharge electrode (5) for receiving AC power of high frequency and high voltage outputted from the voltage transforming circuit (4) to cause corona discharging, when the opposite electrode has been approached, to cause the plasma. The plasma producing apparatus (1) is easier to be carried, because the switching circuit (3), the voltage transforming circuit (4), and the discharge electrode (5) are respectively simple, compact in construction. The apparatus (1) becomes smaller in power capacity and is reduced in cost.
<IMAGE>

IPC 1-7

H05H 1/24

IPC 8 full level

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CPC (source: EP US)

B05B 17/0607 (2013.01 - EP); **H05H 1/2406** (2013.01 - EP US); **H05H 1/2418** (2021.05 - EP); **H05H 1/47** (2021.05 - EP); **H05H 2245/42** (2021.05 - EP)

Citation (examination)

- US 5079482 A 19920107 - VILLECCO ROGER A [US], et al
- DE 3618412 A1 19871203 - SIEKE OLIVER [DE]

Cited by

WO2009003613A1; CN103458600A; CN114247576A; US2012107896A1

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