Title (en)

NON-THERMAL PLASMA EMITTERS AND DEVICES FOR CONTROLLING

Title (de)

NICHTTHERMISCHE PLASMAEMITTER UND VORRICHTUNGEN ZUR STEUERUNG

Title (fr)

ÉMETTEURS DE PLASMA NON THERMIQUE ET LEURS DISPOSITIFS DE COMMANDE

Publication

EP 3419540 A4 20200219 (EN)

Application

EP 17757452 A 20170426

Priority

- US 201615055028 A 20160226
- US 201615213201 A 20160718
- US 2017029728 W 20170426

Abstract (en)

[origin: WO2017147625A2] An AC power supply drives and controls an array of non-thermal plasma emitters at desired frequencies at a controlled power level. The power supply comprises a step-up transformer, a balanced driver, and a controller. The transformer operates at the resonant frequency of the combined capacitance of the array and the cable connecting the array to the power supply. The power into the array is monitored by the controller and can be adjusted by the user. The balanced driver may be driven directly by the controller. The controller monitors the phase relationship between the transformer primary winding voltage and the gate drive voltage, and adjusts the drive frequency to resonance. Alternatively the balanced driver is configured as an oscillator which drives the transformer at resonance by default. A signal from the transformer driver generates an interrupt to the controller for synchronizing current and voltage measurements for power control.

IPC 8 full level

A61B 18/04 (2006.01); **H05H 1/24** (2006.01); **H05H 1/48** (2006.01)

CPC (source: CN EP GB KR US)

A61B 18/042 (2013.01 - CN); **H01J 37/32146** (2013.01 - KR); **H05H 1/2406** (2013.01 - CN EP GB KR US); **H05H 1/48** (2013.01 - CN)

Citation (search report)

- [XYI] US 2016045246 A1 20160218 - STIEBER MANFRED [DE], et al
- [XI] WO 2009067682 A2 20090528 - UNIV FLORIDA [US], et al
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- [A] US 2007089795 A1 20070426 - JACOB JAMEY D [US]
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Designated contracting state (EPC)

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DOCDB simple family (application)

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