

Title (en)

METHOD OF GENERATING A PULSED PLASMA

Title (de)

VERFAHREN ZUR ERZEUGUNG EINES GEPULSTEN PLASMAS

Title (fr)

PROCÉDÉ DE GÉNÉRATION D'UN PLASMA PULSÉ

Publication

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Application

EP 16165871 A 20070806

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- EP 11183953 A 20070806
- EP 07786582 A 20070806
- EP 2007006939 W 20070806

Abstract (en)

[origin: WO2009018837A1] A device and a method for generating a truly pulsed plasma flow are disclosed. The device includes a cathode assembly comprising a cathode and a cathode holder, an anode, and two or more intermediate electrodes, the anode and the intermediate electrodes forming a plasma channel expanding toward the anode. The intermediate electrode closest to the cathode may form a plasma chamber around the cathode tip. An extension nozzle forming an extension channel having a tubular insulator along at least a portion of its interior surface is affixed to the anode end of the device. During operation, a voltage is applied between the cathode and the anode and a current is passed through the cathode, the plasma, and the anode. The voltage and current profiles are selected to cause the rapid development of a plasma flow with required characteristics. A substantially uniform temperature and power density distribution of the plasma pulse is achieved in the extension nozzle. Additionally, ozone may be generated in the extension nozzle during the generation of the plasma pulse.

IPC 8 full level

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CPC (source: EP US)

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