Title (en)

Cathode assembly and method for pulsed plasma generation

Title (de)

Kathodenbaugruppe und Verfahren zur gepulsten Plasmaerzeugung

Title (fr)

Ensemble cathodique et procédé de génération de plasma pulsé

Publication

EP 2557902 A3 20141029 (EN)

Application

EP 12173651 A 20070806

Priority

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- EP 07786583 A 20070806
- EP 2007006940 W 20070806

Abstract (en)

[origin: WO2009018838A1] A cathode assembly and a method for generation of pulsed plasma are disclosed. The cathode assembly comprises a cathode (2) holder connected to multiple longitudinally aligned cathodes (10,20,30), preferably of the same diameter, and different lengths. The method is characterized by forming an electric arc between the cathodes (10,20,30) in the assembly and an anode (4) by passing DC current of a predetermined magnitude. Once the arc is established the current is reduced to the magnitude sufficient to sustain an electric arc, or a slightly larger magnitude, thereby reducing the area of arc attachment to a single cathode. Once the area of attachment has been reduced, the current is raised to the operational level of the pulse, while the area of attachment does not increase significantly.

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H05H 1/34 (2006.01)

CPC (source: EP)

H05H 1/34 (2013.01); **H05H 1/3478** (2021.05); **H05H 1/36** (2013.01)

Citation (search report)

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- [A] GB 2407050 A 20050420 - C A TECHNOLOGY LTD [GB], et al
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US10045432B1

Designated contracting state (EPC)

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DOCDB simple family (publication)

WO 2009018838 A1 20090212; CA 2695902 A1 20090212; CA 2695902 C 20160105; CN 101828433 A 20100908; CN 101828433 B 20130424; EP 2177093 A1 20100421; EP 2177093 B1 20140122; EP 2557902 A2 20130213; EP 2557902 A3 20141029; EP 2557902 B1 20161123; ES 2458515 T3 20140505; HK 1136738 A1 20100702; JP 2010536124 A 20101125; JP 5154647 B2 20130227

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