

Title (en)
Plasma generating spark plug with integrated inductance

Title (de)
Plasma generierende Zündkerze mit eingebauter Spule

Title (fr)
Bougie de génération de plasma à inductance intégrée

Publication
EP 1515408 B1 20101124 (FR)

Application
EP 04292188 A 20040913

Priority
FR 0310766 A 20030912

Abstract (en)
[origin: EP2273632A2] The system has a generator with a class E amplifier for enabling an inductor-capacitor (LC) series structure to resonate at a frequency greater than 1 mega hertz with a terminal voltage of a capacitor greater than 5 kilovolt. A series resonator is connected at an output of the generator. The quality factor of the resonator ranges between 40 and 200. A head of a spark plug has two electrodes separated by an insulator for generating plasma during application of the radiofrequency excitation. A switch (51) i.e. MOSFET, controls commutation of resonator terminals.

IPC 8 full level
H01T 13/50 (2006.01); **F02P 23/04** (2006.01); **H01T 13/44** (2006.01)

CPC (source: EP)
F02P 23/045 (2013.01); **H01T 13/44** (2013.01); **F02P 3/01** (2013.01)

Cited by
CN102804527A; FR2982711A1; FR2894034A1; EP2025927A3; CN102155344A; JP2010507206A; US8278807B2; FR2905538A1; CN102518541A; RU2474723C2; WO2014118451A1; US7644698B2; US7710104B2; WO2007060347A1; US9088136B2; US9970408B2; US7974068B2; US10056737B2; US10056738B2; US10490982B2; US11075504B2; JP4869351B2; JP2008544459A; EP2427938A4; JP2010502148A; JP2009517681A; WO2009016310A3; WO2013142398A1; WO2008025911A1; WO2010043545A1; CN104303382A; JP2015512556A; JP2018067553A; JP2018120867A; EP3379665A1; FR2919343A1

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EP 1515408 A2 20050316; EP 1515408 A3 20061115; EP 1515408 B1 20101124; AT E489751 T1 20101215; DE 602004030195 D1 20110105; EP 2273632 A2 20110112; EP 2273632 A3 20130313; EP 2273632 B1 20140226; ES 2354155 T3 20110310; ES 2455742 T3 20140416; FR 2859830 A1 20050318; FR 2859830 B1 20140221

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