

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

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**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

DOCDB simple family (application)  
**EP 04292188 A 20040913**; AT 04292188 T 20040913; DE 602004030195 T 20040913; EP 10012339 A 20040913; ES 04292188 T 20040913; ES 10012339 T 20040913; FR 0310766 A 20030912