

Title (en)

IGNITION SYSTEM AND METHOD FOR AN INTERNAL COMBUSTION ENGINE COMPRISING MICROWAVE SOURCES

Title (de)

ZÜNDSYSTEM UND VERFAHREN FÜR EINE BRENNKRAFTMASCHINE MIT MIKROWELLEN-QUELLEN

Title (fr)

SYSTEME ET PROCEDE D'ALLUMAGE POUR UN MOTEUR A COMBUSTION INTERNE DOTE DE SOURCES DE MICRO-ONDES

Publication

EP 1444434 B1 20061129 (DE)

Application

EP 02764604 A 20020629

Priority

- DE 10156410 A 20011116
- EP 0207202 W 20020629

Abstract (en)

[origin: WO03042533A1] The invention relates to an ignition system for an internal combustion engine comprising at least two microwave injection elements (f1, f2) which are provided in the combustion chamber (1) and are fed by a microwave generator (a). The microwaves supplied by the microwave generator produce interferences in the combustion chamber (1), by which means the necessary ignition energy is made available by superposition. The phase displacement between at least two microwaves sent by different injection elements (f1, f2) can be modified, in addition to the amplitude and the frequency of said microwaves. According to the inventive method for igniting an at least locally explosive fuel-air mixture in a combustion chamber (1) of an internal combustion engine by means of one such ignition system, the location of the ignition in the combustion chamber is regulated in a targeted manner, by variation of at least one of the cited parameters. The necessary ignition energy can thus be made available at a plurality of locations and/or a plurality of moments.

IPC 8 full level

F02P 23/04 (2006.01)

CPC (source: EP)

F02P 23/045 (2013.01)

Cited by

DE102009016665A1; DE102009016668B4; DE102009016668A1

Designated contracting state (EPC)

DE ES FR GB IT SE

DOCDB simple family (publication)

WO 03042533 A1 20030522; DE 50208865 D1 20070111; EP 1444434 A1 20040811; EP 1444434 B1 20061129; ES 2275906 T3 20070616

DOCDB simple family (application)

EP 0207202 W 20020629; DE 50208865 T 20020629; EP 02764604 A 20020629; ES 02764604 T 20020629