

Title (en)  
DEVICE FOR ESTIMATING DIFFUSE COMBUSTION START TIME AND DEVICE FOR CONTROLLING DIFFUSE COMBUSTION START TIME FOR INTERNAL COMBUSTION ENGINE

Title (de)  
VORRICHTUNG ZUR EINSCHÄTZUNG EINER DIFFUSEN VERBRENNUNGSSTARTZEIT UND VORRICHTUNG ZUR STEUERUNG EINER DIFFUSEN VERBRENNUNGSSTARTZEIT EINES VERBRENNUNGSMOTORS

Title (fr)  
DISPOSITIF PERMETTANT D'ESTIMER LE MOMENT DE DÉMARRAGE DE LA COMBUSTION DIFFUSE ET DISPOSITIF PERMETTANT DE COMMANDER LE MOMENT DE DÉMARRAGE DE LA COMBUSTION DIFFUSE POUR UN MOTEUR À COMBUSTION INTERNE

Publication  
**EP 2610469 A4 20180411 (EN)**

Application  
**EP 10856411 A 20100825**

Priority  
JP 2010064397 W 20100825

Abstract (en)  
[origin: EP2610469A1] The evaporation rate and the oxidation rate of fuel injected into a combustion chamber are calculated, and a diffusion combustion start time is estimated to be the time when this fuel evaporation rate and fuel oxidation rate arrive in a state where the fuel evaporation rate and the fuel oxidation rate match from a state where there is a disparity between the fuel evaporation rate and the fuel oxidation rate. In the case where there is a disparity between this estimated diffusion combustion start time and an appropriate time, a fuel injection pressure adjustment and a swirl control valve opening adjustment are performed such that the diffusion combustion start time matches the appropriate time.

IPC 8 full level  
**F02D 41/30** (2006.01); **F02D 35/02** (2006.01); **F02D 41/04** (2006.01); **F02D 41/00** (2006.01)

CPC (source: EP)  
**F02D 35/028** (2013.01); **F02D 41/047** (2013.01); **F02D 41/3017** (2013.01); **F02D 2041/0015** (2013.01); **F02D 2250/31** (2013.01)

Citation (search report)

- [A] US 2010071662 A1 20100325 - IBUKI TAKU [JP], et al
- [A] WO 2010035342 A1 20100401 - TOYOTA MOTOR CO LTD [JP], et al
- [A] JP 2003286876 A 20031010 - MAZDA MOTOR
- [A] EP 1031711 A2 20000830 - TOYOTA MOTOR CO LTD [JP]
- See references of WO 2012026005A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2610469 A1 20130703; EP 2610469 A4 20180411; EP 2610469 B1 20190410**; JP 5240417 B2 20130717; JP WO2012026005 A1 20131028; WO 2012026005 A1 20120301

DOCDB simple family (application)  
**EP 10856411 A 20100825**; JP 2010064397 W 20100825; JP 2012530471 A 20100825