

Title (en)

Catalyst deterioration determination apparatus of internal combustion engine

Title (de)

Vorrichtung zur Bestimmung der Alterung eines Katalysators einer Brennkraftmaschine

Title (fr)

Dispositif pour la détermination de la détérioration d'un catalyseur pour un moteur à combustion interne

Publication

EP 1519021 A2 20050330 (EN)

Application

EP 04023104 A 20040928

Priority

JP 2003337696 A 20030929

Abstract (en)

In an internal combustion engine (2), during sulfur release control for permitting an exhaust purification catalyst to recover from a sulfur poisoned state, a richening period, in which fuel is supplied to exhaust gas, and a non richening period, in which no fuel is supplied to exhaust, are repeated. The ratio of the duration of the richening period to the duration of the non-richening period is changed according to the deterioration degree of the exhaust purification catalyst. Thus, even if the deterioration degree of the exhaust purification catalyst changes, an excessive increase in the catalyst bed temperature and a lowered accuracy of the sulfur release control are reliably suppressed. <IMAGE>

IPC 1-7

F02D 41/02; **F02D 41/14**

IPC 8 full level

F02D 45/00 (2006.01); **B01D 53/94** (2006.01); **F01N 3/08** (2006.01); **F01N 3/20** (2006.01); **F01N 3/24** (2006.01); **F01N 3/28** (2006.01); **F01N 3/36** (2006.01); **F02D 41/02** (2006.01); **F02D 41/04** (2006.01); **F02D 41/14** (2006.01)

CPC (source: EP)

F02D 41/028 (2013.01); **F02D 41/1402** (2013.01); **F02D 41/1446** (2013.01); **F02D 41/1456** (2013.01)

Cited by

EP2415984A4; CN113272533A; FR2927362A1; CN107208517A; EP3249188A4; US10364719B2; WO2014007749A1; WO2009101316A3

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

EP 1519021 A2 20050330; **EP 1519021 A3 20050720**; **EP 1519021 B1 20060809**; DE 602004001825 D1 20060921; DE 602004001825 T2 20070606; ES 2266971 T3 20070301; JP 2005105871 A 20050421; JP 4314089 B2 20090812

DOCDB simple family (application)

EP 04023104 A 20040928; DE 602004001825 T 20040928; ES 04023104 T 20040928; JP 2003337696 A 20030929