

Title (en)  
Exhaust purification system of an internal combustion engine

Title (de)  
Abgasreinigungssystem für eine Brennkraftmaschine

Title (fr)  
Système de purification des gaz d'échappement pour un moteur à combustion interne

Publication  
**EP 1515029 B1 20090225 (EN)**

Application  
**EP 04021239 A 20040907**

Priority  
JP 2003321408 A 20030912

Abstract (en)  
[origin: EP1515029A2] In an exhaust purification system of an internal combustion engine (1) that includes a NOx catalyst (16) for occluding and reducing NOx in exhaust, when removing SOx deposited in the NOx catalyst, a concentration of sulfur in a fuel is detected, and an amount of SOx deposited in the NOx catalyst is estimated taking into consideration the concentration of sulfur in the fuel. Further, an air-fuel ratio of exhaust flowing into the NOx catalyst (16) is changed to a richer side air-fuel ratio depending on a decrease in the estimated SOx amount, thereby adjusting an HC concentration of exhaust flowing out from the NOx catalyst (16) to a level equal to or less than a permissible HC concentration.

IPC 8 full level  
**B01D 53/94** (2006.01); **F01N 3/00** (2006.01); **F01N 3/08** (2006.01); **F01N 3/20** (2006.01); **F01N 3/28** (2006.01); **F01N 3/36** (2006.01);  
**F02D 41/02** (2006.01)

CPC (source: EP)  
**F02D 41/028** (2013.01); **F02D 2200/0611** (2013.01); **F02D 2200/0818** (2013.01)

Cited by  
FR2905144A1; US8375706B2

Designated contracting state (EPC)  
DE ES FR GB IT

DOCDB simple family (publication)  
**EP 1515029 A2 20050316**; **EP 1515029 A3 20060607**; **EP 1515029 B1 20090225**; DE 602004019609 D1 20090409; ES 2318225 T3 20090501;  
JP 2005090253 A 20050407; JP 4241279 B2 20090318

DOCDB simple family (application)  
**EP 04021239 A 20040907**; DE 602004019609 T 20040907; ES 04021239 T 20040907; JP 2003321408 A 20030912