

Title (en)

Catalyst control apparatus for internal combustion engine and method for performing catalyst control

Title (de)

Regelungssystem eines Katalysators einer Brennkraftmaschine und Verfahren zur Regelung des Katalysators

Title (fr)

Système de controle d'un catalisateur d'un moteur à combustion interne et procédé pour le controle du catalisateur

Publication

EP 1536121 A1 20050601 (EN)

Application

EP 04027791 A 20041123

Priority

JP 2003394410 A 20031125

Abstract (en)

A degree of deviation between an actual air-fuel ratio and a value detected by an air-fuel ratio sensor is obtained as a difference dTHC between a target catalyst bed temperature THCT and a catalyst bed temperature THC (S118). The difference dTHC is converted to a target air-fuel ratio correction amount daft according to a target air-fuel ratio correction amount map Mapaft (S120). A target air-fuel ratio AFt is corrected using the target air-fuel ratio correction amount daft (S122), whereby the degree of deviation between the actual air-fuel ratio and the value detected by the air-fuel ratio sensor is reflected in an air-fuel ratio feedback control. Thus, even if there is a difference between the actual air-fuel ratio and a detected air-fuel ratio AF, the air-fuel ratio feedback control can be appropriately performed, and a catalyst control can be appropriately performed. Accordingly, it is possible to prevent a situation in which the catalyst cannot sufficiently recover from sulfur poisoning, or a situation in which smoke and hydrogen sulfide (H₂S) are discharged. <IMAGE>

IPC 1-7

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IPC 8 full level

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Citation (search report)

- [A] EP 1353048 A2 20031015 - TOYOTA MOTOR CO LTD [JP]
- [A] EP 1327759 A2 20030716 - NISSAN MOTOR [JP]
- [A] DE 10142669 A1 20030403 - BAYERISCHE MOTOREN WERKE AG [DE]

Cited by

CN113202650A; EP1944478A4; US8359837B2; US8266893B2

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