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- Tayama, Akira
Yokosuka-shi, Kanagawa 238-0043 (JP)
- Yokoi, Taro
Zushi-shi, Kanagawa 249-0003 (JP)
- Ishihara, Kouji
Yokohama-shi, Kanagawa 236-0034 (JP)

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(71) Applicant: Nissan Motor Co., Ltd.
Yokohama-shi, Kanagawa 221-0023 (JP)

(74) Representative: Schmitz, Hans-Werner, Dipl.-Ing.
Hoefer, Schmitz, Weber & Partner
Patentanwälte
Gabriel-Max-Strasse 29
81545 München (DE)

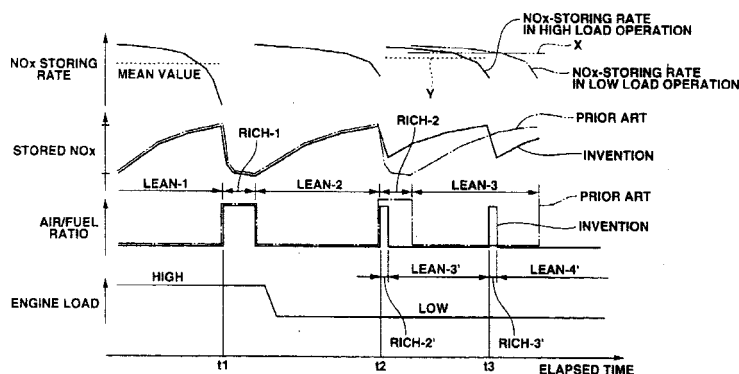
(72) Inventors:
• Naganuma, Kaname
Yokohama-shi, Kanagawa 231-0802 (JP)

(54) Exhaust gas purifying system of internal combustion engine

(57) A catalyst is installed in an exhaust passage of an internal combustion engine. The catalyst is of a type that traps and stores NO_x in the exhaust gas when the air/fuel ratio of the exhaust gas is higher than the stoichiometric ratio and reduces the stored NO_x with the aid of reducing components in the exhaust gas when the air/fuel ratio of the exhaust gas is equal to or lower than the stoichiometric ratio. A detector detects operation load of the engine. A control unit includes a microprocessor that is programmed to carry out calculating the amount of the stored NO_x when the air/fuel ratio of the

exhaust gas is higher than the stoichiometric ratio; judging whether or not the catalyst needs recovering of the NO_x-storing ability thereof in accordance with the calculated amount of the stored NO_x; determining the amount of NO_x to be reduced in accordance with the engine load detected by the detector; and carrying out a catalyst recovering control when the need of recovering the NO_x-storing ability is judged. The catalyst recovering control is a control to keep the air/fuel ratio of the exhaust gas at a predetermined lower ratio for a predetermined period.

FIG.2



EP 1 061 245 A3



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EUROPEAN SEARCH REPORT

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 17 September 2001	Examiner Calabrese, N
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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