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(84) Designated Contracting States: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE Designated Extension States: AL LT LV MK RO SI	(72) Inventor: Ishikami, Yuji, c/o SUMITOMO 3M LIMITED Sagamihara-city, Kanagawa-Pref.229-1185 (JP)
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(54)

Filter regenerating method and exhaust emission control device

(57)

An additive agent is added to fuel, suction gas or exhaust gas, for lowering an ignition temperature of particulate matter contained in the exhaust gas. In a desired timing at which a pressure difference between the front and rear of a filter, arranged in an exhaust pipe, is increased due to the operation of an engine, an electric heater element of the filter is supplied with electric power

of at least 2 kW for 10 to 80 seconds, to quickly burn the particulate matter having a lowered ignition temperature and captured by the filter. This regeneration method can be carried out in such a condition that the engine continuously operates and the exhaust gas containing the particulate matter constantly passes through the filter, without isolating the filter.

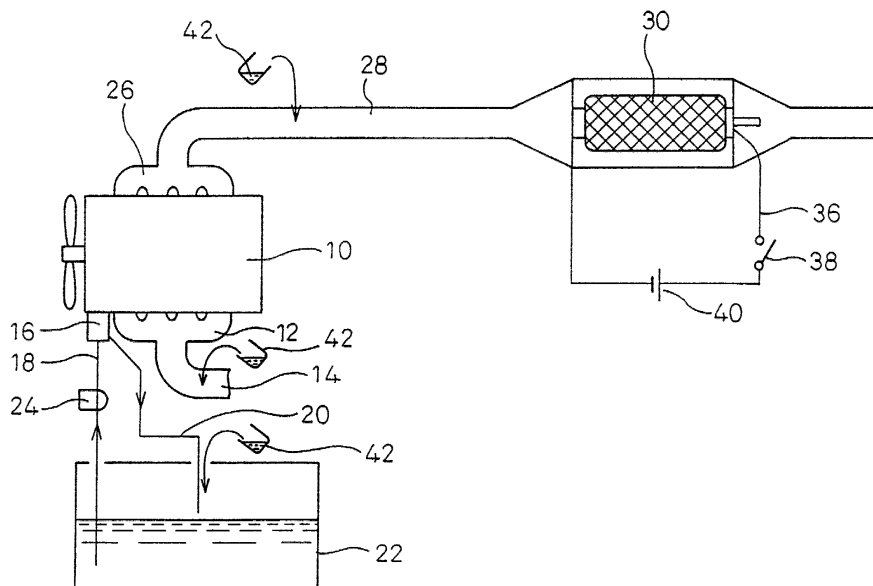


Fig. 1



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 99 12 1232

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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)
X	PATENT ABSTRACTS OF JAPAN vol. 009, no. 319 (M-439), 14 December 1985 (1985-12-14) & JP 60 153415 A (TOYOTA JIDOSHA KK), 12 August 1985 (1985-08-12) * abstract *	1,3,6	F01N3/027 F01N3/023 F01N3/029
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A	US 5 813 223 A (BARTHE PHILIPPE ET AL) 29 September 1998 (1998-09-29) * abstract * * column 3, line 18 - column 3, line 33 * * column 4, line 53 - column 4, line 65 * * tables 2-4 *	1,3-6	
A	US 5 656 048 A (SHIRK RYAN C ET AL) 12 August 1997 (1997-08-12) * column 20, line 3 - line 16 * * figure 7 *	1,6-8	TECHNICAL FIELDS SEARCHED (Int.Cl.7) F01N
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 28 November 2002	Examiner Ikas, G
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			

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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