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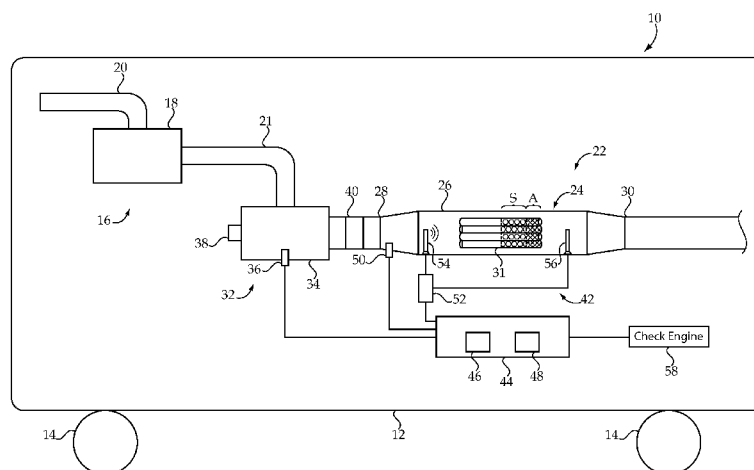


Fig. 1

(57) Abstract: A method of detecting ash in an exhaust particulate filter system (22) for an internal combustion engine (18) includes transmitting electromagnetic energy through an exhaust particulate filter (24) containing soot and ash, and sensing a strength of the transmitted electromagnetic energy after having been attenuated in response to the soot. The method further includes electronically storing a filter monitoring history responsive to a difference between the transmitted strength and the sensed strength of the electromagnetic energy, and detecting an amount of the ash based at least in part upon a pattern of electromagnetic energy attenuation defined by the stored filter monitoring history. An exhaust particulate filter system (22) for implementing related methodology includes a microprocessor (46) configured to determine a value indicative of an amount of ash contained within an exhaust particulate filter (24) responsive to a pattern of electromagnetic energy attenuation defined by a stored filter monitoring history.



A. CLASSIFICATION OF SUBJECT MATTER***F01N 3/021(2006.01)i, F01N 11/00(2006.01)i***

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

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eKOMPASS(KIPO internal) & Keywords: electromagnetic, filter, particulate, detect, sense, monitor, transmitter, microprocessor

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010-0187089 A1 (DAIDO SHIGEKI et al.) 29 July 2010 See abstract, paragraph 49, claims 1, 3, figures 1, 3.	1,6,9
A	US 2010-0242442 A1 (KONDO JUNGO et al.) 30 September 2010 See abstract, claim 1, figure 1.	1-10
A	JP 04-301125 A (MATSUSHITA ELECTRIC IND CO LTD) 23 October 1992 See the whole document.	1-10
A	US 2010-0180577 A1 (GONZE EUGENE V. et al.) 22 July 2010 See the whole document.	1-10



Further documents are listed in the continuation of Box C.



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