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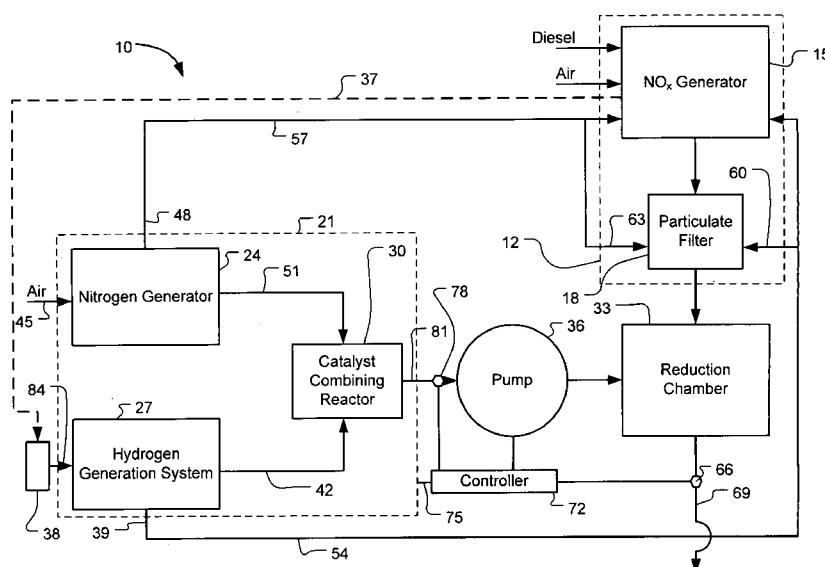


FIG. 1

(57) Abstract: A selective catalytic reduction (SCR) system (10) includes an on-board ammonia generation system (21) that produces nitrogen from air and hydrogen from a source of a hydrogen-containing compound, and generates an ammonia product from the nitrogen and hydrogen to provide the ammonia product into an exhaust from a NO_x generator (15) to reduce the NO_x in the exhaust. Oxygen from one or both of the nitrogen generator (24) and the hydrogen generation cell (27) can be supplied to the NO_x generator (15) for cleaner combustion or to a particulate filter (18) for cleaning the filter. H₂O from the NO_x generator (15) can at least partially provide a water source for the hydrogen generation cell (27).



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/033108**A. CLASSIFICATION OF SUBJECT MATTER***F01N 3/28(2006.01)i, F01N 3/20(2006.01)i, B01D 53/86(2006.01)i, B01J 23/00(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: F01N 3/28, F01N 3/20, B01D 53/86

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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & keywords : selective catalytic reduction, emission, ammonia, nitrogen, hydrogen

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2007-532823 A (HTE AKTIENGESELLSCHAFT THE HIGH THROUGHOUT EXPERIMENTATION COMPANY) 15 November 2007 See the abstract; claims; and figures	1-25
A	JP 2006-512529 A (DAIMLER CHRYSLER AG) 13 April 2006 See the abstract; claims; and figures	1-25
A	JP 2003-286828 A (MITSUBISHI FUSO TRUCK & BUS CORP) 10 October 2003 See the abstract; claims; and figures	1-25
A	WO 2005-016497 A1 (ENGELHARD CORPORATION) 24 February 2005 See the abstract; claims; and figures	1-25



Further documents are listed in the continuation of Box C.



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Information on patent family members

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