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(54) Title: PROCESS AND COMPOSITION FOR INCREASING THE REACTIVITY OF SULFUR SCAVENGING OXIDES

(57) Abstract: In ridding fluids, including hydrocarbon fluids, both gaseous and liquid, of sulfur compounds including hydrogen sulfide, oxides of sulfur, and thiols, the present invention uses a small quantity of an activator, generally a noble metal oxide, preferably a copper species and/or a manganese species, along with a known oxide product, such as iron oxide, iron hydroxide, zinc oxide, zinc hydroxide, manganese oxide, manganese hydroxide, or combinations thereof, to thoroughly remove sulfur contaminants in a short amount of time. The activator allows for the use of smaller reactor vessels and the production of hydrocarbon fluids substantially free of sulfur products.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B01J 23/60

US CL : 502/329

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)

U.S. : 502/329,326,331,337,338,339,340,343,345,347,400

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)
EAST**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X —	US 4,187,282 A (MATSUDA et al) 05 February 1980 (05.02.1980), abstract, Examples, column 3, lines 17-30.	1-14
X —	US 4,149,997 A (ARAKI et al) 17 April 1979 (17.04.1979), column 2, lines 35-40, column 3, lines 11-16 and 23-26, Tables 1-2.	1-14
X —	US 3,832,445 A (KOUWENHOVEN et al) 27 August 1974 (27.08.1974), column 2, lines 43-50, column 2, lines 1-4	1-14
X —	US 4,996,181 A (DENNY et al) 26 February 1991 (26.02.1991), abstract, Examples.	1-14

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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