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(54) Title: METHOD OF SIMULTANEOUSLY REMOVING SULFUR AND MERCURY FROM HYDROCARBON MATERIAL USING CATALYST BY MEANS OF HYDROTREATING REACTION

(57) Abstract: Disclosed herein is a method of simultaneously removing sulfur and mercury from a hydrocarbon material, including: hydrotreating the hydrocarbon material containing sulfur and mercury in the presence of a catalyst including a metal supported with a carrier to convert sulfur into hydrogen sulfide, and adsorb mercury on a metal active site or a carrier of the catalyst in the form of mercury sulfide.



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A. CLASSIFICATION OF SUBJECT MATTER*C10G 45/08(2006.01)i, B01J 23/24(2006.01)i, B01J 23/755(2006.01)i, C10L 3/10(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)

C10G 45/08; C10G 45/04; B01D 53/64; C10G 29/00; B01J 8/00; B01D 53/04

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

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: removing sulfur and mercury, hydrocarbon, hydrotreating, catalyst, metal supported, adsorb, hydrogen sulfide, mercury sulfide, alumina

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 10-0284222 B1 (INSTITUT FRANCAIS DU PETROLE) 02 May 2001 See the abstract; claims; page 2, line 22 - page 3, line 3.	1-13
A	KR 10-0251426 B1 (INSTITUT FRANCAIS DU PETROLE) 15 April 2000 See the abstract; claims; page 2, line 26 - page 3, line 9.	1-13
A	KR 10-2009-0051174 A (JOHNSON MATTHEY PUBLIC LIMITED COMPANY) 21 May 2009 See the abstract; claims; paragraphs [0014]-[0023].	1-13
A	KR 10-2002-0068391 A (IDEMITSU KOSAN CO., LTD.) 27 August 2002 See the abstract; claims; page 2, line 47 - page 3, line 47.	1-13



Further documents are listed in the continuation of Box C.



See patent family annex.

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"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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