



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁵ : C01B 35/14, 33/34, 25/45, 35/12, C01G 17/00 C01G 37/14, 49/00, B01J 29/04, 29/28 C10G 11/05, 47/16, B01D 53/36		A3	(11) International Publication Number: WO 91/11390
			(43) International Publication Date: 8 August 1991 (08.08.91)
(21) International Application Number: PCT/US91/00350		(74) Agents: ROBERTS, Peter, W. et al.; Mobil Oil Corporation, 3225 Gallows Road, Fairfax, VA 22037 (US).	
(22) International Filing Date: 23 January 1991 (23.01.91)		(81) Designated States: AT (European patent), AU, BE (European patent), BR, CA, CH (European patent), DE (European patent), DK (European patent), ES (European patent), FR (European patent), GB (European patent), GR (European patent), HU, IT (European patent), JP, KR, LU (European patent), NL (European patent), NO, SE (European patent), SU.	
(30) Priority data: 470,008 25 January 1990 (25.01.90) US 625,171 10 December 1990 (10.12.90) US 625,238 10 December 1990 (10.12.90) US 625,245 10 December 1990 (10.12.90) US		Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
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(54) Title: SYNTHETIC POROUS CRYSTALLINE MATERIAL ITS SYNTHESIS AND USE			
(57) Abstract This invention relates to a composition of matter comprising an inorganic, porous crystalline phase material exhibiting, after calcination, an X-ray diffraction pattern with at least one peak at a d-spacing greater than 1.8 nm and having a benzene adsorption capacity of greater than 15 grams benzene per 100 grams of said material at 6.7 kPa (50 torr) and 25 °C. Preferably, the crystalline phase material has a hexagonal arrangement of uniformly-sized pores at least 1.3 nm in diameter and exhibiting, after calcination, a hexagonal electron diffraction pattern that can be indexed with a d_{100} value greater than 1.8 nm.			

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INTERNATIONAL SEARCH REPORT

International Application No PCT/US 91/00350

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶		
According to International Patent Classification (IPC) or to both National Classification and IPC IPC ⁵ : C01B 35/14; C01B33/34; C01B 25/45; C01B 35/12; C01G 17/00; C01G 37/14 C01G49/00; B01J 29/04; B01J 29/28; C10G 11/05; C10G 47/16; B01D 53/36		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
IPC ⁵	C 01 B 25/00, C 01 B 33/00	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
III. DOCUMENTS CONSIDERED TO BE RELEVANT ⁹		
Category ⁹	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
A	Letters to Nature, volume 331, no. 6158, 25 February 1988 (London, GB), M.E. Davis et al.; "A molecular sieve with eighteen-membered rings", pages 698- 699	
A	--- US, A, 4880611 (R. VON BALLMOOS et al.) 14 November 1989 & WO, A, 8905775 cited in the application -----	
¹⁰ Special categories of cited documents: ¹⁰ "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "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 "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		
IV. CERTIFICATION		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
25th June 1991	05.08.91	
International Searching Authority	Signature of Authorized Officer	
EUROPEAN PATENT OFFICE	 Mme Dagmar FRANK	

ANNEX TO THE INTERNATIONAL SEARCH REPORT ON INTERNATIONAL PATENT APPLICATION NO.

US 9100350

SA 44166

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 30/07/91. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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