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(54) Title: ZEOLITE CATALYST AND PREPARATION PROCESS FOR NO_x REDUCTION

(57) Abstract: A zeolite catalyst and a process for preparing a zeolite catalyst which is both capable of catalyzing the removal of nitrogen oxides from a gaseous medium across a broad temperature range and is operationally and hydrothermally stable at high reaction temperatures. The zeolite catalyst includes a zeolite carrier having a mole ratio of typically from about 14 to about 95 and copper ions supported on the zeolite carrier. The zeolite catalyst is prepared by providing a zeolite carrier, reacting copper with the zeolite carrier by carrying out an ion exchange reaction in a cupric salt aqueous solution at a temperature of between about 4°C and room temperature (25°C), and then drying and calcining the catalyst.



WO 2004/108264 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/16528

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B01J 29/06, 29/072

US CL : 502/60, 64; 423/239.2

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. : 502/60, 64; 423/239.2

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- A	US 5,116,586 A (BAACKE et al) 26 May 1992 (26.05.1992), columns 1-6.	1-11, 22-34 ----- 12-21
X --- A	US 5,427,753 A (MIURA et al) 27 June 1995 (27.06.1995), columns 1-8.	1-21, 29-34 ----- 22-28
X --- A	US 3,755,153 A (ROSBACK) 28 August 1973 (28.08.1973), columns 1-12.	1, 3, 5, 7, 12, 14, 16, 18,19, 21 ----- 2, 4, 6, 8-11, 13, 15, 17, 20, 22-34

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