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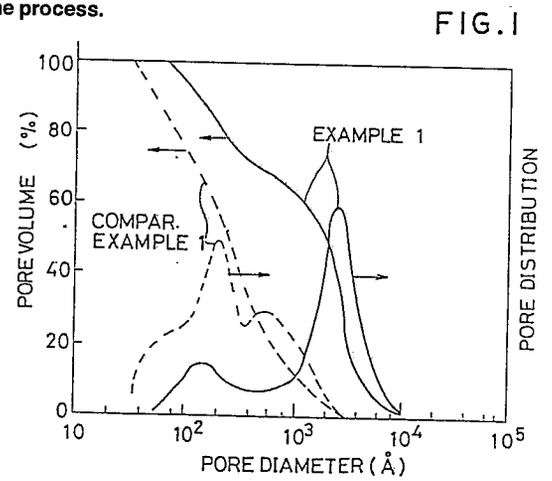
(54) A process for removing nitrogen oxides and a catalyst used for the process.

(57) A process for removing nitrogen oxides from exhaust gases containing volatile metal compounds with good efficiency by contacting the gases with a catalyst comprising TiO_2, difficultly reduced by the compounds, in the presence of ammonia, and such a catalyst are provided, which process is characterized in that the average pore diameter of the TiO_2 is 10,000 Å or less and the proportion of the volume of pores having pore diameters of 400 - 5,000 Å to the total pore volume is 50% or more; a denitration-active component is supported on the TiO_2; a catalyst carrier precursor comprising an aqueous slurry sol of TiO_2 or Ti hydroxide prepared by hydrolyzing a Ti salt is precalcined at 150° - 700°C, followed by adding a denitration-active component and then normally calcining the mixture; and a polymer compound having a thermal decomposition temperature of 110° to 300°C is added in 1 - 20% by weight to the catalyst carrier precursor, followed by precalcining the mixture at the thermal decomposition temperature or higher.

FIG.1



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EUROPEAN SEARCH REPORT

Application Number

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DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	DE-A-3 433 197 (SAKAI CHEMICAL INDUSTRY) * Figure 1 *	1	B 01 D 53/36 B 01 J 35/10
D,A	US-A-4 221 768 (AKIRA INOUE) * Whole document *	1,5,6	

TECHNICAL FIELDS SEARCHED (Int. Cl.4)

B 01 D
B 01 J

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	31-07-1989	BOGAERTS M.L.M.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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E : earlier patent document, but published on, or after the filing date
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