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Ogura et al.

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(54) **FE(II)-SUBSTITUTED MEL-TYPE ZEOLITE, PRODUCTION METHOD THEREFOR AND GAS ADSORBENT INCLUDING SAME, AND NITRIC OXIDE AND HYDROCARBON REMOVAL METHOD**

B01D 53/81; B01J 20/18; B01J 20/186; B01J 20/28061; B01J 20/28064; B01J 20/28071; B01J 20/3071; B01J 20/3085; C01B 39/02; C01B 39/065; C01B 39/36; C01B 39/46

See application file for complete search history.

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§ 371 (c)(1),

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(57) **ABSTRACT**

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The purpose of/problem addressed by the present invention is to provide: an Fe(II)-substituted MEL-type zeolite useful for the catalytic removal of a variety of gases; and a production method therefor. The SiO₂/Al₂O₃ ratio in this Fe(II)-substituted MEL-type zeolite is in the range of 10-30 inclusive. This Fe(II)-substituted MEL-type zeolite is obtained by being subjected to ionic exchange with Fe(II) ions. It is preferable that the Fe(II) loading amount be in the range of 0.001-0.4 mmol/g of the Fe(II)-substituted MEL-type zeolite. It is preferable that the Fe(II)-substituted MEL-type zeolite be produced using a method in which an MEL-type zeolite having an SiO₂/Al₂O₃ ratio in the range of 10-30 inclusive is dispersed in an Fe(II) water-soluble-compound aqueous solution, and then mixed and agitated to cause the MEL-type zeolite to carry Fe(II) ions.

19 Claims, 1 Drawing Sheet

