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(54) **TRANSITION-METAL-CONTAINING ZEOLITE**

(75) Inventors: **Haijun Chen**, Yokohama (JP); **Takahiko Takewaki**, Yokohama (JP); **Takeshi Matsuo**, Yokohama (JP)

(73) Assignee: **MITSUBISHI PLASTICS, INC.**, Tokyo (JP)

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See application file for complete search history.

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Primary Examiner — Douglas McGinty
(74) *Attorney, Agent, or Firm* — Sughrue Mion, PLLC

(57) **ABSTRACT**

A transition-metal-containing silicoaluminophosphate zeolite having excellent high-temperature hydrothermal durability is easily and efficiently produced. A method for producing a transition-metal-containing zeolite that contains a silicon atom, a phosphorus atom, and an aluminum atom in at least its framework structure includes hydrothermal synthesis using an aqueous gel containing a silicon atom raw material, an aluminum atom raw material, a phosphorus atom raw material, a transition metal raw material, and a polyamine (other than diamines). A transition-metal-containing silicoaluminophosphate zeolite produced by hydrothermal synthesis using a zeolite raw material and the aqueous gel containing the transition metal raw material and the polyamine has excellent high-temperature hydrothermal durability and high catalytic activity.

17 Claims, 19 Drawing Sheets