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(54) **COORDINATION POLYMER CRYSTAL WITH POROUS METAL-ORGANIC FRAMEWORKS AND PREPARATION METHOD THEREOF**

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See application file for complete search history.

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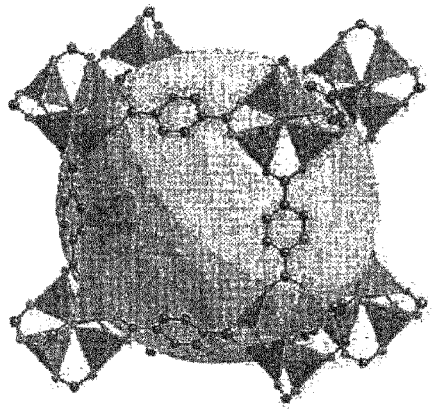
(57) **ABSTRACT**

Disclosed is a coordination polymer crystal with porous metal-organic frameworks (MOFs), in which, while a crystal state of the coordination polymer crystal is maintained, an additional material selected from the group consisting of an organic compound, a metal cluster, and an organometallic compound is chemically bonded to the coordination polymer crystal. Therefore it is possible easily adsorb and store more guest molecules regardless of a change in an ambient temperature or pressure due to the chemically bonded additional material.

20 Claims, 6 Drawing Sheets