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Matzger et al.

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(54) **MICROPOROUS COORDINATION
POLYMERS AS NOVEL SORBENTS FOR GAS
SEPARATION**

(58) **Field of Classification Search** 95/96; 96/139,
96/143
See application file for complete search history.

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 393 days.

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Primary Examiner — Robert A Hopkins

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P.L.C.

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(57) **ABSTRACT**

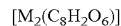
(65) **Prior Publication Data**

US 2010/0258004 A1 Oct. 14, 2010

A method of separating a target component from a chemical
mixture comprising contacting a chemical mixture with a
microporous coordination polymer. The microporous poly-
mer is described by the formula:

Related U.S. Application Data

(60) Provisional application No. 60/991,950, filed on Dec.
3, 2007.

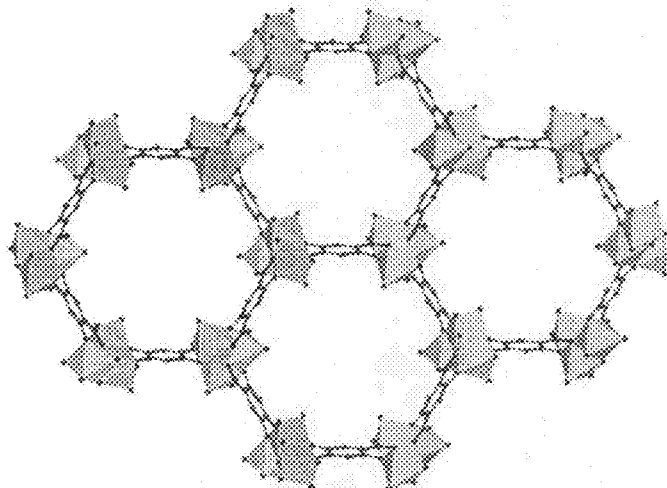


where M is a transition metal, rare earth metal, or other
element from the groups consisting of IIA through VB.

(51) **Int. Cl.**
B01D 59/26 (2006.01)

(52) **U.S. Cl.**
USPC **95/96; 95/139; 95/143**

24 Claims, 20 Drawing Sheets



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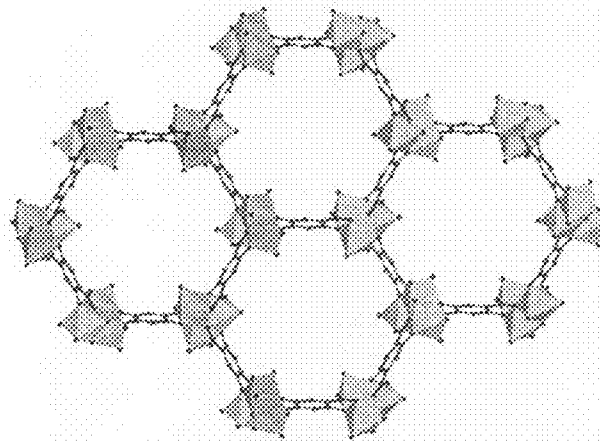


Figure 1

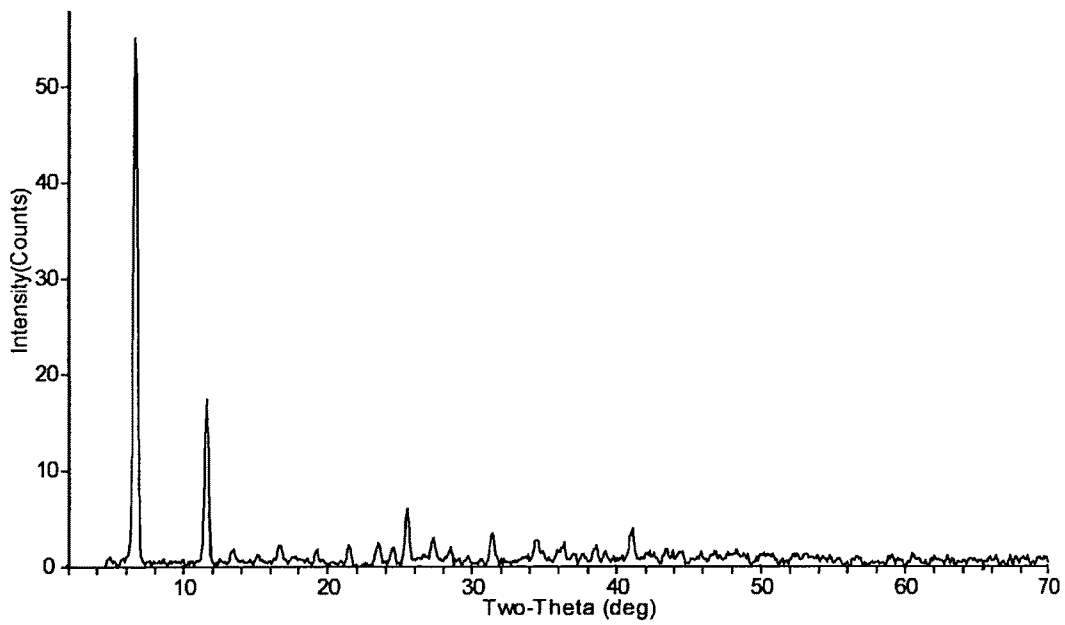


Figure 2

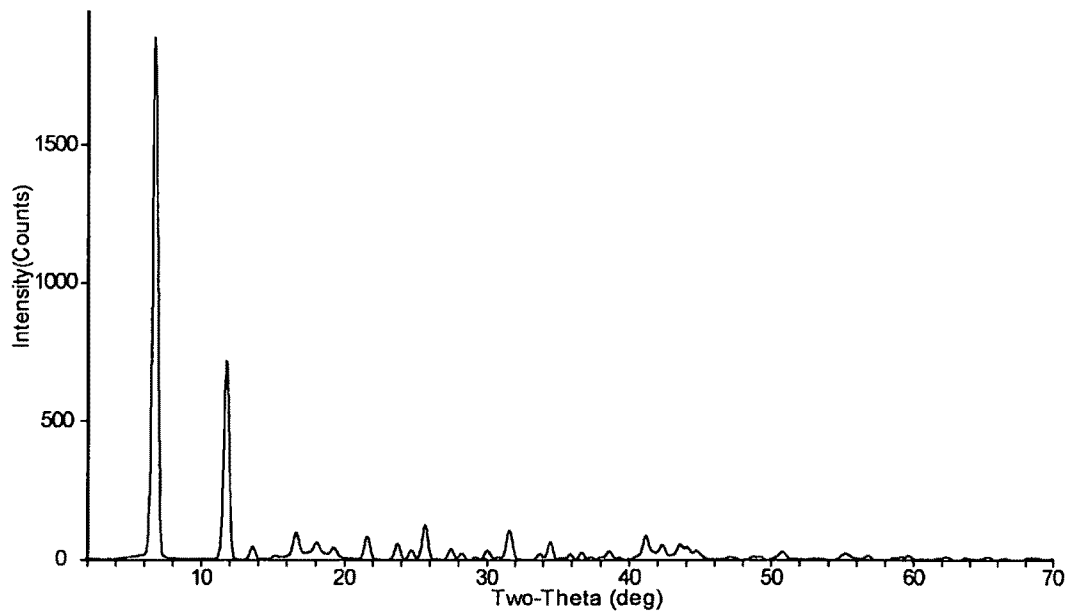


Figure 3

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