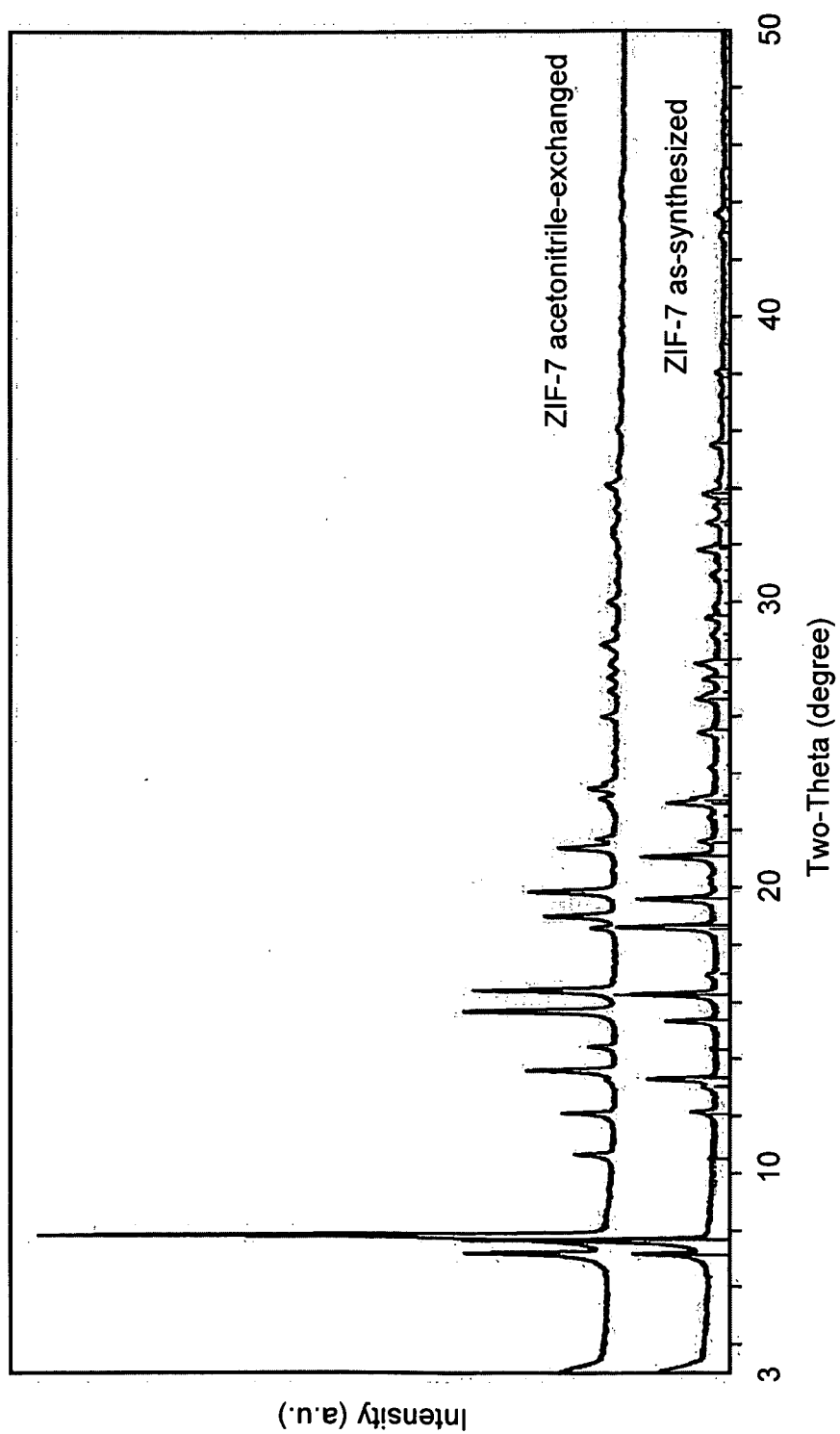


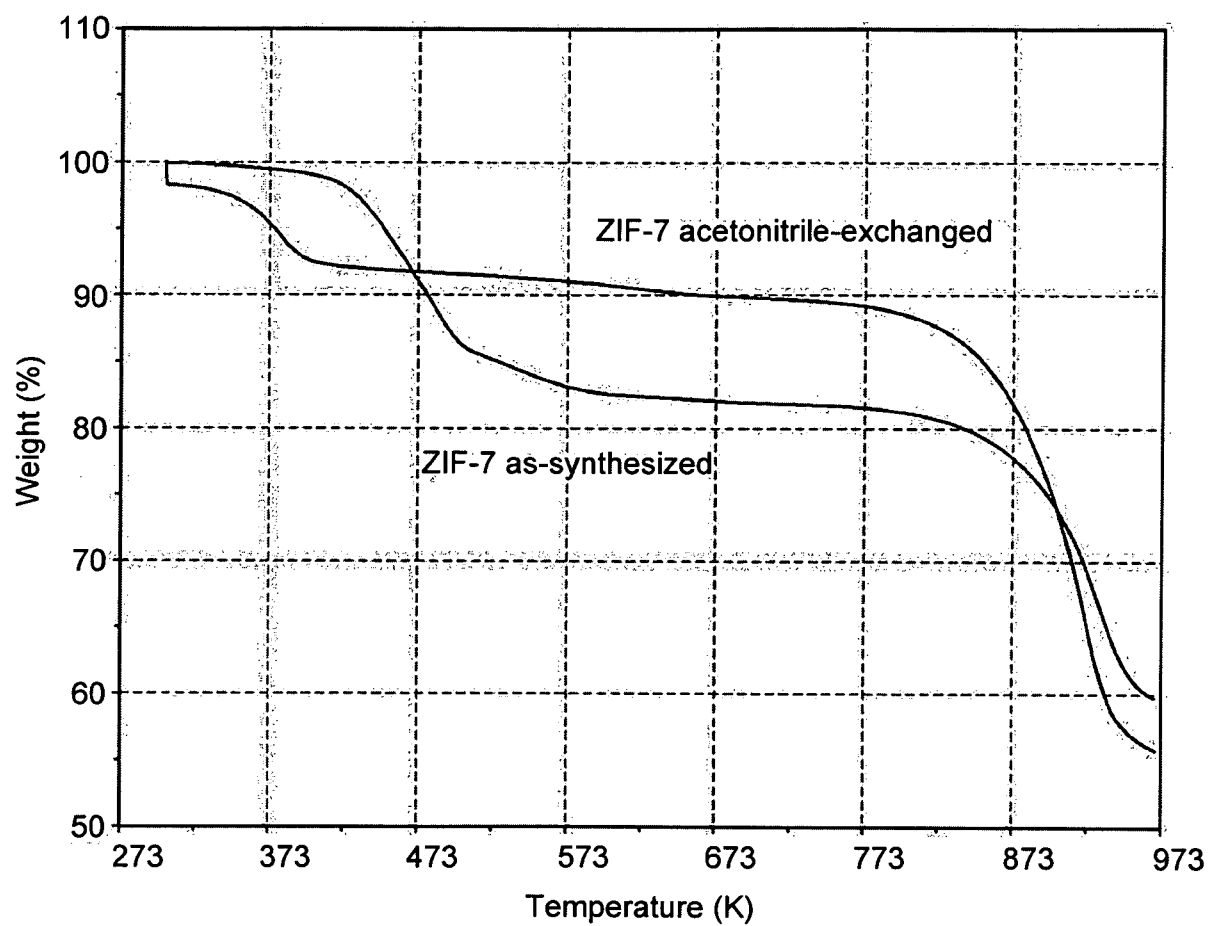
1 / 28



Powder X-ray Diffraction Pattern of ZIF-7

FIG. 1

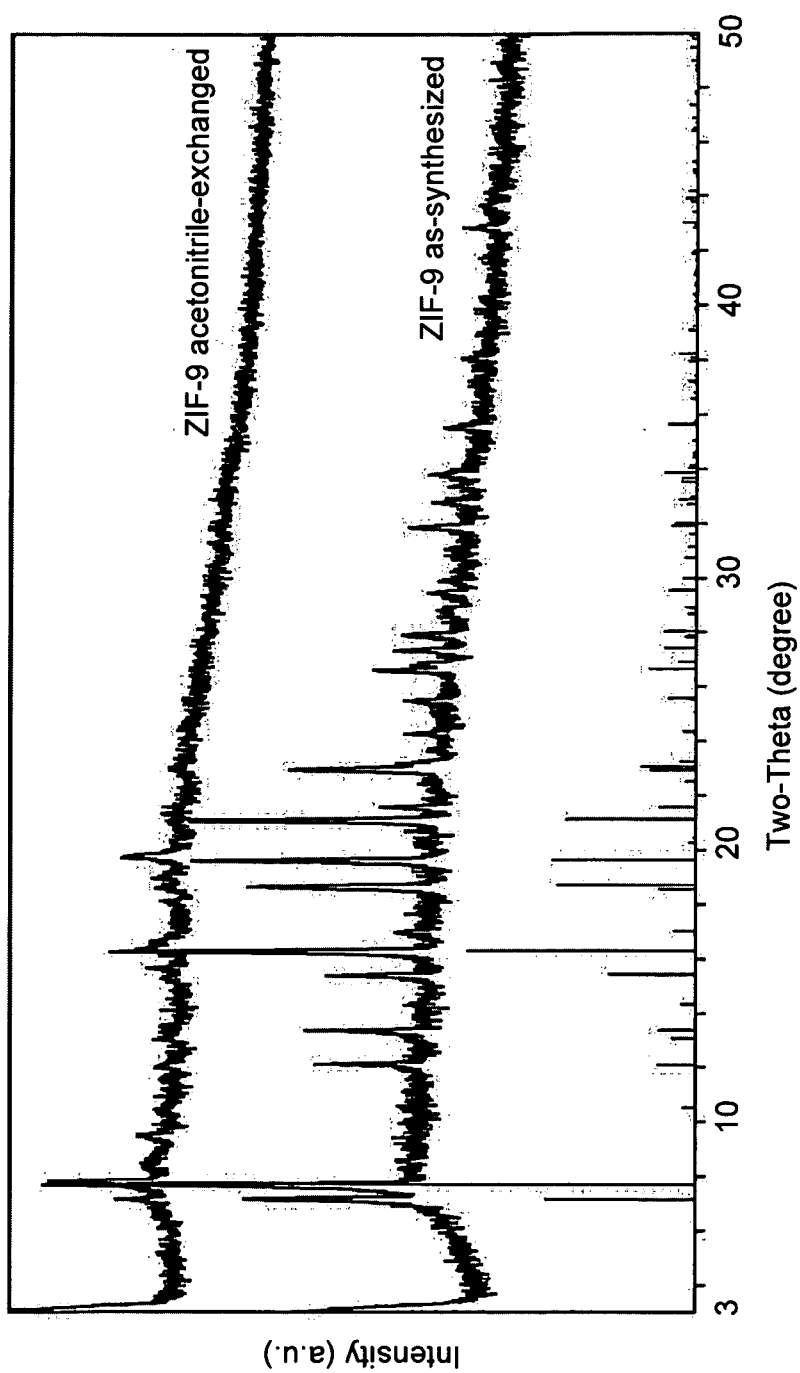
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Thermogravimetric Analyses of ZIF-7

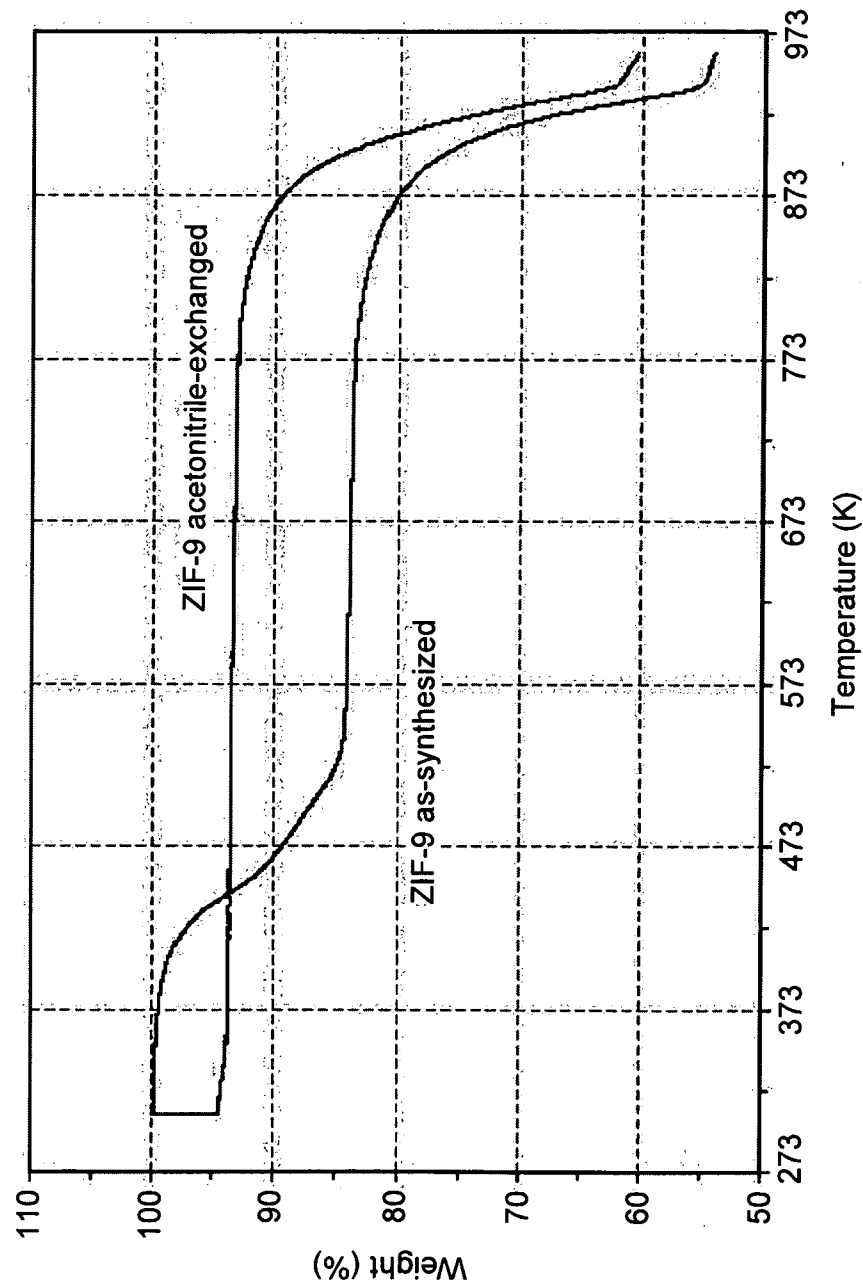
FIG. 2

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Powder X-ray Diffraction Pattern of ZIF-9

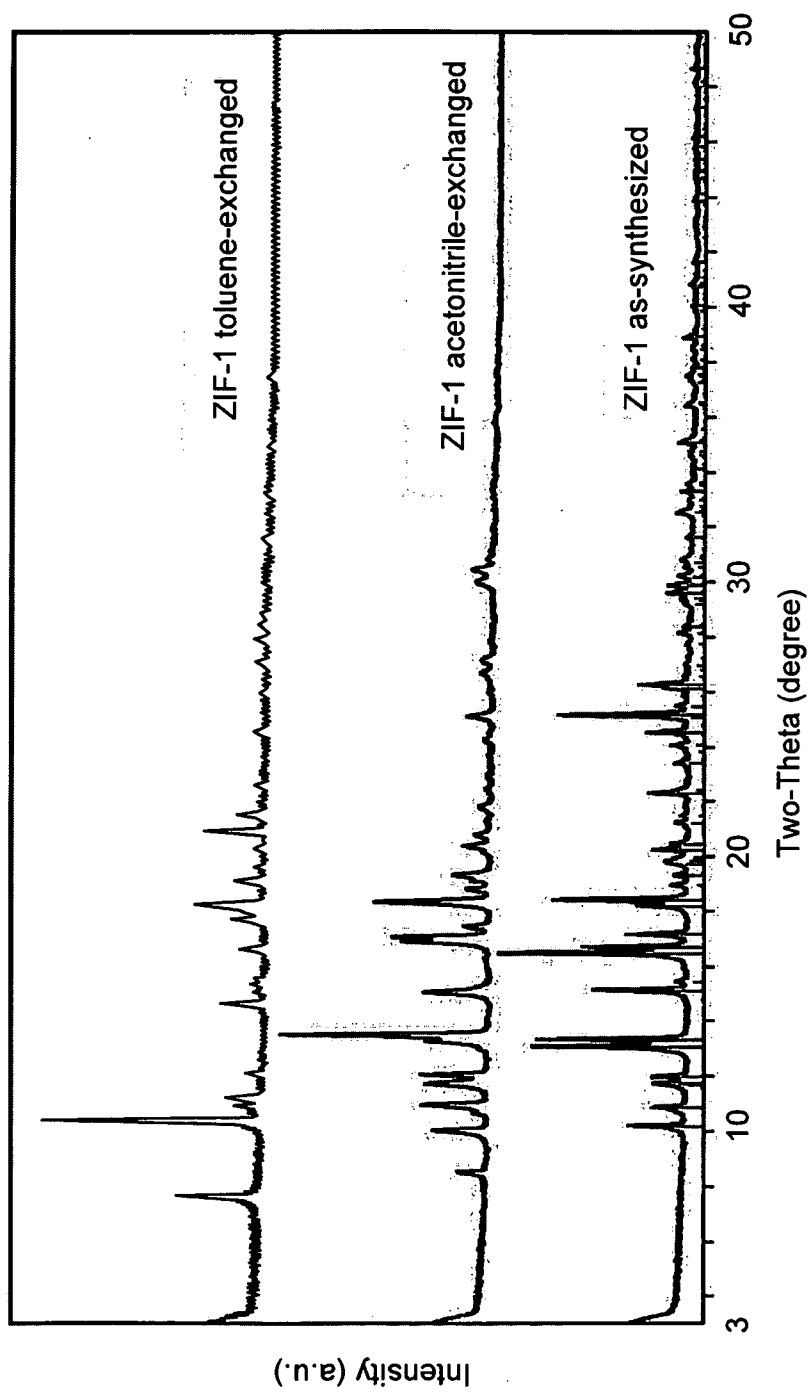
FIG. 3



Thermogravimetric Analyses of ZIF-9

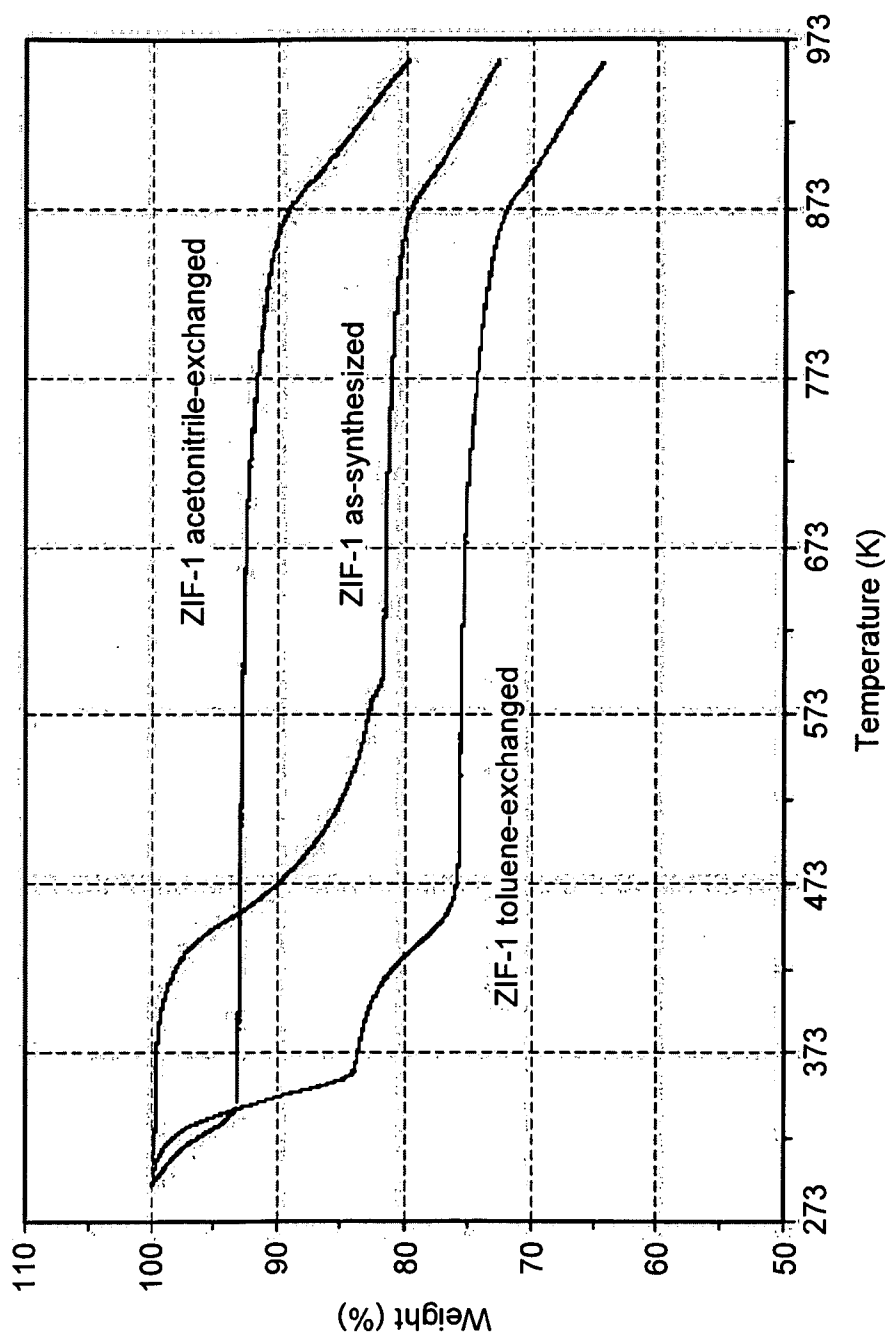
FIG. 4

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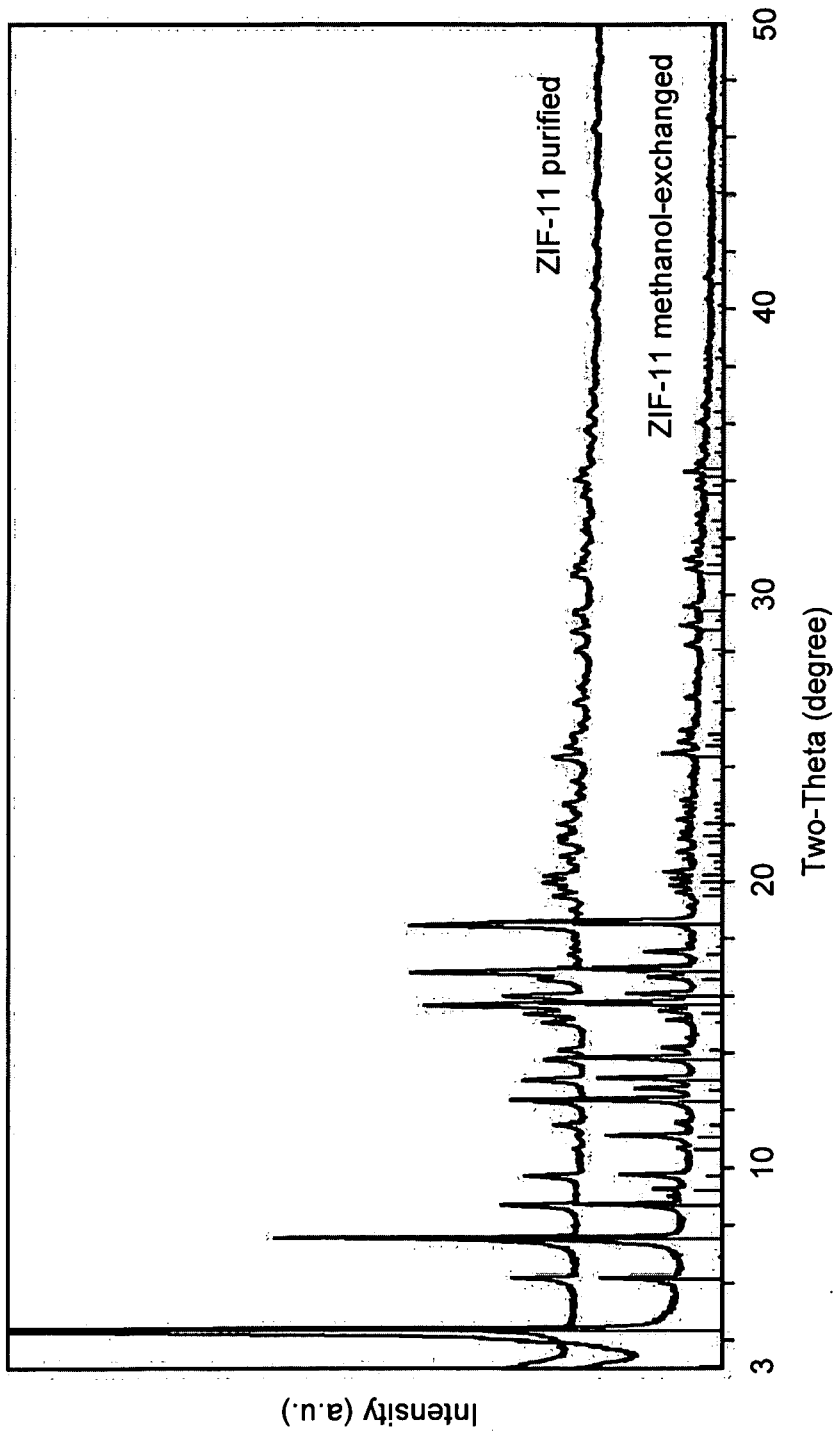
Powder X-ray Diffraction Pattern of ZIF-1

FIG. 5



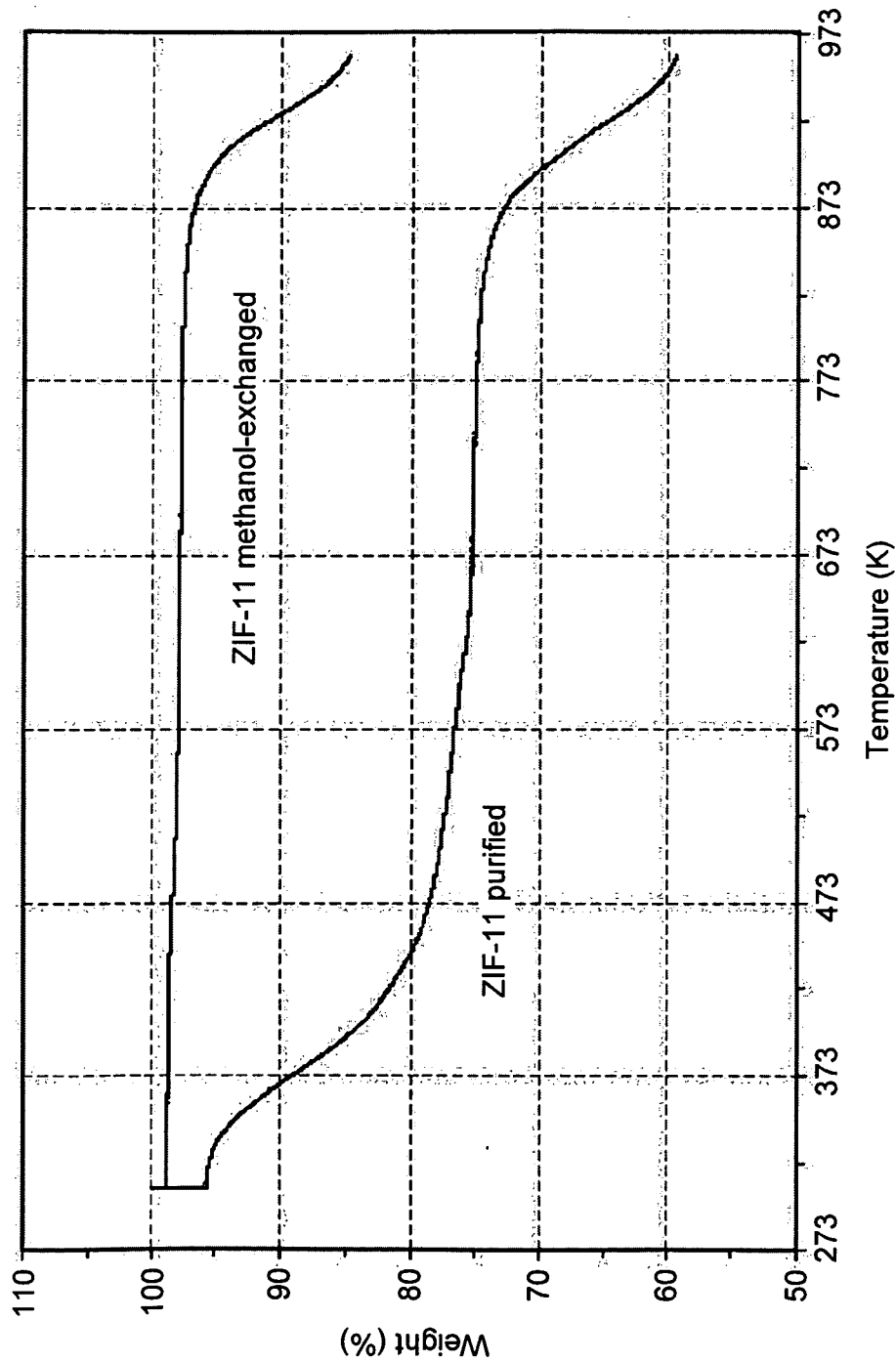
Thermogravimetric Analyses of ZIF-1

FIG. 6



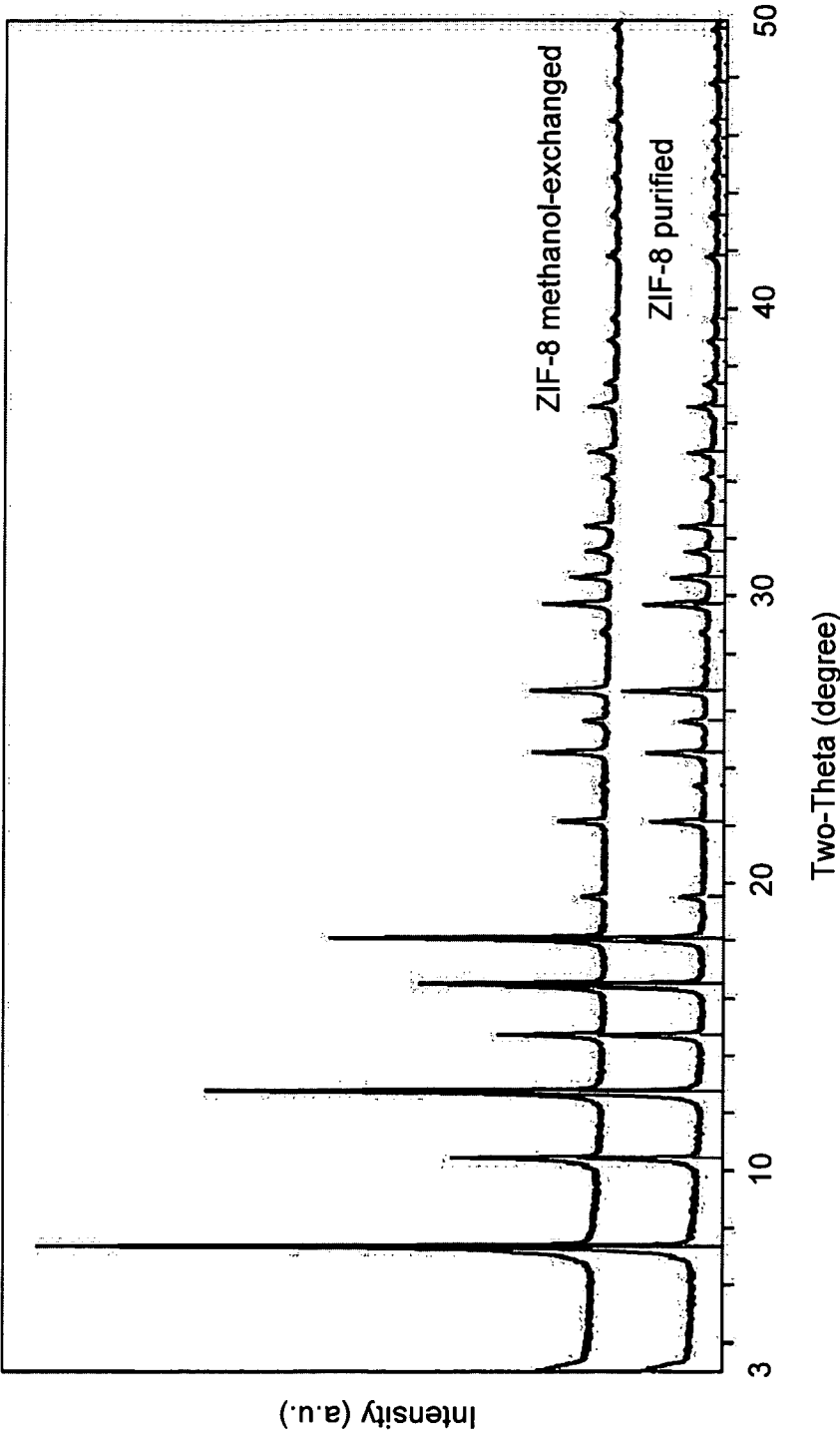
Powder X-ray Diffraction Pattern of ZIF-11

FIG. 7



Thermogravimetric Analyses of ZIF-11

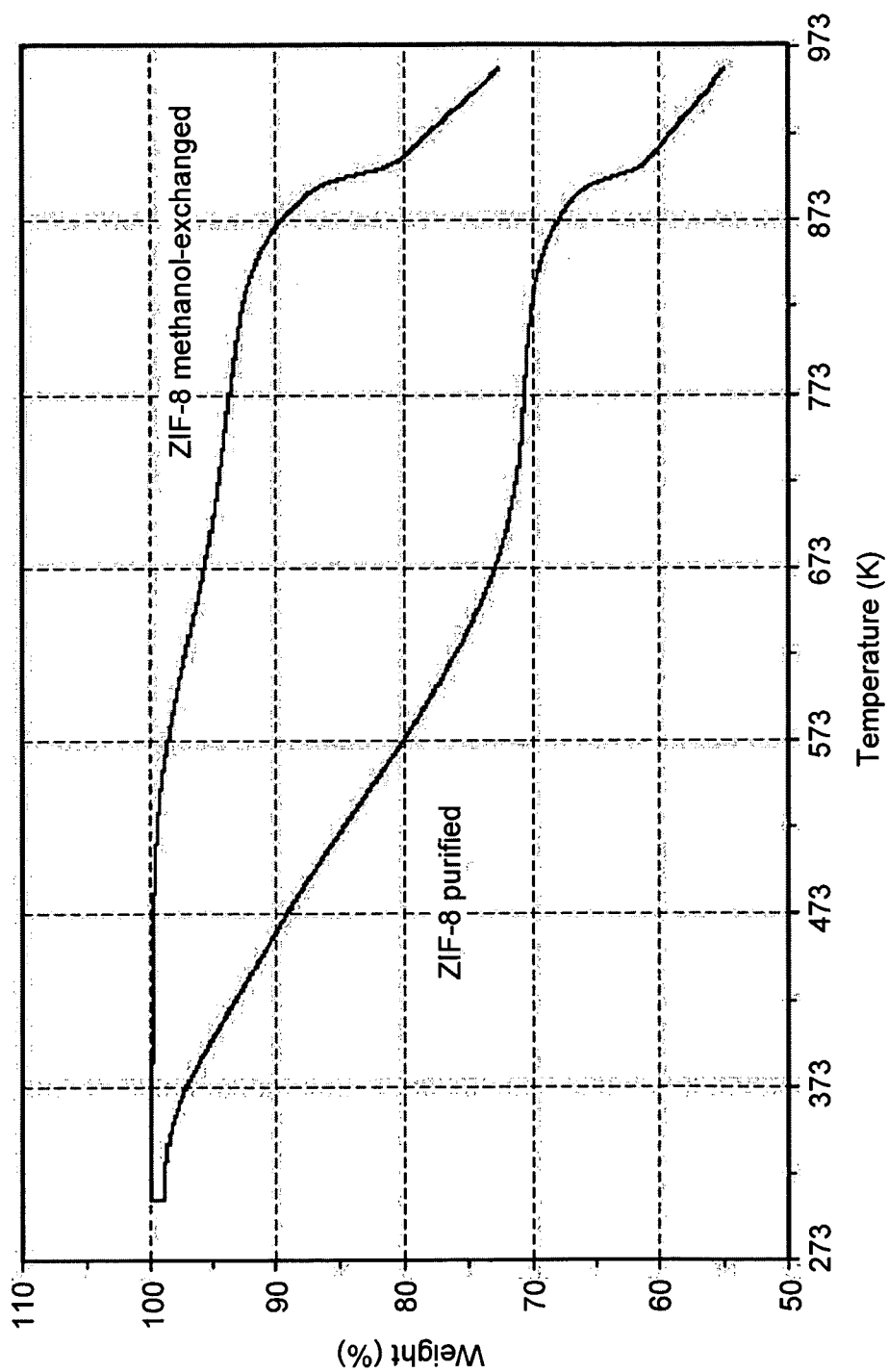
FIG. 8



Powder X-ray Diffraction Pattern of ZIF-8

FIG. 9

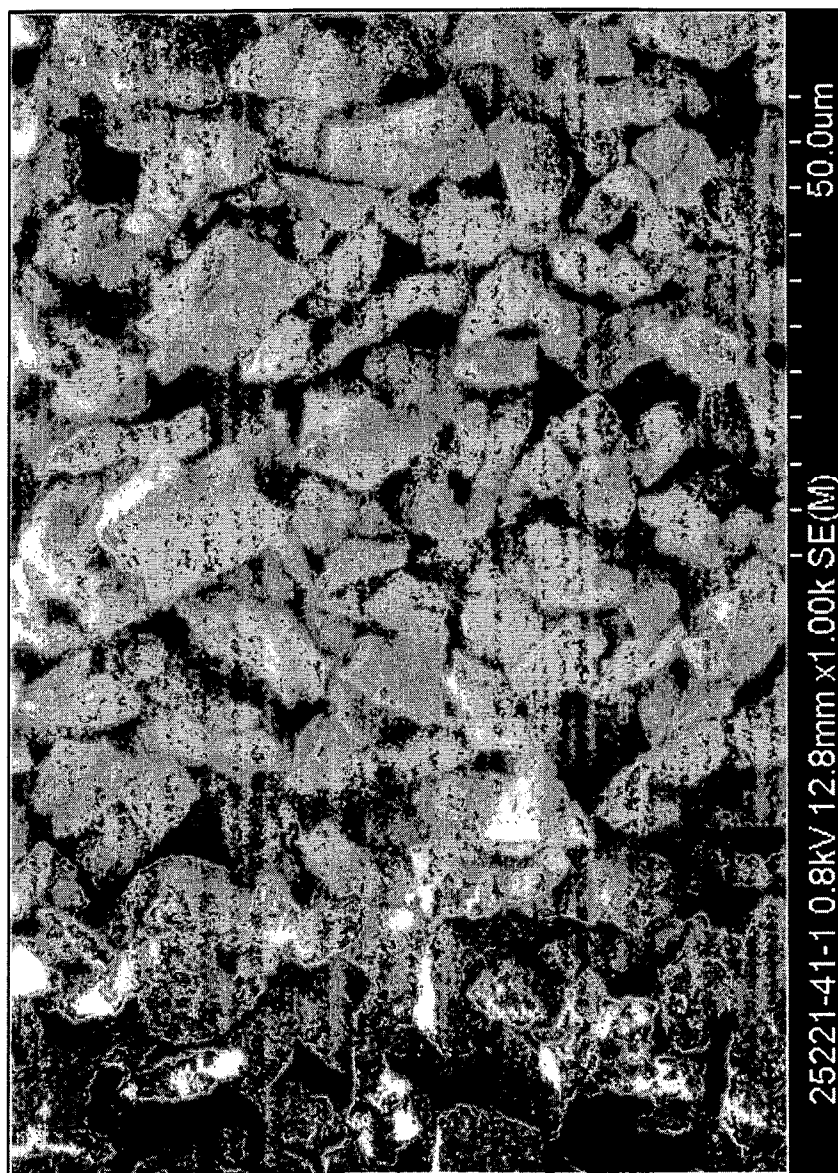
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Thermogravimetric Analyses of ZIF-8

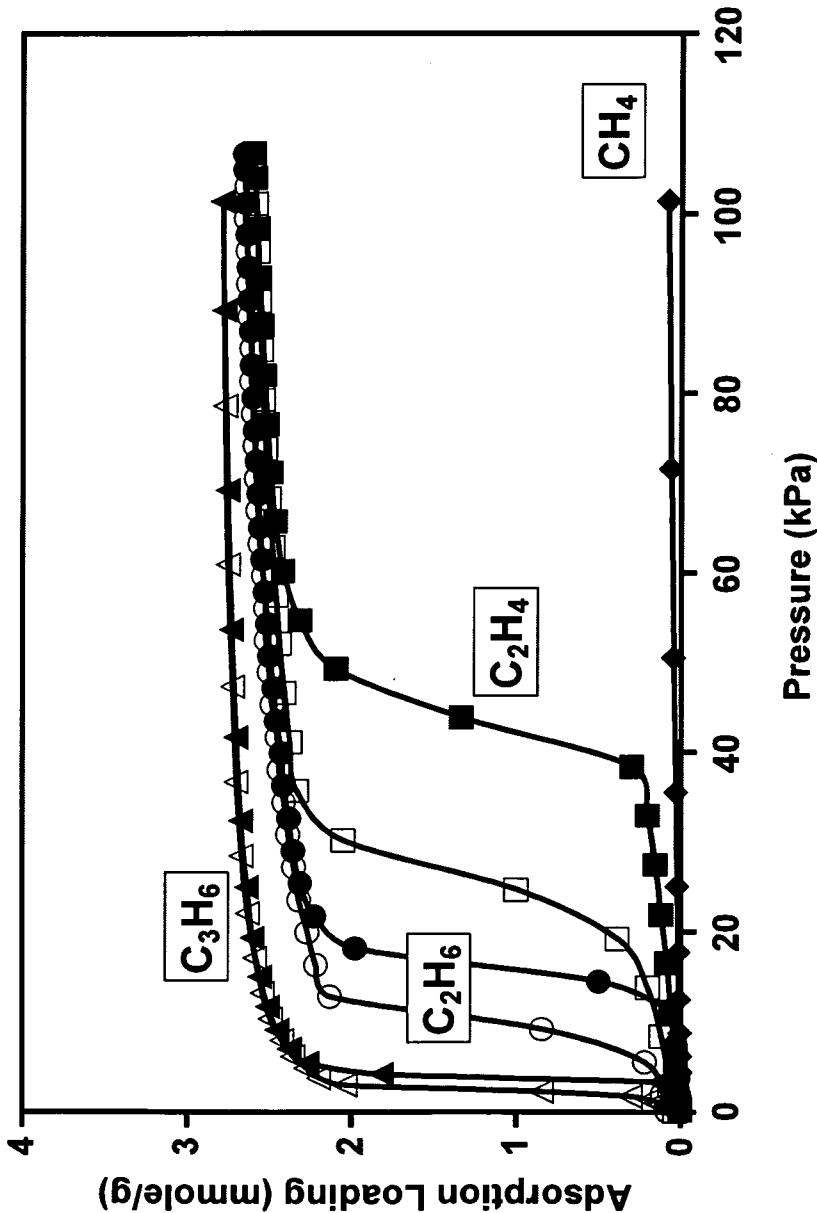
FIG. 10

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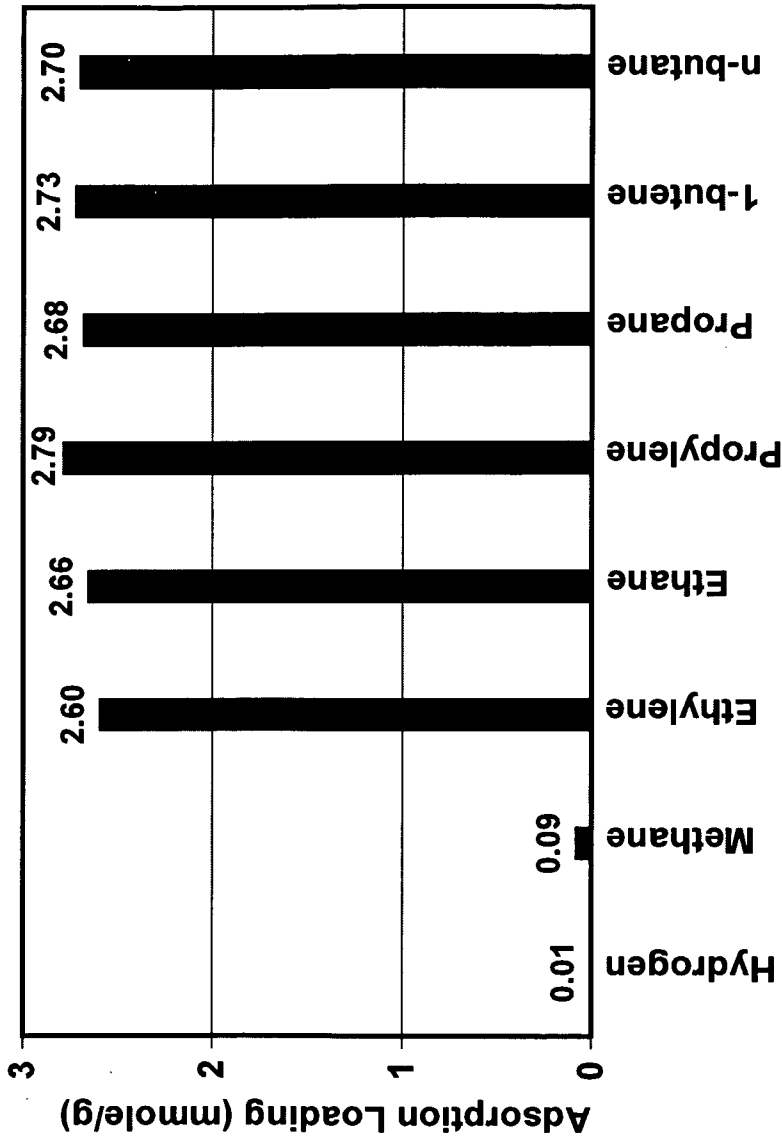


Scanning Electron Microscopy Image of ZIF-7

FIG. 11



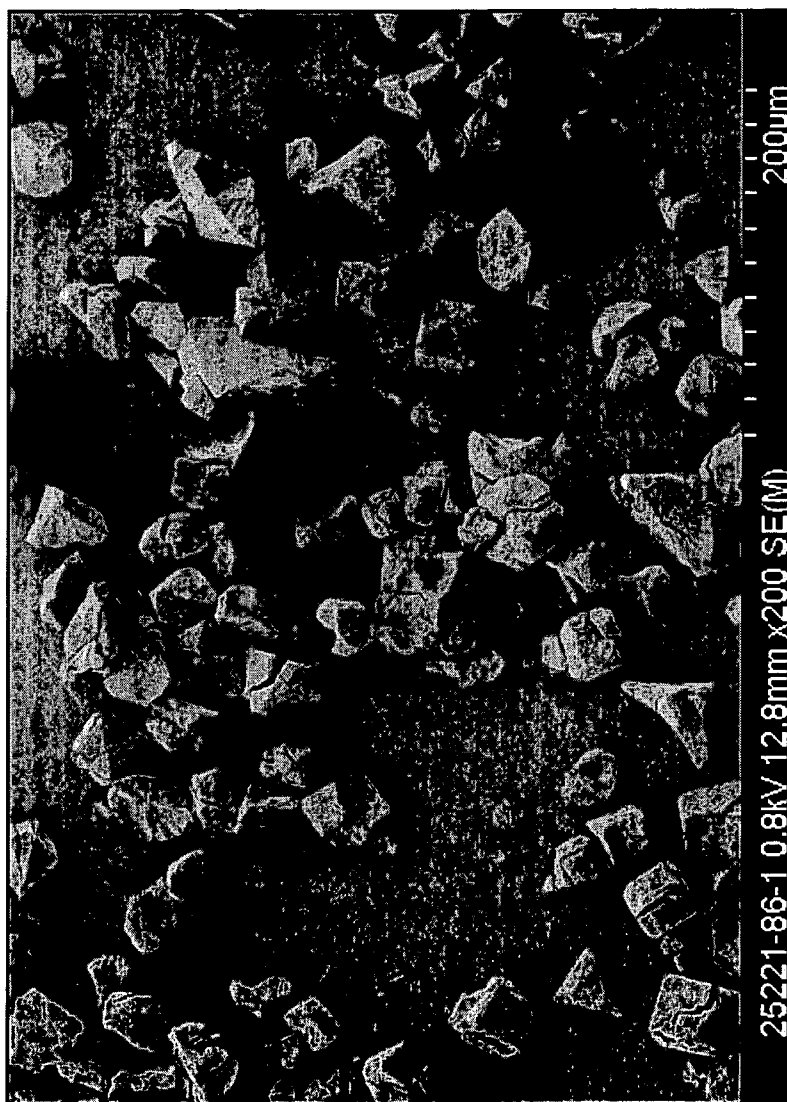
ZIF-7 Isotherms for Various Hydrocarbons @ 301 K
FIG. 12



ZIF-7 Adsorption Loading for Hydrogen and Various Hydrocarbons @ 301 K and 106.6 kPa

FIG. 13

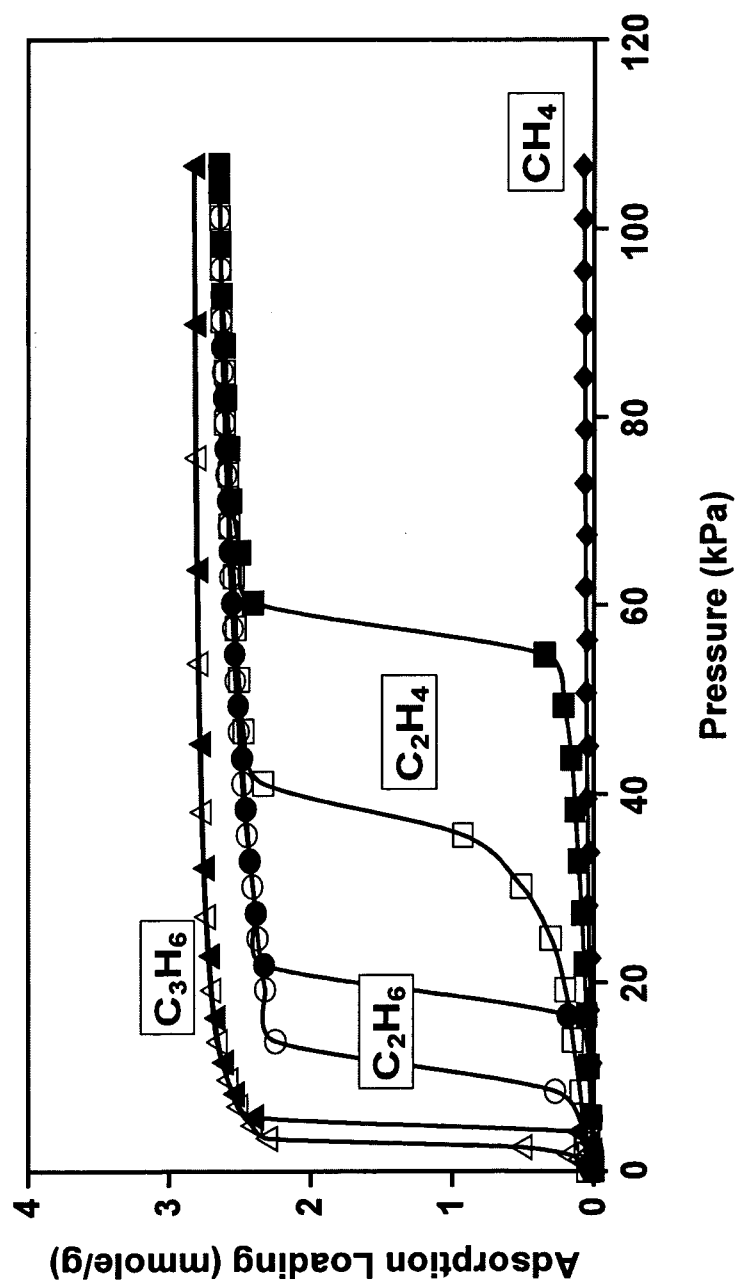
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Scanning Electron Microscopy Image of ZIF-9

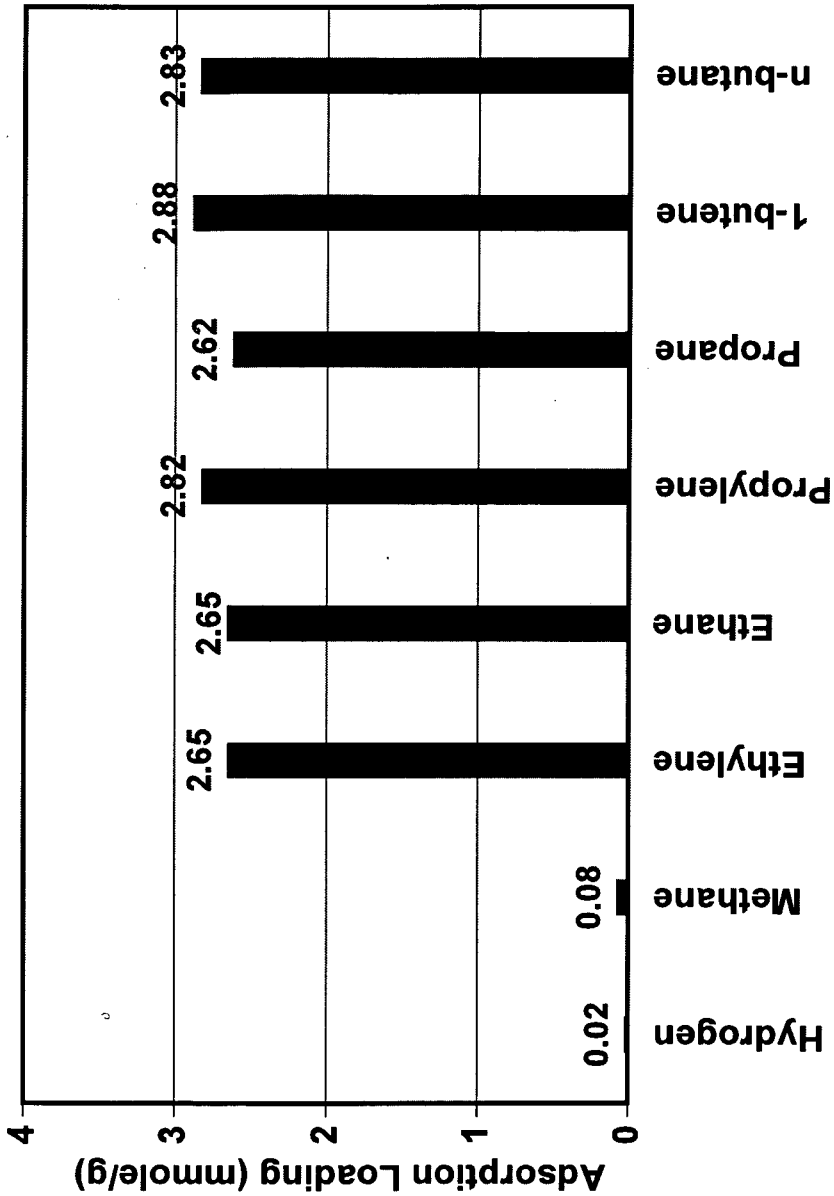
FIG. 14

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ZIF-9 Isotherms for Various Hydrocarbons @ 301 K

FIG. 15



ZIF-9 Adsorption Loading for Hydrogen and Various Hydrocarbons @ 301 K and 106.6 kPa

FIG. 16

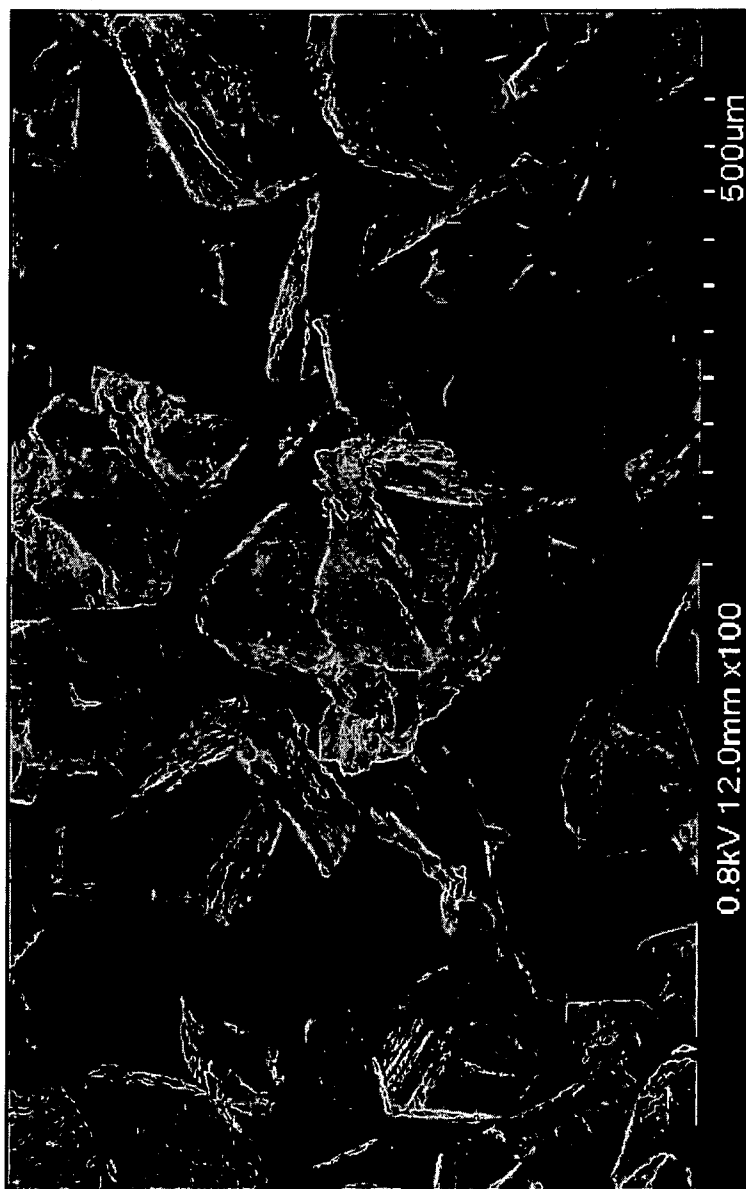
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Scanning Electron Microscopy Image of ZIF-1 (acetonitrile-exchanged)

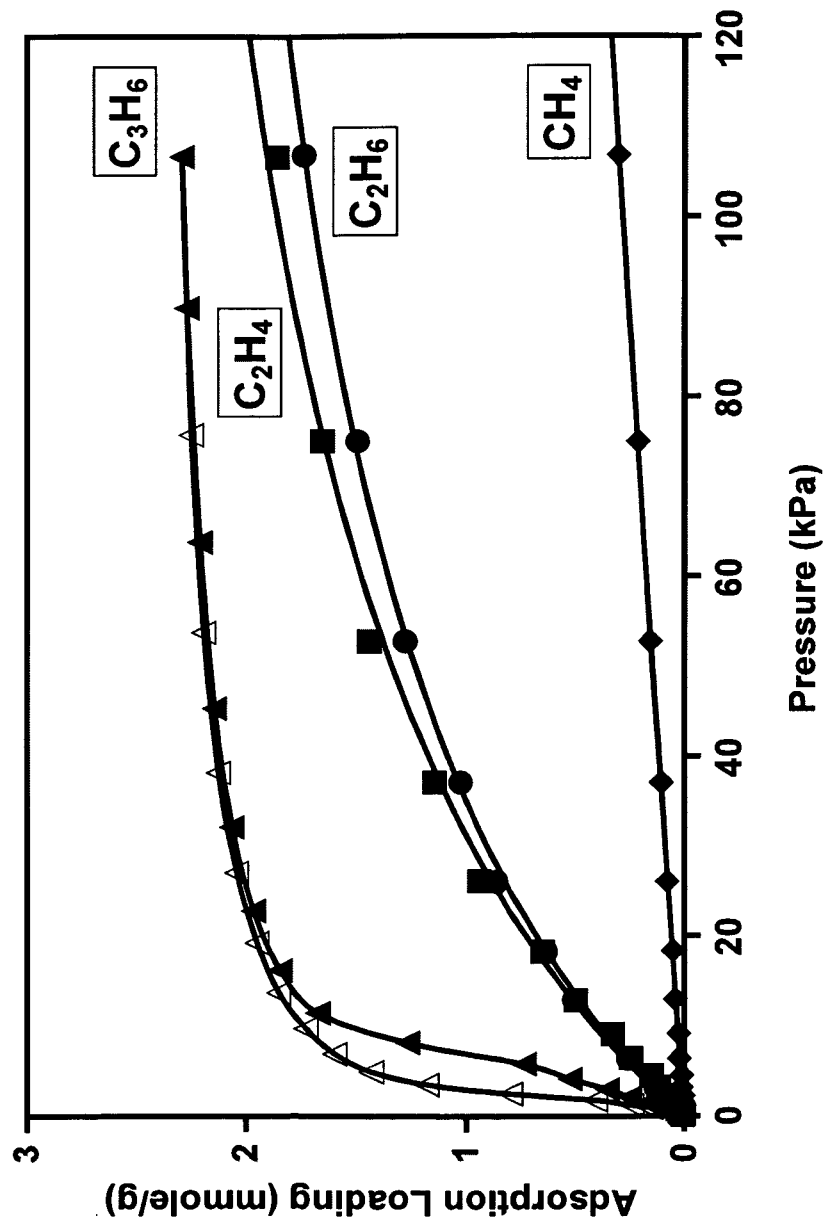
FIG. 17

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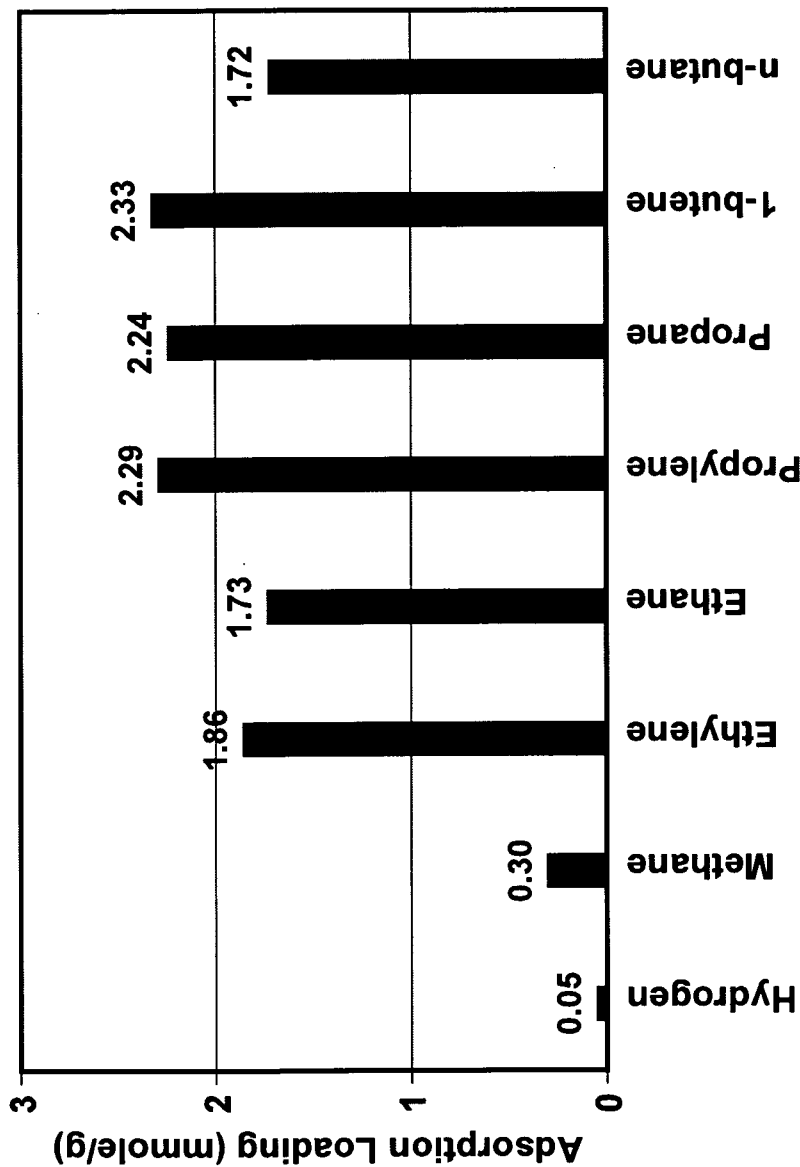
Scanning Electron Microscopy Image of ZIF-1 (toluene-exchanged)

FIG. 18



ZIF-1 (acetonitrile-exchanged) Isotherms for
Various Hydrocarbons @ 301 K

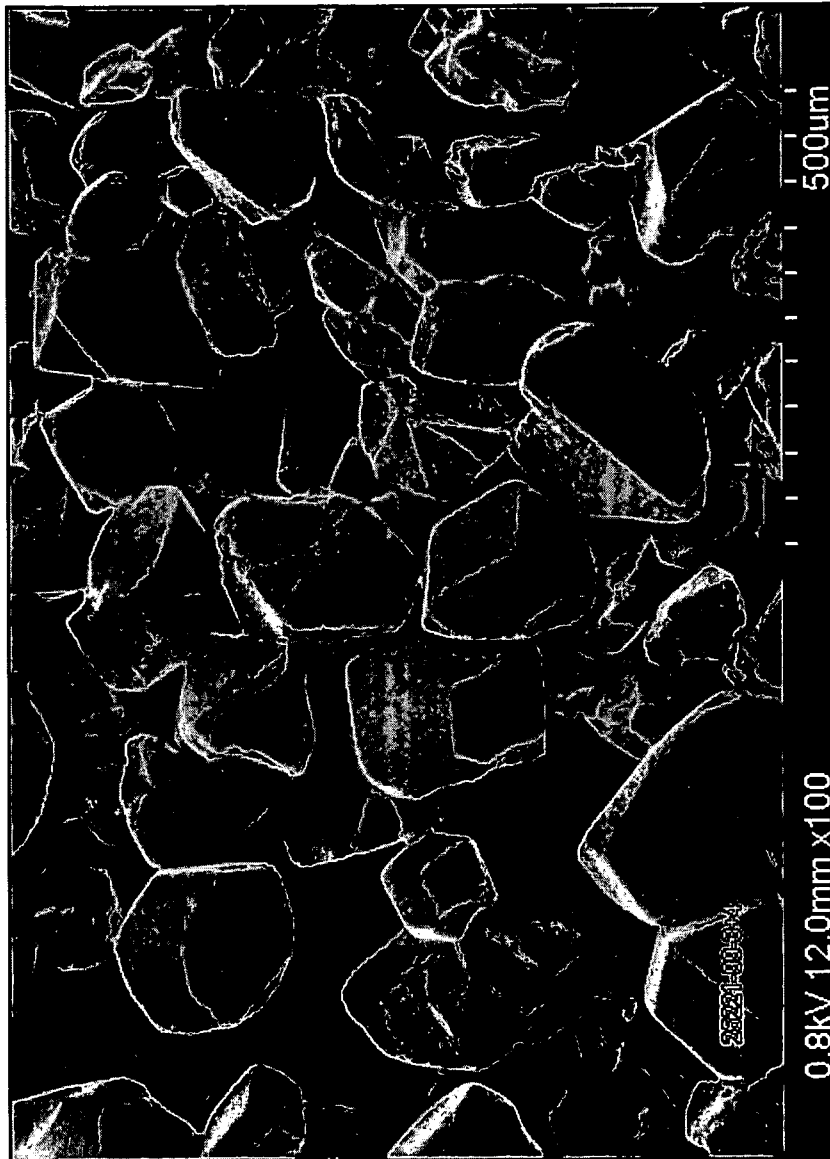
FIG. 19



ZIF-1 (acetonitrile-exchanged) Adsorption Loading
for Hydrogen and Various Hydrocarbons @ 301 K and 106.6 kPa

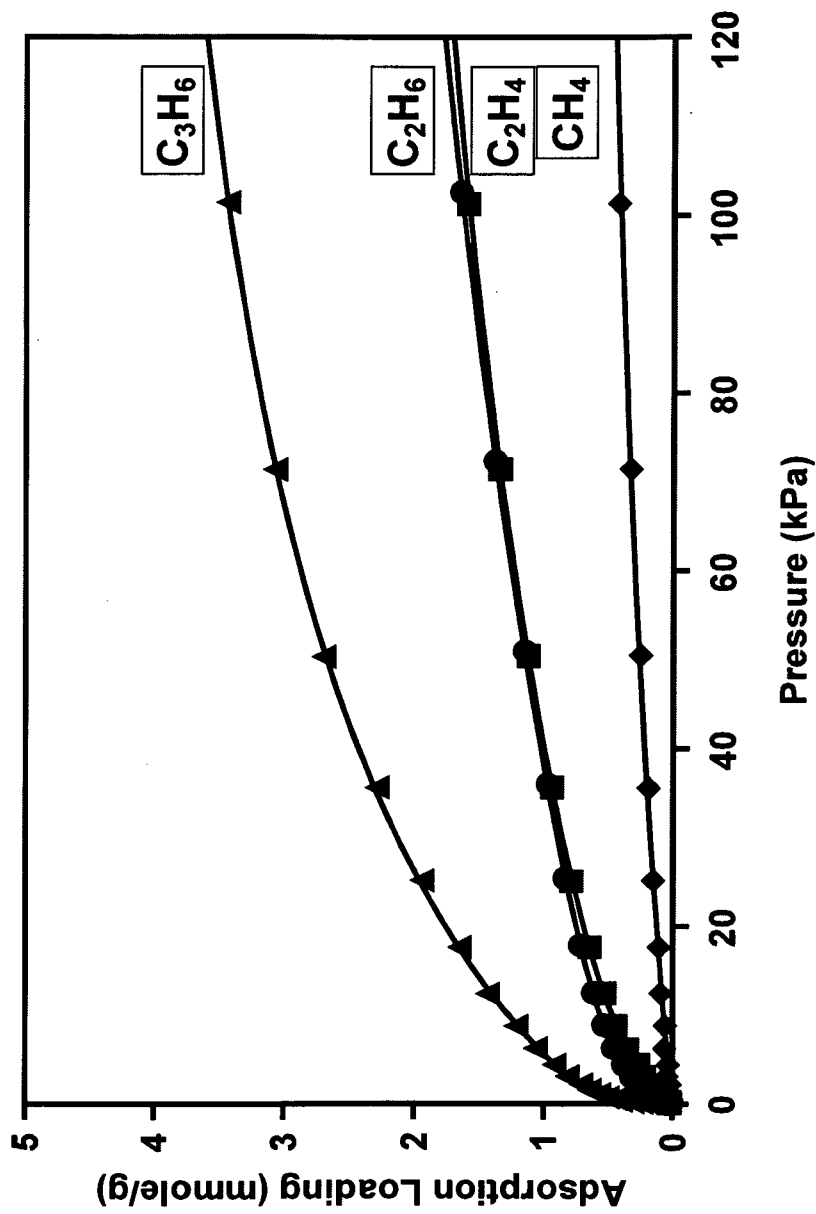
FIG. 20

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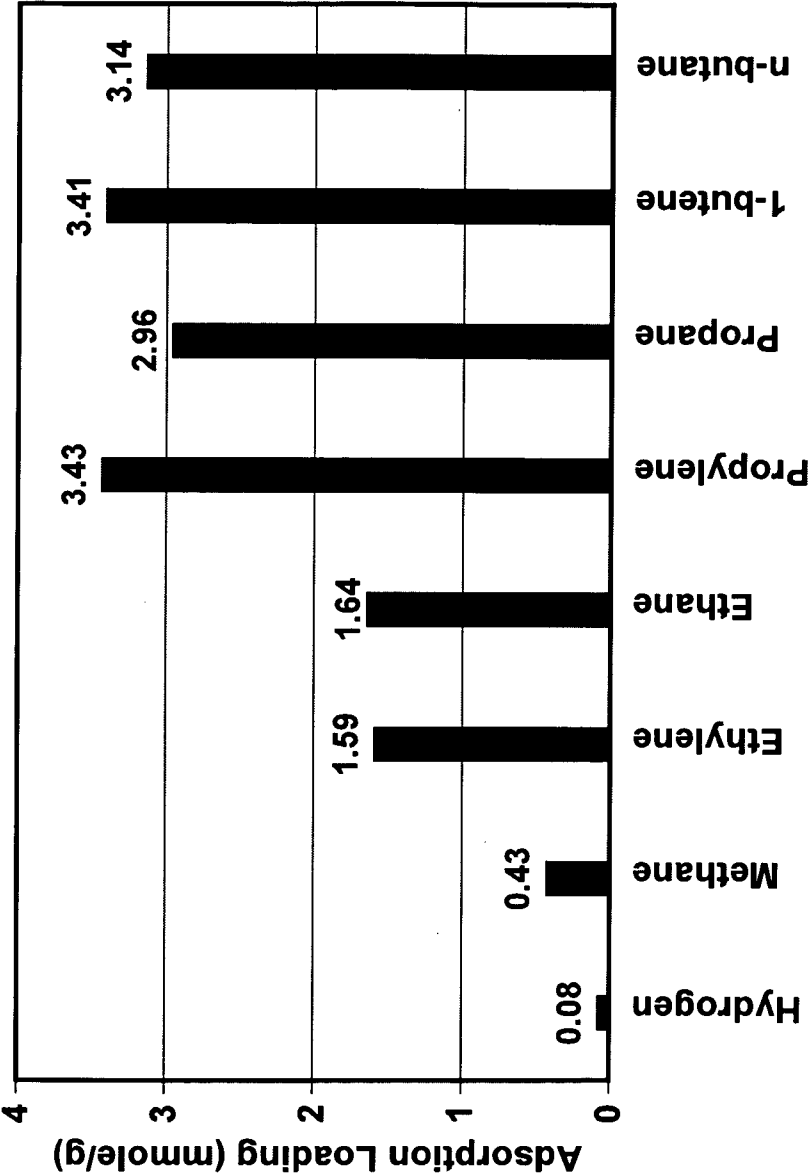
Scanning Electron Microscopy Image of ZIF-11

FIG. 21



ZIF-11 Isotherms for Various Hydrocarbons @ 301 K

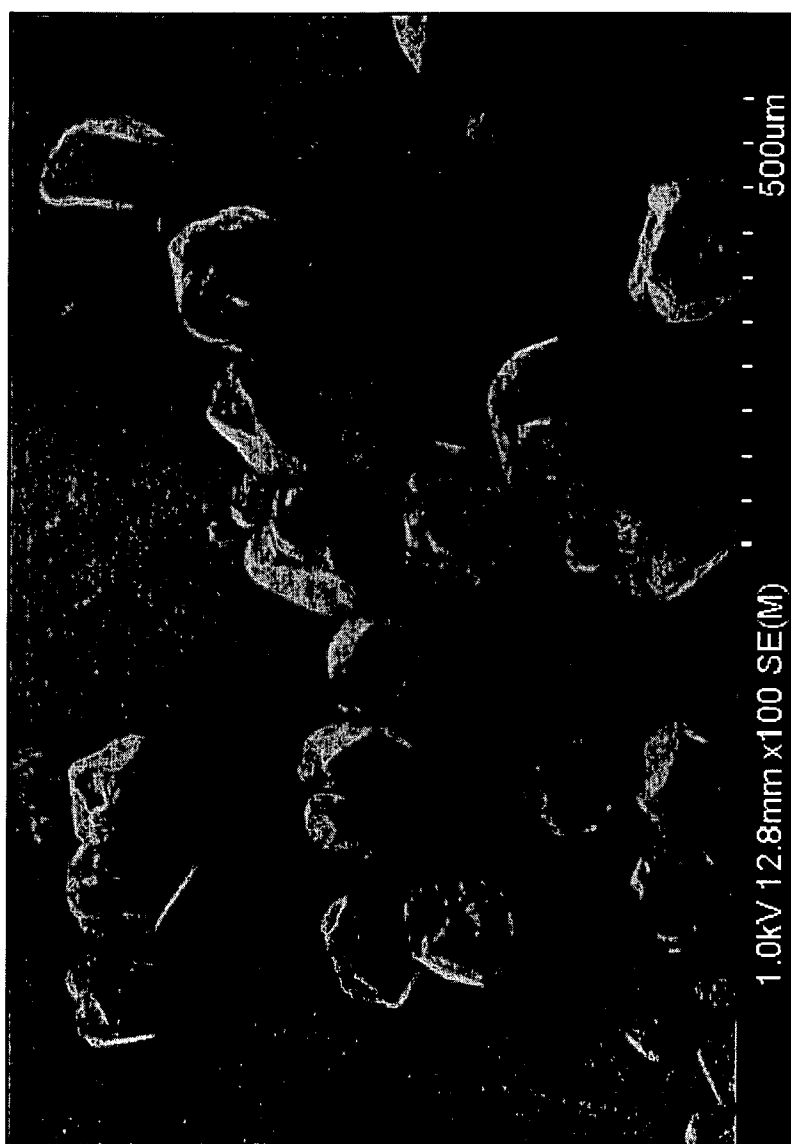
FIG. 22



ZIF-11 Adsorption Loading for Hydrogen and Various Hydrocarbons @ 301 K and 106.6 kPa

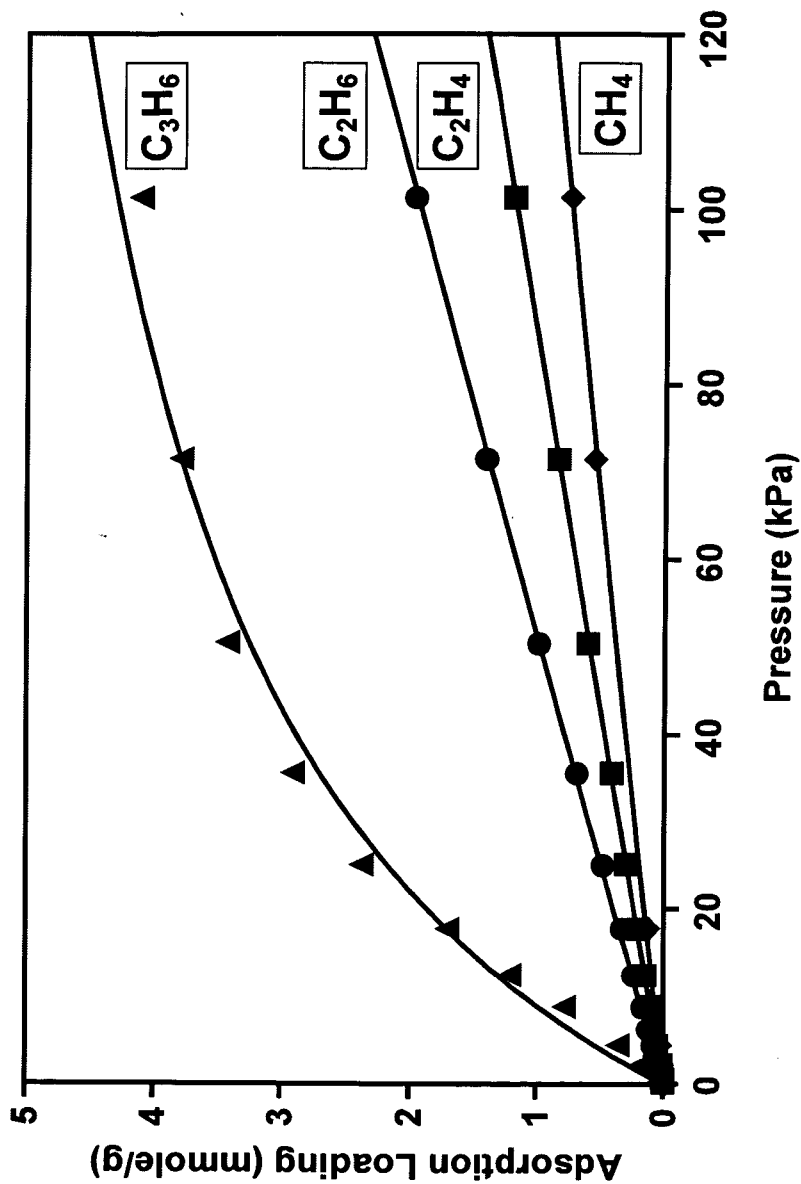
FIG. 23

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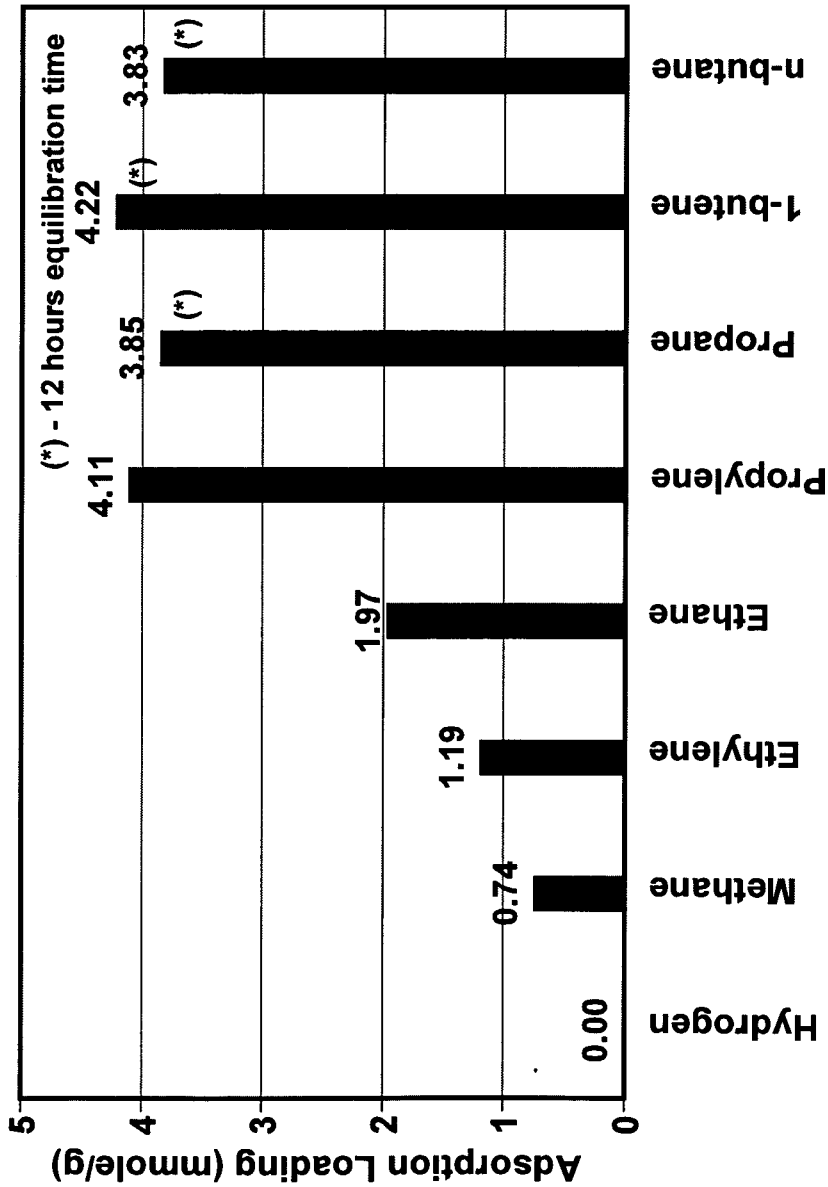
Scanning Electron Microscopy Image of ZIF-8

FIG. 24



ZIF-8 Isotherms for Various Hydrocarbons @ 301 K

FIG. 25



ZIF-8 Adsorption Loading for Hydrogen and Various Hydrocarbons @ 301 K and 106.6 kPa

FIG. 26

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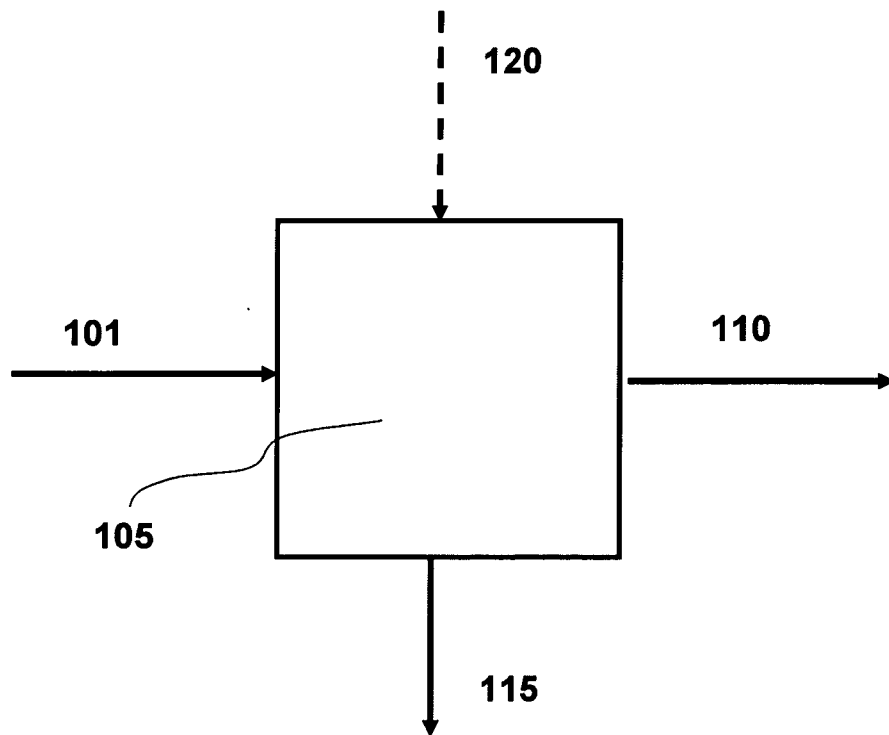


FIG. 27

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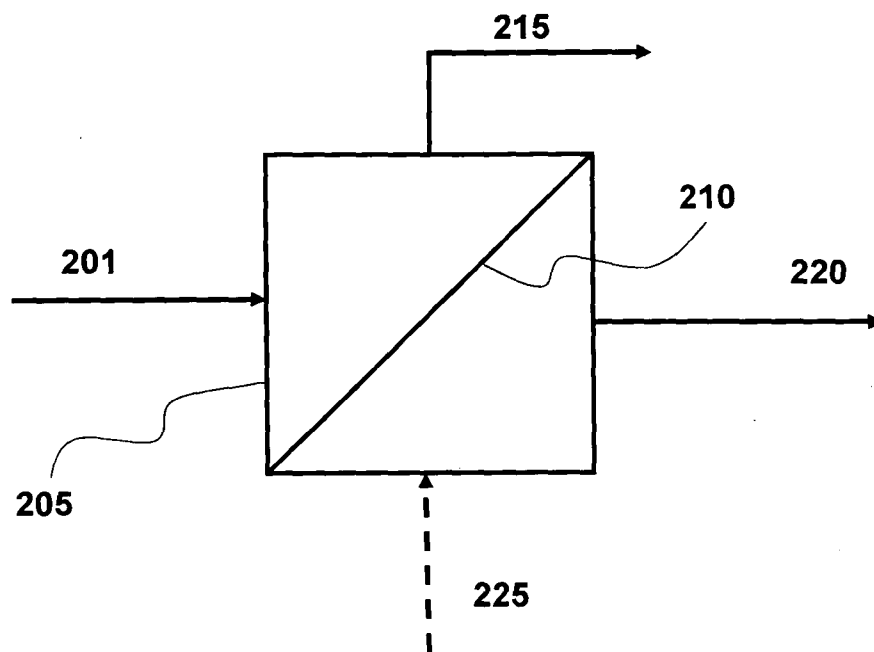


FIG. 28