



## Technical Data Sheet

### ACS Material MCM-48 (Type A and Type B)

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Revision: 020917

## 1. Preparation Method

Hydrothermal Method

## 2. Composition & Information on Ingredients

Synonym: MCM-48, Porous Silica, Silicon dioxide

CAS Number 7631-86-9

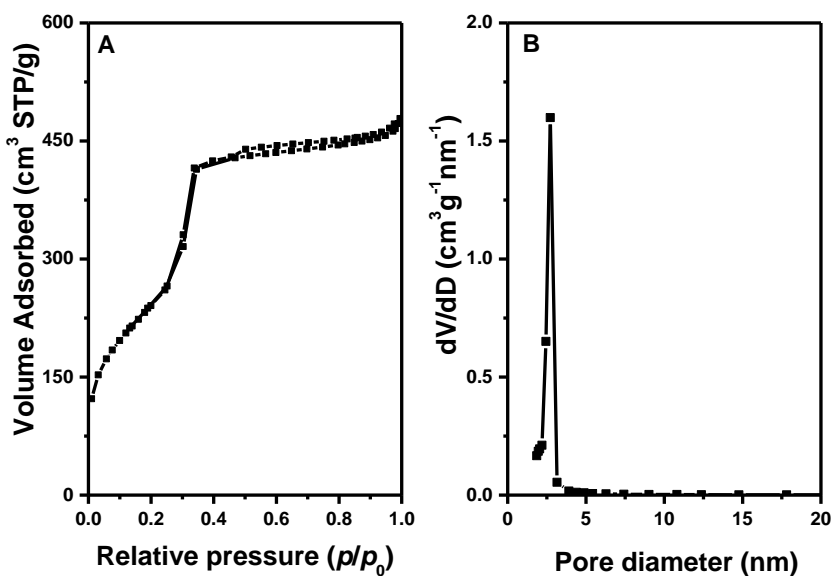
Linear Formula SiO<sub>2</sub>

Molecular Weight 60.08

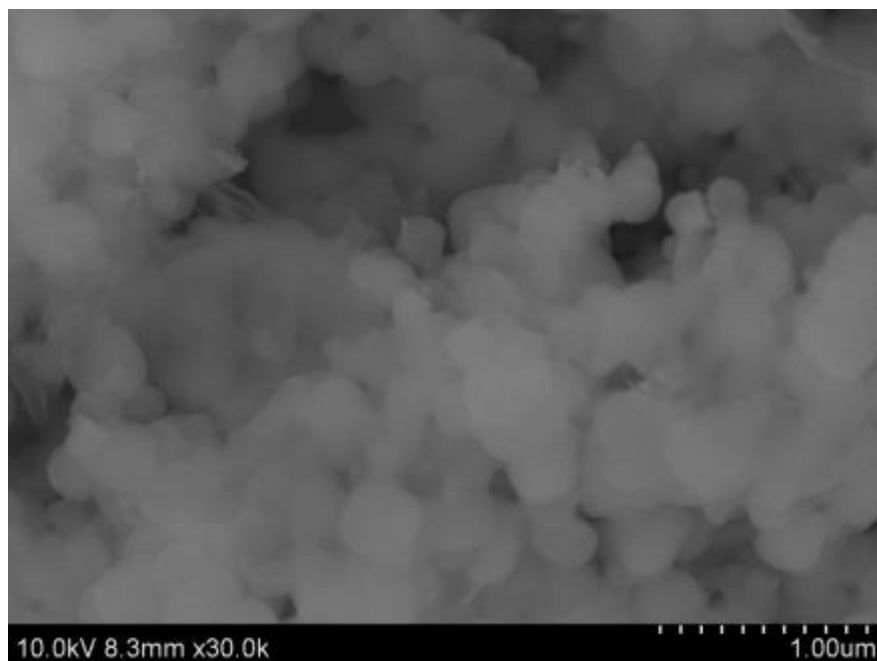
EC Number 231-545-4

## 3. Characterization & Analysis

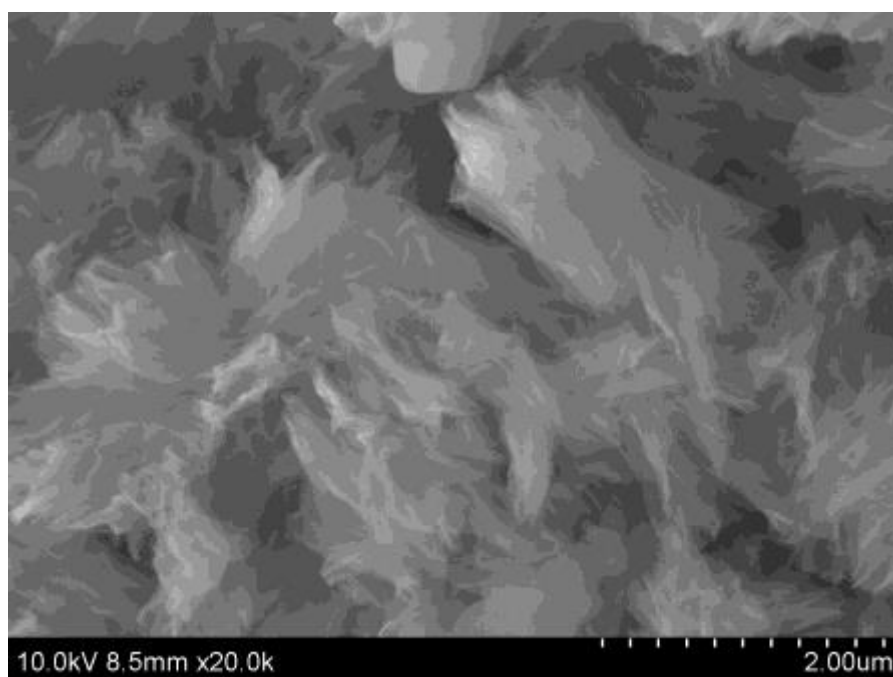
Type:	A	B
<b>Grade:</b>	Reagent Grade	Reagent Grade
<b>Appearance:</b>	White Powder	White Powder
<b>Particle Size:</b>	200-400 nm	200-500 nm
<b>Shape</b>	Spherical	Flower
<b>BET surface area (m<sup>2</sup>/g):</b>	>800 m <sup>2</sup> /g	>800 m <sup>2</sup> /g
<b>Pore Volume(cm<sup>3</sup>/g):</b>	0.6-0.75	0.5-0.8
<b>Average Pore Size:</b>	About 2.7 nm	About 2.7 nm
<b>bp:</b>	2230 °C(lit.)	2230 °C(lit.)
<b>mp:</b>	>1600 °C(lit.)	>1600 °C(lit.)



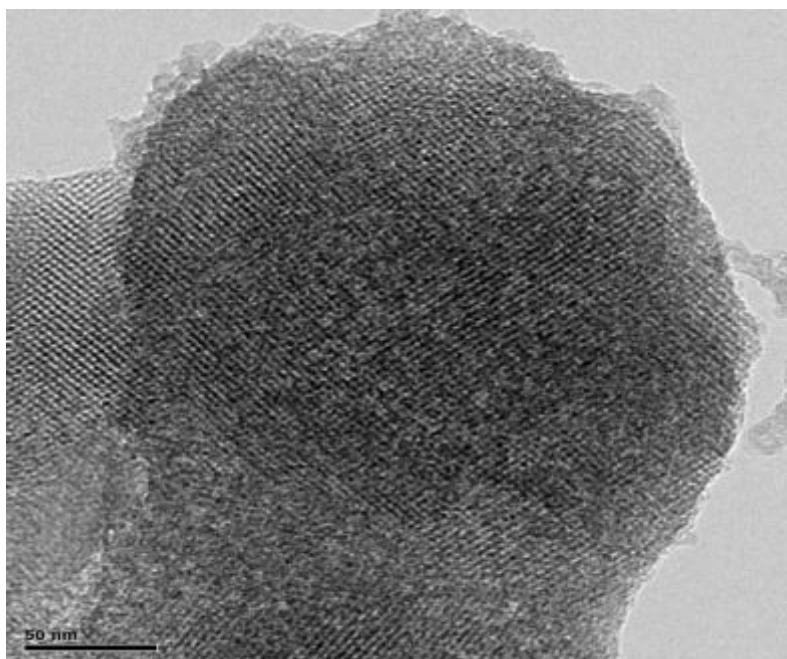
BET Analysis of ACS Material MCM-48 (Type A)



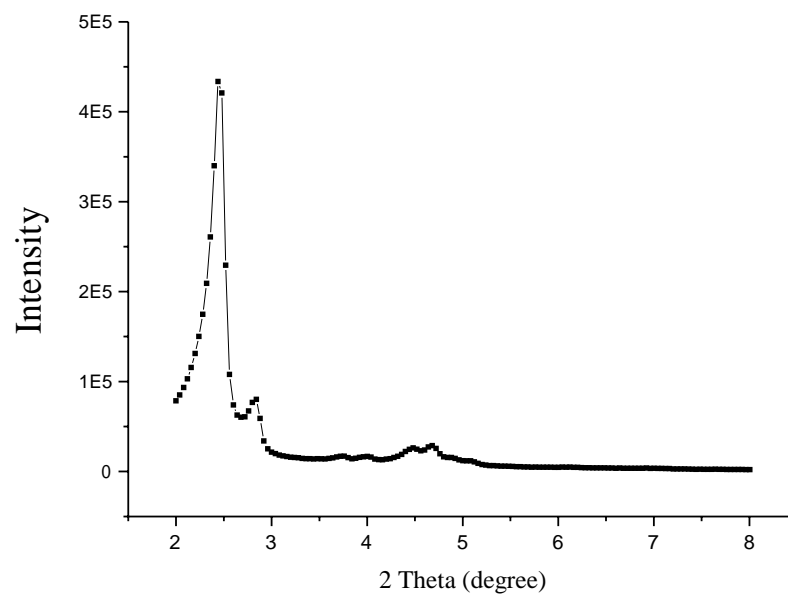
SEM Image of ACS Material MCM-48 (Type A)



SEM Image of ACS Material MCM-48 (Type B)



TEM Image of ACS Material MCM-48 (Type A)



XRD Analysis of ACS Material MCM-48 (Type A)

#### **4. Application Fields**

Mesoporous silicas are inorganic materials having porous structures and find applications in chromatography, catalysis, drug delivery and imaging.

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