



## Technical Data Sheet

# ACS Material Metal-Organic Framework Cu-BTC (HKUST-1) (BTC=benzene-1,3,5-tricarboxylate)

### Table of Contents

---

[1 – Preparation Method](#)

[2 – Characterizations](#)

[3 – Application Fields](#)

---

#### **Contact Information:**

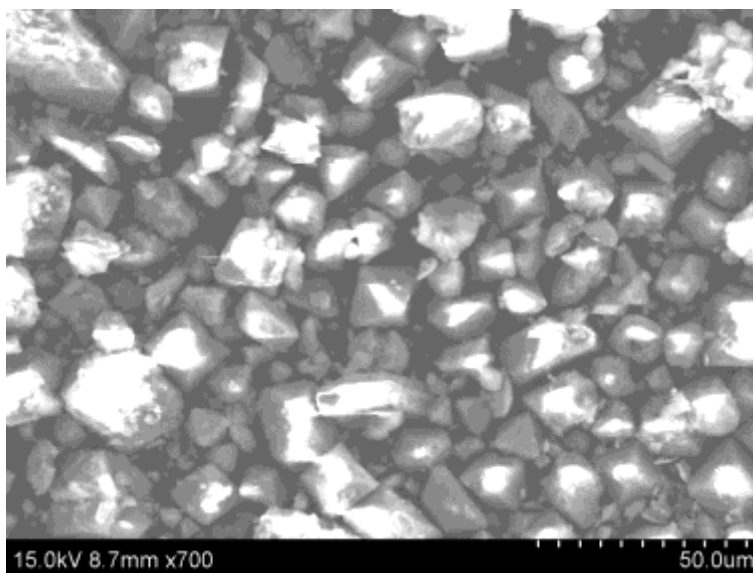
Manufacturer: ACS Material, LLC.  
Address: 959 E Walnut St. Suite 100,  
Pasadena, CA 91106, USA  
Phone: (866)-227-0656  
Fax: (781)-518-0284  
E-Mail: [contact@acsmaterial.com](mailto:contact@acsmaterial.com)  
Revision: 090717

## 1. Preparation Method

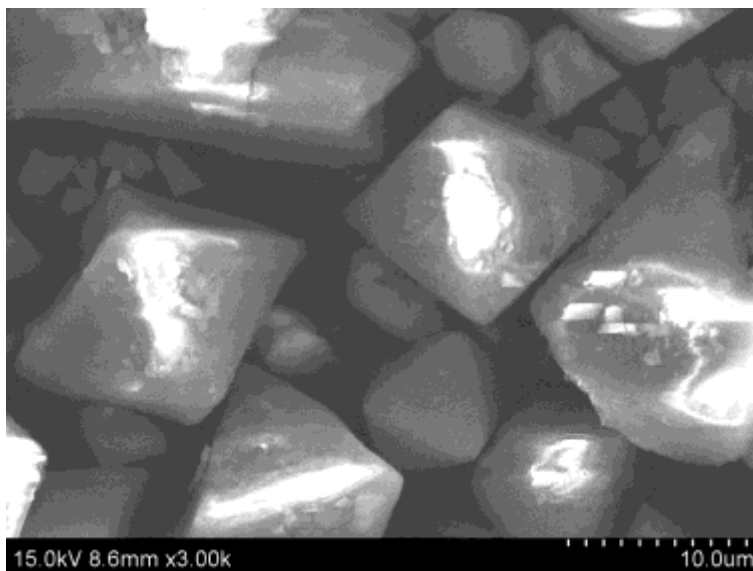
Hydrothermal Method

## 2. Characterizations

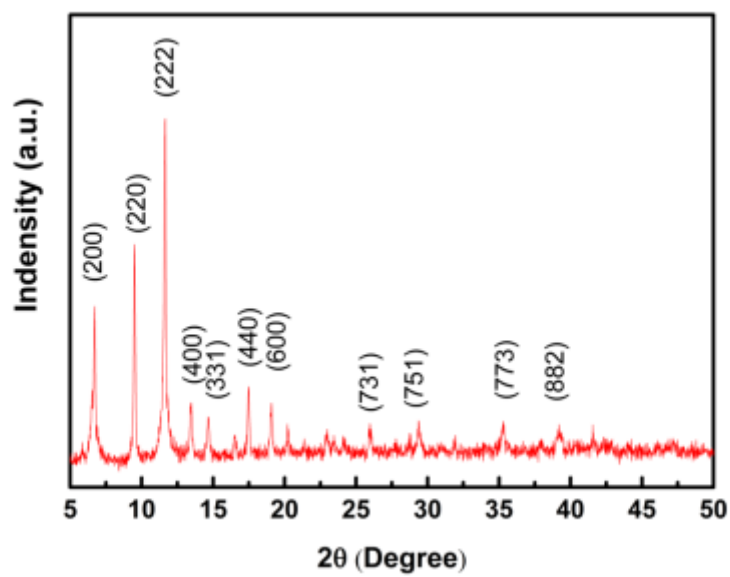
<b>Form:</b>	Metal Organic Framework (MOF)
<b>Appearance:</b>	Octahedron Blue Powder
<b>Particle size (<math>\mu\text{m}</math>):</b>	10-20
<b>BET surface area (<math>\text{m}^2/\text{g}</math>):</b>	$\geq 1172$
<b>Pore Volume (<math>\text{cm}^3/\text{g}</math>):</b>	0.57
<b>Pore Size (nm):</b>	0.6



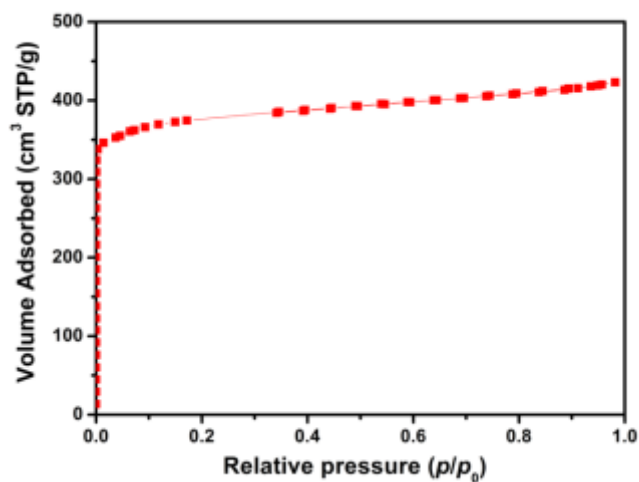
Typical SEM Image of ACS Material Cu-BTC MOF (HKUST-1)



Typical SEM Image of ACS Material Cu-BTC MOF (HKUST-1)



XRD Analysis of ACS Material Cu-BTC MOF (HKUST-1)



N<sub>2</sub> Adsorption Isotherms Analysis of ACS Material Cu-BTC MOF (HKUST-1)

### 3. Application Fields

- 1) Selective gas adsorption
- 2) Catalysts
- 3) Gas adsorption separation and storage
- 4) Optical, electrical and magnetic materials

**Disclaimer:** ACS Material, LLC believes that the information in this Technical Data Sheet is accurate and represents the best and most current information available to us. ACS Material makes no representations or warranties either express or implied, regarding the suitability of the material for any purpose or the accuracy of the information contained within this document. Accordingly, ACS Material will not be responsible for damages resulting from use of or reliance upon this information.