



Technical Data Sheet

ACS Material Monolayer Molybdenum Disulfide (Powder and Dispersion)

Table of Contents

[1 – Preparation Method](#)

[2 – Physical and Chemical Properties](#)

[3 – Application Fields](#)

Contact Information:

Manufacturer: ACS Material, LLC.

Address: 959 E Walnut Street, Suite 100, Pasadena, CA 91106

Phone: (866)-227-0656

Fax: (781)-518-0284

E-Mail: contact@acsmaterial.com

Revision: 013123

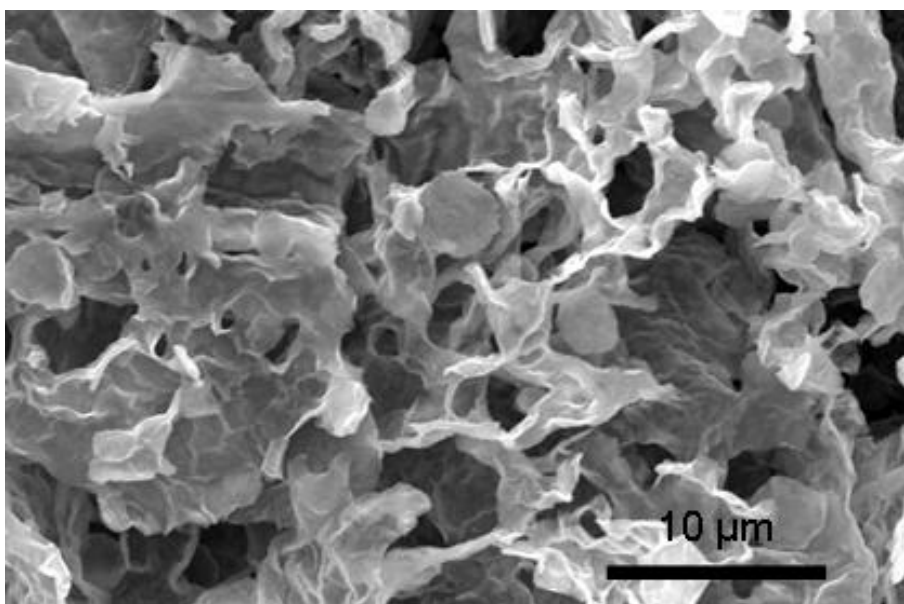
1. Preparation Method

Lithium-based Intercalation Method

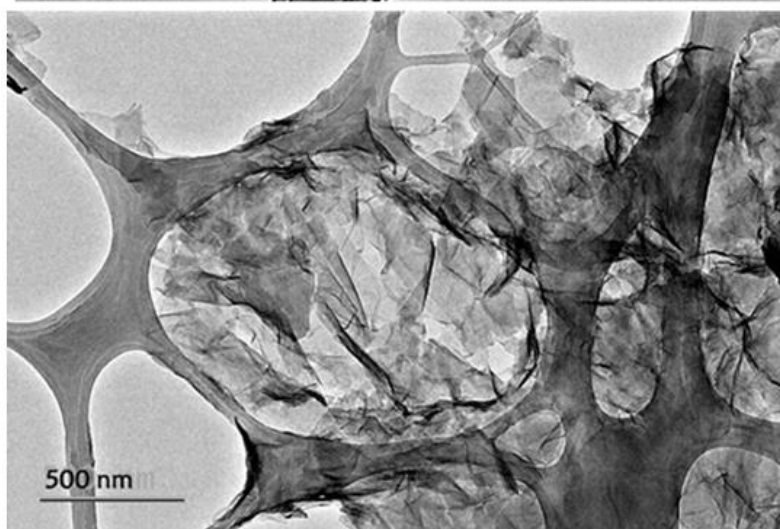
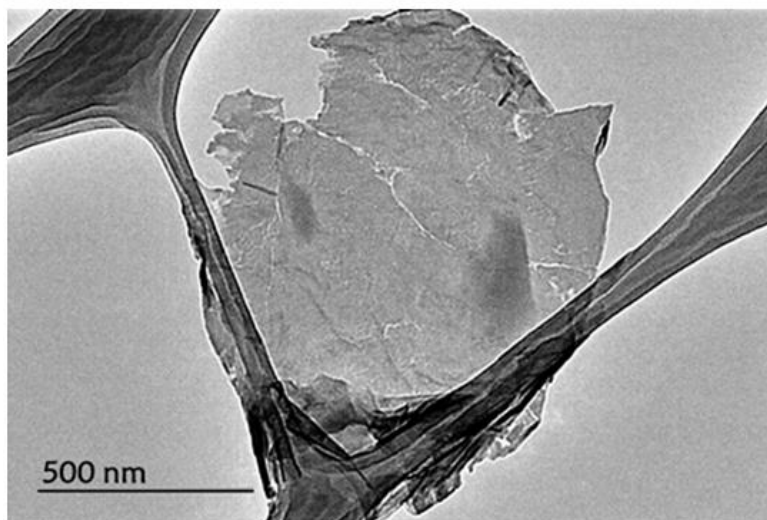
2. Characterizations

Composition: Monolayer Molybdenum Disulfide
Appearance: Black Powder or Dispersion
Diameter: 0.2-5 μm , mainly concentrate in 1 μm -3 μm
Thickness: \sim 1 nm
Monolayer ratio: \geq 90 wt%

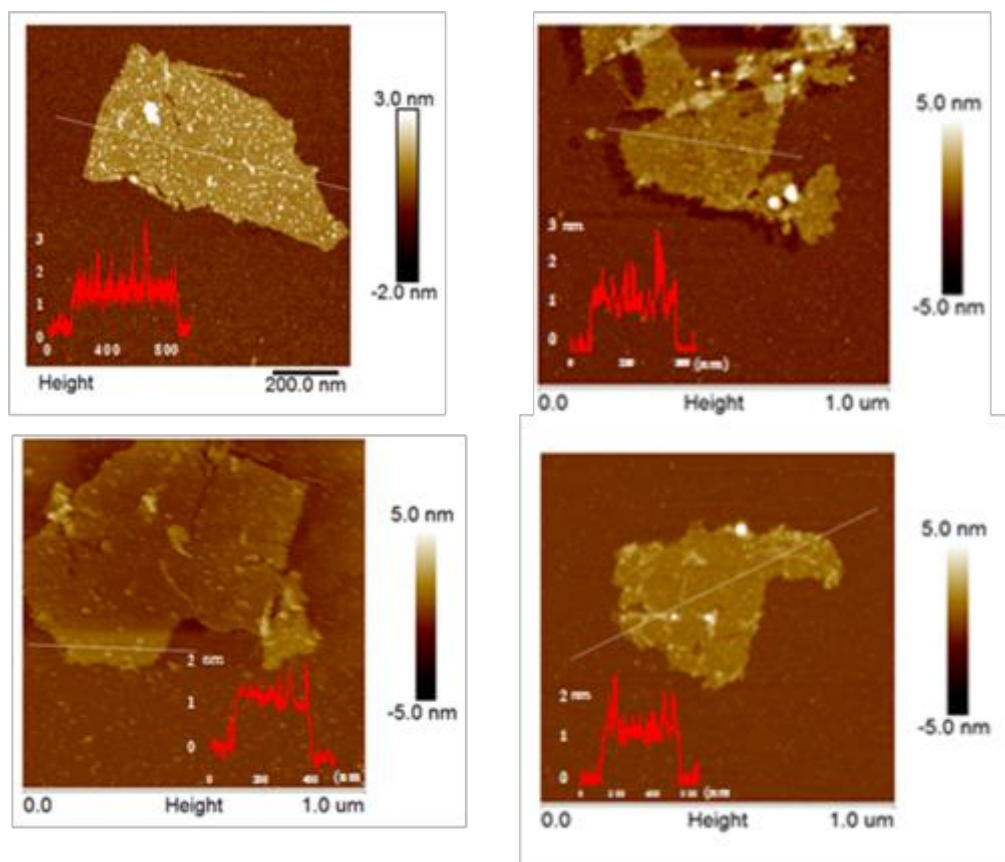
NOTE: This product has a 3 month shelf life unopened and 1 month shelf life after opened. Please use it as soon as possible for best performance.



SEM Image (1) of ACS Material Monolayer Molybdenum Disulfide



TEM Image (2) of ACS Material Monolayer Molybdenum Disulfide



AFM Image (3) of ACS Material Monolayer Molybdenum Disulfide

3. Application Fields

Secondary batteries, field-effect transistors, sensors, organic light-emitting diodes, memory.

Monolayer Molybdenum disulfide will be supplied as powder or dispersion, and it has good solubility in water and ethanol. The dispersion concentration of Monolayer Molybdenum disulfide with small diameter in water will be adjustable in 0.1mg- 5 mg/ml. If you have any questions, please contact us, and we will try our best to provide the solutions for you.

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.