Graphene Supermarket 二硫化钼分散液

中文名称： Graphene Supermarket 二硫化钼分散液

英文名称： Molybdenum Disulfide dispersion

货　号： ML1167

CAS 号： 1317-33-5

包　装： 100mL

参　数： **1-8 层片径 100-400nm 18mg/L**

保质期： 6 月常温干燥避光

性　质

Lateral Size: 100-400 nm

Thickness: 1-8 monolayers

Purity in dry phase: >99%

Solution Concentration: 18 mg/L

Solution is stable under ambient conditions

应　用

Transistors

Flexible Displays

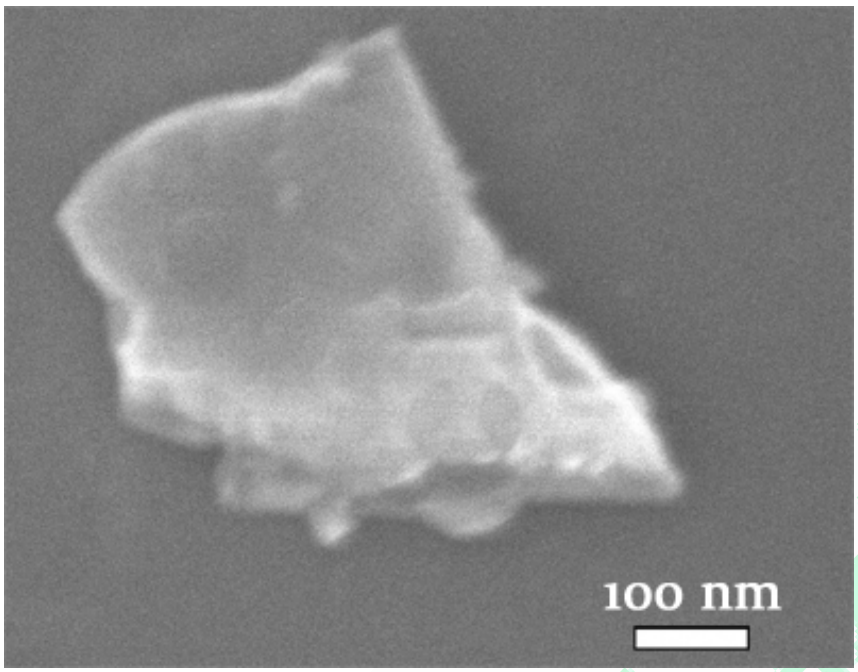
Optics

MoS2 Research

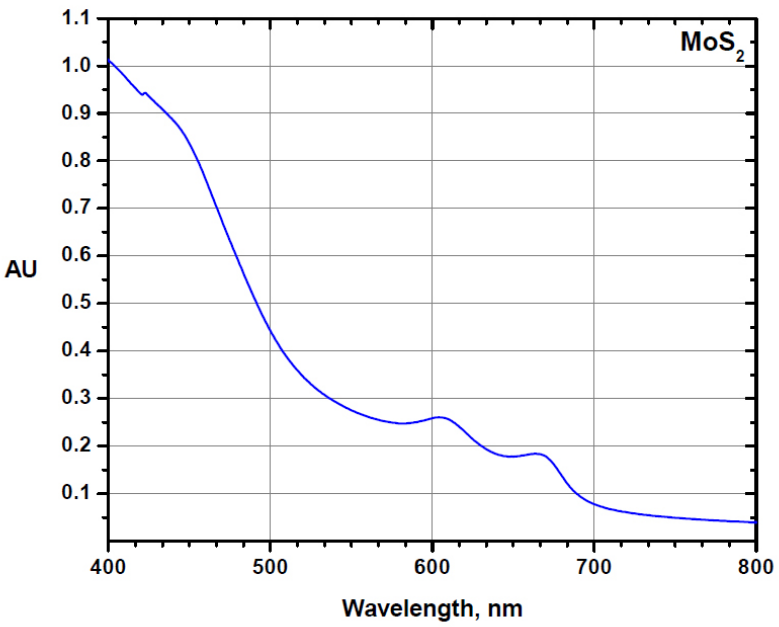
Inks

Thin Semiconducting Films

SEM image of an Individual flake



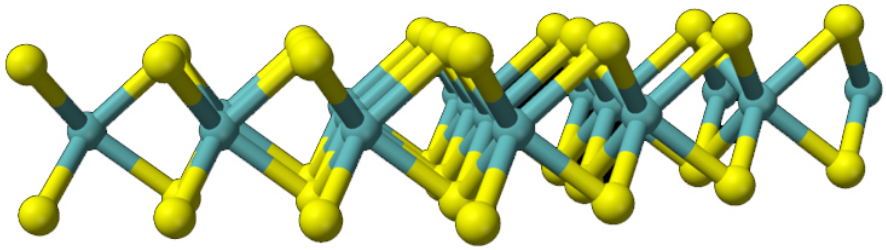
UV-Visible Absorption Spectrum



Each Mo(IV) center of MoS2 is occupying a trigonal prismatic coordination sphere, which is

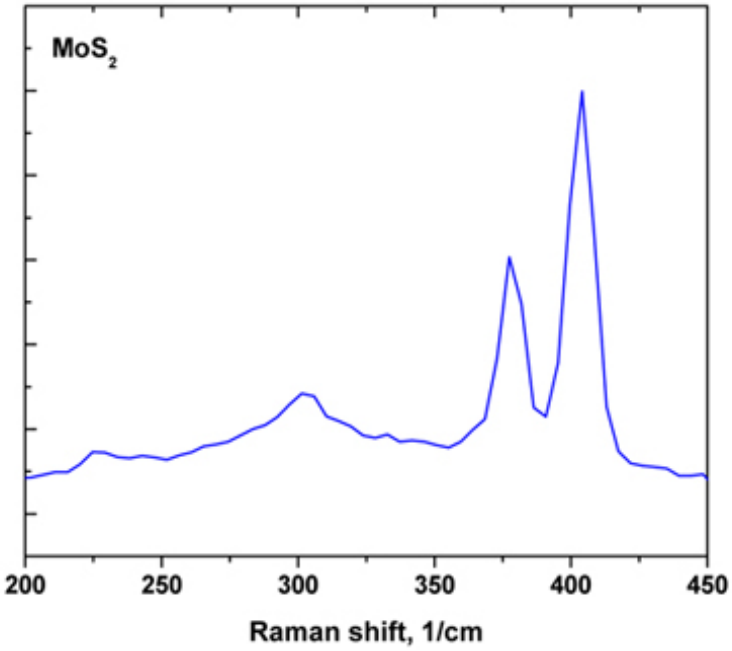
bound to six sulfide ligands. The sulfur centre is connected to three Molybdenum centres, which are pyramidal. The trigonal prisms are layered, sandwiching molybdenum atoms between layers of sulfur atoms.

Depiction of MoS2 Crystal Structure1

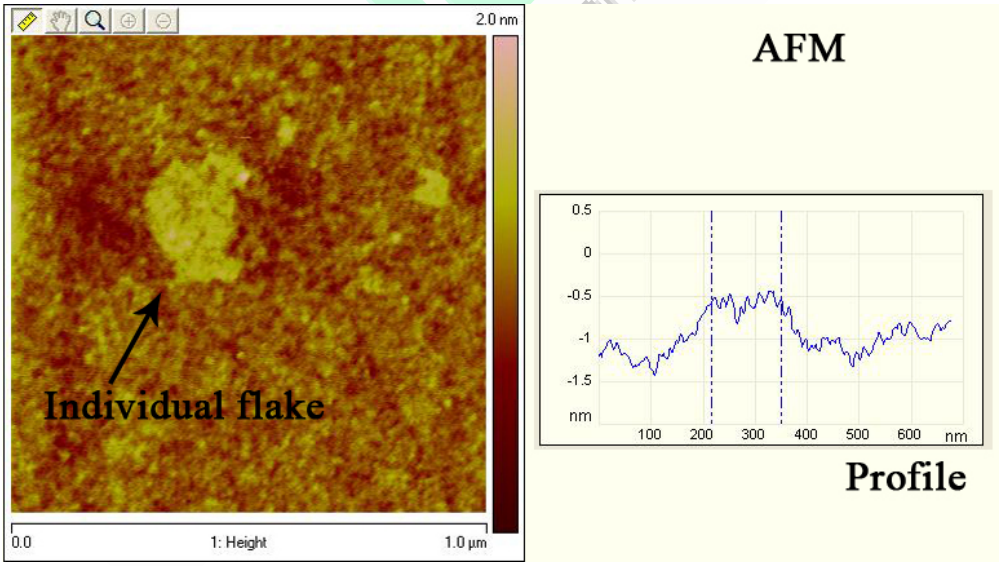


MoS2 in its monolayer form has recently been under particular recognition for its intriguing electrical and optical properties. Bulk MoS2 is generally an n-type semiconductor with an indirect bandgap (~1.3 eV) and a carrier mobility in the range of 50-200 cm2 V-1s-1 at room temperature. On the other hand, monolayer MoS2 has a direct bandgap of ~1.8 eV, and can be useful in low-power switching devices.

MoS2 Raman Spectrum



AFM Image of an MoS2 Flake on SiO2



Preparation Method: Solution-Based Exfoliation

This solution can be easily deposited onto a substrate or surface of your choice to form a thin film coating.

SEM Image of an MoS2 Thin Film on SiO2