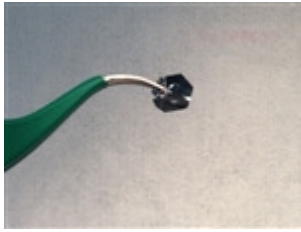
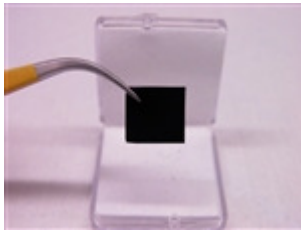


# MoSe<sub>2</sub>



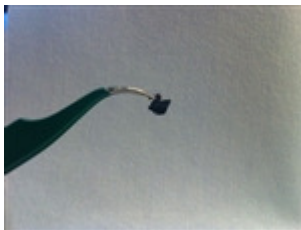
Single Crystal Molybdenum Diselenide (MoSe<sub>2</sub>)

Single crystal molybdenum diselenide (2H-MoSe<sub>2</sub>) comes in bulk. The sample comes with the data which includes Raman, photoluminescence, and 100x optical images.



Monolayer MoSe<sub>2</sub>

Monolayer molybdenum diselenide (1H-MoSe<sub>2</sub>) flakes have been exfoliated from molybdenum diselenide onto 90nm thermal oxide. Each flake has been tested with Raman and PL measurements. Exfoliated monolayers are easy to locate and each sample generally contains more than one monolayer flake



n-type Molybdenum diselenide (MoSe<sub>2</sub>)

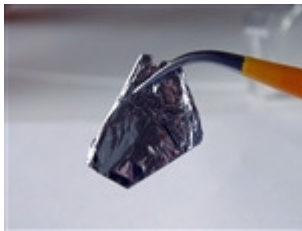
large n-type MoSe<sub>2</sub> crystals by 2D semiconductors Inc. n-type MoSe<sub>2</sub> monolayer's valleytronics and optical properties remain unknown to date. High quality single crystal n-type MoSe<sub>2</sub> is ideal for monolayer production. Ideal for solving ohmic contact issues for high performance FET, sensor, detector, and solar cell devices.



p-type Molybdenum diselenide (MoSe<sub>2</sub>)

large p-type MoSe<sub>2</sub> crystals by 2D semiconductors Inc. p-type MoSe<sub>2</sub> monolayer's valleytronics and optical properties remain unknown to date. High quality single crystal n-type MoSe<sub>2</sub> is ideal for monolayer production. Ideal for solving ohmic contact issues for high performance FET, sensor, detector, and solar cell devices.

# MoS<sub>2</sub>



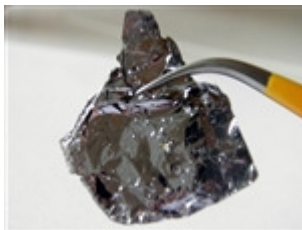
Single Crystal Molybdenum Disulfide (MoS<sub>2</sub>) - Small 10x10mm

Single crystal molybdenum disulfide (2H-MoS<sub>2</sub>) at least 10x10mm sample.



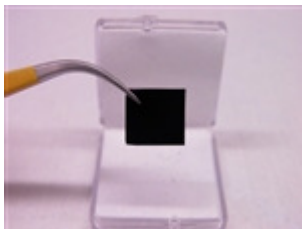
Single Crystal Molybdenum Disulfide (MoS<sub>2</sub>) - Medium 15x10mm

Single crystal molybdenum disulfide (2H-MoS<sub>2</sub>) at least 15x10mm sample.



Single Crystal Molybdenum Disulfide (MoS<sub>2</sub>) - Large 15x20mm

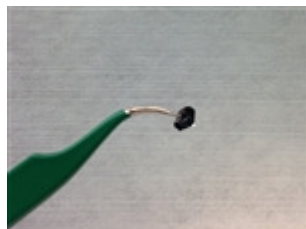
Single crystal molybdenum disulfide (2H-MoS<sub>2</sub>) at least 15x20mm sample.



Monolayer MoS<sub>2</sub>

Monolayer molybdenum disulfide (1H-MoS<sub>2</sub>) flakes have been exfoliated from molybdenum disulfide (2H-MoS<sub>2</sub>) onto 90nm thermal oxide. Each flake has been tested with Raman and PL measurements. Exfoliated monolayers are easy to locate and each sample generally contains more than one monolayer flake.

# WS<sub>2</sub>

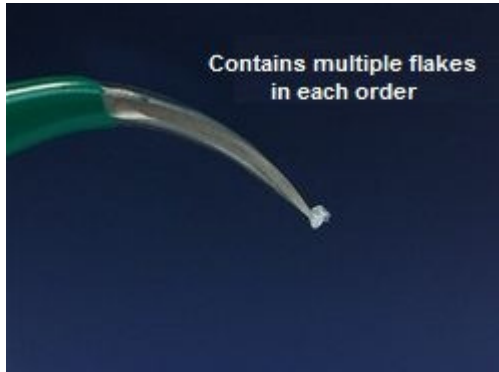


Single Crystal Tungsten Disulfide (WS<sub>2</sub>) [Synthetic]



Monolayer WS<sub>2</sub>

# h-BN



## Description

Hexagonal boron nitride (h-BN) single crystals are ideal as a substrate for 2D materials. h-BN crystals are highly crystalline display strong Raman peak at 1566 cm<sup>-1</sup> with FWHM less than 5cm<sup>-1</sup>. It displays 5.2 eV band gap and is considered wide-band gap semiconductor / insulator.

Chemically inert, atomically flat.

Applications:

- Electronics
- Sensors - detectors
- STM – AFM applications
- Ultra-low friction studies (tribology)
- Materials science and semiconductor research

## V1 Grade 2D Material Substrate

Cheap & affordable replacement to h-BN. An ideal substrate – template for two-dimensional (2D) materials to eliminate ripple, surface roughness, and doping (charge transfer) effects. It has been develop at our facilities in the last 6 months. Click 'more info' to access more detailed information.



### Description

An ideal substrate – template for two-dimensional (2D) materials to eliminate ripple, surface roughness, and doping (charge transfer) effects. It has been developed at our facilities in the last 6 months. Currently, highest quality in the commercial market rated at V1 and higher grade. It is ready for exfoliation onto various substrates.

It has a highly-perfect basal cleavage yielding remarkably-thin laminæ (sheets) which are often highly elastic and atomically flat surfaces. It can be isolated to monolayers similar to our other 2D products. This product is an ideal material for 2D heterostructure studies and yielding atomically flat graphene, MoS<sub>2</sub>, and other transition metal dichalcogenides. Owing to its surface flatness, transferred 2D materials are surprisingly flat.

Perfect product to compliment on your 2D materials research.

Possible applications:

- Substrates to 2D materials
- 2D heterostructure studies
- STM – AFM applications
- Molecular detection – binding
- Ultra-low friction studies
- Materials science and semiconductor research

## All 2D Semiconductors materials

Molybdenum Disulfide (MoS<sub>2</sub>)

Molybdenum Diselenide (MoSe<sub>2</sub>)

Molybdenum ditelluride (MoTe<sub>2</sub>)

Tungsten Disulfide (WS<sub>2</sub>)

Tungsten Diselenide (WSe<sub>2</sub>)

Molybdenum-Tungsten disulfide (MoWS<sub>2</sub>)

Molybdenum tungsten diselenide (MoWSe<sub>2</sub>)

Rhenium disulfide (ReS<sub>2</sub>)

Rhenium Diselenide (ReSe<sub>2</sub>)

Tin diselenide (SnSe<sub>2</sub>)

**Tin ditelluride (SnTe<sub>2</sub>)**

Tantalum disulfide (TaS<sub>2</sub>)

Tantalum diselenide (TaSe<sub>2</sub>)

Lead Tin Disulfide (PbSnS<sub>2</sub>)

Gallium Sulfide (GaS)

Gallium Selenide (GaSe)

Gallium Telluride (GaTe)

Copper Sulfide (CuS)

Germanium Selenide (GeSe)

Indium Selenide (In<sub>2</sub>Se<sub>3</sub>)

Graphene oxide (GO)