ITNANO
THE LEADING ADVANCED MATERIALS COMPANY IN INDONESIA

2026
Products Catalog

ITNANO

The Leading Advanced Materials Company in Indonesia

ITNANO (CV. Inovasi Teknologi Nano) is a nationally registered brand (IDM000960929) providing high-performance, laboratory-grade functional materials for global research and industrial applications.

Backed by NRE Lab (est. 2020) Indonesia's first private nanomaterials research startup and the **Titian Research Group**, we bridge the gap between advanced material science and commercial scalability

- **Core Product Portfolio:** High-purity Graphene (and derivatives), 2D Materials (MXene and MoS_2), Metal-Organic Frameworks (MOFs), advanced Metal Oxides ZnO, TiO_2, MnO_2, etc.), and conductive polymers.
- **Target Applications:** Next-generation battery technology, advanced composites, solar-driven interfacial evaporation (SDIE), seawater desalination, and supercapacitors.
- **Commercial Availability:** Designed to empower R&D departments and industries, our standardized materials are readily accessible online via **Tokopedia, TikTok Shop, and Shopee**.

2D

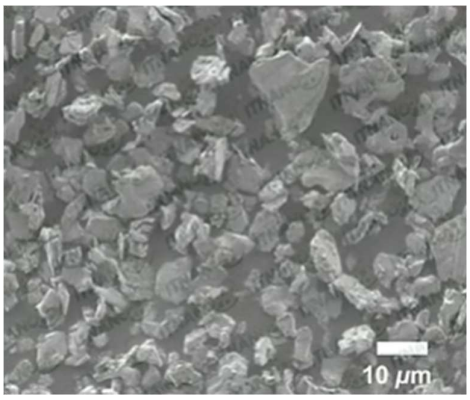
MATERIALS

Ti3AlC2

Titanium Aluminium Carbide Max Phase

CAS No.	Description	Unit Sizes
196506-01-1	Titanium Aluminium Carbide Max Powder	1 g, 2 g, 5 g, and 10 g

SEM Image



Properties	
Purity	> 99 %
Grade	Research Grade
Form	Grey powder
Molecular formula	Ti3AlC2
Molecular weight	195.6 g/mol
BET surface area	12.51 m^2/g
Density	4.2 g/cm^3

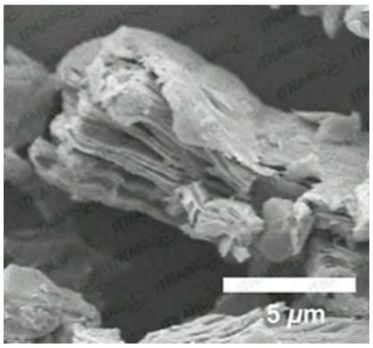
APPLICATIONS:

Lithium/Sodium/Zinc, Battery Applications, Heavy Metal/Azo Dye Adsorption, Electromagnetic Interference (EMI) Shielding, Gas Sensors, Composites, and Supercapacitors.

Ti3C2Tx Titanium Carbide / Mxene Phase

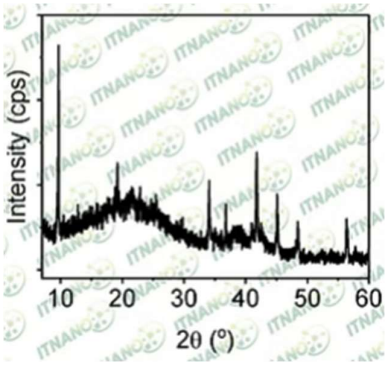
CAS No.	Description	Unit Sizes
12070-08-5	Titanium Carbide Powder	1 g, 2 g, 5 g and 10 g
	Titanium Carbide Dispersion	100 ml

SEM Image



Properties	
Purity	>99 %
Grade	Research Grade
Form	Black Powder
Molecular Formula	Ti3C2Tx
Molecular Weight	195.6 g/mol
Sem (Layer Thickness)	± 5 nm
XRD	2 θ = 6.5°
Electrochemical Capacitance	286.60 F/g @ 1 A/g
UV-VIS (Band Gap)	2.10 eV
Molecular Formula	Ti3C2Tx

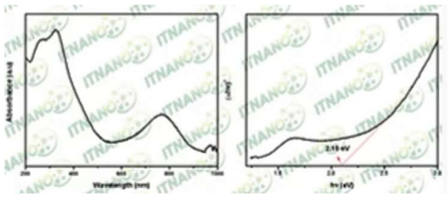
XRD Analysis

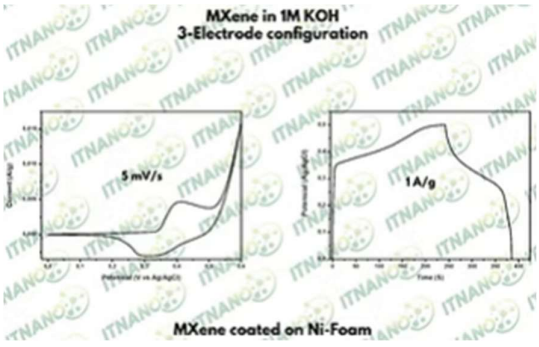


APPLICATIONS:

Coating Additives, Composites Materials, Ferrofluid, Biosensor, Photocatalysts, Supercapacitor, Battery, Etc

UV-VIS Analysis





h-BN Boron Nitride Hexagonal

CAS No.	Description	Unit Sizes
10043-11-5	Boron Nitride Hexagonal	5g, 10g, 50g

Properties	
Boron Nitride (BN)	≥ 99%
Free Boron Oxide	≤ 0.3%
Fe (Iron)	≤ 0.005%
Ca (Calcium)	≤ 0.005%
Mg (Magnesium)	≤ 0.005%
Al (Aluminium)	≤ 0.006%
Average Particle Size	1 µm

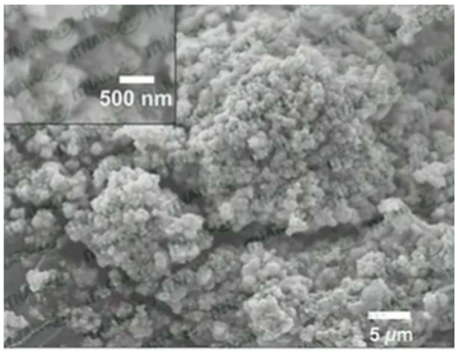
APPLICATIONS:

Thermal Filler for Polymers, an Ultra-Thin Dielectric Material, and as a Protective Coating against Corrosion and Oxidation.

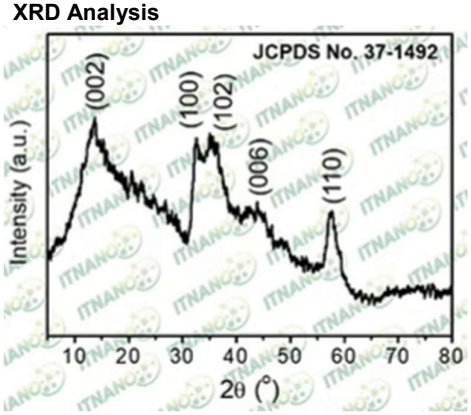
MoS2 Molybdenum Disulfide Nanoflowers

CAS No.	Description	Unit Sizes
1317-33-5	Molybdenum Disulfide Nanoflowers Powder	1 g, 2 g, 5 g, and 10 g

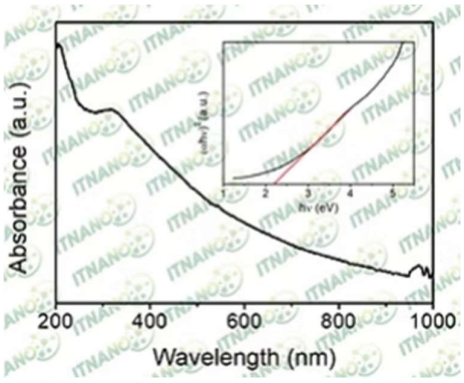
SEM Image



XRD Analysis



UV-VIS Analysis



Properties	
Purity	99 %
Grade	Research Grade
Form	Black Powder
Molecular formula	MoS_2
Molecular weight	160.07 g/mol
XRD (Structure))	Hexagonal 2H-MoS2, Interlayer 0.64 nm
SEM (Particle Size)	~ 490 nm
UV-VIS (Bandgap)	2.19 eV
Electrochemical Capacitance	581 F/g @ 1 A/g

APPLICATIONS:

Powder can be used as Composite Material, Photocatalyst, Hydrogen Production, Sensor, Electromagnetic Shielding, Solar Cells, Supercapacitor, and Battery.