



**MnO<sub>2</sub> Nanosheet, 50 nm**  
**PRODUCT DATA SHEET**

**MnO<sub>2</sub> Nanosheet, 50 nm**

**Cat No: ABMN-50**

**Description**

MnO<sub>2</sub> nanosheets have nanoscale, which makes them have a large specific surface area and high surface activity, which is conducive to improving their reaction performance, and show good biocompatibility, catalytic performance and oxidation. Specifically, because of its good water solubility and nanoscale, MnO<sub>2</sub> nanosheets usually have good biocompatibility and can be compatible with tissues and cells in living organisms. Besides, MnO<sub>2</sub> nanosheets exhibit good catalytic performance in some catalytic reactions, such as oxygen reduction reaction, organic degradation and electrochemical sensing. Its high surface area and abundant surface active sites help to improve catalytic efficiency. In addition, MnO<sub>2</sub> is an oxidant with good activity in some oxidation reactions. The nano scale and high surface activity of water soluble MnO<sub>2</sub> nanosheets make their oxidation properties more prominent.

MnO<sub>2</sub> nanosheets have antioxidant activity and can remove free radicals. It has the catalytic effect of simulating enzyme activity, such as superoxide dismutase (SOD), catalase and so on. In addition, MnO<sub>2</sub> nanosheets are also widely used in many fields such as electrochemical energy storage, catalysis and water treatment.

Abvigen can provide high quality MnO<sub>2</sub> nanosheets. The product has high repeatability between batches, which can meet the needs of different personalized materials such as research and development, testing and production of various customers.

For custom sizes, formulations or bulk quantities please contact our customer service department.

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### Characteristics

Type: MnO<sub>2</sub> Nanosheet

Composition: MnO<sub>2</sub> Nanosheet, purified water

Surface: -COOH

Particle size: 50 nm

Thickness: 0.8 ~ 1.5 nm

Concentration: 1 mg/mL

Size: 2.5 mL

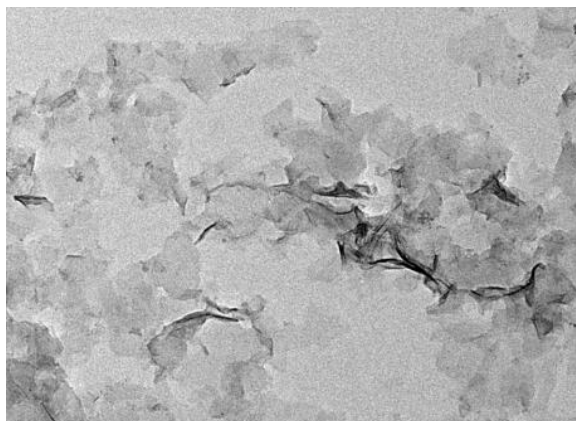
Colour: Black liquid

Storage condition: Sealed storage at 4°C

Shelf life: 6 months

Package: Glass bottle

### TEM of MnO<sub>2</sub> Nanosheet



### Enzyme Activity Test



The left image shows that MnO<sub>2</sub> nanosheets cause TMB to develop color; The right figure shows that MnO<sub>2</sub> nanosheets cause H<sub>2</sub>O<sub>2</sub> to release oxygen rapidly.



### **Advantages**

Large specific surface area  
High surface activity  
Good biocompatibility  
Good catalytic performance  
Good oxidation properties  
Antioxidant activity

### **Applications**

Electrochemical energy storage  
Catalyze  
Water treatment  
Scavenging free radicals

### **Storage**

Sealed, stored in a refrigerator at 4°C for 6 months.

### **Ordering Information**

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