

Graphene-Encapsulated SnO₂

Catlog Number: BMAM-0052

• Description

Tin oxide nanoparticles wrapped in graphene sheets to inhibit particle aggregation and maintain electronic contact throughout the conversion reaction.

• Basic Information

Chemical Formula: SnO₂@G

Appearance: Black Powder

D50 Particle Size: 5 - 15 μm

Tap Density: ≥ 0.8 g/cm³

BET Surface Area: 20 - 50 m²/g

1st Discharge Capacity: ≥ 650 mAh/g

1st Coulombic Efficiency: ≥ 80%

Carbon Content: 15 - 25 wt%

Active Metal Content: Sn: ~55%

Ash Content: ≤ 0.20%

Moisture Content: ≤ 0.10%

pH Value: 6.0 - 7.5

Iron (Fe) Impurity: ≤ 60 ppm

True Density: 3.5 - 4.0 g/cm³

Compaction Density: ≥ 1.5 g/cm³

Crystal Structure: Composite

Surface Coating: Graphene

Magnetic Impurities: ≤ 60 ppb

Electronic Conductivity: ~10² S/cm

Voltage Range: 0.01 - 2.5 V

Purity: ≥ 99.0%

Primary Application: High-cycle alloy LIB

Thermal Stability: Moderate

Cycle Life: ≥ 700 cycles

 For Research or Industrial Raw Materials, Not For Personal Medical Use!