Eata Battery

Silicon Nanowires (SiNWs)

Catlog Number: BMAM-0028

Description

High-aspect-ratio silicon nanowires that alleviate mechanical strain during lithiation, providing a path for electrons and high gravimetric capacity.

Basic Information

Chemical Formula: Si

Appearance: Dark Brown Powder

D50 Particle Size: Length: 5-20 μm

Tap Density: ≥ 0.2 g/cm³

BET Surface Area: 50 - 100 m²/g

1st Discharge Capacity: ≥ 3200 mAh/g

1st Coulombic Efficiency: ≥ 80%

Carbon Content: N/A

Active Metal Content: Si: ≥ 99.9%

Ash Content: ≤ 0.05%

Moisture Content: ≤ 0.10%

pH Value: 6.0 - 7.0

Iron (Fe) Impurity: ≤ 15 ppm

True Density: 2.3 - 2.4 g/cm³

Compaction Density: N/A

Crystal Structure: Crystalline

Surface Coating: Oxide layer

Magnetic Impurities: ≤ 20 ppb

Electronic Conductivity: ~10^{-2} S/cm

Voltage Range: 0.01 - 1.5 V

Purity: ≥ 99.9%

Primary Application: High-capacity research

Thermal Stability: Moderate

Cycle Life: ≥ 500 cycles

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

Eata Battery delivers the world's battery makers a single, reliable source for every high-performance raw material—cathode to collector, catalyst to membrane—so you can design, scale and ship next-generation batteries faster.

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