

## Cation-Disordered Rock-Salt (DRX)

Catlog Number: BMCM-0060

### • Description

DRX cathode material utilizing oxygen redox mechanisms to achieve exceptionally high capacity, representing the limit of experimental oxide research.

### • Basic Information

Chemical Formula:  $\text{Li}_{1.3}\text{Nb}_{0.3}\text{Mn}_{0.4}\text{O}_2$

Appearance: Black Powder

Molecular Weight:  $\sim 105$  g/mol

D50 Particle Size: 5 - 12  $\mu\text{m}$

Tap Density:  $\geq 1.4$  g/cm<sup>3</sup>

BET Surface Area: 1.0 - 5.0 m<sup>2</sup>/g

1st Discharge Capacity:  $\geq 285$  mAh/g

1st Coulombic Efficiency:  $\geq 80\%$

pH Value: 10.0 - 12.0

Moisture Content:  $\leq 0.15\%$

Magnetic Impurities:  $\leq 100$  ppb

Li/Na Content: 9.0 - 10.0%

Ni Content: N/A

Mn Content: 20 - 25%

Co Content: N/A

Transition Metals: Mn-Nb Oxide

Crystal Structure: Disordered Cubic

Compaction Density:  $\geq 2.4$  g/cm<sup>3</sup>

Storage Conditions: Vacuum Sealed

Conductivity:  $\sim 10^{-6}$  S/cm

Voltage Range: 1.5 - 4.8 V

Purity:  $\geq 99.0\%$

Primary Application: Ultra-high energy LIB

Thermal Stability: Moderate

Cycle Life:  $> 200$  cycles

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