CBP-57

(Single-crystal NMC811 powder)

Active Material Characteristics

NEI Product ID: **CBP-57**

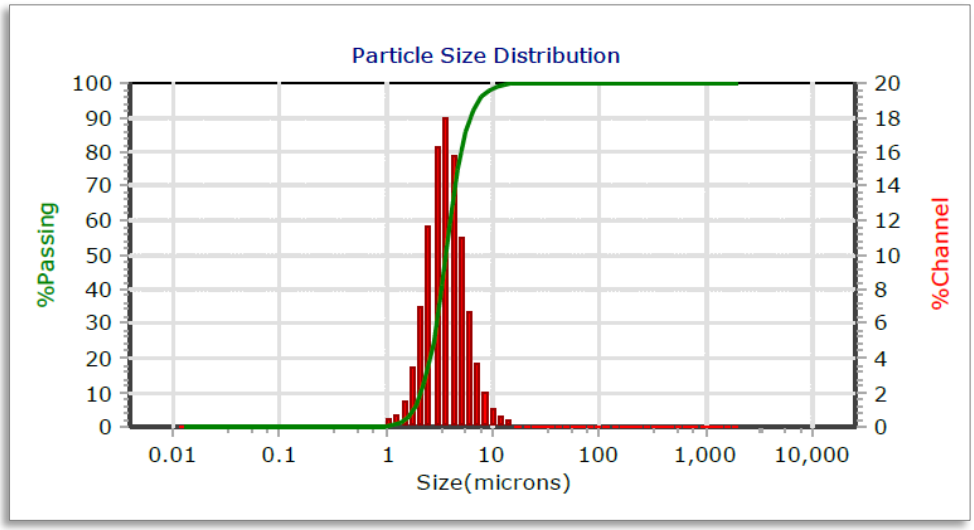
Chemical Name: Lithium Nickel Manganese Cobalt Oxide, NMC811

Chemical Formula: $LiNi_{0.8}Mn_{0.1}Co_{0.1}O_2$ (molar ratio of Ni:Mn:Co is approximately 8:1:1)

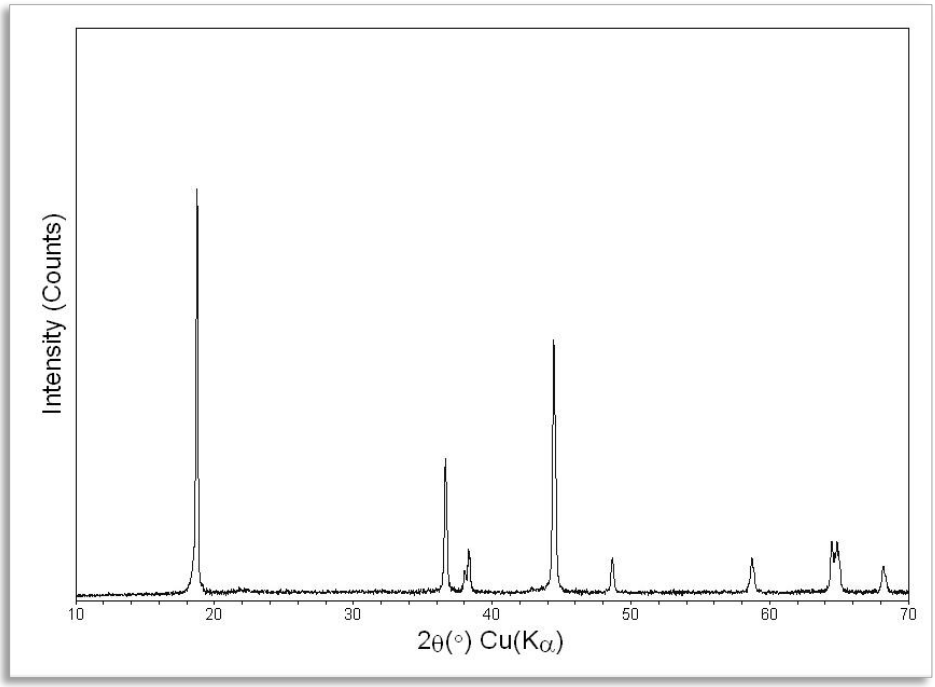
Structure / Material Class: Single crystal cathode material

Average Particle Size (D_{50}): ~3.5 µm

Specific Surface Area: ~0.88 m^2/g



Percentiles	
%Tile	Size(um)
10.00	2.164
20.00	2.580
30.00	2.918
40.00	3.24
50.00	3.57
60.00	3.93
70.00	4.37
80.00	4.98
90.00	6.10
95.00	7.36



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Electrochemical Characteristics

Typical First Charge Capacity:	215 - 220 mAh/g	**Nominal voltage vs. Li/Li$^+$:**	3.75 V
Typical First Discharge Capacity:	195 - 200 mAh/g	**Voltage Range:**	2.7 – 4.3 V
Minimum First Discharge Capacity:	≥ 190 mAh/g (@ 0.1C)		

Available Quantities

CBP-57 is available for purchase in quantities of 250g, 500g, 1kg, and 5kg.

Precautions for Safe Handling & Storage

Handling: Personal protective equipment should be used at all times. Handle in a dry and well-ventilated area. Avoid moisture. Provide exhaust ventilation at places where dust is formed. Avoid prolonged or repeated breathing of dust. Avoid contact with eyes and skin. Personnel with known allergies to Nickel or Cobalt should exercise extreme caution.

Storage: Keep tightly sealed container stored in a cool, dry place, away from heat and moisture.

Refer to SDS for complete safety information of this material. **Note: this product should not be used in any commercial battery.**

DISCLAIMER: *NEI Corporation believes this information accurately describes the product's typical characteristics. NEI disclaims liability for any incidental or consequential damages resulting from use beyond its control. This data is a supplement to the user's own investigations; it is the user's responsibility to independently determine the product's suitability, performance, and safety for their specific application. Nothing herein constitutes a recommendation to infringe upon any patent or intellectual property right.*

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