

Li lithium Ion
BATTERY MATERIAL


Lithium Nickel Manganese Cobalt Oxide

NCM622



NS6130-12-000319

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Lithium Nickel Manganese Cobalt Oxide are mixed oxides of lithium, nickel, manganese and cobalt. They have the general formula $\text{Li}(\text{Ni}_{0.6}\text{Co}_{0.2}\text{Mn}_{0.2})\text{O}_2$. They are used there on the positive pole side, which acts as the cathode during discharge. Lithium-Nickel-Manganese-Cobalt-Oxide $\text{Li}(\text{Ni}_{0.6}\text{Co}_{0.2}\text{Mn}_{0.2})\text{O}_2$, abbreviated as NMC, has become the go-to cathode powder to develop batteries for power tools, e-bikes and other electric power trains. It delivers strong overall performance, excellent specific energy, and the lowest self-heating rate of all mainstream cathode powders, which makes it the preferred option for automotive batteries.

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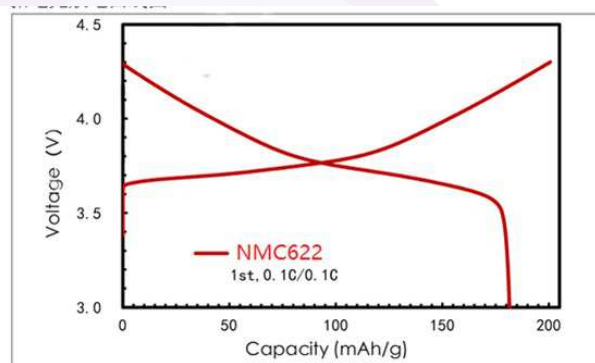


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LITHIUM ION BATTERY MATERIAL

Product	:	Lithium Nickel Manganese Cobalt Oxide
Stock No.	:	NS6130-12-000319
CAS	:	346417-97-8
Purity	:	99.9%
APS	:	≤ 25.0μm (D90)
Molecular Formula	:	Li(Ni _{0.6} Co _{0.2} Mn _{0.2})O ₂
Appearance	:	Black Powder
Ni+Co+Mn	:	58.62%
Lithium	:	7.31%
Fe	:	40ppm
Na	:	45ppm
Cu	:	3ppm
pH	:	≤11.63
Tap Density	:	≥2.52 g/cm ³
Completed Density	:	≥3.45
Moisture	:	0.028%
BET Surface Area	:	0.34 m ² /g

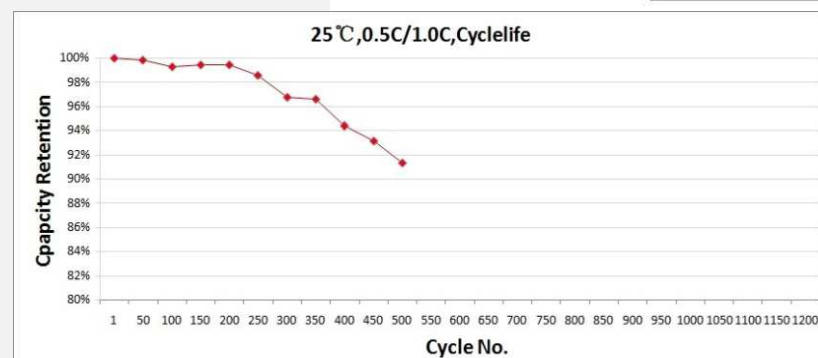
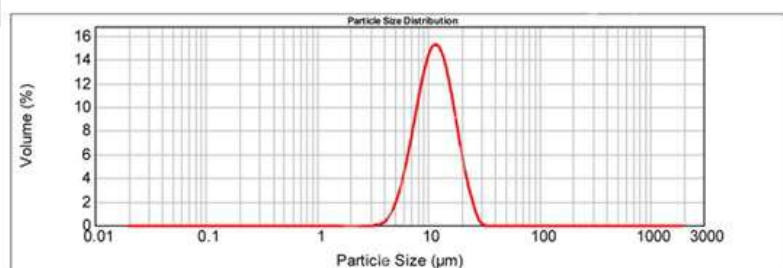


Normal Cycle data graph:

The materials designed capacity is 162~168mAh/g (full cell, 0.5C)

Suggest the recipe as follows:

T61A : SP : PVDF (HSV900) =95.2% : 2.5% : 2.3%



Advantages:

- Specific capacity high
- Cycle performance well
- Increase the energy density combine with other cathode material at the same cost
- cost performance

Land Battery Test result

Spec	Standard	Typical	Test Method
4.3-3.0V, Impingement 0.1C discharge ratio capacity (mAh/g)	≥168	169.5	Land Battery tester
0.1C First discharge efficiency (%)	≥88	88.6	Land Battery tester
0.5C Gram volume (mAh/g)	≥155	158	18650-2.0Ah (4.2-3.0V)
25°C, 0.5C /1.0C, 500 Capacity retention rate (%)	/	91.3	18650-2.0Ah (4.2-3.0V)

Applications:

- Applied to every kinds of energy density digital electronics
- Tel-communication products

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ISO 9001:2015
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