

Li lithium Ion
BATTERY MATERIAL

Lithium Nickel Cobalt Manganese Oxide



NMC532

NS6130-12-001437

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Lithium Nickel Cobalt Manganese Oxide are mixed oxides of lithium, nickel, manganese and cobalt. They have the general formula LiNiMnCoO_2 . They are used there on the positive pole side, which acts as the cathode during discharge. Lithium-Nickel-Manganese-Cobalt-Oxide LiNiMnCoO_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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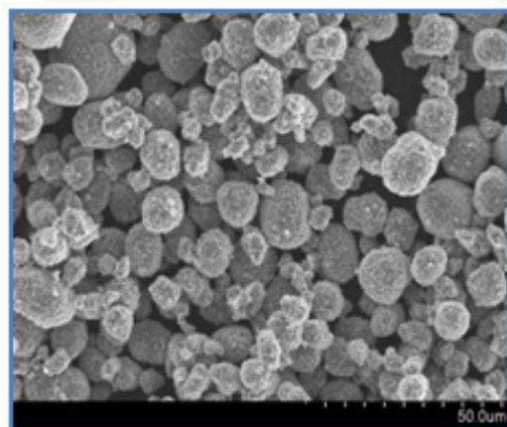
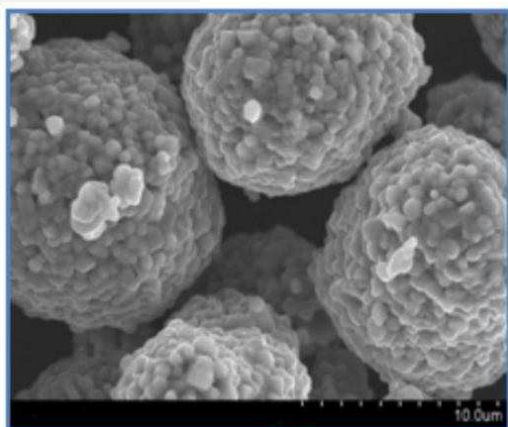
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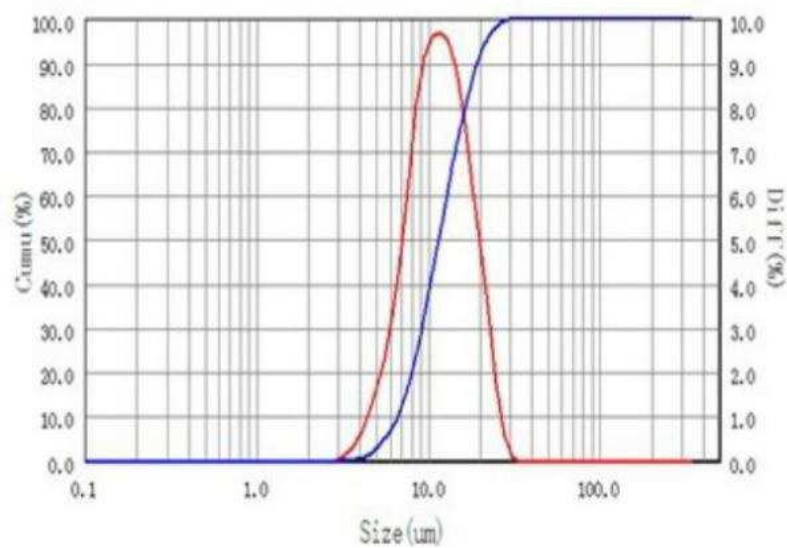
LITHIUM ION BATTERY MATERIAL

Product	:	Lithium Nickel Cobalt Manganese Oxide
Stock No	:	NS6130-12-001437 (NMC532)
Purity	:	99.9%
APS	:	10.8um
Ratio	:	1:1:1
Molecular Formula	:	LiNiMnCoO ₂
Form	:	Powder (Free of Agglomeration Particles)
Color	:	Black
Tap Density	:	2.30±0.2g/cm ³
BET SSA	:	0.31±0.1
pH	:	11.70
Solubility	:	Insoluble in Water

SEM analysis



Particle distribution Graph



NMC532

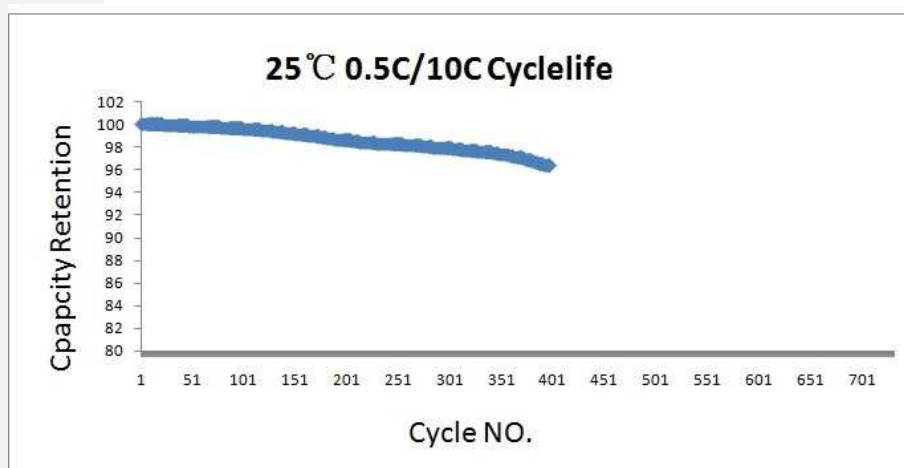
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LITHIUM ION BATTERY MATERIAL

High capacity Li(Ni_{0.6}Co_{0.2}Mn_{0.2})O₂ (NMC532)

Item		Standard	Typical	Test methods
Ni+Co+Mn(%)		≥58.0	58.49	Titration
Li(%)		7.00~7.70	7.42	ICP
pH		≤11.70	11.67	Material:Water=5g:45g
Magnetic foreign body (ppb)		≤100	18	ICP
Granularity (μm)	D10	≥5.0	6.19	Granulometer
	D50	9.5~13.5	10.8	Granulometer
	D90	≤28.0	18.30	Granulometer
Tap density (g/cm ³)		≥2.20	2.56	Tap density tester
Compacted density (g/cm ³)		≥3.0	3.55	Alu-foil Thickness≥16μm
Specific area (m ² /g)		0.15~0.55	0.31	Specific tester
Water (%)		≤0.05	0.025	Gravimetric method
4.3-3.0V, Impingement 0.1C discharge ratio capacity (mAh/g)		≥168	169.1	Land Battery tester
0.1C First discharge efficiency (%)		≥88	88.51	Land Battery tester
0.5C Gram volume (mAh/g)		≥155	81.2	18650-2.0Ah (4.2-3.0V)
25°C, 1C /1.0C, 1000 Capacity retention rate (%)		/	81.2	18650-2.0Ah (4.2-3.0V)

18650 Normal Cycle Data Graph



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CERTIFIED COMPANY



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