

NOVONIX Cathode Materials

NOVONIX is an industry leader in North American Cathode Active Materials (CAM) synthesis technology targeting the rapidly expanding electric vehicle and energy storage sectors via sustainable materials processing.



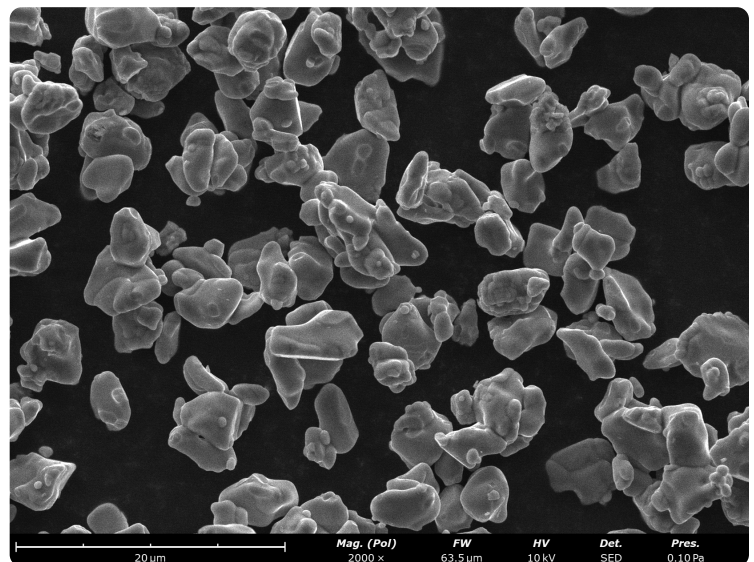
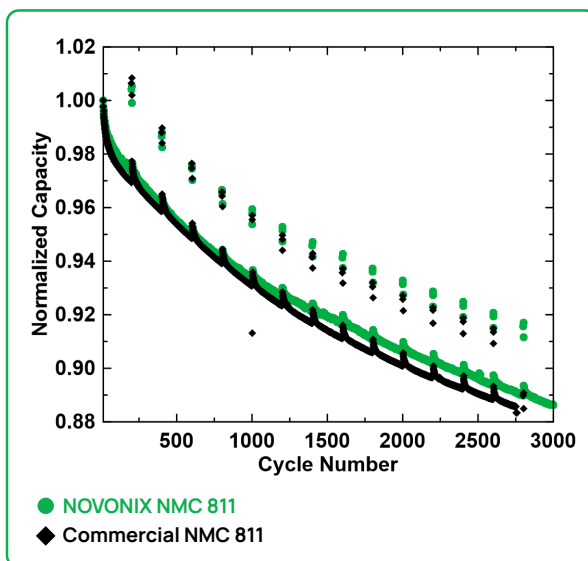
Patented All-Dry, Zero-Waste Technology¹

NOVONIX has commissioned pilot capability to demonstrate the scalability of its patented all-dry, zero-waste cathode synthesis technology for NMC production. The technology has the potential to minimize waste generation (including sodium sulphate) and environmental impact while producing high-performance materials.



Cathode Cycle Performance Meets Industry Performance Standard²

Our pilot line has produced several grades of single-crystal cathode powders using the company's proprietary all-dry, zero-waste cathode synthesis technology that match the performance of leading cathode materials from existing suppliers in full-cell testing.



¹Lituo, Z., Obrovac, M.N. Lithium Transition Metal Oxide and Precursor Particulate Materials and Methods. JP 7504195 B2, 2024; US 12378132 B2, 2025; EP 4021854, 2025.

²Whitepaper on Cathode Materials is available online novonixgroup.com/cathode-materials

NOVONIX All-Dry, Zero-Waste Cathode Synthesis Process

With multiple patent applications filed and issued, the NOVONIX all-dry, zero-waste cathode synthesis process delivers NMC cathode materials that are drop-in ready as a replacement for traditional nickel-based cathode powders.

Current Process

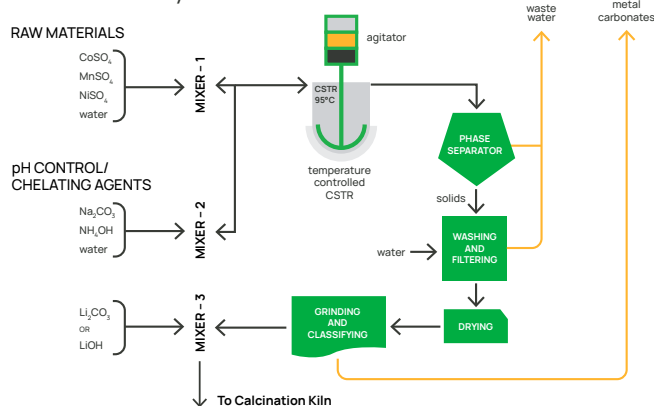
- Complex
- Costly
- High water usage per tonne of cathode powder output
- Potentially hazardous reagents required

NOVONIX Process

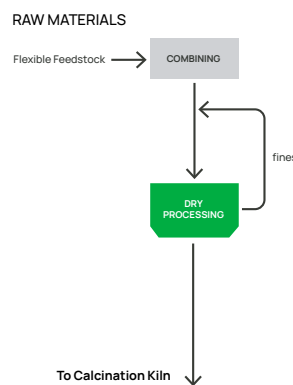
- Flexible input materials
- Higher yields at lower cost
- Elimination of process wastewater and sodium sulphate byproduct generation
- Lower power consumption

A Closer Look at the NOVONIX All-Dry, Zero-Waste Cathode Synthesis Process

Current Precursor Synthesis Process



NOVONIX Process



Calcination to Complete CAM



Partners



Natural Resources
Canada

Ressources naturelles
Canada

Reach Out to Learn More

We provide revolutionary clean energy solutions to the battery industry.
Contact us to learn more about our cathode pilot production.

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