

# Nano One's cathode materials are inventing the zero-emission battery future

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Every once in a while, something that you have been working on, seemingly forever, starts to come together and that momentum starts to snowball. Today we are going to discuss a company that recently announced [Q2 results](#) with several exciting highlights that are the result of many years of hard work and determination. And although this article isn't part of the [critical minerals](#) series, this company is inextricably linked to EV batteries, the processing of critical minerals and has already received funding from the Canadian Federal Government as well as the National Research Council of Canada Industrial Research Assistance Program and is engaged in the Mines-to-Mobility initiative. And if that isn't enough of a teaser for you, their stock price has rallied over 140% since hitting its 52-week low in mid-May. It has been a solid couple of months, to say the least.

The company that has been on a pretty good roll of late is [Nano One Materials Corp.](#) (TSX: NANO), a clean technology company with a patented, scalable and low carbon intensity industrial process for the low-cost production of high-performance lithium-ion battery cathode materials. The technology is applicable to electric vehicle, energy storage, consumer electronic and next generation batteries in the global push for a zero-emission future. Nano One's One-Pot process, its coated nanocrystal materials and its [Metal to Cathode Active Material](#) (M2CAM) technologies addresses fundamental performance needs and supply chain constraints while reducing costs and carbon footprint.

The second quarter news flow began in late May with [the acquisition](#) of 100% of the shares of Johnson Matthey Battery Materials Ltd. located in Candiac, Québec. The acquisition included the team, facilities, equipment, land and other assets, with highlights of the deal being:

- A team with more than 360 years of scale-up and commercial production know-how
- Team and facilities proven in supplying tier 1 cell manufacturers for automotive
- LFP facility and land strategically located near Montréal and operational since 2012
- Facility and equipment that can serve Nano One's process needs with room to expand
- Expedites Nano One business strategy for LFP and other battery materials

The fully funded C\$10.25 million deal is strategically located and has the benefit of access to a North American ecosystem that will serve the broader global community with cost-effective, resilient, and environmentally sustainable cathode materials. If you've been following my [critical minerals series](#) you'll recognize that this is an opportunistic deal that is the right asset in the right location at the right time.

Nano One quickly followed up with another, even more important (in my opinion), corporate announcement less than a week later by signing a [joint development agreement](#) (JDA) for lithium-ion battery materials with industry giant BASF. The JDA will see the companies co-develop a process with reduced by-products for commercial production of next-generation cathode active materials (CAM), based on BASF's HED™-family of advanced CAM and using Nano One's patented One-Pot process and metal direct to CAM (M2CAM®) technologies. The multi-phase agreement includes a detailed commercialization study for pre-pilot, pilot and scaled

up production. BASF, a global leader in chemistry and high-performance lithium-ion battery cathode materials, has recognized Nano One's advanced technology that has the potential to improve the product performance of BASF's high-performance CAM and further simplify the synthesis of battery materials.

And if all the above wasn't validation enough that Nano One has finally made it to the big leagues, less than 2 weeks after the BASF news the company announced a [US\\$10 million equity investment](#) by one of the world's largest mining companies, Rio Tinto. In addition to the investment, Rio Tinto has agreed to enter into a strategic partnership to provide iron and lithium products, all of which will accelerate Nano One's multi-cathode (multi-CAM) commercialization strategy and support cathode active materials (CAM) manufacturing in Canada for a cleaner and more efficient battery supply chain for North American and overseas markets. The collaboration agreement includes a study of Rio Tinto's battery metal products, including iron powders from the Rio Tinto Fer et Titane facility in Sorel-Tracy, Québec, as feedstock for the production of Nano One's cathode materials, which dovetails nicely with the first deal noted above.

Nano One finished Q2 with cash and cash equivalents of C\$48 million, which represents roughly 14% of their C\$343 million market cap. With abundant capital to deploy, plenty of tailwinds for the industry as a whole, and a team with ample experience in financing, capital growth, technology management, chemistry, engineering, materials science, batteries, and intellectual property, it seems the company is really hitting its stride. I dare say, based on the recent news flow, there could be a lot more to come from Nano One.