
Nano One's Newly Patented Technology: Durable Cobalt-free Battery Material

2020-02-11

Nano One Materials Corp., a Canada-based technology company, specializing in the production of a wide range of nanostructured composite materials for batteries, announced that its newly developed technology – relating to lithium nickel manganese oxide cathode materials that are free from cobalt yet have increased durability – has been successfully patented at the Taiwan Intellectual Property Office.

Dr. Stephen Campbell, Chief Technology Officer at [Nano One](#) is pleased to announce the issuance of Taiwanese patent number I672852 relating to lithium nickel manganese oxide (LNMO) cathode material, also known as high voltage spinel (HVS). In addition to the increased durability shown below, Nano One's LNMO also eliminates cobalt from the battery, thereby addressing the ethical and supply chain issues related to artisanal cobalt mining in Africa for use in lithium ion batteries.



Dr. Campbell said “This addition to Nano One's patent portfolio is an important, low cost durability improvement to LNMO. This material operates at high voltage with fast rates of charge and discharge, compared to other cathode materials. Our technology treats the surface of the discrete cathode crystals and it mitigates instabilities common to spinels including LNMO and enables elevated operating temperatures that are typical in electric vehicle batteries.”

This represents the sixteenth patent in Nano One's IP portfolio which extends to the U.S., [Canada](#), [China](#), [Japan](#), [Korea](#) and [Taiwan](#).

Read the [original article](#) on Nano One Materials.