

Nano Science, Technology and Industry Scoreboard

U of Calgary-Spin off Company Develops Nanotechnology-based Lithium Extraction Solution

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Litus announced the launching of LiNC, a patent-pending lithium extraction solution initially developed at the University of Calgary in Alberta, Canada.

In a press release, the company said that the nanotechnology composite material within LiNC has very strong ionic affinity and lithium selectivity in the presence of high concentrations of competing ions such as sodium, magnesium and calcium.

"While materials capable of such high affinity have generally been shown to be quite fragile, Litus has developed materials that are able to uniquely combine high efficiency with the durability required for effective industrial application and scalability," the media brief states.

"The high performance and selectivity of LiNC result in a solution that it is able to accomplish more in a single step than competing technologies can achieve with several energy and chemically intensive steps."

According to Litus, its technology is able to efficiently and sustainably extract more lithium from brine sources than similar methods.

"Demand for lithium is growing at a rate that current production methods and technologies simply can't meet. Through the application of LiNC, mining companies have an opportunity to not only increase the reserves and production of their existing assets but should be able to open up new sources of lithium that have been either uneconomic or too environmentally sensitive to be practical with previous extraction technology," the firm's statement reads.

