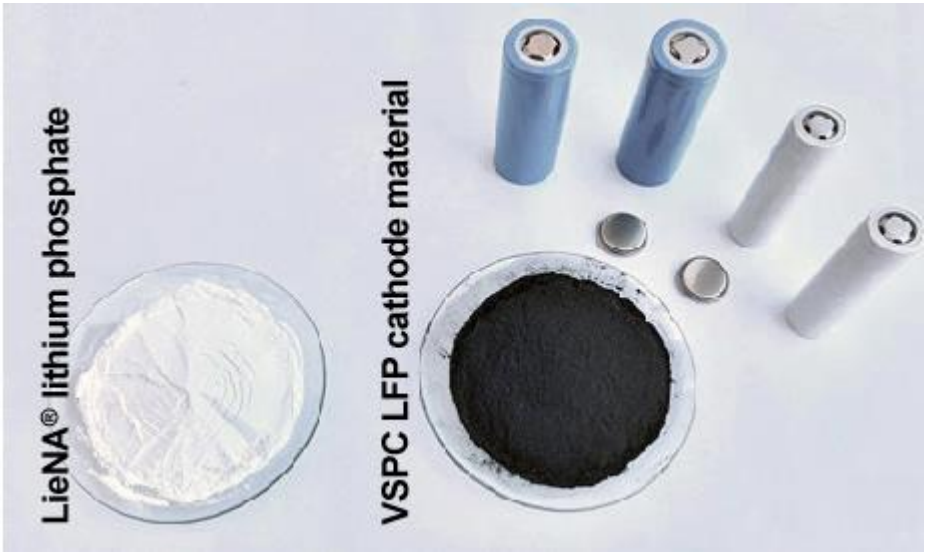
From waste to high-performance lithium-ion batteries – the circular economy in action

On 17August 2020, Lithium Australia announced it had successfully manufactured high-capacity lithium ferro phosphate ('LFP') battery cells from various types of waste material, including low-grade spodumene and spent lithium-ion batteries ('LIBs').



The (patents pending) processes that were used recovered the lithium from the waste materials as lithium phosphate ('LP'). The recovery of lithium from spent batteries harnessed cutting-edge technology designed for the recycling industry, while, for the lithium chemical industry, the technology provides a direct path to the production of LFP batteries, right now the fastest growing sector of the industry.

Lithium Australia's technology eliminates the requirement for lithium hydroxide or carbonate in the battery manufacturing process, thereby reducing the number of steps required to produce a finished product. This results in a lower manufacturing cost and, ultimately, lower costs for the consumer.

Lithium Australia subsidiaries Envirostream Australia (Australia's only LIB recycler) and VSPC (Lithium Australia's cathode powder producer) have made closing the loop on the circular battery economy possible.

Recovery of LP from waste spodumene can make the lithium supply chain more sustainable, while recovering lithium from spent LIBs, not yet a common practice, is a viable solution to the mounting environmental dilemma posed by how best to dispose of them.

Regards
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