



Lithium phosphate – the shortcut from spodumene to lithium-ion batteries

Right now, the sector of the lithium-ion battery ('LIB') market that's expanding fastest is lithium ferro phosphate ('LFP'). A remarkable material, it will power Tesla 3 electric vehicles (EVs) in China. Meanwhile, Chinese EV maker BYD Co. Ltd has so much confidence that demand for LFP will continue to grow that it's expanding its production capacity eight-fold, and that's for this year alone!

LFP's crystal structure is such that it ensures superior performance, and safety in particular, over a wide range of operating parameters. Its one shortfall is energy density, but that can be overcome by modifying its composition.

In the [video](#) below, Adrian Griffin of Lithium Australia NL discusses the prospects for this particular battery chemistry.



At present the burgeoning LFP market is poorly supplied with precursors; producers of LFP cathode powder are using lithium hydroxide or lithium carbonate when lithium phosphate ('LP') would be a far better option. That said, LP is difficult to source.

Lithium Australia, however, has developed a suite of technologies that would enable existing refineries to expand their product mix to include LP, either by recovery direct from spodumene concentrates or from waste materials that include end-of-life LIBs.

Western Australia ('WA') is an ideal jurisdiction in which to generate LP as feed for LFP manufacture globally ... *but*, could things be taken a step further? Perhaps producers of lithium chemicals could enhance their own capacity and make LFP themselves? After all, it's really just a specialist chemical used in battery cathodes. Lithium Australia can furnish the technology required to do just that, meaning WA could become the 'price-maker' in the LFP supply chain.

Regards

Adrian Griffin

Managing Director

Lithium
Australia^{NL}

Level 1, 675 Murray Street
West Perth WA 6005
PO Box 1088
West Perth WA 6872

Phone: +61 (0) 8 6145 0288 Fax: +61 (0) 8 9475 0847
Email: info@lithium-au.com Web: lithium-au.com