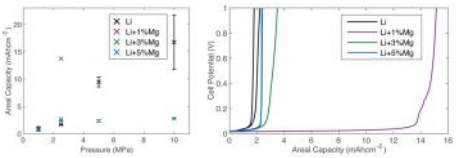
PROJECT NUMBER

22297

Light magnesium alloying of lithium to reduce pressure sensitivity

Light alloyed lithium metal anodes enhance solid-state battery performance, delivering higher extracted capacity at low stack pressure while overcoming limitations of pure lithium metal designs.

Applications: Solid state batteries



Features	Benefits
Novel electrode material by light alloying of lithium metal with magnesium	Greater cycling stability and reliability in performance at low stack pressure
Balance between good interfacial contact retention and lithium-ion diffusion kinetics is achieved	Superior electrochemical performance obtained compared to a pure lithium electrode material
Innovative electrode structure allowing for reduction in stack pressure sensitivity of electrochemical performance	Reduction in resultant current concentrations that are leading to usual battery degradation
The thickness of electrodes comprising of light alloying of lithium metal with magnesium is optimised	Improving the overall weight of SSBs and increasing energy density

Patented and Available for

- Co-development
- Consulting
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

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