



Superionics Inc. is developing safe and reliable lithium-ion batteries with applications in transportation, portable electronics, and stationary storage.

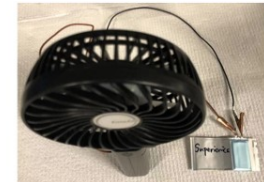
Business Case

Rechargeable batteries are crucial enablers for renewable energy and grid resilience. They have revolutionized our lifestyle and support a transition toward a carbon-free and sustainable society. The global rechargeable battery market is growing unprecedentedly, with a total value estimated to be \$310 billion by 2027.

Superionics Inc. is solving the safety and thermal runaway issue of lithium-ion batteries. Lithium-ion batteries are everywhere in our lives due to their excellent cycle life and decent energy density. However, safety accidents associated with lithium-ion cells catching fire happen frequently due to the flammable electrolyte inside.



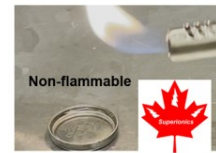
Conventional electrolyte



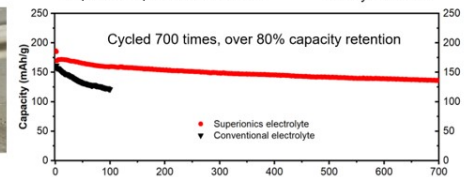
Superionics pouch cell in action



Safety validation



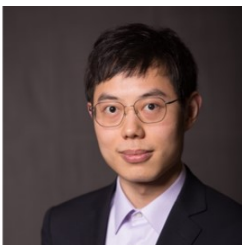
Superionics electrolyte



Our Solution

Our solution is to develop non-flammable electrolytes which also possess fast ion-conducting properties. The safe electrolytes have been optimized and tested in hundreds of cells cycling over months; our pouch-type prototype was verified with real-life applications and validated with safety experiments. The technology is protected by two pending patents.

Our Team



Chengtian Zhou



Venkataraman Thangadurai

Dr. Chengtian Zhou is a GRInSTEM fellow at the University of Calgary.

Dr. Venkataraman Thangadurai is a Professor of Chemistry at the University of Calgary.

Connect with us – we are looking for partners to explore collaborative opportunities.

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