

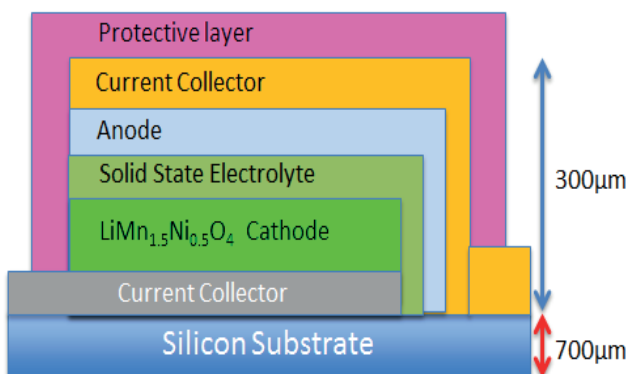
ALL-SOLID-STATE LITHIUM ION THIN FILM MICRO BATTERY

TECHNOLOGY OVERVIEW

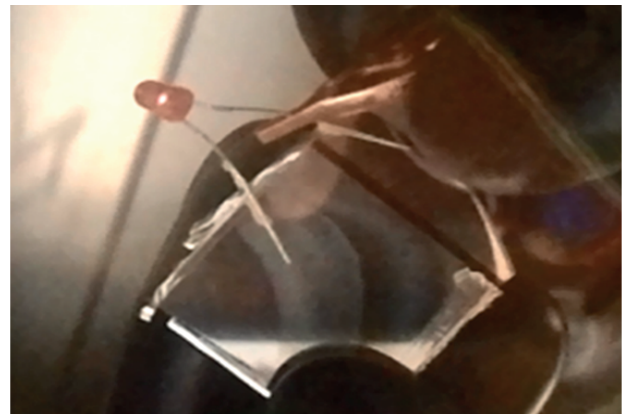
The thickness and the useful life of coin-cell batteries continue to limit their applications. This all-solid lithium ion thin film micro battery can provide as much power as conventional coin batteries, but is small enough to be used to provide power on chip. The battery is safer, thinner and has faster charge/discharge current rate than ordinary liquid batteries. It offers the prospect of supplying micro systems with long-lasting, environmentally friendly and sustainable electrical power.

POTENTIAL APPLICATIONS

- Chip memory backup, MEMS and sensors
- Drug delivery systems and implantable medical devices
- Radio-frequency identification (RFID) tags and smart cards
- Solar cell storage devices
- Low-power wireless remote controls and other low-power devices



Schematic of all-solid-state thin film battery



A LED is lighted up by all-solid-state thin film lithium ion battery

MARKET OPPORTUNITIES

The technology can be adapted to meet various market opportunities, including “power on a chip” solutions.

COMMERCIALISATION

The technology is available for licensing and technology transfer.

CONTACT DETAILS

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Looking for an open innovation partner? Contact Republic Polytechnic today!

Whether you are looking for new ideas to improve your current business flow, need access to research and technology expertise, or require facilities to bring your innovative ideas to life, we may be the partner for you.

At Republic Polytechnic (RP), we bridge the gap between knowledge and application by facilitating information and technology transfer to industry partners. Taking a holistic approach, our team of experts can assess your business needs, provide consultancy, conduct feasibility studies, and render support to help increase your company's competitiveness.

Facilities and Equipment

RP is home to state-of-the-art facilities and the latest technology, which are on par with industry standards. You can access these facilities by collaborating with RP on joint projects or through facility and equipment rentals.

Research and Development

Transform your ideas into reality. RP's multi-disciplinary applied R&D centres can work with you in many different ways, including exploiting new technologies, developing new products and streamlining processes.

Current Opportunities for Collaboration and Commercialisation

- Augmented Reality in Mainstream Sports Medicine – Diagnosis and Treatment of Lower Limb Injuries
- Brain Controlled Communicating Device for the Physically Handicapped
- Innovative Single-tube Multiplex Diagnostic Platform for Dengue and Chikungunya Viruses
- Low Cost Wireless Patient Weight Measurement System for the Physically Impaired and Bedridden
- New Catalysts for Sustainable Liquid Biofuels
- New Chemical Entities with Potential Applications in Photodynamic Therapy
- Regenerative Energy Wireless Sensor Network for Data Centre
- Thermoelectric Micro-coolers for Electronic and Optoelectronic Applications
- Visual Sentiment Analytics for Social Media Analysis
- Wireless Proximity Sensing for Safety and Security Applications

For more details, visit <http://www.rp.edu.sg/Industry.aspx>, or email us at help-otd@rp.edu.sg.