

WHAT YOU NEED TO KNOW

- Demand for Li-ion batteries growing exponentially and current market share leaders poised for disruption
- Advanced battery technology developer and maker of Li-ion, Advanced Li-ion and Solid-state batteries with breakthrough performance improvements
- Key leadership from highly respected organizations in academia and industry, including Samsung SDI, A123, LBNL, UC Berkeley, Nanostellar, LG, Johnson Matthey, and Maxim Tech
- Production to begin in Silicon Valley, USA 2Q16

At-A-Glance

- Markets: Mobility; IoT; Military; EVs; and Energy Storage
- Year Founded: 2015
- Business Model: Manufactures Li-ion, Advanced Li-ion and Solid-state batteries
- Employees: 30

Executive & Engineering Team

- Michael Loh Chairman & CEO, manages OEM and strategic partnerships with customers
- Michael Pak, Co-Founder and COO, oversees the development and manufacturing
- Dr. Yuriy Matus, Sr. Engineering Manager and Director of Battery Cell Engineering
- Henry Kim, Sr. Engineering Manager and Director of Cell Manufacturing

Partnerships

- Dragon Group International, EoPlex

Use of Proceeds

- Capital raise of up to \$10,000,000 to expand Silicon Valley production line capabilities, validate technology and qualify first products with customers in mobility and EV markets

Contact

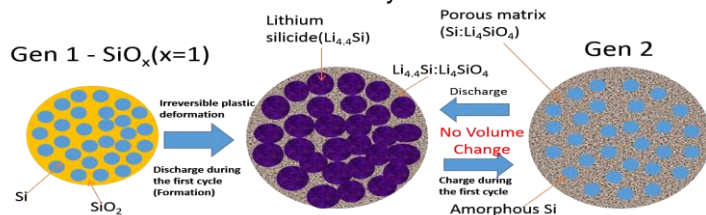
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OVERVIEW

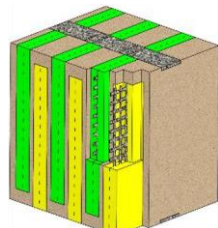
Founded in 2015, EoCell is an early stage startup engineering Lithium-ion, Advanced Li-ion and Solid-state with ceramic electrolyte battery technology. The company is led by Silicon Valley entrepreneurs and co-founders, Michael Loh and Michael Pak, co-founder and CEO of Nanostellar (Khosla Ventures) and Nanoexa. EoCell has R&D teams located in Silicon Valley, Singapore and Shenzhen. Dragon Group International (DGI), a Singapore-based public company with an extensive network of established customers and OEM partners, has provided EoCell's initial seed funding.

TECHNOLOGY

EoCell's battery technology achieves higher energy and power densities through the development of its proprietary compositions and manufacturing processes that address some of the challenges with silicon-based anodes: Material volume expansion is limited to 30% (instead of a typical 400%) during charge/discharge cycles which allows for an increase by 20-40% in the volumetric energy density compared with most Li-Ion batteries on the market today.



A special matrix of lithium silicate holds amorphous silicon nano-particles and behaves like a solid electrolyte that transports lithium ions into silicon particles while minimizing volume changes; it can also minimize the SEI formation and improve the cyclic performance. EoCell's battery technology achieves this result by tightly controlling the uniform distribution of silicon nano-particles and the porosity of the matrix during the anode material manufacturing process.



Printed structure allows for minimal separator thickness and extremely thin current collector

Today's Li-ion batteries are under intense pressure to evolve, to provide longer-running electronics, cheaper EVs, and a market for stationary storage. EoCell's battery technology combines innovations with advanced materials, including silicon anode, and a new 3D printing method for depositing several different materials together in a layer-wise, panel processing fashion, which enables higher energy and power densities, and also higher cycle life. The 3D printing manufacturing platform additionally enables the use of advanced ceramic electrolyte, lithium metal anode and advanced cathode chemistries, in a cost effective manufacturing process.

STRATEGY & PRODUCTS

The demand for Li-ion batteries is growing due to a large increase in mobility (smartphones, tablets) and sales of EVs as battery performance improves and costs become more competitive. The biggest growth in battery technologies is forecast to come from gradually evolving Li-ion batteries, through incremental innovations like higher-voltage cathodes and electrolytes, paired with higher-capacity active materials like silicon-containing composites. EoCell builds its customer-specified battery cells on its Silicon Valley production line and can transfer production to select manufacturing partners to implement its processes on a volume-scale.

COMPETITORS

Traditional Li-ion producers are poised for disruption as Panasonic, Samsung SDI, LG Chem, Sony, A123, BYD, Lishen, ATL and Quantamscape focus on incremental improvements and not disruptive new technologies and manufacturing.