

# Simbol Materials Advances US EV Battery Material Production, Introduces World's Highest Purity Lithium

*US-Based Company Launches Commercial Production, Enabling Growth of Electric Vehicle Market*

- Beats other sources of lithium for quality and performance; manganese and zinc to follow
- Ensures growth of clean energy through reliable and stable U.S.-based lithium supply
- Commercializing breakthrough technology to produce battery materials from geothermal brines

**Pleasanton, Calif. – Sept. 28, 2011** – Simbol Materials ([www.simbolmaterials.com](http://www.simbolmaterials.com)) today announced the start of commercial production of the world's highest-purity lithium carbonate for use in electrolytes for electric vehicle batteries and other energy storage applications. The company, with its newly opened facility located near the geologically unique Salton Sea in Imperial Valley, California, is the only advanced battery materials producer of its kind.

"Simbol Materials' goal is to fundamentally transform the critical materials supply chain in support of clean technology," said Luka Erceg, Chief Executive Officer of Simbol Materials. "With the electric vehicle battery industry set to take off, the demand for premium quality lithium, manganese and zinc – building blocks for the next generation of energy storage, including EV batteries – requires an urgent and high performance solution, one that Simbol Materials provides."

## **Leader in Advanced Lithium Materials for Electric Vehicles**

The startup of this 500 tonne per year facility marks an important step forward for Simbol Materials and the United States, as Simbol Materials is now one of only a limited group of companies worldwide producing lithium for use in advanced batteries and battery materials. Simbol Materials' high purity lithium carbonate will be used to produce cathode battery materials and  $\text{LiPF}_6$  for electrolytic salts used in electrolyte solutions, critical components for Electric Vehicles and other clean-energy storage applications.

"The market continues to look for new, innovative and higher quality materials to increase the efficiency and quality of battery performance," said Josh Green, General Partner of Mohr Davidow, a lead investor in Simbol Materials. Simbol has also designed a three-fold expansion of this facility, and expects to break ground late 2012.

"The new facility and expansion plans positions Simbol Materials as the most competitive producer of high purity lithium and other lithium compounds and derivatives that are critical to electric vehicle batteries and clean energy," said Takashi Sunada, of the Chemicals Division of ITOCHU Corporation, another lead investor at Simbol Materials.

## **Commercializing Breakthrough Technology**

Since its inception, Simbol Materials has been supporting American private-sector job creation by investing in research and development and scale up of processes to produce advanced battery materials in the U.S. Central to that effort is Simbol Materials' innovative breakthrough technology for producing lithium, manganese and zinc battery materials from geothermal brines – a perfect complement to the company's high purity lithium processing technology:

- Simbol Materials' proprietary production technology integrates directly into existing geothermal power plants, extracting critical materials from a by-product of the power generation process.
- The company's novel process eliminates traditional methods of invasive mining or evaporation ponds that require significant land, water and energy use.
- Unlike the large amounts of waste produced by traditional mining, the Simbol Materials' proprietary process produces virtually zero waste, while consuming CO<sub>2</sub>, waste water, and other emissions from the geothermal power plant, further bolstering sustainability and competitiveness.

Simbol Materials is already commercializing the technology at the company's facilities in Imperial Valley California, an area rich with the world's most prolific hydrothermal source for lithium, manganese and zinc.

"Simbol Materials is creating a strong and unique competitive position through its strategy of backward integration to a stable, reliable and enormous resource for lithium, manganese and zinc," said Green. "This propels Simbol forward as the only sustainable materials technology company positioned to address the global demand for electric vehicles and clean energy storage."

A demonstration plant currently in operation will be followed by yet-to-be announced commercial plants to produce lithium, manganese, and zinc materials, advancing the company and country's leadership in advanced battery materials.

Sales of Simbol Materials' lithium products, including high purity products in Asia, will be handled through its exclusive partner, ITOCHU Corporation in Japan. The partnership between Simbol Materials and ITOCHU provides Asian customers with the comfort and surety of supply of lithium manganese and zinc.

## **About Simbol Materials**

Simbol Materials answers the global call for secure, high performing and environmentally responsible critical materials for the energy storage industry, including electric vehicle batteries. The company's innovative and sustainable processes integrate with existing geothermal power plants located in California's mineral-rich Imperial Valley, enabling the production of lithium, manganese and zinc performance materials – an industry first. Headquartered in Pleasanton, California, Simbol Materials was founded in 2008. For more information, please visit [www.simbolmaterials.com](http://www.simbolmaterials.com).

### **About Mohr Davidow**

Mohr Davidow [link: <http://www.mdv.com>] partners with entrepreneurs to create venture returns by developing and bringing to market new technology-based products and services. Mohr Davidow invests in companies that transform industries whether through better infrastructure for our rapidly evolving data-intensive digital world, more efficient power for our planet, or better, more personalized medicine.

### **About ITOCHU Corporation**

With approximately 130 bases in 68 countries, ITOCHU Corporation, one of the leading *sogo shosha*, or a trading company in Japanese, engages in domestic trading, import/export, and overseas trading of various products, such as textile, information and communications technology, machinery, energy, metals, minerals, chemicals, forest products, general merchandise, food, construction, realty, finance, insurance, and logistics services, as well as business investment in Japan and overseas.

Visit: <http://www.itochu.co.jp/en/>.

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