

## PRESS RELEASE

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### **Battery 2020 – battery materials for future electro-mobile and stationary applications**

**German consortium HiPoLiT is researching fast-rechargeable lithium energy storage systems with improved energy density. The BMBF is funding the project, which was launched in January 2016.**

Weinheim, March 11<sup>th</sup>, 2016. In terms of energy policy, the increase of electric mobility is a core objective. One of the keys to success lies in providing more efficient and safer batteries. Electric mobility will only gain wide public acceptance if batteries are safe to use, can be charged within minutes and guarantee sufficient range. Furthermore, batteries also make a significant contribution in decentralized renewable power generation, or in the provision of network control energy for storing electrical energy in stationary applications. Within the context of the High Power Lithium Technology (HiPoLiT) project supported by the German Federal Ministry of Education and Research (BMBF), an industry-led consortium will work on the challenges of driving material and process development and researching innovative Lithium-ion batteries.

Compared to the current state-of-the-art, the developed batteries will feature significantly improved components. These will lead to optimized rapid-charge capability with practice-oriented energy density and lifetime, as well as outstanding safety. To improve the energy density of the batteries, the cell voltage and the proportion of active material in the electrodes will be increased.



Another major concern of the project is to reduce the cost of battery production. This will be achieved by reducing the number of interconnected cells and by using high-voltage cathodes and larger cell sizes.

### **German consortium combines strengths**

Based in Weinheim, Germany, Freudenberg Vliesstoffe SE & Co. KG is coordinating the HiPoLiT project. As part of the project, the company is developing new, ceramic and flexible high-temperature and high-performance battery separators. Johnson Matthey Battery Materials GmbH, Moosburg, will contribute application-specific optimized anodes and innovative high-voltage cathode powder. These components will be combined into prototype cells at the Fraunhofer Institute for Silicon Technology, Itzehoe, along with novel electrolyte formulations from the MEET (Münster Electrochemical Energy Technology) battery research center at the Westfälische Wilhelms-Universität in Münster. Once that has been achieved, battery cell manufacturer Liacon GmbH, Itzehoe, will translate this development into practically applicable large-sized cells. The cells will then be integrated into functional battery systems by Batterie-Montage-Zentrum GmbH, Karlstein-am-Main, which will subsequently be tested in an actual electric boat drive by Torqeedo GmbH, Gilching, a leading global provider of electric boat motors.

The BMBF is supporting the HiPoLiT project between January 1, 2016 and December 31, 2016 with around two million Euros.

### **About HiPoLiT – High Power Lithium Technology**

Industrial enterprises and application oriented research institutes are working together within the HiPoLiT consortium in order to support the expansion of electromobility through improved fast- charging capability, and improvements in energy density and production costs.

This consortium comprises the Batterie-Montage-Zentrum GmbH, Karlstein am Main, the Fraunhofer Institute for Silicium Technology, Itzehoe, Freudenberg Vliesstoffe SE & Co KG, Weinheim, Johnson Matthey Battery Materials GmbH, Moosburg, Liacon GmbH, Itzehoe MEET (Münster Electrochemical Energy Technology) the battery research center of the Westfälischen Wilhelms- Universität Münster, and Torqeedo GmbH, Gilching. Freudenberg Vliesstoffe is heading the project.

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