

Evonik and InnovationLab bring new battery technology to the market

- Evonik presents a sustainable battery concept at LOPEC fair
- New materials enable thin and flexible energy storage
- Printed solid-state batteries impress with their long cycle life

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Germany, Essen. Evonik presents at the virtual exhibition LOPEC a new material technology for printable batteries. Together with the company InnovationLab, the specialty chemicals group proves the integration of TAeTTOOz® technology in printed electronics to open up new applications. TAeTTOOz® was developed based on so-called redox polymers from Creavis, the strategic innovation unit from Evonik.

With TAeTTOOz® Evonik presents an innovative technology for the efficient production of rechargeable battery cells. The new materials can be processed with screen printing into very thin and flexible batteries. In this way, designers gain a high degree of design freedom. They make it possible to store electrical energy without having to use metals. The batteries manufactured with TAeTTOOz® technology do not require liquid electrolytes and are therefore leak-proof. Compared to regular batteries, organic polymer batteries have a number of advantages. They can be produced with regular printing methods. This allows a high degree of design freedom. Additionally, the battery materials do not contain metals or metal compounds.

„We are very pleased to be working with InnovationLab”, says Dr. Michael Korell, responsible at Evonik for the development of TAeTTOOz®. “With the TAeTTOOz® technology, we want to enable new applications. Especially with the increasing interconnection of everyday life objects – in the 'Internet of Things' – the development of a metal-free and printable energy storage solution opens up future areas of application”. In the health sector, sensors to monitor vital function can be worn much more comfortably when using printed batteries. In the field of logistics, sensors powered with printed batteries can also monitor packaging, like in the supply chain of sensitive goods, including vaccines or food.

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Company information

Evonik is one of the world leaders in specialty chemicals. The company is active in more than 100 countries around the world and generated sales of €12.2 billion and an operating profit (adjusted EBITDA) of €1.91 billion in 2020. Evonik goes far beyond chemistry to create innovative, profitable and sustainable solutions for customers. More than 33,000 employees work together for a common purpose: We want to improve life today and tomorrow.

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