

Batteries from the printer: Evonik presents a new technology at the LOPEC trade show

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- New materials allow thin and flexible energy storage devices
- Application in the Internet of Things
- Developers seek collaboration partners

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Essen, Germany. Evonik is unveiling TAeTTOOz[®], a new material technology for printable batteries, at the LOPEC trade show. TAeTTOOz[®] has been developed on the basis of what are known as redox polymers by Creavis, the strategic innovation unit of Evonik.

The new materials can be processed by conventional printing methods into very thin, flexible battery cells, thus giving the developer a high degree of design freedom. They allow storage of electrical energy without the need for metals or metal compounds. Battery cells produced with the TAeTTOOz[®] technology do not require liquid electrolytes and therefore cannot leak. Creavis is now seeking development partners to integrate the TAeTTOOz[®] technology into new and existing applications.

Dr. Michael Korell, who is responsible at Evonik for the development of TAeTTOOz[®], said: "We have developed a technology with enormous potential. It enables us to offer a solution to power small electronic circuits with printed batteries efficiently, reliably, and in an ecofriendly way."

The TAeTTOOz[®] technology opens up new possibilities particularly in the spreading networking of everyday objects, the Internet of Things. When ready for series production it can be used in many areas. Medical sensors for monitoring vital functions could be worn far more conveniently when printed batteries are used. In the area of logistics, intelligent sensors operated by printed batteries in packaging could monitor sensitive goods such as food or vaccines.

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