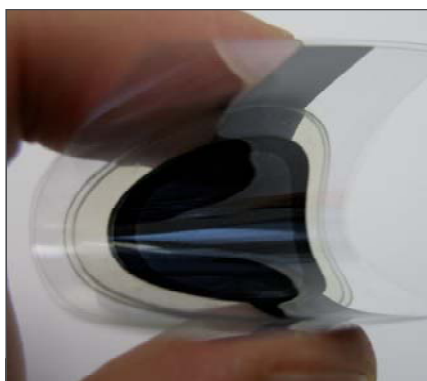


Press Release

Chemnitz,
December 15th, 2009



printed flexible battery

New York Times Magazine 2009 - printed battery belongs to best 5 ideas

Since nine years in December the New York Times Magazine publishes a list of ideas from A to Z, the most clever, important, silly and just plain weird innovations from all corners of the thinking world. This year t the printed battery of Fraunhofer ENAS belongs to the best five ideas in the technology area.

The printable battery can be produced cost-effectively on a large scale. It was developed by a research team of the Fraunhofer Research Institution for Electronic Nano Systems ENAS in Chemnitz together with colleagues from TU Chemnitz and Menippos GmbH. "Our goal is to be able to mass produce the batteries at a price of single digit cent range each," states Dr. Andreas Willert, deputy department manager at ENAS.

First time the printed batteries have been presented at the nanotech exhibition in Japan in the spring 2009. The battery weights less than one gram and is less than one millimeter thick. It is possible to print it in serial connections up to four batteries with voltages of 1.5 to 6 V depending of the connection. The batteries are environment-friendly because they do not contain mercury. This new generation of batteries can be applied for medicine products or printed media.

The new type of battery is composed of different layers: a zinc anode and a manganesedioxide cathode, among others. Zinc and manganesedioxide react with one another and produce electricity. However, the anode and the cathode layer dissipate gradually during this chemical process. Therefore, the battery is suitable for applications which have a limited life span or a limited power requirement, for instance greeting cards.

more information is available via:

<http://www.nytimes.com/projects/magazine/ideas/2009/#technology-9>

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