

Swiss Professor Awarded for Low-cost Solar Cells

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HELSINKI (AFP) - A Swiss professor who developed a low-cost solar power cell using cheap materials such as dye squeezed from berries won a million-dollar technology prize in Finland on Wednesday. Michael Graetzel, 66, won the Millennium Technology award for process of “artificial photosynthesis” to capture the sun's energy without need for an elaborate manufacturing process.

The so-called “Graetzel’s cell” is made from a layer of titanium dioxide nanoparticles, covered with a molecular dye that absorbs sunlight, like the chlorophyll in green leaves. The prized technology is seen as a cost-effective and promising alternative to standard silicon photovoltaics that could help solve the world’s energy problems, the Technology Academy of Finland said in a statement. “Though Graetzel cells are still in relatively early stages of development, they show great promise as an inexpensive alternative to costly silicon solar cells and as an attractive candidate as a new renewable energy source.”

Graetzel, who is director of the Laboratory of Photonics and Interfaces at Ecole Polytechnique Federale de Lausanne, was awarded 800,000 euros (963,000 dollars) in prize money.

His cells have only started being used in consumer products, but since they are very efficient in ambient light, they could help make innovations such as autonomous street lamps with no outside power supply a reality.

Runners-up for the prize were Professor Sir Richard Friend, who created the organic Light Emitting Diodes (LEDs) crucial in developing electronic paper, and Professor Stephen Furber, the principal designer of the fast and tiny processors used in most mobile phones.

The Millennium Technology Prize, created in 2002 and funded by the Finnish state and the Technology Academy of Finland, is awarded every two years as a “tribute to developers of life-enhancing technological innovations.” It was first awarded in 2004 to Tim Berners-Lee, inventor of the World Wide Web.

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