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## University of Luxembourg Solar Panel Research Lab receives huge EU grant

### Artikel im Web

The **University of Luxembourg**'s Laboratory of Photovoltaics is part of a consortium of 14 partners who have received 10 million euro from the European **Union** to develop technologies for more efficient and cheaper solar cells.

Solar cells, the "power generators" inside of solar panels, that are capable of converting light energy from the sun into electrical energy for use in homes or offices, can be expensive to manufacture, but in light of the recent one-year anniversary of the Fukushima nuclear crisis in Japan, and with Germany announcing its goal to phase out nuclear facilities by 2022, Europe is substantially investing in alternative energy research to reduce its reliance on nuclear fuel and oil. By putting effort into the development of more efficient solar panels, Europe could potentially become a global leader in this emerging field.

The Laboratory of Photovoltaics at the **University of Luxembourg**, along with 13 industry and academic partners across Europe, have formed the so-called Scalenano project - a European Commission-funded trans-national collaborative research project. "Our main objective is to develop low cost and efficient solar cell technology. Increasing the competitiveness of this technology will bring the cost down for everyone, which will eventually allow solar technology to reach the masses" explained Dr. Phil-

ip Dale, Head of the Electrodeposition Group within The Laboratory of Photovoltaics and one of the leading European scientists in this field. The results of this research project should shape future energy goals and ensure sustainability in the years to come.

The Scalenano team in Luxembourg led by Dr. Dale will use cutting-edge research tools to specifically examine how to improve the process of combining and baking the chemicals to form the required solar cell materials, using a rapid thermal annealing furnace (pictured). By reducing the time needed for baking, less energy is required, thus reducing the cost of producing solar cells.

The project has just begun and will run until 2015. "We are excited to get started and are confident we have the tools and the capacity to significantly contribute. We look forward to collaborating well with our research partners" says Dr. Dale, an AT-TRACT fellow funded by the Fonds National de la Recherche Luxembourg (FNR).

Bridging Academics, Research Institutes and Industry

The consortium brings together partners working together across Europe, including five research institutes: Catalonia Institute for Energy Research, the project co-ordina-

tor, EMPA- Swiss Federal Laboratories Materials Science and Technology, Istituto Italiano di Tecnologia, Commissariat à l'Énergie Atomique et aux Énergies Alternatives, Helmholtz Zentrum Berlin; four universities: **University of Nottingham**, **University of Luxembourg**, Scuola **Universitaria Professionale della Svizzera Italiana**, Free **University Berlin** and four industry partners: Merck KGaA, Nexcis Photovoltaic Technology, Innovative Materials Processing Technologies Ltd. and Semilab.

The goal of Scalenano, to reduce the manufacturing costs of solar panels, is in line with the 20/20/20 target established by the European Commission and the European Strategic Energy Technology Plan and is funded by the European Commission Seventh Framework Programme (FP7) for Research and Technological Development - the EU's main tool for funding research in Europe.

The Laboratory of Photovoltaics, led by Prof. Dr. Susanne Siebentritt, is part of the Physics and Material Sciences Research **Unit**, Faculty of Science, Technology and Communication at the **University of Luxembourg**.

For more information please visit [www.scalenano.eu](http://www.scalenano.eu) or visit [www.uni.lu/research](http://www.uni.lu/research).

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