

Séminaire Général INL

Jeudi 6 mai 2021 à 14h

Prof. Ralf B. Wehrspohn

Chair for Microstructure-Based Materials Design, Institute of Physics, Martin-Luther-University Halle-Wittenberg, Halle (Saale), Germany

Microstructure-based design of sustainable energy materials

The success of the European Green Deal is predominantly a question of materials research. Sustainable energy materials are needed that are non-toxic to nature, available for reasonable prices in Europe, designed for a circular economy and highly efficient in their functionalities since green energy is a scarce resource.

In this presentation, we will show our recent progress on sustainable battery materials, sustainable electrolyzer materials such as bipolar membranes and non-platin based catalysts as well as on sustainable photovoltaic materials such as thin silicon wafers and coatings for highly efficient photon management.

Ralf B. Wehrspohn studied physics at the University of Oldenburg and received his doctorate in 1997 from the École Polytechnique in France. In 2003 he became full professor at the University of Paderborn. In between he worked in industry at Philips Research in London and completed his habilitation at the Max Planck Institute for Microstructure Physics in Halle. From 2006 to 2021 he worked for the Fraunhofer-Gesellschaft as director of the institute, member of the executive committee and, most recently, board member for technology marketing and business models. He holds a chair for microstructure-based material design at the Martin Luther University in Halle-Wittenberg since 2006. Ralf B. Wehrspohn's work focuses on materials for sustainability technologies and, in recent years, increasingly on the digitization and economy of materials. He is the winner of the Heinz Maier-Leibniz Prize of the German Research Foundation, the DOW Chemical Science Association Prize and the Innovation Prize of the Massachusetts Institute of Technology MIT. In 2004 the Financial Times Deutschland counted him among the 101 most innovative minds in Germany.