

PRESS RELEASE

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Biophysicist from Saarbrücken receives prestigious international award from the Materials Research Society

Professor Niels de Jonge will be decorated with the *Innovation in Materials Characterization Award* for his innovative electron microscopic technology. The 5000 Dollar prize-money award is presented annually by the Materials Research Society (USA) to scientists who have made an extraordinary contribution to the better understanding of material structures, material composition and material behavior. This includes, for example, electronic, electrochemical, chemical or mechanical aspects as well as the behavior of material or cell structures in-situ. De Jonge receives the award together with the American scientists Chongmin Wang and Frances Ross.

The award goes to the Head of the program division *Innovative Electron Microscopy* at INM - Leibniz-Institute for New Materials for the electron microscopic technology "Liquid-STEM", which he developed. This technology makes it possible to examine materials in a liquid environment using electron microscopy with nanometer resolution. It allows electron-microscopic examination of, for example, protein complexes in whole cells in their natural liquid environment, nanoparticles in liquid, or processes on battery electrodes in liquid electrolyte during current flow. STEM stands for "Scanning Transmission Electron Microscopy", a technique in which thin samples are raster scanned and transmitted electrons are used to obtain contrast. Liquid STEM refers to this type of microscopy applied to specimens in liquid.

Professor de Jonge has been leading the program division *Innovative Electron Microscopy* at the INM since January 2012. Since 2013, he has also been an Honorary Professor of Experimental Physics at Saarland University. Before that, he was Assistant Professor at the Vanderbilt University School of Medicine, Nashville, Tennessee, USA. He studied Experimental Physics in Amsterdam in the Netherlands and obtained a doctorate in Biophysics at the Albert-Ludwigs University in Freiburg in 1999.

INM conducts research and development to create new materials – for today, tomorrow and beyond. Chemists, physicists, biologists, materials scientists and engineers team up to focus on these essential questions: Which material properties are new, how can they be investigated and how can they be tailored for industrial applications in the future? Four research thrusts determine the current developments at INM: *New materials for energy*

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New Ideas.  New Materials.

application, new concepts for medical surfaces, new surface materials for tribological systems and nano safety and nano bio. Research at INM is performed in three fields: *Nanocomposite Technology, Interface Materials, and Bio Interfaces.*

INM – Leibniz Institute for New Materials, situated in Saarbrücken, is an internationally leading centre for materials research. It is an institute of the Leibniz Association and has about 220 employees.

