The aim of the collaborative research group “ENano – Nanoanalysis for Energy Technologies” to be established at TU Dresden in the framework of the European Social Fund (ESF) in the Federal State of Saxony is to develop and apply nanoanalytical methods to characterize and simulate materials and processes. For this group, TU Dresden offers the positions of

**8 members of academic staff / junior researchers**

Given the final approval of the project by the funding agency (European Social Fund: SMWK, SAB), the positions will start on October 1, 2011 and are fixed-term until December 31, 2013. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). Applicants pursuing a doctoral degree are especially welcome. Payment is according to the nationally agreed scale E 13 TV-L for all members of the group including Ph.D. candidates and will be on a fulltime weekly hours basis. The positions are located at several Institutes of TU Dresden. The topics of the researchers at the respective institutes include:

**Institute of Materials Science**
- *In-situ* investigation of nano-crystalline electrodes for the alkaline electrolysis of water by electrochemical Scanning Tunneling Microscopy (supervisor: Prof. Dr. Bernd Kieback)
- X-ray and Electron Tomography for the investigation of Morphology and Stability of nanoscale iron-iron-oxide powder pellets (supervisor: Prof. Dr. Bernd Kieback)
- Electrochemical investigations of kinetic processes at cathode materials for Lithium-ion batteries with high local resolution (supervisor: Prof. Dr. Alexander Michaelis)
- *Ab-initio* modelling of the electrochemical properties of cathode materials for Lithium-ion batteries (supervisor: Prof. Dr. Gianaurelio Cuniberti)

**Institute of Surface and Manufacturing Technology** (supervisor: Prof. Dr. Eckhard Beyer)
- Modelling and preparation of multilayer Laue lenses for high resolution x-ray analysis

**Institute of Electronic Packaging Technology** (supervisor: Prof. Dr. Klaus-Jürgen Wolter)
- Investigation of the increase in contact resistance in flexible thin-film solar cells

**Institute of Structural Physics** (supervisor: Prof. Dr. Hannes Lichte)
- Electron holography of the electric potential distribution in solar cells

**Institute of Semiconductors and Microsystems** (supervisor: Prof. Dr. Hubert Lakner)
- Electroactive nanoparticle polymer blends for energy-efficient actuators

For an optimal scientific training, researchers will be provided with state-of-the-art research methodologies, both in experiment and modelling/simulation and will be trained in inter- and crossdisciplinary work via lectures and seminars in various fields related to the scientific scope of the research group. The investigations will be conducted in close cooperation with the Dresden Fraunhofer Cluster Nanoanalysis (DFCNA).

**Requirements:** university degree or complete doctorate in Physics, Chemistry, Materials Science, Engineering or a related subject, the ability for team work and for interdisciplinary research and good communication skills in English are required. According to regulations of the European Social Fund researchers working in the group must have finished their studies or doctorate not earlier than March 31, 2010. Applications from women are particularly welcome. The same applies to disabled people. Applicants should send a letter of motivation, Curriculum Vitae, a complete list of publications and at least two letters of recommendation until October 06, 2011 (stamped arrival date of the university central mail service applies) to TU Dresden, Fakultät Maschinenwesen, Institut für Werkstoffwissenschaft, Professur für Materialwissenschaft und Nanotechnik, Kennwort „ENano“, Koordinator der Nachwuchsforschergruppe Herrn Prof. Dr. Gianaurelio Cuniberti, 01062 Dresden or as a single pdf file to ENano@nano.tu-dresden.de, Subject: “Application ENano your_Surname“ (Please note: We are currently not able to receive electronically signed and encrypted data).