

PostDoc in Advanced Transmission Electron Microscopy of Nanostructured Biomaterials

Institute of Biomaterials
Department of Materials Science and Engineering
Friedrich-Alexander-University Erlangen-Nürnberg

Description:

The Institute of Biomaterials comprises a unique combination of research expertises in the fields of Biomaterials and Nanocharacterization. The research group Bioactive Materials (Prof. Boccacini) is developing nanostructured biomaterials for medical implants, tissue engineering and drug delivery. A great variety of biomaterials including bioactive glasses and nanoparticles, biodegradable polymers, carbon nanotubes and their composites are being investigated. The research group Electron Microscopy (Prof. Spiecker) develops advanced transmission electron microscopy techniques for investigation of nanostructures, thin films and functional materials. The group runs a microscopy lab with several transmission electron microscopes, among these an aberration-corrected Titan³ 80-300 which was recently installed in the Center for Nanoanalysis and Electron Microscopy (CENEM). The successful candidate is expected to strengthen the interaction of the two research groups by applying advanced methods of transmission electron microscopy, including aberration-corrected HRTEM and electron tomography, to nanostructured biomaterials.

Requirements:

Applicants should have a Ph.D. in materials science, physics, chemistry or a related discipline and have several years of hand-on experience in one or more of the advanced TEM techniques (aberration-corrected HRTEM, HAADF-STEM, EELS, EFTEM, Tomography). A background in biomaterials characterisation is highly desired and experience with focused-ion beam (FIB) sample preparation is appreciated. Excellent written and communication skills and the ability to work effectively as part of an international and interdisciplinary team are required.

Closing date:

We will start reviewing applications after June 1st 2010 and the search will continue until the position is filled.

Contact:

Prof. Dr. Erdmann Spiecker
Institute of Biomaterials &
Center for Nanoanalysis and Electron Microscopy (CENEM)
Department of Materials Science and Engineering
University of Erlangen-Nürnberg
Cauerstr. 7, 91058 Erlangen
Phone: +49 9131 85 28603
Fax: +49 9131 85 28602
E-mail: erdmann.spiecker@ww.uni-erlangen.de
Website: <http://www.biomat.techfak.uni-erlangen.de>
<http://www.em.techfak.uni-erlangen.de>