

Postdoctoral Position in Transmission Electron Microscopy

@ Leibniz Institute for Surface Modification (IOM)
Leipzig, Germany

The research project concerns the characterization of interfaces and diffusion profiles in magnesium alumino silicate nano glass-ceramics jointly developed with the Institute of Glass Chemistry at Jena University (Prof. Dr. Chr. Rüssel). Funding is granted by Deutsche Forschungsgemeinschaft (DFG).

TEM characterisation will follow the methodological lines established in an earlier EU STREP project ("Intercony"). Here, it was proofed that diffusion barriers can lead to a self-limited growth of nanocrystals in glasses (cf. S. Bhattacharyya, *et al. Nano Letters*, **9** (2009) 2493, C. Bocker *et al. Acta Mater.* **57** (2009) 5956, or S. Bhattacharyya, *et al. Crystal Growth & Design*, **10** (2010) 379).

Applicants should have demonstrated experience in several areas of TEM and possess a strong background in materials science. Preference will be given to applicants with expertise in analytical (S)TEM techniques.

Facilities at IOM include a 200 keV Hitachi H-8100 TEM/STEM with a NORAN system six EDXS analyser added, a brand-new cross-beam FIB-SEM (Carl Zeiss Auriga) for TEM lamellae lift-out, a conventional TEM specimen preparation lab, and many other surface-characterisation techniques. In collaboration with regional partners, EELS spectroscopy in dedicated and aberration-corrected STEMs will be accomplished.

The position is available from now for a total of three years. Gross salary is strictly linked to the duration of professional experiences and outruns 44,500 € per year for candidates possessing a Ph.D. in Materials Science, Physics, or Chemistry.

Interested candidates should send curriculum vitae, publication list, and the names of two references with their contact information to:

Prof. Dr. Thomas Höche

Leibniz Institute for Surface Modification
Permoserstrasse 15
D - 04318 Leipzig
Germany

eMail: thomas.hoeche@iom-leipzig.de

Web: www.iom-leipzig.de and www.uni-leipzig.de/~hoeche

dead line: 22 March, 2010