

Open PhD Position

“Nanocrystalline ceramic film coating without sintering (NANCER)”

At Solid State Chemistry Group, Laboratory for Developments and Methods, Paul Scherrer Institute (PSI), Villigen PSI, Switzerland.

The NANCER project is supported by the Competence Centre for Materials Science and Technology (CCMX) existing within the ETH domain. The project will be realized in a close collaboration of 6 research groups within Switzerland and coordinated by the Nonmetallic Inorganic Materials Institute at ETH Zürich. The research will concern the investigation of thermal, thermodynamic, electrical and magnetic properties of nanocrystalline and amorphous oxide thin films useful for micro fuel cells and gas sensors. In this PhD thesis to be realized at PSI, oxide thin films of different composition (including perovskite based oxides) deposited by sputtering methods will be investigated. The final goal is to define the influence of the microstructure of the films on the properties of prototype devices.

We are looking for a highly motivated person with master degree in natural science (material science, physics, chemistry). Experience (diploma work) in thin film fabrication and characterization (microstructure, electrical and magnetic properties) will be appreciated. The PhD candidate should be capable to closely collaborate with the project partners and groups within PSI.

Good knowledge of English is mandatory.

The position is available since 1.01.2007 and the duration is 3 years.

Contact : Conder Kazimierz : kazimierz.conder@psi.ch