

University of Burgundy

NANO/ SIOM team, University of Burgundy, Dijon, France

Post-doc position: Chemical Imaging of New Oxides for Energy

Starting date: 1 January 2015

Description of the research project: A post-doctoral position for an already **well-trained transmission electron microscopist** is available in the NANO / SIOM team, as part of a collaborative project involving a European consortium, supported by the EC (chipcat project). One aim of this project is to apply and optimize the possibilities of the transmission electron microscopy technique in order to go further in the control of very specific nano-objects like Pt-CeO₂ of high interest in fuel cell applications. Understanding of mechanisms of catalytic processes will be one of the most important targets of the project because it would permit more efficient development of new systems. The candidate will be responsible for the characterization of the grown films and layers by TEM including HRTEM, SAED, EDX, EELS and EFTEM.

Profile of the successful applicant: The successful candidate will have several years' intensive experience with transmission electron microscopy. Applicants should have a strong background in materials physics. Preference will be given to applicants with demonstrated experience and expertise in STEM techniques, electron energy loss spectroscopy and atomic resolution HAADF imaging. Experience in studying structure/property relationship via electron microscopy, preferably in the field of catalysis, is of advantage. The candidate will be involved in the characterization of catalysts and materials that are relevant for energy conversion and storage. The post holder will liaise with external groups responsible for the fabrication and characterization of the samples. He/she is also expected to disseminate the results in international peer-reviewed journals as well as conferences

Duration of the project: The initial appointment will be for one year and renewable depending on results.

The working environment: JEOL 2100 laB₆ equipped by EDX and JEOL 2100F equipped with EDX, STEM and GIF are available.

For further information please contact:

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Nano/SIOM Team

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To apply: Please email your CV, description of research competences and interests, names of 2 referees, and copies of 2 most valuable publications