

Postdoc position on Multifunctional thin-film mixed and/or doped metal oxide materials – from photoelectrochemistry to electrocatalysis

The ongoing Maestro NSC project is oriented towards investigation of thin film semiconducting metal oxide materials to be used either in photoelectrochemical devices or, in conjunction with metal particles, as electrocatalysts. The research efforts will focus on the discovery, synthesis and characterization of materials with new or improved properties such as optical absorption range, separation of photogenerated charges, charge transport and charge-transfer. In connection with the foreseen materials application to solar-light-driven water splitting, the important objective of the project will be the search of new compositions among complex oxides and compositional changes induced by doping able to influence the alignment of the semiconductor conduction and valence band edges with respect to the thermodynamic water reduction, respectively, oxidation potentials.

Requirements:

- 1) Ph.D degree in physical chemistry or inorganic chemistry
- 2) Extensive experience in photoelectrochemistry (min.2 years)
- 3) Excellent scientific track record, including at least one publication as first author in a high quality, peer reviewed international journal
- 4) Participation in international conferences
- 5) Experience with Scanning Electrochemical Microscopy (mandatory)
- 6) Good written and oral communication skills in English
- 7) Communication in Polish
- 8) High motivation for research

Comment/web site for additional job details:

Please submit recommendation letter, CV, cover letter (with contact information) as single PDF file by e-mail to Professor Jan Augustyński (jan.augustynski@unige.ch, j.augustynski@cent.uw.edu.pl) until 15th of June. The proposed salary will be related to the experience and research achievements of the candidate (within the rules established by the National Science Centre).