





Regional Workshop on Materials Science for Solar Energy Conversion (4 - 8 November 2013)

Hosted in: iThemba Labs. - National Research Foundation (SA), Cape Town, South Africa











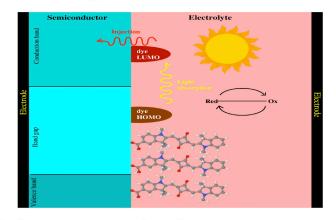






This Workshop will address the fundamental principles, basic processes and technological challenges of solar energy conversion, in particular in nano-structured materials. It will be organized in close coordination with ANSOLE (African Network for Solar Energy) and NANOAFNET (Network for Nanoscience and Nanotechnology in Africa). These two networks co-involve many of the active researchers in Africa in this field.

The topics will include: Solar energy conversion - solar cells; Solar fuels; Solar energy concentrators; Solar thermal energy; Solar based hydrogen production; Computational modeling of materials for solar energy; Algae based solar systems and biomimetics; Educational concepts in renewable energy; Green nanotechnology.



The world is currently facing an unprecedented energy crisis. It is very likely that the foreseeable shortages and increased cost of fossil fuels will be particularly strongly felt in developing countries which often have to compete on the worldwide energy market with financially much more potent industrialized countries. As an alternative, many developing countries can strengthen the use of renewable energy sources, which are (especially in Africa) often very abundant.

Solar energy, the subject of this proposed Workshop, stands out amongst renewable energy sources by its enormous potential. A widespread use of solar energy is however still hindered by relatively high capital costs of current photovoltaic technologies and by the intermittency of sunshine. This Workshop will address key scientific challenges in the field of materials science which are relevant to the development of cheaper and more versatile solar energy technologies.

PARTICIPATION:

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend. Priority will be given to advanced undergraduates, graduate students, post-doctoral researchers, faculty and research scientists from South Africa. As the event will be conducted in English, participants should have an adequate working knowledge of this language. Although, the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend. As a rule, travel and subsistence expenses of the participants should be borne by their home institution. Every effort should be made by candidates to secure support for their fare. However, very limited funds are available for partial support of some participants, who are nationals of, and working in, a developing country, and who are not more than 45 years old. Such support is available only for those who attend the entire Workshop. There is no registration fee for attending this activity.

HOW TO APPLY FOR PARTICIPATION

Applicants from South Africa, or working in South Africa, should apply via the website http://indico.tlabs.ac.za/confRegistrationFormDisplay.py/display?confld=41
Queries from South African applicants can be addressed to

Ms. Naomi Haasbroek using the e-mail address

ICTPworkshop2013@tlabs.ac.za

Applicants **from all other countries** should apply using the ICTP online system available at the website http://agenda.ictp.it/smr.php?2515

Once in the website, comprehensive instructions will guide you step-by-step on how to fill out and submit the Application Form.

Deadline for Application: 1 AUGUST 2013

Telephone: +39-040-2240346 Email: mailto:smr2515@ictp.it Trieste, May 2013 Fax: +39-040-224163 ICTP Home page: http://www.ictp.it/





in collaboration with: **ANSOLE** and **NANOAFNET**

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INVITED SPEAKERS:

Yao AZOUMAH (2iE, Burkina Faso)

Serge BERTHIER (University of Paris 6, France)

Gilles FLAMANT (CNRS, France)

Claes-Göran GRANQVIST (University of Uppsala, Sweden)

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IN CAPE TOWN:

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