Post-doctoral Researcher - Photonic Sciences - Advanced Optoelectronic Characterization of Nanostructured Solar Cells

PostDoc Position ICFO Institute of Photonic Sciences

Spain, Barcelona

Advanced optoelectronic characterization of nanostructured solar cells based on colloidal nanocrystals, quantum dots and organic HTLs

ICFO – The Institute of Photonic Sciences devoted to research and education of the optical and photonic sciences at the highest international level, is offering a postdoctoral position to a well-qualified, highly motivated and dynamic young scientist who wishes to enhance his/her scientific career in a friendly and stimulating environment.

The selected candidate will join the “Solution-Processed Nanophotonic Devices” research group, led by Prof. Gerasimos Konstantatos. The group is looking for a highly motivated postdoc fellow with demonstrated strong expertise in optoelectronic characterization of thin film nanocrystalline or polymer solar cell devices.

The successful candidate will have expertise in experimental techniques
including: CELIV, Photo-CELIV,TPV, TSC, Cap-V etc. for the characterization of the properties of solar cell materials and devices.
The candidate should also be able to correlate the extracted parameters with device figures of merit and develop models that describe the underlying recombination mechanisms. Expertise on using related modeling simulation tools (e.g. AMPS, SCAPS etc.) will be considered a plus.
Last but not least, the candidate will also be in charge of device fabrication particularly in the field of solution processed inorganic bulk heterojunction solar cells; therefore prior expertise in solar cell fabrication based on solution processed solar cells will be considered a plus.

The candidate will join an interdisciplinary group of material scientists, chemists and physicists whom with he/she will collaborate closely for the characterization of solar cell devices currently explored in the group.

The scope of the project is to elucidate bottleneck effects and identify recombination pathways in all-inorganic and hybrid polymer-nanocrystal bulk heterojunctions and aim to suppress them via chemical surface engineering or via novel device architecture designs.

REQUIREMENTS AND CONDITIONS

Candidates must hold a B.A.Sc., as well as an internationally-recognized Ph.D.-equivalent degree (or evidence of its completion in the nearest
future) in applied physics or electrical engineering.
The candidate should have strong team-player skills and be able to work independently.
No restrictions of citizenship or gender apply to the ICFO post-doctoral contracts.
The contract is offered for an initial period of one year, renewable for an additional year. The earliest possible starting date for the position is January 2014.

APPLICATION PROCEDURE•The formal application should be submitted online via the link below.
•Suitable candidates are requested to submit:
•Presentation letter with a declaration of interest, •Curriculum Vitae, including full address, a contact phone number and e-mail address, •The contact e-mail of two potential referees. Candidates should be willing to be contacted by phone during the selection process. Due to the volume of applications typically received, only short-listed candidates will be contacted for an interview.
Candidates may contact icfojobs@icfo.eu for informal enquiries regarding the application, as well as address scientific enquiries to Prof.
Gerasimos Konstantatos at gerasimos.konstantatos@icfo.eu.

The call will remain open until March 31, 2014, or until suitable candidates are identified.

For updated information about ICFO, please visit http://www.icfo.eu/