

NSERC CREATE **TOP-SET** Un programme
FONCER du CRSNG

In collaboration with the Department of Physics Colloquium Series

Séminaire

Le jeudi 22 février 2018, 14h45
Des rafraîchissements seront servis dès 14h15
Complexe de recherche avancée, pièce 233
Université d'Ottawa, 25, rue Templeton
Le séminaire se déroulera en anglais.

Seminar

Thursday, February 22, 2018, 2:45 p.m.
Refreshments to be served starting at 2:15 p.m.
Advanced Research Complex, room 233
University of Ottawa, 25 Templeton Street

The Evolution of Solar Cells

Antonio Marti, Instituto de Energía Solar - Universidad Politécnica de Madrid
NSERC CREATE TOP-SET Visiting International Scholar, 2017-2018

Abstract: Multiple-exciton generation solar cells, hot carrier solar cells and intermediate band solar cells are often referred to as third-generation solar cells because of their potential to exceed the limiting photovoltaic conversion efficiency for single gap solar cells established by Shockley and Queisser. In this talk we review, in a comprehensive way, the operation of these solar cells and illustrate how one type of solar cell can be regarded as an "evolution" of another by removing or including some particular physical phenomenon.

Bio: Antonio Martí graduated in Physics in 1987 from the Universidad Complutense de Madrid and received his PhD in 1992 from the Universidad Politécnica de Madrid (UPM). He joined the Instituto de Energía Solar (IES) of the UPM in 1986. Together with Prof. Luque, he proposed in 1997 the intermediate band solar cell (IBSC) concept and its practical implementation with quantum dots among other options. Within IES, he has directed the creation of IBLAB, a laboratory specializing in the characterization of intermediate band solar cells, which was the first laboratory providing experimental proof of the operation of the IBSC concept according to its postulates.



TOP-SET est un programme de formation FONCER du CRSNG en puissance optoélectronique ayant pour but de façonner une cohorte de personnel hautement qualifié détenant des connaissances approfondies en systèmes optoélectroniques pour rejoindre les rangs d'équipes de recherche et développement.

NSERC CREATE Training in Optoelectronics for Power: from Science and Engineering to Technology (**TOP-SET**) is a training program that aims to form a cohort of highly qualified personnel with comprehensive understanding of optoelectronic systems, capable of joining advanced R&D teams.

Pour de plus amples renseignements sur TOP-SET, veuillez consulter create-topset.eecs.uottawa.ca/fr.

For further details regarding TOP-SET, go to create-topset.eecs.uottawa.ca.



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