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Nowadays, most photovoltaic (PV) technologies absorb the visible domain of the light spectrum. As a consequence, these devices are not transparent or at least semi-transparent. In this contest, far-red/near infra-red (NIR) light is indubitably interesting to widen solar harvesting corresponding to 25% of overall solar light available on earth's surface. The photoconversion efficiency expected by the exploitation of these frequencies (700-1000 nm) is lower with respect to the visible region, but, far red-NIR sensitizers allow to tune the colors of final devices from blue to green, or even to colorless. Transparent cells without any coloration would allow the visible light to pass through unhampered reaching a fully integration of PV devices in building-integrated applications (BIPV). [1]

The photosensitizer has a crucial role in a NIR-DSSC system. Different families of NIR chromophores have been investigated for applications in DSSCs with relatively low success in terms of transparency and power conversion efficiency. At present, NIR-based DSSCs exhibited at best 2.3% PCE with very thick electrodes sensitized with a cyanine dye absorbing at 805 nm. [2]. Our research group developed several squaraine dyes for DSSC absorbing in the NIR region. [3,4]

Recently a few series of new efficient all organic polymethine sensitizers based on squaraine [5], cyanine and croconine moieties with a shifted absorption as high as 830 nm have been synthesized and fully characterized. DSSCs based on these new efficient sensitizers are able to convert up to 36% IPCE until 850 nm. Their light-to-electricity performances have been optimized by using highly diluted dye solution to promote the formation of a free self-assembled monolayer.

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nanoGe is a prestigious brand of successful science conferences that are developed along the year in different areas of the world since 2009. Our worldwide conferences cover cutting-edge materials topics like perovskite solar cells, photovoltaics, optoelectronics, solar fuel conversion, surface science, catalysis and two-dimensional materials, among many others.

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nanoGe Fall Meeting (NFM) is a multiple symposia conference celebrated yearly and focused on a broad set of topics of advanced materials preparation, their fundamental properties, and their applications, in fields such as renewable energy, photovoltaics, lighting, semiconductor quantum dots, 2-D materials synthesis, charge carriers dynamics, microscopy and spectroscopy semiconductors fundamentals, etc.

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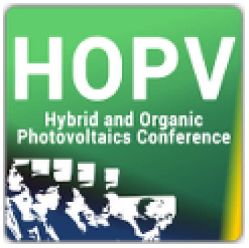
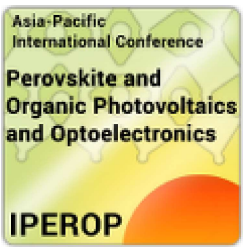
This conference is a unique series of symposia focused on advanced materials preparation and fundamental properties and their applications, in fields such as renewable energy (photovoltaics, batteries), lighting, semiconductor quantum dots, 2-D materials synthesis and semiconductors fundamentals, bioimaging, etc.

(/hybrid-and-organic-photovoltaics-international-conference)**International Conference on Hybrid and Organic Photovoltaics (/hybrid-and-organic-photovoltaics-international-conference)**



International Conference on Hybrid and Organic Photovoltaics (HOPV) is celebrated yearly in May. The main topics are the development, function and modeling of materials and devices for hybrid and organic solar cells. The field is now dominated by perovskite solar cells but also other hybrid technologies, as organic solar cells, quantum dot solar cells, and dye-sensitized solar cells and their integration into devices for photoelectrochemical solar fuel production.

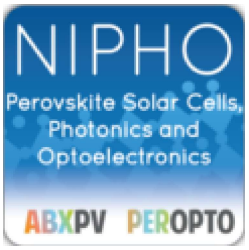
(/international-perovskite-and-organic-photovoltaics-and-optoelectronics-conferenc)**Asia-Pacific International Conference on Perovskite, Organic Photovoltaics and Optoelectronics (/international-perovskite-and-organic-photovoltaics-and-optoelectronics-conferenc)**



The main topics of the Asia-Pacific International Conference on Perovskite, Organic Photovoltaics and Optoelectronics (IPEROP) are discussed every year in Asia-Pacific for gathering the recent advances in the fields of material preparation, modeling and fabrication of perovskite and hybrid and organic materials. Photovoltaic devices are analyzed from fundamental physics and materials

properties to a broad set of applications. The conference also covers the developments of perovskite optoelectronics, including light-emitting diodes, lasers, optical devices, nanophotonics, nonlinear optical properties, colloidal nanostructures, photophysics and light-matter coupling.

(/perovskite-thin-film-photovoltaics-perovskite-photonics-and-optoelectronics)**International Conference on Perovskite Thin Film Photovoltaics Perovskite Photonics and Optoelectronics (/perovskite-thin-film-photovoltaics-perovskite-photonics-and-optoelectronics)**



The International Conference on Perovskite Thin Film Photovoltaics Perovskite Photonics and Optoelectronics (NIPHO) is the best place to hear the latest developments in perovskite solar cells as well as on recent advances in the fields of perovskite light-emitting diodes, lasers, optical devices, nanophotonics, nonlinear optical properties, colloidal nanostructures, photophysics and light-matter coupling.