

21st I-APS Pre-Symposium Workshop
May 16th -17th, 2011, Mendoza, Argentina

Several attendees of the 21st Conference of the Inter-American Photochemical Society arrived in Mendoza, Argentina, early to participate in a pre-conference workshop organized by Ana Moore (Arizona State University), Gonzalo Cosa (McGill University) and Valeria Kleiman (University of Florida). Reflecting many of the topics explored during the conference, but focusing on solar energy conversion and artificial photosynthesis, the workshop comprised contributions from throughout the Americas, from Canada to Chile and Argentina, and facilitated an informal atmosphere allowing for lively discussion of the presented subjects. The workshop offered an opportunity to discuss several techniques used in the photochemical sciences and was the perfect setting for the participation of young researchers who are at the beginning of their careers like Mike Hambourger from the US, Ernesto Mariño-Ochoa from México and Rodrigo Palacios from Argentina. The presentations were organized into three sessions covering energy and electron transfer in natural and artificial systems, experimental and theoretical methodologies, and novel materials. The workshop culminated in a round table discussion regarding the progress of research in Chemistry throughout and between North and South America through education and collaboration.

The first collection of speakers addressed the topic of energy and electron transfer in natural and artificial systems. This initial session, chaired by Ana Moore, saw contributions from Ksenija Glusac of Bowling Green State University, Gabriela Lagorio of Universidad de Buenos Aires, Mauricio da Silva Baptista of Universidade de São Paulo and Andrés Thomas of Universidad Nacional de La Plata. Also during this session, Luis Baraldo of Universidad de Buenos Aires presented work on cyanide-bridged Ru(bpyridyl)₃ complexes and their incorporation into dye sensitized solar cells. Mike Hambourger of Appalachian State University discussed the use of cobalt-based catalysts for the generation of hydrogen, and Rodrigo Palacios of Universidad Nacional de Río Cuarto described techniques for exploring electron injection into TiO₂ at a single particle level.

Presided by Gonzalo Cosa, the second group of speakers encompassed the topic of experimental and theoretical methodologies and began with a presentation by Marcia Levitus of Arizona State University on spectroscopic techniques for probing photophysical properties with single molecule resolution. James McCusker of Michigan State University discussed the use of time resolved spectroscopy in studying charge transfer of metal complex-based chromophores during this session. Also presenting during this portion of the workshop were Valeria Kleiman of the University of Florida, Su Lin of Arizona State University, Nancy Levinger of Colorado State University, Alan Aspuru-Guzik of Harvard University, and Sebastián Fernández-Alberti of Universidad de Quilmes.

With Valeria Kleiman as chair, the final session covered novel materials and enjoyed contributions from Carolina Aliaga-Vidal of Universidad de Santiago de Chile on manipulating the fluorescent properties of gold nanoparticles, Ernesto Mariño-Ochoa from Tecnológico de Monterrey covering axial modification and functionalization of (Si)-phthalocyanines, and Qyuen Nguyen of the University of California Santa Barbara discussing advances in plastic solar cells. The session concluded with an insightful

presentation by Tom Moore of Arizona State on the pressing need for new energy paradigms especially relating to artificial photosynthesis.

Finally, the last session of the workshop consisted of a round table discussion on the promotion of research in Chemistry in Latin America, especially through joint educational and collaborative efforts with North America and Europe. The discussion began with perspectives and anecdotes from the panel, formed by Ana Moore, Silvia Braslavsky, Pedro Aramendía, and Teresa Atvars, later involving the greater audience in a rich discourse on the topic. Various aspects of the collaborations were considered, such as brain drain of Latinamerican scientists, establishment of new technologies in Latin-America, possibilities of funding of joint collaborations, etc. In all, the workshop of the 21st-I-APS Conference provided the participants with a broad sampling of the topics further explored during the invited talks and poster sessions of the 21st-I-APS conference that followed (see separate report) as well as the opportunity to discuss both the research and broader issues relating the field of the photochemical sciences in a smaller and more informal setting.

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