

Conference Call

The conference provided an ideal opportunity for Latin American participants to attend lectures by prominent researchers, giving them valuable insights into current and future trends in the field. In addition, many Latin American scientists had the opportunity to exhibit their works to a prestigious audience of international scientists. All told, the conference promoted the exchange of ideas in both formal and informal ways, allowed for the renewal of personal contacts among friends and colleagues from Latin America and all over the world, and encouraged the development of new joint projects.

In sum, the following objectives for the conference were fully met:

- the promotion of physical organic chemistry in Argentina, Latin America, and the world at large
- the enhancement of scientific interactive relationships among groups from Latin America and group leaders from other countries
- the fostering of physical organic chemistry in the new generations of graduate students
- the promotion of peaceful uses of physical organic chemistry

It is important to mention the large number of representatives from different institutions who attended the conference, especially from Argentina. It was the first time that scientists from such varied universities and research centers from throughout Argentina were able to participate in CLAFQO. This coming together has paved the way for further intercommunication and integration of research groups and institutions, as well as for the future of physical organic chemistry in Argentina, Latin America, and many other nations.

In the closing ceremony, C. Dale Poulter (University of Utah, United States) outlined the importance and main contributions of the physical organic chemistry to the advance of science.

The organizers wish to thank the Universidad Nacional de Córdoba and Río Cuarto, CONICET, the National Agency for the Promotion of Science and Technology, the Argentine Association for Physical Chemistry Research, and the Argentine Society for Research in Organic Chemistry for their invaluable sponsorship and financial assistance.

The conference also received financial support from the Organisation for the Prohibition of Chemical Weapons and the *Journal of Organic Chemistry*, a publication of the American Chemical Society. IUPAC's sponsorship is greatly appreciated; it allowed the conference to earn IUPAC's academic recognition and gave it international scope. A special issue of

the *Journal of Physical Organic Chemistry* is being devoted to CLAFQO9, and participants have been invited to submit manuscripts containing original unpublished work.

CLAFQO10 is to be held in Florianópolis, Brazil, 2009. It will be organized by Faruk Nome from the Federal University of Santa Catarina, Florianópolis, Brazil.

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Infrared Spectroscopy Applied to Biological and Biomimetic Systems

by *Andrea Gómez-Zavaglia*

The **International Workshop on Infrared Spectroscopy Applied to Biological and Biomimetic Systems: From the Isolated Molecule to the Cell** (FTIR 2007) was held 5–7 November 2007 at the Goethe Institute, Buenos Aires, Argentina.

As the conference demonstrated, the versatility of infrared spectroscopy has stimulated a substantial number of new developments in experimental techniques and instrumentation as well as in theoretical methods, specialized software, and computational equipment. Nowadays, the combination of experimental and computational spectroscopic approaches has become the new methodological paradigm to undertake advanced research on biologically relevant problems.

For this reason, the main purpose of FTIR 2007 was to facilitate discussion about all aspects of infrared-spectroscopy-based methodologies and their applications in physics, chemistry, biology, biochemistry, biophysics, and medicine. To fulfill this aim, topics such as Infrared Spectroscopy of Cells and Tissues, Low Temperature Infrared Spectroscopy, Infrared Spectroscopy of Lipids and Proteins, and Infrared Spectroscopy in Molecular Diagnostics and in Biomimetic Systems were discussed.

In summary, the aim of FTIR 2007 was to cover the most outstanding breakthrough of FTIR (Fourier Transform InfraRed) spectroscopy methodology (from isolated-molecules to cells) and diffuse it among young researchers. The meeting helped elucidate the applications of FTIR in different, but still intercon-

nected fields: from the isolated molecule to whole cellular systems, from the structure and reactivity of simple biological molecules to the investigation of the functionality of enzymes, nucleic acids, and membranes, from looking at the fundamental physics underlying simple molecular processes to uses in clinical biochemistry.

The participation of well-known specialists in different domains of infrared spectroscopy provided a complete overview about the full potential of the technology. In this sense, it is worth mentioning the interesting lectures of Henry Mantsch, Dieter Naumann, Jürgen Schmitt, Rui Fausto, Ronald Birke, Urs Peter Fringeli, José Luis Arrondo, Jean-Marie Ruyschaert, and Klaus Brandenburg among many others, which provided different points of views on the potential of FTIR. These perspectives definitely enriched the discussions after each session.

At the same time, the informal ambience of this event also helped stimulate the interaction among participants. This is particularly important for encouraging open-minded younger scientists.

The decision to hold the meeting in a “far away” city such as Buenos Aires represented a big challenge. For this reason, it was gratifying to have spectroscopists from Asia, Africa, Europe, and America take part in the meeting. This created a valuable human richness that was much appreciated by the participants.

During this three-day meeting, 9 plenary lectures, 10 semiplenary lectures and 10 short talks took place. The first day was dedicated to the biomedical applications of vibrational spectroscopy. The second day, to the physicochemical characterization of biologically relevant compounds, and the third day, to the infrared spectroscopy of lipids and proteins.

IUPAC's financial support enabled the conference organizers to cover some of the travel costs of the plenary lecturers and also to provide grants to younger participants, which constituted one of the most fundamental objectives of this meeting (to provide an opportunity for young scientists to meet internationally recognized scientists in this field and to learn from them and develop their chosen professions).

The success of the meeting encouraged the organizers to consider FTIR 2007 as the first in a series of meetings. After the event, the idea of organizing a meeting in approximately two years was accepted by everyone.

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Malta III—Research and Education in the Middle East

by *John M. Malin*

Known as “Malta III,” the third conference in the series, **Frontiers of Chemical Sciences: Research and Education in the Middle East**, was held in Istanbul, Turkey, from 8–13 December 2007. This remarkable series of meetings continues to bring scientists from Middle Eastern countries and other nations together to discuss common problems and encourage collaborative research in the fields of energy, materials science, natural products, green chemistry, education, and environment.

Middle Eastern participation in Malta III was the largest yet of the three conferences, named for the island of Malta where the first two meetings were held. Of the 90 participants, 67 were from Middle Eastern countries: Bahrain (1) Egypt (9), Iran (8), Iraq (3), Israel—both Arabs and Jews (12), Jordan (9), Kuwait (2), Lebanon (4), Palestinian Authority (10), Saudi Arabia (1), Turkey (4), United Arab Emirates (4). Other nations represented included Canada, Germany, Norway, Switzerland, UK, and USA.

As in Malta I and II, a multinational organizing committee chaired by Zafra M. Lerman from Columbia College Chicago produced the event. Cosponsoring organizations were the United National Educational, Scientific, and Cultural Organization (UNESCO); IUPAC; Columbia College Chicago; American Chemical Society (ACS), Royal Society of Chemistry (RSC), and Gesellschaft Deutscher Chemiker (GDCh).

Plenary Sessions and Workshops

A special feature of the conference was a series of six plenary lectures by Nobel Laureates Aaron Ciechanover (Israel), Richard Ernst (Switzerland), Roald Hoffmann (USA), Tim Hunt (UK), Walter Kohn (USA), and F. Sherwood Rowland (USA).

The first plenary session was chaired by Hasan Salah Dweik of Al Quds University (Palestinian Authority). In his address, entitled “The Nature of Energy,” Peter Atkins (Oxford University, UK) presented an enlightening overview of how the qualitative concepts of energy, entropy, temperature, space, and time have lead to development of the quantitative tools of thermodynamics.

Ameen Farouk M. Fahmy, Ain Shams University (Egypt), chaired the second plenary session in which Richard Ernst (Nobel Laureate, E.T.H., Switzerland)