

Conference Call



A panoramic photo of the conference attendees

IUPAC, TWAS (The World Academy of Sciences) as well as ESP, ASP and the French Society of Photobiology, who helped finance the participation of young graduate students. These grants permitted the fees of Latin-American graduate students and young researchers to be waived.

Several International companies and representatives of instrumentation in Argentina supported the Congress. Their logos appear in the Programme Booklet and the web page. Major contributors included L'Oreal in particular for sponsoring the contributors of the symposium on photoprotection, BASF and Johnson&Johnson. Exhibition booths for some sponsoring companies were located in the foyer of the Pavillion.

The abstracts of all plenary, special, and keynote lectures, contributions to the symposia and the posters presented were published online and can be found on the Congress website.

The editors of the journals *Photochemical and Photobiological Sciences* ((PPS), the Journal of the European Society of Photobiology, (ESP) and the European Photochemical Association (EPA)), *Photochemistry and Photobiology* (P&P, the journal of the American Society of Photobiology (ASP)), and *Pure and Applied Chemistry* (PAC, the scientific journal of IUPAC) have agreed to publish, in each journal, some of the lectures and symposia presented during the Congress. All submitted papers will undergo the normal evaluation procedure. The submission deadline for all three Journals will be 31 March 2015, with each of the papers publishing immediately after acceptance. A virtual issue will collect all contributions belonging to the Congress.

A major spin-off of the Congress is the creation of the Argentinian Group of Molecular Photobiologists (GRAFOB in Spanish, <http://grupoargentinodefotobiologia.info>). This group has held two meetings in preparation for the 16th ICP: first in 2011 in La Plata and the second in 2013 in

Córdoba, the same city that hosted the 16th ICP in 2014. Both meetings included approximately 90 participants. Several contacts were established between Latin American research groups, including some that could not participate of the Congress. The Argentinian photobiology group met during the Congress and agreed to organize a third GRAFOB meeting in Tucumán in 2016.

The Executive Board of IUPB had a regular meeting during the Congress and also held a general assembly. The newly elected Executive Board is: President: John Spudich (USA); Secretary: Evelyn Sage (France); Treasurer: Franz Trautinger (Austria); Vice-Presidents: Roberto Bassi (Italy), Carlos Ballaré (Argentina), Gary Halliday (Australia), and Yoshitaka Fukada (Japan); Liaison member as organizer of the 16th ICP: Silvia Braslavsky (Germany).

Congress participants had the opportunity to enjoy a tango show during the opening reception on Sunday evening, as well as folk dancing on Thursday evening. They could also witness how several students drank their mate during the lectures.

The 17th ICP will most likely be held in 2018 in the UK.

Solubility Phenomena and Related Equilibrium Processes

by Marcus Altmaier

The 16th International Symposium on Solubility Phenomena and Related Equilibrium Processes (ISSP-16) was held 21-25 July 2014, in Karlsruhe (Germany). The IUPAC-sponsored symposium was organized by the Karlsruhe Institute of Technology's Institute for Nuclear Waste Disposal (KIT-INE), with Dr. Marcus Altmaier acting as conference chair and Dr. Susanne Fanghänel as conference secretary. In conjunction with ISSP-16, the 13th annual meeting of the IUPAC Subcommittee on Solubility and

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Equilibrium Data (SSED) was held on 20 July, chaired by Clara Magalhães.

The International Symposium on Solubility Phenomena and Related Equilibrium Processes (ISSP) is an established bi-annual symposium gathering international experts on solubility studies to exchange new research and concepts. ISSP-16 in Karlsruhe successfully followed a series of previous meetings, the most recent being ISSP-15 (2012, Xining, China), ISSP-14 (2010, Leoben, Austria), and ISSP-13 (2008, Dublin, Ireland).

ISSP-16 was a very positive contribution to the ISSP conference series, with 116 participants from 24 countries (Australia, Austria, Bulgaria, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Japan, Poland, Portugal, Russia, Serbia, South Korea, Spain, Sweden, Switzerland and USA), as well as the European Commission.

ISSP-16 addressed the general importance of solubility phenomena in a variety of different settings, ranging from green chemistry to nuclear waste disposal and modern technical applications. The meeting featured a wide agenda of topics, specifically highlighting the importance of chemical thermodynamics and solubility studies both in fundamental and applied science. Invited and contributed oral and poster presentations ranged from basic equilibrium measurements to advanced theoretical predictions. ISSP-16 offered a dedicated scientific platform for presenting, discussing and promoting the study of solubility phenomena and related equilibrium processes, and it received very positive feedback from the attendees.

The conference was divided into specific sessions to allow clear focus on topics of key interest. Session topics were:

- Investigation and analytics of aqueous speciation
- Aqueous solutions at high ionic strength
- Kinetics of phase transformations
- Molten salts and ionic liquids
- Effects of solute-solvent interactions on solubility phenomena
- Solubility phenomena in technical and industrial applications
- Computer assisted equilibrium calculations and related thermodynamic databases

ISSP-16 invited distinguished plenary lecturers to introduce main topics. Lecturers were: (in alphabetical order): M. Filella, University Geneva, Switzerland, "Solubility seen from an environmental chemist's point of view: caveats and needs"; H. Gamsjäger, University Leoben, Austria, "Thermodynamic properties of molybdate ion: reaction cycles and experiments"; I. Grenthe, KTH, Sweden, "Solid

phases, structures and solution chemistry - what type of molecular insights do they provide?"; W. Runde, Los Alamos National Laboratories, USA, "Actinide chemistry in chloride brine solutions"; W. Voigt, Technical University Freiberg, Germany, "What we know and still not know about oceanic salts".

Within ISSP-16, two Franzosini awards (supported by IUPAC-SSED) were presented, given to M. Bendová, Institute of Chemical Process Fundamentals Prague, Czech Republic, and S. Gadzuric, University Novi Sad, Serbia. The laureates awardees introduced their work with invited talks on "Liquid phase behaviour in systems containing ionic liquids: can 'old-fashioned' experiments enable us to understand their properties and structure?" (Bendová) and "Thermodynamics of lanthanide halide + alkali halide binary mixtures: experimental and chemometric study" (Gadzuric).

Reflecting the specific profile focus of the Institute of Nuclear Waste Disposal at KIT, and highlighting a topic of wide international relevance and importance, a half-day workshop on "Solubility and Speciation in Nuclear Waste Disposal" was held. With a strong emphasis on (geo)chemical concepts in nuclear waste disposal, special attention was given to discuss solubility, speciation and thermodynamic data/geochemical modeling. The application of advanced spectroscopy and analytical techniques was highlighted as a key tool for the definition of accurate chemical models and solubility studies in general.

ISSP-16 was sponsored by IUPAC, the NUSAFE programme of HGF (Germany), and the BASF company.

Selected contributions from the conference will be published in a special volume dedicated to ISSP-16, scheduled to appear in *Pure and Applied Chemistry* in 2015. The 17th ISSP conference is scheduled for July 2016 at the University of Geneva (Switzerland); precise dates still to be confirmed.

More than hundred participants from 24 countries and four continents attended ISSP-16.

