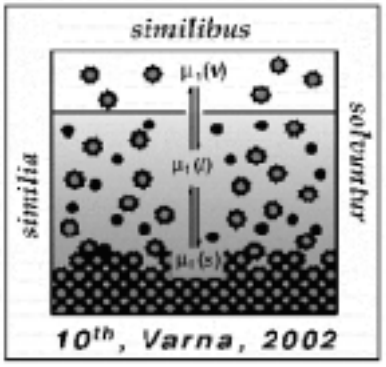
with Dr. Stefka Tepavitcharova as scientific secretary; both are from the Bulgarian Academy of Sciences.

The symposium and workshop were organized by the Bulgarian Academy of Sciences, the Subcommittee on Solubility and Equilibrium Data, and the International Centre of Black Sea Studies. IUPAC was the major-sponsor of the symposium as part of the IUPAC program to provide financial support for international symposia in developing and economically disadvantaged countries. Support was also received from the Bulgarian Academy of Sciences; the UNESCO Regional Bureau for Science in Europe, Venice; and the U.S. Army Research Development and Standardization Group, UK. Sponsors for the Workshop, in addition to the Bulgarian Academy of Sciences and UNESCO, were the International Centre of Black Sea Studies, Athens; the European Commission, Directorate General Research; Intergovernmental Oceanographic Commission, Paris; International Ocean Institute, Malta; Cesum-BS, Centre of Excellence, Varna; Chernomorski Solnizi AD, Burgas; and Black Sea Technological Campany, Varna. The symposium and workshop received good coverage in the local Varna press and on Bulgarian radio.

The opening ceremonies were presided over by Professor Balarew, symposium chair. Professor Ivan Gutzow (Bulgaria) gave the opening plenary address on "Solubility and Crystallization in Biological Fluids and the Problems of Life and Health," a topic that served as an excellent introduction to both the symposium and workshop.



The Symposium was organized in 12 sessions divided among the four sections: Quantitative Structure-Solubility Relationships; Solubility Diagrams, Phase Relationships, and their Application; Application of Solubility Data for Environmental Improvement of Polluted Waters and Soils; and Application of Solubility Data in Marine-Type Solutions and Industrial Waste Treatment. Fourteen plenary lectures and 21 contributed papers made up these sessions, and 47 posters were presented during two evenings. The contributions themselves covered a wide spectrum of solubility phenomena, from fundamentals of dissolution processes through new data and modelling of solubility processes to many applications.

The workshop was organized in six sessions divided among the three sections: Pollution Level and Pollution Sources of Danube, Dnieper, Dniester, Bug, and Other Rivers Flowing into the Black Sea; Black Sea Fluxes, Monitoring of the Black Sea (including a roundtable discussion); and Reinforcement of Regional Participation in Integrative European Programmes for Solving Ecological Problems (with a roundtable discussion on regional cooperation). Three plenary lectures, 25 contributed papers, and 28 posters were presented. The plenary lectures given at both the symposium and the workshop are to be published in *Pure and Applied Chemistry* under the editorship of David Shaw (USA).

The extensive participation of delegates from countries with Black Sea coastlines, as well as of those from countries that have historical, economic, and political connections with the Black Sea, was a noteworthy feature of the workshop. The workshop thus provided a valuable forum for scientific workers to meet one another and to learn of the several national and international programs that are addressing the many problems connected with the ecological health of the Black Sea.

Participants enjoyed a half-day excursion to Balchik, followed by a memorable dinner at the Ethnographic Complex "Chiflika" in the village of Chukurovo in the Dobrich region.

J. W. Lorimer is a professor at the University of Western Ontario, Canada, and a long-time IUPAC member.

www.igic.bas.bg/10thISSP
www.iupac.org/divisions/V/502

Physical Organic Chemistry

by Tom Tidwell

From 4-9 August 2002 at the University of California, San Diego, 280 chemists from 30 countries assembled for "Structure and Mechanism in Organic Chemistry," the 16th International Conference on Physical Organic Chemistry, which was sponsored by IUPAC. The meeting featured 34 plenary and invited lectures, 93 contributed lectures, and 128 posters.

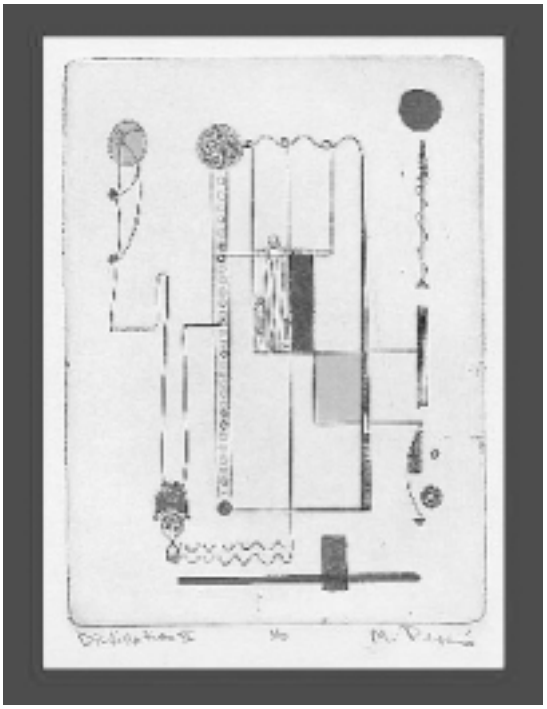
The local organizer was Professor Charles L. Perrin, who is also chair of the Subcommittee on Structural and Mechanistic Chemistry of the IUPAC Organic and Biomolecular Chemistry Division. A social and cultural program included a welcoming reception, visits to the Mt. Palomar Observatory and the San Diego Zoo, city and harbor tours, and a banquet at the Birch Aquarium of the Scripps Institute for Oceanography.

The University of California at San Diego (UCSD) is now more than 40 years old, and the faculty has included

nine Nobel Prize winners in the sciences. The most recent is Walter Kohn, a 1998 winner in chemistry who developed DFT computational methods at UCSD before moving to U.C. Santa Barbara. Barry Sharpless, a 2001 winner in Chemistry, is at the nearby Scripps Research Institute. The San Diego campus is situated in a lovely environment on the Pacific Ocean, in an area that has become a leading center of the biotechnology industry in the United States. In addition to a benign summer climate, the university has excellent conference facilities, with low-cost student residences available for participants.

The topics presented at the five-day meeting emphasized the diversity of modern research in structural and mechanistic chemistry, with particular emphasis on understanding chemical reactivity, intermolecular recognition, supramolecular chemistry, biological systems, and materials. A key topic was nanotechnology, including lectures on photochemically activated molecular-level devices (Vincenzo Balzani, Bologna, Italy); dynamics of contractile catenanes and rotaxanes (Jean-Pierre Sauvage, Strasbourg, France); synthesis and operation of a molecular motor (Ben Feringa, Groningen, Netherlands); and millimeter-scale self-assembly and potential applications (George Whitesides, Harvard). Another key topic was the analysis of the relation between structure and biochemical function, including lectures on hydrogen tunneling in enzyme-catalyzed reactions (Judith Klinman, U.C. Berkeley); kinetics of self-replicating systems and self-assembly of nanoobjects based on nucleic acids (Gunther von Kiedrowski, Bochum, Germany); genetic selection as a tool for mechanistic enzymology (Donald Hilvert, ETH, Zürich, Switzerland); chemical methods for modulating cell-surface architecture (Carolyn Bertozzi, U.C. Berkeley); single-molecule studies of the mechanism of protein unfolding (Jane Clarke, Cambridge, U.K.); and the thermodynamics of some reactions of NO and NADH (Jin-Pei Cheng, Nankai University, China). Other presentations dealt with gas-phase and solution reactivity and structure, including catalysis of electron-transfer processes (Shunichi Fukuzumi, Osaka); low-coordination silicon compounds (Yitzhak Apeloig, Haifa, Israel); salt effects on conformations of heterocycles (Eusebio Juaristi, Mexico); mass spectrometric detection of organometallic intermediates in new catalytic processes (Peter Chen, ETH, Zurich); and synthesis of novel cyclopropane derivatives (Armin de Meijere, Gottingen, Germany).

Conference participants outside the meeting room: Left to right; John Toscano (Johns Hopkins U., Baltimore), Peter Chen (ETH, Zurich), Charles L. Perrin (UCSD, Chair of Organizing Committee), JoAnn DeLuca (Central Washington U.), and John Baldwin (Syracuse U.)



Distillation II by Marilyn H. Perrin—Since it has been an ICPOC tradition to include artwork in conference programs, Professor Perrin chose one of his wife's pieces for all to enjoy. This piece can be viewed in color at <http://chem-faculty.ucsd.edu/perrin/icpoc>.

This symposium continues an impressive series of scientific presentations, following the trajectory of the plenary lecture by K. R. Seddon at the 15th Conference in 2000 in Göteborg, Sweden. That lecture was published in *Pure and Applied Chemistry* in 2001 and was ranked in the top 10 requested articles from the Chemical Abstracts document service. The 17th conference is scheduled for Shanghai in 2004, and is expected to continue to showcase the growth and development of this field.

Tom Tidwell, University of Toronto, is president of the IUPAC Division of Organic and Biomolecular Chemistry.

chem-faculty.ucsd.edu/perrin/icpoc