CHEMRAWN XV: Chemistry for Water – Maison de la Chimie Foundation, Paris, France, June 21-23, 2004

IUPAC Project # 2001-007-1-021
Preliminary Conference Report: Alan Smith, *Chemistry International*, Vol. 26 No. 5, 2004, September-October
Michael Freemantle (2004), *Chemical and Engineering News*, July 19, pp 25-30

The CHEMRAWN XV conference, which received the high patronage of the President of the French Republic, Jacques Chirac, brought speakers and attendees from five continents to discuss new chemistry and chemical engineering developments facilitating availability of water. Three main areas for development considered at the conference were: (1) separations science, e.g., development of new membranes for water purification; (2) disinfection science involving e.g,, biodegradable chemicals, or new techniques for elimination of bio-film fouling of water supply pipes; (3) analytical science, for example, developing biomarkers to track certain pollutants - or computational techniques to model water and effluent flow or minimize usage and waste.

The French Minister of Foreign Trade, François Loos, was a keynote speaker. Plenary addresses included "*Water, a Major Challenge for the 21st Century"* by Dr. Koichiron Matsuura, Director-General, UNESCO, *"The World-Wide Water Problem"* by Dr. William J. Cosgrove, President of the World Water Council, *"Water and Civilisation in the 21st Century"* (Prof. Vladislav V. Goncharuk, Ukraine, *"Chemistry, Water and Health"*, Dr. Yves Levi, Pharmacy University of Paris, *"Green Chemistry and Water Resources Management"* by Dr. Dennis L. Hjeresen, Los Alamos National Laboratory, *"Increased Role of Plastics in Substructures"*, Jean Bernard Lartigue, Atofina, *"What do the Professionals in Water Expect from the Chemical Industry"*, Dr. Bill Roe, Nalco; *"The Problem of Pipe Materials for the Transport of Drinking Water"*, Pascal Soukatchoff, Saint Gobain Pont-à-Mousson Co.; "*Un Instrument de Mobilisation des Moyens: Le Réseau RIT Eau"*, M. Jean-Marc Usselglio, SOGREAH; *"The State and the Future of Water Desalination"*, Jean-Marie Rovel, International Desalination Association; "*Chemistry and the Environment: Challenges for Coastal Environment"*, Jean-Francois Minster, IFREMER*; "A Vision of Water Treatments and Distribution"*, Nasri Chami, Anjou-Recherche; "*La Chimie au Service de la Production des Sources D'Eau Douce sous-Marines"*, Pierre Becher, Nymphea Water Co.; A series of workshops enabled the more than 200 delegates to share their results and views on specific problems in Analytical Sciences and Technologies for Water; Chemistry, Agriculture, Soil and Water; Chemistry, Industry and Water; Water Treatments and Supply; Chemistry in Specific Uses of Water; and Case Studies.

Subsequent Actions.

- A Perspectives and Recommendations report is in preparation.
- S. Ahuja and J. Malin developed a project on Arsenic Remediation from Groundwater in Bangladesh in connection with CHEMRAWN XV. With support from IUPAC and ACS, they had visited Bangladesh in March 2004

and reported on their findings at CHEMRAWN XV. Together with Prof. Mosihuzzaman of the University of Dhaka they subsequently organized a workshop on solutions to the arsenic problem. The event was held in December, 2005 in Dhaka, Bangladesh with support from IUPAC, the U.S. National Science Foundation, the Bangladesh Academy of Sciences, the Chemical Society of Bangladesh and other agencies.

- Prof. Hemda Garelick of the University of Middlesex, UK, and coworkers are employing multivariant analysis to compare technologies for arsenic remediation. She reported on the group's progress at the December 2005 meeting in Dhaka, Bangladesh.
- Dr. Ahuja organized a symposium at the 2006 Spring ACS National Meeting in Atlanta, GA, on arsenic pollution and remediation in groundwater.