Solubility Data Series Books now Available on Web

In the 1970s, IUPAC's Solubility Data Commission (now the Subcommittee on Solubility and Equilibrium Data) embarked on a project to compile and critically evaluate experimental data for solubility in systems of scientific and practical interest. The first volume in the IUPAC Solubility Data Series, covering the solubility of helium and neon in liquid solvents, was published in 1979. Subsequent years saw many volumes on gas-liquid, liquid-liquid, and solid-liquid solubilities. These volumes are an invaluable scientific resource.

Now, thanks to an agreement between IUPAC (which holds the copyright to these volumes) and the National Institute of Standards and Technology (NIST), NIST has made the contents of these monographs (Volumes 1-65) freely available in digitized PDF form online at the website: http://srdata.nist.gov/solubility/IUPAC/iupac.aspx.

Some volumes on the site are broken into subsections with Table of Contents; this feature will be extended to the rest of the volumes as resources permit.

Beginning with Volume 66 in 1998, this series was renamed the IUPAC-NIST Solubility Data Series, with several volumes each year (up to Volume 103 so far) published in the Journal of Physical and Chemical Reference Data; see http://jpcrd.aip.org. Links to these publications are provided from the NIST site.

http://srdata.nist.gov/solubility

L'Oréal–UNESCO Awards for Women in Science 2015 Announced

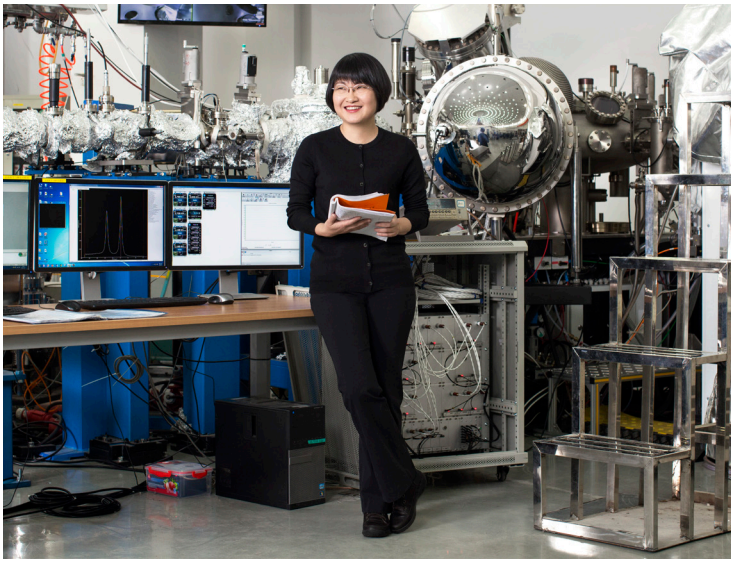
Five exceptional women scientists from around the world received the 2015 L'ORÉAL-UNESCO Prize in Physical Sciences in an Awards Ceremony which took place on 18 March 2015 at the Grand Amphitheatre of the Sorbonne University (Paris, France). The Awards promote scientific excellence and the contribution of women to science, in particular in Life Sciences and the Physical Sciences, and in the service of advancement of knowledge, its impact on society, and sustainable development. By giving these female researchers increased visibility, the awards show the way for new generations, encouraging young women to follow their example.

Since the launch of the programme, 82 outstanding women researchers have received the L'Oréal-UNESCO For Women in Science Prize, two of whom have gone on to receive the Nobel Prize.

IUPAC congratulates all the Awardees. A special recognition goes this year to Professor Yi Xie, laureate Asia-Pacific, who was, in 2013, one of the Awardees of the IUPAC Distinguished Women in Chemistry or Chemical Engineering.

Asia-Pacific: Professor Yi Xie

Committed to preserving our planet, Prof.Yi Xie has dedicated her life to finding new and intelligent solutions to address the environmental challenge. She has been rewarded for her significant contributions to creating new nanomaterials with promising applications in the conversion of heat or sunlight into electricity. Her work will greatly contribute to lessening pollution and boosting energy efficiency, and will open promising prospects for the future



Yi Xie, photograph © Brgitte Lacombe

Europe: Profesor Dame Carol Robinson

A risk-taker, Prof. Robinson has always done things her way: she left school at 16, studied part-time while working, and then took an eight year career break to raise her children before returning to academia. Prof. Dame Carol Robinson has been honored for creating a revolutionary method for studying how proteins function, particularly membrane proteins, and establishing a whole new scientific field: gas phase structural biology. Her pioneering work could have a significant impact on medical research.

Latin America: Professor Thaisa Storchi Bergmann
Passionate and determined, Prof. Bergmann is convinced that education for all is the key to a better world and hopes to contribute to promoting science as a captivating and fun career path through her work. Prof. Thaisa Storchi Bergmann has been honored for her work leading to the understanding of massive black holes, one of the most enigmatic and complex phenomena of the universe: she was the first researcher to discover that matter could escape from black holes.

North America: Professor Molly S. Shoichet
A people person, Prof. Shoichet also participates in special athletic events for people with spinal cord injuries, is actively involved in human rights issues, and has contributed to launching a social media campaign designed to "connect today's research with tomorrow's reality." She has been rewarded for the development of new materials to regenerate damaged nerve tissue and for a new method that can deliver drugs directly to the spinal cord and brain. Her work is putting chemistry at the service of medicine in spectacular new ways.

Africa and the Arab States: Professor Rajaa Cherkaoui El Moursli
Nicknamed «research activist», Prof. El Moursli dedicates much of her time to raising the level of scientific research in her country, and has been instrumental in improving Moroccan healthcare by creating the 1st master's degree in medical physics. Prof. Rajaâ Cherkaoui El Moursli has been honored for her key contribution to one of the greatest discoveries in physics: proof of the existence of the Higgs Boson, the particle responsible for the creation of mass in the universe.

www.loreal.com/csr-commitments/foundation/science/women-and-scientific-excellence

Berhanu Abegaz heads the UNESCO International Basic Sciences Programme (IBSP) scientific board

The African Academy of Sciences' executive director Berhanu Abegaz has been elected chair of the UNESCO International Basic Sciences Programme (IBSP) scientific board.

The United Nations Educational, Scientific and Cultural Organization established the multidisciplinary programme to strengthen national capacities in the basic sciences and in science education. Its scientific board advises UNESCO's leadership on basic science matters.

Abegaz, who was previously vice-chair of the board, was elected at the ninth meeting of the IBSP scientific board held in Paris, France, in May 2015. He will be deputised by Marina Bentivoglio, a professor of histology at the University of Verona in Italy, and Glacius Oliva, a professor of structural biology at the University of São Paulo in Brazil.

www.unesco.org/new/en/natural-sciences/science-technology/basic-sciences/international-basic-sciences-programme/

Christo Balarew receives Presidential Honors

On 25 May 21015 Prof. Balarew was awarded the Order of Saints Cyril and Methodius 1st class – the highest award for scientific achievements conferred by the President of Bulgaria. This prestigious honor adds to several national and international awards already conferred to Prof. Balarew for his scientific and applied achievements.

Professor Christo Balarew is a prominent Bulgarian scientist. During most of his professional career he has worked at the Institute of General and Inorganic Chemistry of the Bulgarian Academy of Sciences in Sofia. Some of his scientific achievements can be summarized by the following:

According to Balarew, inorganic salts are considered ionic coordination compounds. In their crystal structures the metal ions are coordinated by anions or water molecules and in this way coordination polyhedra are formed. They are linked with one another, with other ions, or with water molecules through ionic (electrostatic) or hydrogen bonds. To prognose the composition and structure of the most probable complexes, not only the geometrical factor (Pauling rules), but also Pearson's concept of hard and soft Lewis acids and bases (HSAB) and crystal field stabilization energy are involved. A procedure for predicting the complexes in the crystal structures was elaborated. On this basis double salts formation was explained and a theory for the isomorphous and isodimorphous co-crystallization was created. This allows theoretical calculations of the distribution coefficients of admixtures between