Guide (and Brief Guide) to Polymer Semiconductors

A new project, in association with the IUPAC Polymer Division, will develop both a full guide and a brief guide to clarify new terminology and nomenclature specific to macromolecular optoelectronics, device fabrication, and standard methods of characterization. This project will help to bring awareness of the chemical/technological advances to the widest audience, inspire the next generation of scientists, and to clarify terms used between disparate but inter-related science around polymer optoelectronics. Specifically, the full *Guide to Polymer Semiconductors* will introduce researchers, students, and a general scientific audience to common polymer semiconductor materials, their nomenclature, and terms used for the applications and standard methods used to characterize newly synthesized materials. This project will also result in the preparation of a concise 2- to 3-page *Brief Guide to Polymer Semiconductors* document that will act as a basic guide to studying the terminology for polymer semiconductors and will be readily accessible for new researchers. Journals and society magazines publishing in polymer science and related sciences will be encouraged to participate in the project.

The task group, chaired by Assistant Professor Michael G. Walter (University of North Carolina at Charlotte), will work with several researchers heavily involved in the field of polymer semiconductors, many of whom have already made significant contributions to the IUPAC Sub-Committee on Polymer Terminology and the Polymer Division.

For further information, contact the Task Group Chair Michael G. Walter <michael.walter@uncc.edu>
www.iupac.org/project/2015-014-1-400

Critical Evaluation of Equilibrium Constants of 4f Metal Mixed Complexes with Acidic (Chelating) Ligands in Combination with Various Organophosphorus O-donor Molecules

A critical evaluation survey of equilibrium constants concerning the complexation of 4f-ions by acidic (chelating) ligands in combination with organophosphorus O-donor molecules in various molecular or ionic diluents with particular regard to synergism will be done during the execution of a project under IUPAC auspices. Stability constants of metal complexes are extremely important for academic and industrial research and are widely used in analytical chemistry. The subject is of utmost importance, and this contribution has the potential for wide application (geology, material science, metallurgy, metal recycling, industrial wastewater treatment, handling of radioactive waste, *etc.*). Solvent extraction is a distinguished process for metal refining that stands at the frontier between organic synthesis, analytical, physical, coordination, and green chemistry and is the only industrial technology for lanthanoids separation. Therefore, developing a database review containing useful information of already applied synergistic systems will offer opportunities to the scientists of diversified fields in chemistry and chemical technology to make comparisons, draw conclusions, and choose better ideas when planning their next research investigations. In terms of the increase of safety, prevention of pollution, and improvement of extraction efficiency, the research, development, and implementation of innovative green chemical technologies is indispensable. The very limited set of data available today concerning metal behavior in ionic liquids raise the hope for greater extraction efficiencies accompanied with increased selectivity.

This project is part of a series titled “Critical evaluation of stability constants of metal complexes in solution”.

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www.iupac.org/project/2016-003-1-500

Network for Heterocyclic Chemistry among Countries of the Mediterranean Sea Area, Including Europe and North Africa

The Strategic Planning for a new Network for Heterocyclic Chemistry among Countries of the Mediterranean Sea Area, including Europe and North Africa is an umbrella project that seeks to establish a network in the Mediterranean Area. The program is designed to create world-class research hubs in selected fields within the countries of the region while fostering the next generation of leading researchers by establishing sustainable collaborative relations among research/education institutions in countries such as Spain, Por-