

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".

For further information, contact the Task Group Chair Maria A. Petrova <ma@uctm.edu>
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-

tugal, France, Italy, Slovenia, Croatia, Albania, Greece, Bulgaria, Romania, Georgia, Russia, Cyprus, Turkey, Egypt, Jordan, Tunisia, Algeria, and Morocco. Under this program, core institutions will collaborate in cutting-edge fields of research and on research topics deemed to be of high international importance. The core institutions in the various countries will conduct exchanges based on a principle of equal partnership in the form of joint research, scientific meetings, and researcher exchanges. It is anticipated that the hubs formed by the core institutions will continue to carry out research activities after the funded project has ended. The scope of the project on heterocyclic chemistry includes, but is not limited to, the core areas of heterocyclic chemistry, organic synthesis methodology, and total synthesis of natural products. Research in green chemistry, bioorganic chemistry, medicinal chemistry, pharmacology, structural and materials sciences, and environmental chemistry, as well as the applications of these fields to ultimately benefit the society and economy of the Mediterranean Sea Area, are also encouraged.

Within that framework, the most recent **Trans Mediterranean Colloquium on Heterocyclic Chemistry**, Tramech VIII, was held in Antalya, Turkey, 11-15 November 2015, and turned out to be particularly successful from a scientific point of view, as well as a social and friendly gathering. The local organization proved to be very efficient, creating a friendly atmosphere. There were more than 220 participants coming from several countries, including Turkey, Algeria, Morocco, Tunisia, Greece, Slovenia, Italy, Germany, Belgium, France, Portugal, Spain, Poland, Australia, Czech Republic, Finland, Hungary, Iran, India, Republic of Korea, Romania, Russian Federation, Saudi Arabia, and the United Kingdom. With support from IUPAC, it was possible to facilitate the participation of 10 young people from different countries, giving them the opportunity to present the results of their research and the chance to strengthen already existing collaborations and start new ones. The program included 14 invited speakers, 26 oral communications, and 161 posters. The level of all the scientific presentations was very high, and discussions that followed were interesting and stimulating. The subjects of the lectures ranged from innovative synthetic methodologies, metal-free synthesis of heterocycles, synthesis of complex heterocycles, heterocycles as organocatalysts in asymmetric synthesis, organosulfur synthons for the synthesis of heterocycles, synthesis and reactions of chromones and quinolones, and structural and conformational studies in the

chemistry of strained heterocycles and synthesis of beta-aminoacids to carbon nanotubes as platforms for material chemistry and drug delivery (see the program at the webpage of the meeting: www.tramech8.org)

At the closing of TRAMECH VIII, the chair of the scientific committee announced that TRAMECH IX will be organized at Fez (Morocco) in November 2017 by the Laboratory of Organic Chemistry of the Faculty of Sciences Dhar El Mahraz using the infrastructure of the University and the City of Fez. The involvement of very distinguished speakers will be pursued and the participation of young, motivated people will be facilitated. IUPAC will provide financial support within the project 2015-027-1-300. As in the Rabat and Antalya meetings, the interactions among participants are expected to promote scientific collaborations and give young people the chance for research experience in well-established laboratories, either as PhD students or as visiting researchers.

For further information, contact the Task Group Chair Saverio Florio <florio@farmchim.uniba.it>
www.iupac.org/project/2015-027-1-300

Nomenclature for Properties and Units or NPU Terminology

Laboratory medicine has an important role in clinical decision making in healthcare everywhere. Results of sample-based patient investigations are involved in almost every decision on diagnosis or treatment and frequently make up the largest amount of data in healthcare records. Most of the results represent chemical and biochemical measurements, with increasing involvement of molecular biology.

With the advent of digital data storage and widespread communication of investigation results, new possibilities have opened for both research and patient care. The challenge is to ensure that all users have a common understanding of what is being measured, how the results are expressed, and with which unit. This demands a stable and metrological sound international standard for identifying measurement results. To support this, IUPAC and the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) have partnered to publish several recommendations and supported work on the Nomenclature for Properties and Units (or NPU) terminology and its basic principles for decades.

The NPU definitions have a uniform structure