

Preface

For IUPAC, the global, scientific organization that cares about chemistry and the chemical sciences in all senses of the word, it is a duty, but also a pleasure to follow the development in chemical research with the aim of spotting pioneering work and new trends as early as possible. It is particularly rewarding to see how many young chemists contribute to shaping our science. For chemistry, it is therefore important to encourage our young colleagues in their work, and IUPAC does so through the IUPAC Prize for Young Chemists. This prestigious annual prize honors four to five chemists with a fresh Ph.D. for important and outstanding research carried out exceptionally well during their Ph.D. studies. The work is mainly judged on the basis of a 1000-word essay which is supported by recommendations from the senior scientist(s) with whom the candidate collaborated.

As immediate Past President of IUPAC, I have had the pleasure of chairing an international prize selection committee of eminent chemists with a wide range of expertise in chemistry that adjudicated essays from 57 applicants from 24 countries. Due to the large number of excellent candidates, it was not an easy task to pick the winners, but at the end the committee arrived at a unanimous decision and awarded the 2007 IUPAC Prize for Young Chemists to the following five young chemists from five countries:

- **Deanna D'Alessandro**, University of Sydney, Australia, with a thesis entitled "Stereochemical effects on intervalence charge transfer"
- **Euan R. Kay**, University of Edinburgh, UK, with a thesis entitled "Mechanized molecules"
- **Anna Aleksandra Michrowska**, Polish Academy of Sciences, Warsaw, Poland, with a thesis entitled "Search for new Hoveyda–Grubbs catalysts and their application in metathesis of alkenes"
- **Taleb Mokari**, The Hebrew University, Jerusalem, Israel, with a thesis entitled "Developing a new composite of nanocrystals with semiconductor–insulator and semiconductor–metal interfaces"
- **Feng Tao**, Princeton University, NJ, USA, with a thesis entitled "Nanoscale surface chemistry of organic layers on solid surfaces formed through weak noncovalent interactions and strong chemical bonds"

Each winner received a cash prize of USD 1000 and a free trip to the 41st IUPAC World Chemistry Congress, which was held in Turin, Italy, 5–11 August last year. The winners presented their work, which is an important stage of any research project, but to reach an even wider audience the prizewinners have been invited to submit manuscripts on aspects of their research for publication in *Pure and Applied Chemistry (PAC)*. Four of the five winners have realized the value of this offer, and it is a pleasure to see their refereed papers, containing critical reviews of high quality, appear in this issue of *PAC*.

Finally, it is an honor and a satisfaction to congratulate each of the winners (and their supervisors) with the 2007 IUPAC Prize. It is IUPAC's hope that each of them has been encouraged to continue to do exciting research that will contribute to a bright future for the molecular-based sciences, which are so important for our common future.

Leiv K. Sydnes
IUPAC Immediate Past President and
Chairman of the IUPAC Prize Selection Committee