

Preface

IUPAC is a global, scientific organization that contributes to the worldwide understanding of chemistry and the chemical sciences. It is certainly true that young chemists are shaping our science, and it is important for IUPAC to provide encouragement to our young colleagues. IUPAC accomplishes this goal through the IUPAC Prize for Young Chemists. This prestigious annual prize honors four to five chemists for important and outstanding research carried out during recent 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 42 applicants from 16 countries. Reading these outstanding essays provided a wonderful overview of new trends in chemistry. Due to the large number of excellent candidates, it was not an easy task to pick the winners, but in the end the committee arrived at a unanimous decision and awarded the 2008 IUPAC Prize for Young Chemists to the following five chemists:

- **Emilie V. Banide**, University College Dublin, Dublin, Ireland, with a thesis entitled “From allenes to tetracenes: Syntheses, structures and reactivity of the intermediates”
- **Christopher Thomas Rodgers**, University of Oxford, UK, with a thesis entitled “Magnetic field effects in chemical systems”
- **Akinori Saeki**, Osaka University, Osaka, Japan, with a thesis entitled “Nanometer-scale dynamics of charges generated by radiations in condensed matter”
- **Andrea Rae Tao**, University of California, Berkeley, CA, USA, with a thesis entitled “Nanocrystal assembly for bottom-up plasmonic materials”
- **Scott Warren**, Cornell University, Ithaca, NY, USA, with a thesis entitled “Nanoparticle-block copolymer self-assembly”

Each winner received a cash prize of USD 1000 and a trip to the 42nd IUPAC World Chemistry Congress, which will take place in Glasgow, Scotland, 2–7 August, 2009. Here the winners will have the opportunity to present their work, which is an important stage of any research project. To reach an even wider audience, the prize winners were invited to submit manuscripts on aspects of their research for publication in *Pure and Applied Chemistry (PAC)*. It is a pleasure to see that all five prize winners have taken advantage of this offer. The result is the five refereed papers which contain critical reviews of high quality and appear in this issue of *PAC*.

Finally, it is an honor and a pleasure to congratulate each of the winners (and their supervisors) for winning the 2008 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.

Bryan R. Henry
IUPAC Immediate Past President and
Chairman of the IUPAC Prize Selection Committee