

## BOOK REVIEW

Bruno Pignataro, Editor

### *Tomorrow's Chemistry Today* –

Concepts in Nanoscience, Organic Materials  
and Environmental Chemistry

Wiley-VCH, Weinheim, 2008  
XXVIII + 465 pp.  
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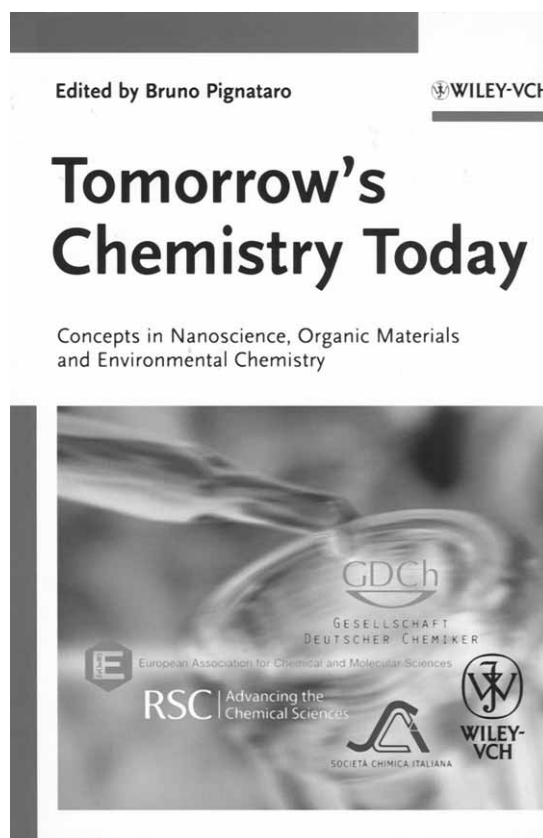
This book contains 18 contributions from a selection of promising young chemists – 24 authors are from Europe and 4 from Australia, Canada, Hong Kong and the USA, respectively. All authors were less than 34 years old at the time of writing their contributions to the book. The editor Bruno Pignataro was also 34 years when he edited the book. He was born in Bologna in 1972 and is currently professor of physical chemistry at the University of Palermo. Professor Pignataro does research in the physical chemistry of molecular surfaces and soft nanotechnologies.

The idea of the book was born during preparations for the European Young Chemists Award competition, which Bruno Pignataro was chairing at the First European Chemistry Congress (Budapest, August 27–31, 2006). The book consists of Contents (8 pages), Preface (5 pages), Author List (3 pages), Member Societies (4 pages, 47 chemical societies, including the Croatian Chemical Society), 18 contributions (451 pages) and Index (9 pages).

The contributions are divided into three thematic parts: I. Self-Organization, Nanoscience and Nanotechnology (10 contributions, 261 pages); II. Organic Synthesis, Catalysis and Materials (4 contributions, 90 pages) and III. Health, Food and Environment (4 contributions, 92 pages).

In the first part, the topics presented (authors and their universities or institutes are in brackets) are the subcomponent self-assembly as a route to new structures and materials (J. R. Nitschke, University of Cambridge, England), molecular metal oxides and clusters as building blocks for functional nanoscale architectures and potential nanosystems (L. Cronin, University of Glasgow, Scotland), nanostructured porous materials – building matter

from the bottom up (J. Garcia-Martinez, University Alicante, Spain), strategies toward hierarchically structured optoelectronically active polymers (E. Jahnke and H. Frauenrath, ETH, Zürich, Switzerland), mimicking nature – bioinspired copper proteins (I. A. Koval, P. Gomez and J. Reedijk, Leiden University, The Netherlands), from the past to the future of rotaxanes (A. R. Schmitzer, University of Montreal, Canada), multiphoto processes and nonlinear harmonic generations in lanthanide complexes (G.-L. Law, University of Hong Kong), light-emitting organic nanoaggregates from functionalized *para*-quarterphenylenes (M. Schiek, University of Southern Denmark, Sonderborg, Denmark), plant viral capsids as programmable nanobuilding blocks (N. F. Steinmetz, The Scripps Research Institute, La Jolla, California, USA) and new calorimetric approaches to the study of soft matter 3D organization (J. M. Nedelec and M. Baba, University Blaise Pascal, Aubière, France).



The topics presented in the second part (authors and their universities or institutes are again given in brackets) are the naphthalenediimides as photoactive and electroactive components in supramolecular chemistry (S. H. Bho-sale, Monash University, Clayton, Australia), coordination chemistry of phosphole ligands substituted with pyridyl moieties – from catalysis to nonlinear optics and supramolecular assemblies (C. Lescop and M. Hissler, University of Rennes I Sciences, France), selective hydrogen transfer reactions over supported copper catalysts leading to simple, safe and clean protocols for organic synthesis (F. Zaccheria and N. Ravasio, University of Milano, Italy) and selective oxidoreductive processes by nucleophilic radical addition under mild conditions (C. Gambarotti and C. Punta, Milano Polytechnic, Italy).

The topics presented in the third part (authors and their universities or institutes are again given in brack-

ets) are the future perspectives in medicinal chemistry as seen by an inorganic chemist (P. U. Maheswari, Leiden University, The Netherlands), speeding up discovery chemistry – new perspectives in medicinal chemistry (M. Colombo and I. Peretto, NiKem Research, Baranzate, Italy), overview of protein-tannin interactions (E. B. de Carvalho, V. A. P. de Freitas and N. F. da C. B. Mateus, University of Porto, Portugal) and photochemical transformation processes of environmental significance (D. Vione, University of Torino, Italy).

This book is worth reading and it should be of interest not just to beginners but also to mature physical chemists, organic chemists, biological chemists, biochemists, material scientists and bioscientists. However, it should be pointed out that predicting the future of scientific research after tomorrow is rather difficult.

*Nenad Trinajstić*