

ORGANIC-08 Research Highlights

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The 23rd RACI Organic Division Conference, ORGANIC-08, was held at Wrest Point, Hobart, Tasmania, from 7 to 12 December 2008. More than 270 delegates attended to celebrate the breadth and share the excitement of organic chemistry. The conference program included eight plenary lectures, the Birch Medal lecture by Associate Professor Michael Sherburn (ANU), and invited and other oral presentations by researchers and post-graduate students. Topics covered exemplified the diversity of our discipline, and included natural products chemistry and synthesis, new synthetic methods and catalysis, bioorganic and medicinal chemistry, physical and mechanistic chemistry, and supramolecular chemistry and nanotechnology.

The papers published in this special issue of *Aust. J. Chem.* include review articles from three of the plenary lectures at ORGANIC-08. Professor Ian Paterson (Cambridge, UK) reports on 'Recent Advances in the Total Synthesis of Polyketide Natural Products as Promising Anticancer Agents',^[1] while Professor Chris Moody (Nottingham, UK) describes a unique class of natural products, the benzothiazole alkaloids, in his review entitled, 'Naturally Occurring Nitrogen–Sulfur Compounds. The Benzothiazole Alkaloids'.^[2] A review in the supramolecular chemistry–nanotechnology area is provided by Professor Jean-Francois Nierengarten (Strasbourg, France) on 'Synthesis and Properties of Fullerene-Rich Dendrimers'.^[3] Professor Yasuyuki Kita, Ritsumeikan University, Japan, also a plenary speaker, reports on the unique chemistry of hypervalent iodine compounds in a Rapid Communication entitled 'Organoiodine-Catalyzed Oxidative Spirocyclization of Phenols using Peracetic Acid as Green and Economic Terminal Oxidant'.^[4] Plenary lecturer, Professor Stephen Hashmi (Heidelberg, Germany) communicates more of his fascinating gold catalyzed chemistry in a full paper entitled 'Gold Catalysis: Chemoselective Indolin Synthesis in the Presence of Acrylate Units'.^[5]

Articles by some of the invited speakers highlight the different themes of the conference and include the synthesis of bioactive

natural and non-natural products (Professor Martin Banwell (ANU), 'A Total Synthesis of the Marine Alkaloid Ningalin B from (S)-Proline',^[6] Professor Mark Rizzacasa (Melbourne), 'Formal Total Synthesis of (+)-Citrafungin A',^[7] and Dr Kate Jolliffe (Sydney), 'Solid-State and Solution-Phase Conformations of Pseudoproline-Containing Dipeptides',^[8]), natural products chemistry (Professor Mary Garson (Queensland), 'The Absolute Configurations of Haliclonacyclamines A and B Determined by X-Ray Crystallographic Analysis',^[9]), medicinal chemistry (Professor Andrew Abell (Adelaide), 'Efficient Large-Scale Synthesis of CAT811, a Potent Calpain Inhibitor of Interest in the Treatment of Cataracts',^[10]), supramolecular chemistry and nanotechnology (Professor Steven Langford (Monash), 'Synthesis and Photophysical Properties of a Conformationally Flexible Mixed Porphyrin Star-Pentamer',^[11] and Dr Pall Thordarson (UNSW), 'The Effect of Unsaturation on the Formation of Self-Assembled Gels from Fatty Acid L-Serine Amides and their Cytotoxicity Towards Caco-2 Cancer Cells',^[12]), and mechanistic and physical organic chemistry (Professor Stephen Glover (UNE), 'S_N2 Substitution Reactions at the Amide Nitrogen in the Anomeric Mutagens, N-Acyloxy-N-alkoxyamides',^[13]).

I hope that you enjoy reading this special issue of *Aust. J. Chem.* and that it gives you a glimpse of some of the exciting developments happening in this fascinating area of chemistry.

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Stephen Pyne is a professor of chemistry at the University of Wollongong. He received his Ph.D. with Professor Lew Mander at the ANU in 1979 and then held post-doctoral positions with Phil Fuchs (Purdue) and E. J. Corey (Harvard). After a short stay at LaTrobe University as a Research Fellow, he took up a position as lecturer in chemistry at the University of Wollongong in 1985. He was Chair of the Division of Organic Chemistry until December 2008 and was chair of ORGANIC-08.

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