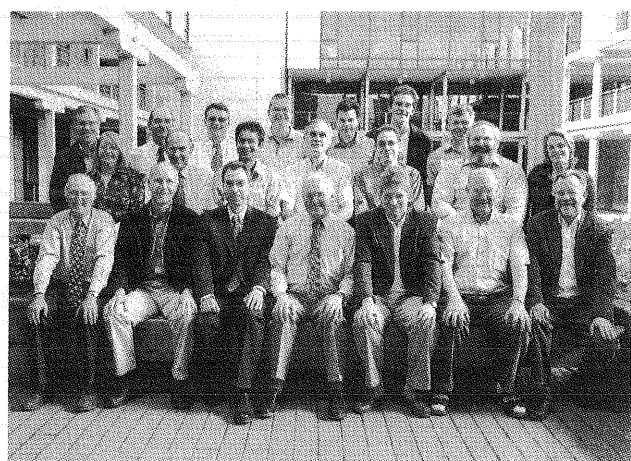


The Ninth International Conference on Flow Analysis: *Flow Analysis IX, Australia 2003*

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The renaissance of flow-based analytical chemistry that followed the inception of Flow Injection Analysis in 1975 resulted in the inaugural *International Conference on Flow Analysis* being hosted in Amsterdam in 1979. Subsequent conferences have been held in Lund (1982), Birmingham (1985), Las Vegas (1988), Kumamoto (1991), Toledo (1994), Piracicaba (1997) and Warsaw (2000), and all have reflected the excitement, enthusiasm and ingenuity of researchers, practitioners and manufacturers in flow-based analysis. Australian analytical chemists have embraced and contributed to flow analysis since the later 1970's and have been present in good numbers at many of these conferences. For a number of Australian flow analysts, it had been a long-held hope that we might host an International Flow Analysis conference in this country, and we were both honoured and delighted when the Flow Analysis IX conference was awarded to Australia at the Warsaw meeting.



Plenary and invited speakers and members of the Australian Organising committee (photo: Donna Edwards, Deakin Photography). Back row Front row (L to R): Daryl Tucker, Paul Worsfold, Ian McKelvie, Gary Christian, Dermot Diamond, Alan Townshend, Elo Hansen. Middle Row: Gillian Greenway, Bob Catrall, Sandy Dasgupta, Ivano Gutz, Simon Lewis, Neil Barnett, Amanda Lyddy-Meaney. Back Row: Ari Ivaska, Terry Elms, Spas Kolev, Stuart Chalk, Peter Hauser, Ben Hindson, Graham Marshall.

All the International Flow Analysis meetings have been typified by a shared enthusiasm for this area of analytical science, by a sense of camaraderie, and a truly international representation. Of the 117 delegates involved in the Australian meeting, 77 were from overseas, coming from more than 20 countries, and included two large contingents of delegates from Thailand and Portugal.

The opening address of the conference was given by Professor Gary Christian (*"The Role and Importance of Flow Analysis in Analytical Science"*), who traced the history of the Flow Analysis meetings, and argued the importance of flow analysis



Dr Kate Grudpan (left) with members of the Thai delegation at the conference barbeque

in the field of analytical science.

The scientific program that followed included five plenary lectures, five invited lectures and 38 contributed papers, as well as 82 poster presentations, covering a wide range of detection and sample preparation techniques in environmental, process, clinical and food and beverage analysis.

Prof. Paul Worsfold, (Univ of Plymouth, UK) as the first of the Plenary lecturers, illustrated this by describing the development and use of spectrophotometric and chemiluminescent flow systems for shipboard measurements in marine and estuarine environments.

Ivano Gutz (Univ, Sao Paulo) gave an energetic lecture on the non-detection applications of electrochemistry while Peter Hauser (Univ. Basel, Switzerland) gave a systematic description of electrochemical detection in flow analysis.

Miniaturization of flow systems was a hot topic. Gillian Greenway (Univ. Hull, UK) described her experiences with Lab-on-a Chip, noting that while this approach has enormous promise, there is a need to fully understand the sensing and separation processes at a molecular level, if this approach is ever to reach its potential. Dermot Diamond (Dublin City Univ, Ireland) continued in this vein. He described the burgeoning development of wireless networked sensors, and the raised the challenge of developing robust microfluidic sensing systems that could operate for more than a year with reagent consumption of less than 100 mL!

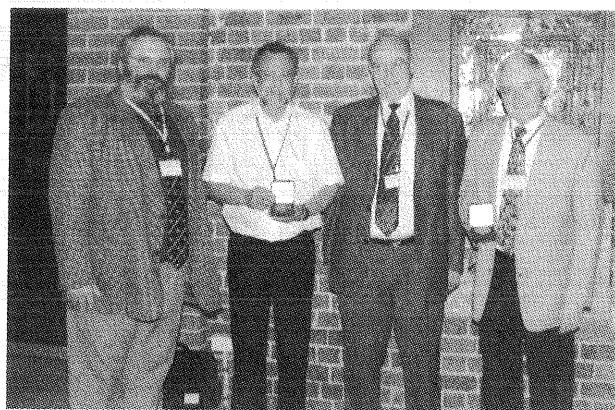
Ben Hindson (Lawrence Livermore National Laboratory, USA) emphasized the importance of on-line flow analysis systems in his invited lecture on the development of a microbead SIA immunoassay system for screening for bio-warfare agents and air monitoring at airports.

Graham Marshall (GlobalFIA, USA) described the limitations of conventional pumping and injection systems, and argued the case for a new generation of "zone fluidic" flow systems that overcome many of the limitations of laboratory based flow systems. Ari Ivaska (Åbo Univ, Finland) continued this theme in his talk on the applications of SIA in process monitoring applications in the steel and paper industries.

Sandy Dasgupta, ever the showman, gave a stunning video and musical illustration of the versatility and aesthetics of microfluidic manipulations.



Participants from Japan and Taiwan (Professors Shoji Motomizu, Hsuan-Jung Huang, Tadao Sakai and Ming Ren-Fuh)



Neil Barnett (Deakin) with medallists Elo Hansen, Alan Townshend and Gary Christian

The scientific program finished on an upbeat note with a concluding plenary lecture by Alan Townshend (Univ. Hull, UK) entitled "*Solid Phase Reactors and Liquid Phase Emitters-Some Success Stories in Flow Injection Analysis*"

One of the highlights of the conference banquet was an occasional address by Prof Elo Hansen (Technical University of Denmark), co-inventor of flow injection analysis ("*Flow Injection Analysis: How it was conceived, developed and succeeded-despite all odds*") described something of the excitement and frustrations of the early days of FIA.

During the banquet, the inaugural award of the Geoff Wilson Medal was presented to Elo Hansen, Alan Townshend and Gary Christian. The medal commemorates the scientific career of the former Vice Chancellor of Deakin University and is awarded by the Faculty of Science and Technology in recognition of individuals who contribute significantly to the international community of science. In presenting the award, Dean of the Faculty, Professor Richard Russell noted that Professor Hansen was one the co-inventors of FIA and that in the course of his celebrated career he had developed and utilized a myriad reaction and detection strategies for innovative and elegant solutions to challenging analytical problems. With regard to Professors Christian and Townshend, Professor Russell described how both men had embraced flow analytical technology soon after its inception in 1975, and through their exemplary scientific achievements, had inspired and nurtured numerous young researchers. Additionally, their championing of flow analysis through tireless publishing and editorial activities was reflected in the present vigorous and expanding nature of flow analysis today.

The Australian Organising Committee also recognized Professor Bob Catrall and Dr Terry Cardwell for their long term support for flow analysis and research training in the area within Australia. Entertainment at the conference dinner was provided by talented local guitarist, Dr Peter Huf, and by a similarly talented Professor Dermot Diamond (Dublin City University), who gave an impromptu performance of Irish fiddle playing.

Scientific presentations at the conference were notable for their very high standard, and the judges had a difficult task in deciding the four student awards. These were ultimately presented at the dinner to Ms Sumalee Tanikkul (Thailand), Ms Weena Siangproh (Thailand), Ms Nuanlaor Rattanawimarnwong (Thailand), and Ms Amanda Lyddy-Meaney (Australia) by the

international judging panel (Professors Bo Karlberg, Shoji Motomizu and Tadao Sakai).

Our special thanks to members of the Australian Organising Committee, the International Advisory Board, award judges, IUPAC, the Royal Australian Chemical Institute and sponsors for their consistent and wholehearted support of this conference. The next international meeting in this series, Flow Analysis X, will be held in the historic city of Oporto in Portugal, in 2006.

Members of the Portuguese delegation are shown above with Prof José Costa Lima (Chair, Flow Analysis X) and Prof Elias Zagatto (Chair, Flow Analysis VII, Piracicaba).

Program details and photographs from *Flow Analysis IX* can be viewed at <http://www.deakin.edu.au/flowanalysis9> Photo credits: Donna Edwards (Deakin Photography), Simon Lewis and Ivano Gutz.