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## Front Matter: Volume 8351

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# PROCEEDINGS OF SPIE

## ***Third Asia Pacific Optical Sensors Conference***

**John Canning  
Gang-Ding Peng**  
*Editors*

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## Introduction

The Asia Pacific Optical Sensors (APOS) Conference series were launched in 2008, in Chengdu China, and alternates approximately every 18 months with major global sensing conferences such as International Conference on Optical Fiber Sensors. It was a timely and important event for the region, reflecting the prescience of its original founder: Prof. Rao of UESTC, Chengdu University, China. The second event was in 2010 in Guangzhou, China. In 2012 it was held outside of China for the first time, reflecting the broader growth of optical sensing research and development within the Asia Pacific region, bringing APOS to international maturity as the region's premier optical sensing conference.

The Third Asia-Pacific Optical Sensors Conference 2012 (APOS2012) was held in Sydney, New South Wales, Australia, from January 31 to February 3, 2012. The Conference is jointly organized by The University of Sydney and The University of New South Wales and has involved many people throughout all phases. As chairs we warmly recognise their efforts: sometimes superhuman. All our committee members, both from within our shores and abroad, are gratefully acknowledged; without their efforts the diverse international flavour and quality of this event would not have been possible. The standards of the presentations, both invited and contributed, reflect the high regard this event has been held and for that we are appreciative. The Technical Committee has delivered on a rigorous set of standards we put in place to produce an excellent program and placing APOS amongst the important must do events of the region – the benchmark has certainly been set for the next conference!

We want to especially recognise the general mountain of logistics managed by Kevin Cook and Michael Stevenson, who reduced costs significantly to enable us to offer an outstanding venue on the harbour under the bridge for what must be said is remarkable value given the extraordinary prices being charged by many international events. The atmosphere for intimate networking and personal dialog, which is often missing in many events, is an important part of relationship and opportunity building in this area of the world, without a doubt now the centre of global activity. In this context, our commercial sponsors are also able to maximise exposure of their wares in this environment where we have managed to collocate all activities.

The conference has clearly taken the mantle as the region's key forum for reporting the latest progress in optical and photonic sensing technologies and providing an unsurpassed collegiate atmosphere. It has become the regions première meeting point for academic researchers, technical and business professionals and end user industries to share and exchange their ideas and R&D

experiences. The previous events focused quite strongly on optical fibre and grating technologies, emphasising their explosive growth in the region. This event has an added component on biophotonics recognising the growth it too is experiencing in the region. The role of materials and interdisciplinary research is especially important in extending various optical and fibre optical sensing technologies, and its appropriate APOS 2012 followed soon after the International Year of Chemistry, in 2011. 2011 is also the Year of Humanitarian Engineering emphasising a special role for biomedical engineering and diagnostics as well as engineering to help provide the highest quality of life for all Earth's citizens. It is a reminder of greater responsibilities and obligations than those which affect us most immediately within the spheres of our institutions.

What better venue to host a major conference than Sydney? It is one of the great international cities, cosmopolitan and multicultural. From the iconic opera house to the wonderful beaches, Sydney is endowed with both man-made and natural wonders that welcome the visitor. Artistic and scientific endeavours are also abundantly on display and we hope all attendees took time to enjoy the city and its offerings, particularly the famous Sydney Festival which also occurs at that time of year. Sydney always welcome your return after the event.

**John Canning**  
**Gang-Ding Peng**