



**VICTORIAN PHOTONICS NETWORK
FORUM ON THE APPLICATION OF SYNCHROTRON RADIATION IN PHOTONICS
AND RELATED INDUSTRIES**

Introduction

The purpose of the forum is to obtain input from the Photonics and related communities on the anticipated nature, magnitude and timing of renewed information and other demands, and from the research community, input on new synchrotron radiation related technology options that could meet those demands.

The emphasis is on ultra-broadband and other devices requiring lithography, deep micro-etching (LIGA) or other techniques where the properties of synchrotron radiation provide a significant advantage. Other likely areas of interests might be complex surface coatings, beam line processing for direct pattern writing in solid-state material systems, analysis of films and adhesion of films to substrates and to other films, and the use of synchrotron radiation to detect mechanical stress and other material properties, either in surface layers or substrates.

The Forum Program is attached. A highlight of the Forum will be a Panel Discussion to which all delegates are encouraged to contribute. The desired outcome of the Panel Discussion is to identify promising Photonics and related applications of the Australian Synchrotron, so that work can commence on the facilities requirements and any other preparation that will be needed.

The Victorian Government is committed to the Australian Synchrotron Project at Monash University, an exciting and significant science infrastructure investment in Australia that will provide a massive boost to Victoria's position as a global leader of biotechnology and scientific research. The Victorian Government also continues to be a committed sponsor of Photonics applications and development through the Victorian Photonics Network and other initiatives.

This Forum will be a key event in shaping the future of Photonics and the Applications of Synchrotron Radiation. Anyone with an interest related to these areas should attend.

Date and Time

The forum will be held from 11:00 am to 5:30 pm on Thursday, 23 October, 2003.

Venue

Monash University Conference Centre, 7th Floor, 30 Collins Street, Melbourne, Victoria.





Registration

To register, [click here](#). Please indicate in your registration whether you would like to receive follow-up information after the forum.

Organisation:

Organised by the Victorian Photonics Network Synchrotron Working Group, Dr. Peter Kemeny, Dr. Le Nguyen Binh, Dr. Mike Murray and Mr. Terry Polkinghorn.

Sponsoring Organisations:

- Department of Innovation, Industry and Regional Development, State Government of Victoria
- The Australian Synchrotron Project
- Multimedia Victoria, Department of Infrastructure, State Government of Victoria
- Victorian Photonics Network
- Monash University
- Redcentre
- Brightside Pty Ltd
- Kemeny Consulting

PROGRAM

Time	Session
11:00 - 11:30	Registration and Coffee
11:30	MORNING SESSION Dr. Mike Murray, Chair
11:30 - 11:35	Opening by Terry Polkinghorn, Executive Director Victorian Photonics Network. Opening address by Mr. Matt Viney, Parliamentary Secretary, Innovation & Industry.
11:35 - 11:45	Opening address by Professor Richard Larkins, Vice-Chancellor Monash University
11:45 - 12:15	"The Australian Synchrotron - Beamline Proposals and Project Status", Dr. Gerry Roe, Australian Synchrotron Project
12:15 - 12:45	"Nanophotonics - a key to next generation information technology and biotechnology", Prof. Min Gu, School of Biophysical Sciences and Electrical Engineering, Swinburne University of Technology
12:45 - 1:15	"Applications of X-Ray Microscopy and Spectroscopy at the Nanometer Scale including Micro-CT on MEMS Structures", Dr Steve Wilkins, CSIRO Division of Manufacturing and Infrastructure Technology
1:15 - 2:00	LIGHT LUNCH IN FOYER
2:00	AFTERNOON SESSION Dr. Le Nguyen Binh, Chair
2:00 - 2:30	"Synchrotron Lithography for Fabrication of ICT Devices", Prof. Erol Harvey, CEO Minifab
2:30 - 3:00	"Synchrotrons, Robots, Broadband : Key Jigsaw Pieces of Australia's Future", Dr Peter Hill, CTO, Kadence Photonics
3:00 - 3:30	"Micro-photon components for next generation optical systems", Prof. Ben Eggleton, Centre for Ultrahigh Bandwidth Devices for Optical Systems (CUDOS)
3:30 - 4:00	AFTERNOON TEA
4:00 - 5:00	PANEL DISCUSSION, Dr. Peter Kemeny, Chair
5:00 - 5:30	CONCLUDING REMARKS AND OUTCOMES, Dr. Peter Kemeny, Dr. Mike Murray, Mr. Terry Polkinghorn, Dr. Gerry Roe, Dr. L. N. Binh