

ORGANISATION NAME:

University of Tasmania

CHIEF CONTACT PERSON:

David Davies

POSTAL ADDRESS:

**Physics Department,
University of Tasmania
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FAX: (002) 202410

E-MAIL: **David.Davies@Phys.UTAS.Edu.au**

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING
OPTICS AND LASERS:

Optics work is only covered in undergraduate areas and to a slight degree where it influences the work done in research on astronomy.

ORGANISATION NAME:

CSIRO Division of Materials Science and Technology

CHIEF CONTACT PERSON:

Dr Ian Wilson

POSTAL ADDRESS:

**CSIRO Division of Materials Science and Technology
Private Bag 33
ROSEBANK MDC
CLAYTON VIC 3169**

PHONE: (03) 542 2940

FAX: (03) 544 2777

E-MAIL: wilson@rivett.mst.csiro.au

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING
OPTICS AND LASERS:

CSIRO Optical Systems Engineering combines state-of-the-art design services for optical components and systems with a high level custom component manufacturing facility. Sophisticated assembly and testing equipment is available for prototype development and the maintenance of quality assurance schedules on components and systems.

ORGANISATION NAME:

Herbert A. Groiss & Co.

CHIEF CONTACT PERSON:

Herbert Groiss

POSTAL ADDRESS:

**Herbert A. Groiss & Co.
6/3 Woodbine Crt.
WANTIRNA SOUTH VIC 3152**

PHONE: (03) 8015992

FAX: (03) 887 1293

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING
OPTICS AND LASERS:

Manufacturers of optical lenses, mirrors, windows and spectrophotometer cells in glass and fused silica.

ORGANISATION NAME:

Fibernet Pty LTd

CHIEF CONTACT PERSON:

Dr Allen J. Conduit

POSTAL ADDRESS:

**Fibernet Pty Ltd
24 Laser Drive,
ROWVILLE VIC 3178**

PHONE: (03) 764 2111

FAX: (03) 764 2120

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING
OPTICS AND LASERS:

Fibre optics equipment manufacture, fibre optic measurement specialist, involved in telecommunications, computer networks & industrial applications. Member of Photonics CRC.

ORGANISATION NAME:

Kingfisher International Pty Ltd

CHIEF CONTACT PERSON:

Bruce Robertson

POSTAL ADDRESS:

**Kingfisher International Pty Ltd
4/19 Viewtech Place
ROWVILLE VIC 3178**

PHONE: (03) 764 3933

FAX: (03) 764 3944

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING
OPTICS AND LASERS:

Manufacturers of fibre optic measurement equipment - local agents for fibre optic ancillary equipment and components. NATA accredited optical power measurement laboratory.

ORGANISATION NAME:

Victoria University of Technology

CHIEF CONTACT PERSON:

Prof. David Booth

POSTAL ADDRESS:

**Victoria University of Technology
PO Box 14428
MELBOURNE MAIL CENTRE VIC 3000**

PHONE: (03) 688 4202

FAX: (03) 688 4698

E-MAIL: db%physics%VUT@gnu.VUT.EDU.AU

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING
OPTICS AND LASERS:

Research into a wide range of areas of applied optics, lasers and fibre optics. Particular emphasis is placed on fibre optic sensors, optical methods of non-destructive testing and optically pumped rare earth doped laser systems including microchip and optical fibre lasers and amplifiers.

ORGANISATION NAME:

Colloids Research Lab. Applied Physics Dept. RMIT

CHIEF CONTACT PERSON:

Dr Bill Van Megen (also Phil Francis)

POSTAL ADDRESS:

**Applied Physics Dept.
RMIT
PO Box 2476V
MELBOURNE VIC 3001**

PHONE: (03) 660 2140

FAX: (03) 660 3837

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING OPTICS AND LASERS:

Photon correlation spectroscopy of colloidal suspensions, utilizing various laser sources such as argon ion, krypton ion, dye, HeNe, and photomultipliers, single photon detectors and diode array detectors. Signals are analysed using various correlators.

ORGANISATION NAME:

HBH Technological Industries Pty Ltd

CHIEF CONTACT PERSON:

Martin Harris

POSTAL ADDRESS:

**HBH Technological Industries Pty Ltd
PO Box 807
DANDENONG VIC 3175**

PHONE: (03) 791 7286

FAX: (03) 706 7974

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING
OPTICS AND LASERS:

Commercial manufacturer of fibre optic laser scanning confocal microscopes sold locally and overseas. Design, application advice and construction of scanning (confocal) imaging systems, fibre optic sensors, fibre optic components, auxiliary equipment and microscopes.

ORGANISATION NAME:

Rofin Australia Pty Ltd

CHIEF CONTACT PERSON:

Dr Hadrian Fraval

POSTAL ADDRESS:

**Rofin Australia Pty Ltd
PO Box 38
MORDIALLOC. VIC 3195**

PHONE: (03) 558 0344

FAX: (03) 558 0252

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING
OPTICS AND LASERS:

Manufacture of POLILIGHT universal light source, POLIVIEW integrated system for forensic science, MICROCOLORITE system for colour analysis.

Field of operation: astronomy, colour, design, fabrication, fibres, holography, laser applications, materials, measurement, medical, photometry, photonics, vision, sensing, spectroscopy, XUV.

ORGANISATION NAME:

Integrated Photonics Pty Ltd

CHIEF CONTACT PERSON:

Dr. Hadrian Fraval

POSTAL ADDRESS:

**Integrated Photonics Pty Ltd
PO Box 38
MORDIALLOC VIC 3195**

PHONE: (03) 558 0344

FAX: (03) 558 0252

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING
OPTICS AND LASERS:

Integrated Photonics design and development, Optoelectronics systems design and development; Fabrication of integrated photonics and optoelectronics systems. Field of operations, colour, design, fabrication, fibres, laser applications, materials, measurement, photonics, spectroscopy, ultrafast.

ORGANISATION NAME:

RMIT Department of Applied Physics, Optics Group

CHIEF CONTACT PERSON:

Dr Philip A. Wilksch

POSTAL ADDRESS:

**RMIT Department of Applied Physics
GPO Box 2476V
MELBOURNE VIC 3001**

PHONE: (03) 660 2145 or 660 2600

FAX: (03) 660 3837

E-MAIL: wilksch@rmit.edu.au

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING
OPTICS AND LASERS:

Undergraduate teaching in general optics as part of the Bachelor of Applied Science degree and honours degree courses. Postgraduate teaching and research will facilities and interests in the following areas: holography, speckle interferometry for non-destructive testing, Fourier and digital image processing, spectrophotometry, photometry, colour measurement, imaging spectrometry, and laser applications.

ORGANISATION NAME:

University of Melbourne, Photonics Research Laboratory.

CHIEF CONTACT PERSON:

Prof. Rodney Tucker

POSTAL ADDRESS:

**Department of Electrical and Electronic Engineering
The University of Melbourne
Grattan Street
PARKVILLE VIC 3052**

PHONE: (03) 344 7688

FAX: (03) 344 7412

E-MAIL: rst@ee.mu.oz.au

ONE PARAGRAPH SUMMARY OF AACTIVITIES INVOLVING OPTICS AND LASERS:

The Photonics Research Laboratory is a key node of the Australian Photonics Cooperative Research Centre. The objectives of the Photonics Research Laboratory are to carry out research and development activities in the area of photonic devices, circuits, networks and systems. The main activities currently under way in the Photonics Research Laboratory involve applications of photonic devices to very high bit rate optical communications systems, terabit-per-second optical networks, including local area networks and metropolitan area networks, fibre-to-the-home systems, official fibre delivery of pay television, photonic packet switching, wavelength-division multiplexed networks, optical frequency shifting techniques for optical networks, computer-aided design (CAD) of photonic and optoelectronic networks and systems, and laser applications for industry, including laser ranging and metrology.

ORGANISATION NAME:

Department of Physics, Monash University

CHIEF CONTACT PERSON:

Dr R.C. Tobin / F. Ninio

POSTAL ADDRESS:

**Department of Physics
Monash University
CLAYTON VIC 3168**

PHONE: (03) 565 3647

FAX: (03) 565 3637

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING
OPTICS AND LASERS:

The program is concerned with the development and study of new compact metal ion and rare gas ion lasers, based on novel high-voltage hollow cathode discharges, for applications to biomedicine and other spectroscopically-based instrumentation which require moderate beam power at wavelengths in the blue, violet and the 200-300 nm ultraviolet range. Raman Spectroscopy as a diagnostic tool. This work uses the inelastic scattering of a laser beam to characterise materials. Currently the quality of diamond films is being assessed by monitoring the shifts and line-shapes in the scattered light.

ORGANISATION NAME:

School of Physics, University of Melbourne

CHIEF CONTACT PERSON:

Prof. A.G. Klein

POSTAL ADDRESS:

**School of Physics
University of Melbourne
PARKVILLE VIC 3052**

PHONE: (03) 344 5454

FAX: (03) 347 4783

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING OPTICS AND LASERS:

Optical and x-ray microscopy, x-ray imaging, scanning near-field microscopy and its applications in photonics. Optical theory. 3D imaging. Laser cooling and trapping of atoms. High resolution spectroscopy. Construction of optical systems for very slow alkali metal vapour beams.

ORGANISATION NAME:

DSTO Aeronautical Research Laboratory

CHIEF CONTACT PERSON:

Dr Christine Scala

POSTAL ADDRESS:

**DSTO Aeronautical Research Laboratory
506 Lorimer Street
FISHERMENS BEND VIC 3207**

PHONE: (03) 647 7520

FAX: (03) 646 6769

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING OPTICS AND LASERS:

DSTO Aeronautical Research Laboratory, undertakes research and development work in support of defence aircraft and crew. Laser and optics areas of work include: measurement and visualisation of flows around aerodynamic shapes using laser induced fluorescence, Mie scattering and laser doppler velocimetry diagnostic techniques; Holographic, moire and other optical techniques for measurement of small surface deformations; Laser generation and interferometric sensing of ultrasound for non-destructive measurement of airframe defects and materials, including optical beam shaping and steering; Vision and visual performance of aircrew, including development of visual displays, visual guidance and night imaging; Utilisation of optical microscopes for examination of opaque and transparent materials, including some image analysis and measurement.

ORGANISATION NAME:

Optix Australia Ltd

CHIEF CONTACT PERSON:

P.W. Long

POSTAL ADDRESS:

**207 Sunshine Road
TOTTENHAM VIC 3337**

PHONE: (03) 314 9333

FAX: (03) 314 5170

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING OPTICS
AND LASERS:

Manufacture of optical fibres for communication cables.

ORGANISATION NAME:

Longman Optical

CHIEF CONTACT PERSON:

Catherine Hills

POSTAL ADDRESS:

**GPO Box 113
HOBART. TAS 7001**

PHONE: (002) 718105

FAX: (002) 236958

E-MAIL

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING OPTICS
AND LASERS:

Fabrication/manufacture of precision optics - lenses, prisms, windows etc. Front surfaced Al mirrors and MgF coatings. Prototype and commercial production runs to customer specifications.

ORGANISATION NAME:

Spectra-Physics Pty Ltd

CHIEF CONTACT PERSON

Ian Butler

POSTAL ADDRESS:

**2-4 Jesmond Road
CROYDON. VIC 3136**

PHONE: (03) 7236600

FAX: (03) 725 4822

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING OPTICS
AND LASERS:

**Consultation on commercially available lasers and
optical equipment.**

ORGANISATION NAME:

GBC Scientific Equipment Pty Ltd

CHIEF CONTACT PERSON

Clive Davenport

POSTAL ADDRESS:

**PO Box 1226
Dandenong, Vic. 3175**

PHONE: (03) 213 3666

FAX: (03) 213 3677

E-MAIL:

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING OPTICS
AND LASERS:

GBC Scientific Equipment designs, manufactures and markets a range of scientific instrumentation for chemical analysis including Atomic Absorption, Atomic Emission & UV/Visible spectrophotometers and High Performance Liquid Chromotgraphy systems. Most of these instruments employ optical spectroscopic techniques and incorporate optical systems which are designed and manufactured fully in house. The equipment finds widespread application in the industrial, bio-medical, agricultural and environmental fields and is marketed in more than 78 countries worldwide.

ORGANISATION NAME:

CSIRO Division of Building, Construction & Engineering

CHIEF CONTACT PERSON

Dr David Proctor

POSTAL ADDRESS:

**PO Box 56
Highett Vic 3190**

PHONE: (03) 252 6000

FAX: (03) 252 6240

E-MAIL: David.Proctor@dbce.csiro.au

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING OPTICS
AND LASERS:

**Combustion laser diagnostics, Flow velocity fields
visualisation.**

**There are three groups in the Division of Building
Construction, and Engineering that are very heavily
involved in optics and lasers. The work at the Division
involves flow visualisation via PIV, LDA and LIF and
combustion laser diagnostics via CARS, PLIF, Rayleigh
scatteriang, DFWM and laser specroscopy; and lastly 2D
image capture of temperature, species or velocity events
with temporal resolution.**

ORGANISATION NAME:

**Telecom Research Laboratories, Reference Measurements
Section**

CHIEF CONTACT PERSON

R. Ayre

POSTAL ADDRESS:

**PO Box 249
Clayton VIC 3168**

PHONE: (03) 253 6182

FAX: (03) 253 6144

E-MAIL: r.ayre@trl.oz.au

ONE PARAGRAPH SUMMARY OF ACTIVITIES INVOLVING OPTICS
AND LASERS:

Development of optical calibration facilities for fibre-based measurements. Calibrations of optical fibre transmission system test equipment.