

INTERNAL MANAGEMENT

Administrative Support Structure

The management of the School is coordinated through the Business Office and the Academic Secretary's Office. The senior administrative staff in 2004 comprised:

- the Laboratory Manager (*L Harland*), who is responsible for non-academic functions in the School, including managerial, financial and budgetary, occupational health and safety, and the supervision and well-being of the technical support staff;
 - the Business Officer (*L Scarr*), who is responsible for the supervision of the School's administrative and security/cleaning staff, and assists the Laboratory Manager with the business management of the School;
 - the Academic Secretary (*MA Holloway*), who is responsible for matters pertaining to academic staff and students, particularly appointments, promotions, current rules, regulations and practices, and is the focus for outreach issues.
- The Academic Secretary acts as secretary to the Faculty Board and their committees, and provides advice and administrative assistance to the Dean;
 - the Facilities Officer (*K Cooper*), who is responsible for the maintenance, operation and safety of the building plant and services;
 - the Laboratories and Safety Co-ordinator (*L L Welling*), who is responsible for the maintenance and operation of laboratory facilities, and oversees the control of hazards in all of the School laboratories;
 - the Purchasing Officer (*N Bayley*), who is responsible for the supervision of the purchasing/stores staff and the procurement of goods and services for the School. The Purchasing Officer is responsible for the provision of the imprest store, which services the RSC and other areas of the ANU.

Technical Support and Research Services

The capacity of the School to undertake leading-edge research is underpinned by highly skilled technical staff, whose skills and expertise complement those of the academic staff.

Technical Support

The output of experimental groups in the RSC is supported by technical staff attached to individual groups. Their broad technical expertise is enhanced by additional specialist knowledge and skills in areas of direct relevance to the research group. Technical staff provide continuity within particular groups, but their expertise is also made available to other groups. The technical staff contribute to the research projects of their groups and this is acknowledged by co-authorship of publications. In addition, the technical

staff assist the Laboratory Manager in implementing and monitoring safety policy within the groups.

ANU Microanalytical Services Unit

During 2005, the Unit completed a total of 1954 analyses on 1649 samples submitted by 200 individuals, most of which (79%) were CHN analyses. This year 45% of requests originated in the RSC. External organisations requesting analyses (30% of total requests) include the University College UNSW ADFA, James Cook (Townsville Campus), Melbourne, Newcastle, University of New South Wales, Queensland, Sydney, Sydney Grammar School, Deakin, Western Australia, Western Sydney and Wollongong. Significant requests continue to come from Commercial and Governmental sources



(18%). Commercial and Governmental clients included the Institute for Drug Technology, ANSTO, Access Pharmaceuticals, Children's Cancer Institute, CSIRO (Centre for Materials and Infrastructure Technology), Concorde Repatriation Hospital, Progen Industries, and the Victoria Museum.

Ms Reet Bergman was able to contribute both her time and expertise to the running of the unit, returning on a casual basis to work whenever absences of the regular staff necessitated it. Details of instrumental techniques used and submission of samples can be found on the website. (*V L Withers[®], A Melnitchenko*)

External earnings for 2003 were \$49,874.07

<http://rsc.anu.edu.au/facilities/micro.php>

Computer Unit

The Computer Unit provides support for the diverse range of software and hardware used in the School. The School has 45 Unix workstations (Linux, SGI and Sun). These Unix computers are used for a variety of purposes including data-reduction, desktop use and a small amount of computation. 150 Apple Macintosh computers are used as the desktop systems for most staff and students. In addition, 80 PCs mainly running Microsoft Windows are used for controlling experimental and data collection equipment. Printing services are provided by twenty laser printers and 4 thermal wax colour printers.

The School main servers run Debian Linux. These servers provide external services including the School's e-mail and web services and internal services such as authentication and file-serving, plus the ability to run small to medium sized computational tasks. A separate server provides mirroring of all the Unix disks and most of the machines running OSX in the School. Archives and backups of the Schools computers are now done to hard-disk.

The major hardware acquisitions this year have been of Apple Macintosh Dual G5s, IMac G5s, Emacs, iBook G4s, G4 Laptops as well as several new small to medium Linux servers, several Linux workstations and ten new PCs running Microsoft Windows. The School's web page is administered by Chris Blake and can be found at <http://rsc.anu.edu.au/index.php>. (*P R Cohen, C D Delfs, R Faletic[®], G A Lindsell*)

<http://rsc.anu.edu.au/~rsccu/index.html>

Single Crystal X-ray Diffraction Unit

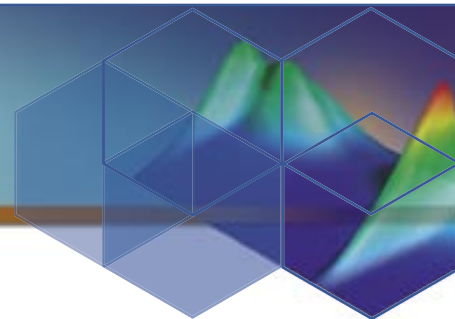
The unit performs crystal structure analyses on samples provided by various groups within the RSC. Some of the structures now being solved and refined have as many as 400 non-hydrogen atoms and so are similar in size to small proteins. X-ray diffraction data sets are collected on a Nonius Kappa-CCD area-detector diffractometer equipped with IFG capillary X-ray-focusing collimators and an Oxford Cryosystems crystal cooling device. Data sets were also collected for other members of the RSC to solve and refine. Several structures needed to be refined in non-standard ways to allow for twinning, stacking faults and composite space groups and these were done in collaboration with Professor David Rae.

In total, 167 data sets were collected and 109 final reports produced for the year. External work was performed for University College UNSW ADFA, the South Australian Museum, Monash University and RMIT University. (*A J Edwards, A C Willis*)

Group	Data Sets Collected	Reports Completed
RSC	150	100
Others (ANU)	10	9
Others (External)	7	-
TOTAL	167	109

Mass Spectrometry Service

During 2004 the new Bruker Apex 3 HR FTICR Mass Spectrometer was finally commissioned after initial installation difficulties. In total, 5602 measurements were made throughout the year on the six different Mass Spectrometers. The Synthesis and Mechanism Group (1920) is still the heaviest user to date. The majority of samples were run for the RSC along with the Chemistry Department (450) being the other major outside users.



The total samples run through each Mass Spectrometer are as follows: VG Autospec (2916), VG Quattro 2 (1286), Micromass ZMD (908), HP Agilent GC/MS (351), Bruker FTICR (102), VG ZAB (39). (*J M Allen [Head], G Lockhart, A Jeyasingham[®] [from mid 04]*)

<http://rsc.anu.edu.au/facilities/mass.php>

University NMR Centre

In the past year, the first 800 MHz spectrometer to be delivered in Australia was installed at the ANU. This spectrometer is a joint facility of a consortium of Universities from the ACT and NSW. A cryoprobe, ordered with the spectrometer, will be delivered and installed by mid-2005. The 800 MHz spectrometer is housed in a purpose-built building adjacent to the ANU NMR Centre. The very-high field NMR spectrometer joins six other lower field instruments at the ANU NMR Centre. Consistent reliability of all the instrumentation during 2004 has enabled a high productivity for the NMR Centre.

During the year the University NMR Centre catered for 120 users from RSC, the Research School of Physical Sciences, Research School of Biological Sciences, John Curtin School of Medical Research, The Faculties, Charles Sturt University, University College UNSW ADFA, University of Sydney, University of NSW and the University of Wollongong. Applications include *in vivo* NMR, nucleotide and protein structure determination, analysis of natural products and synthetic intermediates, NMR of organometallic compounds and variable temperature NMR. (*M A Keniry, C J Blake, P T Culnane, P M Simmonds*)

<http://bloch.anu.edu.au/>

Research Services

Staff of the section provided expert advice on the design, manufacture, maintenance and refurbishment of equipment to the academic and research staff of the School, the ANU and the broader community. The primary focus of this section is the support of RSC research and teaching programs.

Carpentry and Paint Workshops

These workshops are well equipped with carpentry and joinery machinery and spray painting facilities, and provide outstanding custom furniture and fittings for the School's laboratories and offices, in addition to specialised scientific apparatus and specialised surface finishes to engineering materials of all workshop sections. Major projects in 2004 included work related to the installation of the 800 MHz NMR spectrometer. (*I J Clarke, R J O'Brien*)

Cryogenics Unit

This unit provides cryogens, liquid nitrogen and helium, to the School and the wider ANU community (Department of Chemistry, The Faculties, and RSES). (*P Devitt, R J O'Brien*)

Electrical Unit

This unit provides services in electrical wiring and modifications, new equipment verification and installation, maintenance of electrical research and plant equipment. The mandatory electrical safety checking of appliances throughout the School is co-ordinated by staff in this unit. (*F Vera [from 24/5/03], R J O'Brien*)

Electronics Unit

This unit is equipped with design, development, and construction facilities, including specialised services for computer-aided design and printed circuit board (PCB) manufacture. In addition, electronic repair services are provided for the research groups within the School and the instrumentation service units, such as the Mass Spectrometry Unit, in preference to using external service engineers. (*R T Koehne*)



Glassblowing Unit

Staff in this unit provide expertise and resources for the design, construction and repair of glass apparatus, together with advice on any aspect of construction, materials, or safety. Throughout 2004 the unit continued to provide an impeccable service to research programs within the RSC and the wider ANU community, as well as undertaking work for external clients. (*P Siu, C J Tomkins*)

Mechanical Workshops

This main workshop is equipped with precision engineering capabilities for instrument development (e.g. precision milling, turning, and welding), mechanical maintenance and repair, and the design and manufacture of prototype apparatus in metal or plastic. In support of all laboratory research programmes, extensive maintenance, repair and

fabrication services were provided by the workshop. Installation of services (gas, water, vacuum, equipment racks) associated with fume-cupboard and laboratory upgrades continued, together with support of the environmental program to convert instrument cooling systems reliant on mains water to recirculating chilled water systems. The workshop also continued to provide support to the wider ANU community, such as the Facilities and Services Division Zone-3 maintenance section.

The mechanical prototype workshop provides mechanical engineering services, prototypes of advanced scientific instrumentation, high vacuum, cryostat, and helium leak detection services to the School. (*P Devitt, R Filardo, M J Hill, K L Jackman, R J O'Brien*)

⊗ = part-time

School Committees, Representatives and Office Bearers

Faculty Board

Professor D J Evans, Dean (*Chair*) (*ex officio*)
Professor C J Easton, Deputy Dean (*IF rep*) (*ex officio*)
Professor R A Withers, Associate Dean (Students) (*ex officio*)
Professor M G Banwell
Professor M A Collins
Professor P M W Gill (*from 31 August*)
Professor A F Hill (*Academic rep IF*)
Professor E R Krausz
Professor Emeritus L N Mander
Professor D L Ollis
Professor G Otting
Professor L Radom (*to 31 Oct*)
Professor A D Rae
Professor J W White
Professor T R Welberry
Professor S B Wild
Professor J W White
Dr M L Coote
Dr N E Dixon (*MS Board of Studies rep*)
Dr G A Heath
Dr M J Henderson (*Faculty rep*)

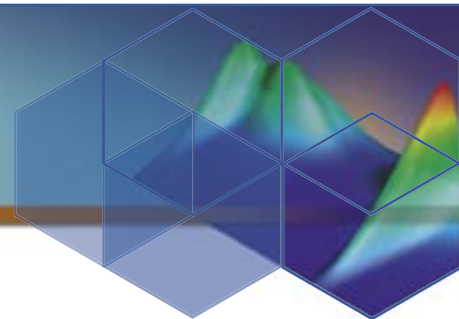
Dr M A Keniry
Dr A J Oakley
Dr E M Sevick
Dr M S Sherburn
Dr D Sinclair (*Faculty Rep; IF rep*)
Mr K Cooper
Ms L Harland

Academics-in-Charge

Crystal Structure Service:	Professor C J Easton
Mass Spectrometry:	Professor C J Easton
Microanalytical Unit:	Professor C J Easton
UNMRC:	Dr M A Keniry
EPR Facilities:	Dr R D Webster

Advisory Committee on Safety

Professor T R Welberry (*Chair*)
Professor M G Banwell
Mr K Cooper
Mr P A Gugger
Mrs P E Lilley
Mr H McGlinchey



Mr C J Tomkins
Mr L L Welling
Professor S B Wild
Mrs V Withers
Ms L Harland
Dr J-W Liu

ANU Radiation Safety Committee Officer and Licensee for Radiochemicals, AQIS and Institutional rDNA Committee Liaison Officer

Dr N E Dixon

ANU Marketing Committee

Ms Marilyn Holloway (*RSC rep*)

Board of Studies of the Graduate Program in Chemistry

Professor C J Easton (*Chair/Convenor*)
Professor M G Banwell
Professor R L Withers
Professor A F Hill

Chemistry Library Advisory Committee (CHEMLAC)

Professor M G Banwell (*Chair*)
Professor M A Collins
Professor A F Hill
Dr N E Dixon
Ms S Jackson
Mr P McNamara
Dr M Humphrey (*Chemistry, Faculty of Science*)
Mrs J Smith
Dr C Chai (*Chemistry, Faculty of Science*)

Crystallography Committee

Professor A F Hill (*Chair*)
Professor A D Rae
Dr A C Willis
Professor C J Easton
Dr M Humphrey (*Faculty Rep*)

Dean's and Crawford Prize Selection Committee

Professor T R Welberry (*Convenor*)
Professor S B Wild
Professor M G Banwell

Distinguished Visitors Selection Committee

Professor M G Banwell (*Chair*)
Professor S B Wild
Professor P M W Gill
Professor T R Welberry

IT Committee

Professor T R Welberry (*Chair to April*)
Professor M G Banwell (*Chair from May*)
Mr C J Blake
Ms P Cohen
Professor E R Krausz

Local Area Consultative Committee (LACC)

Mr K Cooper (*Chair*)
Dr P Carr
Dr M S Sherburn (*Academic Rep*)
Dr R Webster (*RO Rep*)
Ms P Cohen
Dr J Renner (*Postdoctoral Fellows Reps*)
Mr P Sui, Mr M J Hill (*Technical Officer Reps*)
Mr C Evenhuis, Ms H Kitto (*Grad Students Reps*)



Ex-officio Members:

Professor D J Evans, *Dean*
Ms M A Holloway, *Academic Secretary*
Ms L Harland, *Laboratory Manager*

National Science Teachers Summer School RSC Coordinators

Professor R W Rickards
Dr E M Sevick

Occupational Safety and Liaison Officers

Mrs R E Enge
Dr A Scott
Mrs L M Monaghan
Mrs S Riches
Dr G A Lindsell
Ms N Johnson
Mrs E O'Toole

Ombudspersons

Professor C J Easton
Ms M A Holloway
Dr E M Sevick
Professor R L Withers

Promotions Committee (Local Area)

Professor D J Evans (*Chair*)
Professor M G Banwell
Professor S B Wild
Professor E Krausz
Professor G Otting

External members:

Adjunct Professor V James OAM, Formerly U Sydney
Professor A Byrne, Head, Dept of Physics, Faculty of
Science
Secretary: Ms M A Holloway

Visitors Grants Committee

Professor T R Welberry (*Chair*)
Dr N E Dixon
Professor C J Easton

WWW Site Committee

Professor E R Krausz (*Chair*)
Ms P Cohen
Mr C J Blake (*Webmaster*)
Ms M A Holloway