

Australian X-ray Analytical Association (AXAA) E-Newsletter

Issue 2005/01 July 2005

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VICTORIAN BRANCH MEETING NOTICE

1. WELCOME FROM AXAA NATIONAL PRESIDENT

AUTHOR: BRIAN O'CONNOR

Welcome to this first issue of the newlook AXAA e-newsletter. This format replaces traditional printed newsletter as resolved by the incoming AXAA National Council when it met during AXAA-2005 in February 2005. The principal rationale for going to an e-mail format is the need to distribute information more rapidly using e-mail, and also the crippling costs associated with producing and snail-mailing the newsletter in traditional form – some \$3,000 per issue. The newsletter will be limited in volume to about 200 KB per issue.

Distribution will be by e-mail to paid up members. In cases where members do not have an e-mail address, or where a members wishes to receive a hard copy, a print copy of the newsletter will be mailed. Approximately 1 month after the newsletter has been mailed, a copy will be openly available on the AXAA website – www.axaa.org

The Council Executive is still working through the best means of offering paid advertising. As an interim measure, we invited our supporting vendors and manufacturers to provide a text-only paragraph, including a web-link, for this initial issue. It is hoped that future issues will carry PDF-compatible advertising provided that we can remain within the 200 KB limit.

2. EDITORIAL

AUTHOR: TONY RAFTERY

Welcome to this new format AXAA Newsletter. As Brian O'Connor, our new National President has mentioned; it is designed to be a quick response format.

The quality and usefulness of any newsletter is governed by the contributions made.

The National Council has expressed a desire that the Newsletter highlight the new national infrastructure that is shortly to be available (in the next few years). As an editor for the next issues, I would greatly like to see short reports on general topics and techniques as occurred during the 80's when I was new to the field. It seemed to me at the time that every issue contained its treasures. I would like to see short articles or technical notes (1-2 pages of text, or less), news items from vendors (<250 words but with links to further information), branch activity reports, meeting and conference dates, etc. There has been a considerable amount of new equipment installed over the last few years but little feedback on their characteristics.

3. AXAA NATIONAL COUNCIL NEWS

AUTHOR: BRIAN O'CONNOR

The National Council Executive (Chair, Brian O'Connor; Secretary, Ned Blagojevic; Treasurer: Rob Hart) met in Perth on 28 April 2005. The Executive agreed on the following distribution of duties for 2005-08.

MEMBER	RESPONSIBILITIES
Brian O'Connor	President Liaison with Branch Chairs AXAA-2008 Convenor ICDD liaison
Ned Blagojevic	Council Secretary Management of membership applications General correspondence Newsletter distribution (electronic and hard copy) AXAA Website content (but not webmaster) Liaison with Branch Secretaries AXAA-2008 Organising Committee AXAA-2008 XRF Program Chair
Rob Hart	Council Treasurer Liaison with Branch Treasurers AXAA-2008 Organising Committee
Ken Turner	AXAA-2008 Organising Committee AXAA-2008 XRF Stream Deputy-Coordinator
Rod Clapp	AXAA-2008 Organising Committee Etc
Jorg Metz	AXAA-2008 Organising Committee Etc
Gary Pritchard	AXAA Website webmaster (but not content) AXAA-2008 Organising Committee
Arie van Riessen	Membership officer (list maintenance) Liaison with EM/Microprobe organisations AXAA-2008 Organising Committee

Other Key Responsibilities for Non Council Members

Chris Kelaart	Public Officer (liaison with ACT Registrar Generals Office)
Tony Raftery	Newsletter Editor
Ian Madsen	AXAA-2008 XRD Program Chair

WEBSITE, MEMBERSHIP AND NEWSLETTER MANAGEMENT

- 1) **Website:** Gary Prichard and Ned Blagojevic will share responsibility for the website. Gary will be responsible for the 'look' and functionality of the website; Ned will be responsible for the material placed on the website (eg newsletters)
- 2) **Membership Applications:** Applications will be sent to Ned who will then liaise with Rob on the processing of the application fee. Arie will receive details of the membership from Ned for updating the membership list.
- 3) **Newsletter.** (E-mail Transmission Mainly) Tony to manage production in consultation with the National Council. Ned will distribute by e-mail, with hard copies being mailed to members who have not specified an e-mail

address. Copy to be placed on AXAA website one month after distribution to members

4. REPORT ON AXAA-2005

AUTHOR: KEN TURNER, AXAA-2005 CONFERENCE CHAIRPERSON

I am sure that all who attended AXAA 2005 in Fremantle will agree that it was a great conference. Great venue, excellent food, convivial company and of course an excellent scientific program.

From a purely numbers point of view it was one of the best attended conferences for many years with a final registration of 176. Industrial users were well represented as both attendees and presenters. There was a strong overseas presence with representatives from the UK, Europe, USA, Canada, SE Asia, South Africa, Kuwait and Papua & New Guinea. I think this speaks volumes for the high regard in which the international X-ray community holds the AXAA National Conferences. Financially the conference returned a modest profit of \$7,500. As most of you will be aware the profit from the AXAA National Conference funds most of the AXAA activities.

The inclusion of an Advanced X-ray Analysis stream to the Schools proved to be a real winner with attendance exceeding all expectations. The attendance at the more traditional basic XRD and especially XRF Schools remained sound which reinforces the need for basic X-ray training for “new” users. The conference papers were of a high standard with a nice balance of cutting edge techniques and technology and more general application reports. As at Newcastle in 2002, the laboratory visits were popular and enjoyed by all participants.

The manufacturers and suppliers gave the conference tremendous support through their trade exhibits, financial support and factory representatives. The trade exhibits were excellent and are one of the highlights of any AXAA National Conference. Using the Exhibition area for lunches, morning/afternoon teas and the poster session allowed ample networking time as well as a relaxed atmosphere to view the Exhibition.

And who could forget the conference dinner at the Maritime Museum where we had time to view the museum exhibits and to partake of drinks while watching the shipping activities in Fremantle Harbour. A fitting climax to an excellent conference.

There was a good contingent of students at the schools and conference with a many presenting papers. The student papers were of a very high standard and the judges had a difficult task in selecting the best student paper in each category (XRF oral, XRD oral and Poster). The student awards were presented during the conference closing afternoon tea and are as follows:

XRF Oral – Erika Heiden, Macquarie University, NSW.

XRD Oral – Danny McDonald, La Trobe, University, Victoria.

Poster – Aliaksandr Darahanau, Monash University, Victoria.

I would like to formally take this opportunity to recognise and thank the Conference Committee and Tulips Meetings Management for their efforts in putting AXAA 2005 together. Without this team and the support of our manufacturers and suppliers AXAA 2005 could not have occurred. Once again thanks guys for a sterling effort.

For those of you who would like a lasting memento of AXAA 2005 I would encourage you check out the photos taken by the professional photographer from Sublime Premier Imaging. Proofs may be viewed and prints order via their website:

address:- www.sublimeimaging.com.au

Access via preview link on home page.

User name:- axaa

Password:- freo1

Note: user name and password are all lower case.

As was announced at AXAA 2005, the next AXAA National Conference AXAA 2008 will be held in Melbourne in 2008. Start saving those frequent flyer points and planning your papers now as 2008 is not that far away.

See you all at AXAA 2008.

COMMENTS FROM TONY RAFTERY

The conference is over and the next is in planning.

No one would have been able to attend all sessions, since there were others things to do. Some of the Schools sessions were everything a Schools session should be, fresh and informative – and I thank the organisers and presenters for putting in the effort to make it so. The Advanced Topics session was obviously a success given that it was so strongly attended. It is hoped that the presentations may be available in a downloadable format at some future date.

The Conference presentations were diverse, which is not surprising given the range of application of the techniques. It was good to see reports on projects that had been quiet for some time as well as all the projects that were quite new and interesting. There was a strong poster presentation session that should be built on at future conferences.

The Exhibition was well attended both in terms of exhibitors and interest from the Schools/Conference attendees. The Conference Secretariat (Tulips) did a great job in getting the venue and events to tick over - reacting to the inevitable on the day difficulties that can so easily cause upset.

I am glad to have been in Fremantle and to be associated with the event. It went well.

5. PLANNING FOR AXAA-2008

AUTHOR: BRIAN O'CONNOR

The next National Conference, AXAA-2008, has been provisionally planned for central Melbourne in February 2008. The AXAA National Council will serve as Organising Committee, along with several additional members from the Victorian Branch Committee. The conference program chairs are:

Program Chair (Overall): Brian O'Connor <B.O'Connor@curtin.edu.au>

XRF: Ned Blagojevic <ned.blagojevic@ansto.gov.au>

XRD: Ian Madsen, CSIRO Minerals <Ian.Madsen@csiro.au>

Please liaise directly with Ned and Ian about specific XRF and XRD issues. Broader matters, especially to do with organisation, should be directed to Brian O'Connor. We are particularly keen to hear from prospective exhibitors about their needs.

6. BRANCH ACTIVITIES 2005

NSW BRANCH

Information to be provided in the next newsletter.

VICTORIAN BRANCH

AUTHOR: JORG METZ, BRANCH CHAIR

The next Branch TechnoArvo will be held Thursday 18th of August at RMIT University - Department of Applied Chemistry. David Hay and Rod Clapp are the invited speakers. See attached meeting notice.

WA BRANCH

AUTHOR: NIGEL KIRBY, BRANCH CHAIR

Following the two recent highly successful conferences (the 2004 Joint AXAA (WA)-WASEM Joint Conference and the 2005 AXAA National Conference), the WA Committee has decided not to run the local joint conference until next year. In the mean time, we will be organising the usual AXAA (WA) Technical Meetings. In place of the full local conference, there have been discussion on holding a shorter 1-day meeting later in the year, and we'll be notifying the members once arrangements are made.

7. RECENT PUBLICATIONS ON X-RAY ANALYSIS

AUTHORS: TONY RAFTERY AND BRIAN O'CONNOR

- *Powder Diffraction*: June 2005 Issue

<http://www.icdd.com/resources/pdj/pdj20-2.htm>

An article which will be of broad interest to the membership is *Powder diffraction analysis of hydraulic cements*, Paul Stutzman (2005). 20, 97-100.

- *X-ray Spectrometry*: May-June 2005 Issue

<http://www3.interscience.wiley.com/cgi-bin/jissue/110483823>

- Recent text on X-ray Spectrometry

Wiley has released the XRF book *X-ray Spectrometry: Recent Technological Advances* Editors – K Tsouji, J Injuk and R Van Grieken (April 2004).

8. X-RAY ANALYSIS EDUCATION

4-Day Course 'X-ray Powder Diffraction Analytical Methods'

Venue: Department of Applied Physics, Curtin University of Technology, Bentley (Perth), Western Australia

Dates: 27-30 August 2005 (Sat – Tue)

Course Presenters: Professor Brian O'Connor and Dr Robert Hart

Enquiries: B.O'Connor@curtin.edu.au

Overview: The course has been designed to give participants a theoretical and practical grounding in the principal characterisation methods which make use of x-ray powder diffractometry data. Approximately 60% of the course will involve hands-on instruction. Students will personally collect diffractometry data sets and then process these, both manually and with PC computers, in exercises on various analytical methods, including Rietveld analysis. While the course is relevant to the analysis of all classes of crystalline materials, attention will be devoted mainly to the analysis of minerals and ceramics.

9. LOVED X-RAY EQUIPMENT MARKET

Siemens SRS300 XRF complete with chiller, plus Bradway top loading furnace

Contact David Keith ph 02 6773 2900

e-mail dkeith@une.edu.au

Earth Sciences UNE

Armidale NSW 2350

10. CALENDAR OF EVENTS

Dates	Event	Location	Further information
1-5 Aug 2005	54 th Annual Denver X-ray Conference	Colorado Springs, Colorado, USA	http://www.dxcicdd.com/
18 Aug (Thu), commencing 2:45 pm	AXAA Victoria TechnoAvo	RMIT (Melbourne), Applied Chemistry	jorg@xrfscientific.com
23-27 Aug 2005	International Union of Crystallography Congress	Florence, Italy	http://www.iucr2005.it/
27 Nov- 2 Dec 2005	International Conference on Neutron Scattering (ICNS-2005)	Sydney	http://www.icns2005.org/
19-23 June 2006.	12th European Conference on X-Ray Spectrometry	Paris, France	http://www.nucleide.org/exrs2006

	(EXRS2006)		
February 2008	AXAA National Schools and Conference (AXAA-2008)	Melbourne	http://www.axaa.org

11. AXAA WEBSITE AND CONTACTS

WEBSITE <http://www.axaa.org>

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NEWS FROM EQUIPMENT VENDORS

GBC Scientific Equipment

The MMA Turns 20 (20 Orders/Installations Achieved!)

In the period since MMA production began at GBC, as well as long list of new accessories being added, MMA's have been installed all over the world. Wherever users want an economical XRD (or the budget is limited) and they do not want to sacrifice performance or prejudice future expansion, the MMA has been the instrument of choice. Many of these decisions have been made on the basis of Application Studies, which have kept the XRD laboratory at GBC busy. Studies have been done using Focussing and Parallel optics, Glancing Incidence, Reflectometry, Texture, and XRF. While these Application studies are Commercial in Confidence, the Application Notes available on the GBC website www.gbcsoci.com are available for general information and users are most welcome to browse through them.

CONTACT: Rod Clapp, GBC Scientific Equipment, 12 Monterey Road, Dandenong, Vic 3174 Rclapp@gbcsoci.com

International Centre for Diffraction Data (ICDD)

ICDD has announced its annual call for applications for the Ludo Frevel Crystallography Scholarships – see ICDD press release 051705/149

<http://www.icdd.com/newsletter/pressreleases/icdd-pr-051705-149-m.htm>

These postgraduate scholarships are open to PhD students with a project involving some aspect of crystallography, eg crystal structure analysis, crystal morphology, modulated structures, correlation of atomic structure with physical properties, systematic classification of crystal structures, phase identification and materials characterisation. The value of each scholarship is \$2,500 (US). Further information is obtainable from the ICDD website (see URL above) or from the Scholarship Selection Committee chair, Brian O'Connor. Applications close 31 October 2005.

For other recent ICDD announcements see -

<http://www.icdd.com/newsletter/default.htm>

Sietronics Pty Limited

Sietronics had an amazing response to their AXAA-2005 win a Trip to Tropical Queensland promotion. After careful deliberation of the more than 4 dozen or so entries a winner was selected. The board of directors takes pleasure to announce Mr Shane Reeves of WMC-LNO the lucky man. Shane and his wife will have the opportunity to swap some WA sunshine for some Queensland sunshine later this year. The prize includes economy class airfares and accommodation as well as a short visit

to the Bruker /JCU facility in Townsville. Congratulations!

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www.sietronics.com.au

Sigma X-Ray Flux and Sigma Precious Metals.

What became most apparent for **Sigma Chemicals** following the successful AXAA 2005 CONFERENCE was the support and friendships we have developed with our customers in Australia and around the world over a long period of time. Sigma is genuinely Australian owned, employing an Australian workforce, competing very successfully and competitively in a global economy. We export to over 25 countries. Our universal ultra pure fluxes and exceptional quality **platinum ware** are accepted by governmental analytical laboratories, universities, and international mining and industrial companies. **Sigma Chemicals** and **Sigma Precious Metals** are situated in Balcatta, Western Australia. As globalization, rationalization, downsizing of workforces continue, Sigma prides itself as being a truly independent Australian supplier and manufacturer.

We would like to thank you for the friendships and appreciation we have received, whilst providing services to your unique and specialised industry during the last 30 years.

Thank you once again,
Keith Tyler, Justin Evans, Lynne Page, Rose Jones

CONTACTS: keith.tyler@sigma-chem.com.au justin.evans@sigma-chem.com.au
www.sigma-chem.com.au www.sigmametals.com.au

TECHNOAVO at RMIT University Applied Chemistry Department

X-Ray Applications

Thursday 18th August 2005
2:45 pm for 3:00 pm START

Drinks and Snacks provided!

Venue: RMIT City Campus – Building 3, Level 2

Program of Invited Speakers:

2.45 Registration and refreshments
3.00 Welcome Jorg Metz (AXAA VIC)
3.10 RMIT – to be announced
3.30 RMIT – to be announced

3.50 Break & X-ray Lab. Tour

4.30 “Applications for XRF/XRD spectrometer” Rod Clapp
4.50 “Micro-X-ray diffraction studies...” David Hay
5.10 Discussions
5.20 Close

AXAA members and students: no charge
Non-members: \$5.00

RSVP: Friday 12th August – so we can cater for numbers.

Further Information: jorg@xrfscientific.com