



WEEKLY "E" NEWS- from the RACI NSW 17th November 2008

Dear NSW RACI readers

Below are this week's announcements from the RACI NSW Branch, a summary is given and then scroll down for the full text.

RACI (NSW) Analytical Chemistry Group - Honours Student's Presentation Evening

When: Wednesday, 19th November 2008, 5.30 pm for 6.00 pm (*The NSW RACI Branch will be putting on Wine, and Cheese from 5.30pm at the event*) **Where:** University of Technology Sydney (Room 2.33, Building 4; officially labelled as CB04.02.33) **Cost: FREE** *Full details see page 3*

RACI Wall Planner 2009 Attention all Members – the 2009 Wall planner to be distributed in January 2009 is in the final stages of editing The coordinator hopes that the 2009 wall planner will be as accurate and as useful as possible - *therefore she needs your help!* *Full details see page 4*

Vale Hans Freeman Dear Colleagues, It is my sad duty to pass on to you all the news that Hans Freeman passed away. *Full details see page 4*

RACI NSW One-Day Organic Chemistry Symposium 2008 3rd December, School of Chemistry, The University of Sydney – *See page 5 for the full program of talks.* If you would like to register please email racinsw@chem.unsw.edu.au

The 2009 Honours prize (RACI Western Sydney Section) will be awarded for the best Honours thesis produced in 2008 by a student who is resident and/or has studied or undertaken research in western Sydney throughout the year. The RACI Western Sydney Section Honours Prize is now open *Full details see page 6*

An Invitation The Royal Australian Chemical Institute (NSW Branch) in conjunction with The Dairy Industry Association (NSW Branch) and The Australian Institute of Food Science and Technology (NSW Branch) *proudly presents:* **RACI/AIFST/DIAA CHRISTMAS PARTY 2008** Friday 28th November – Darling Harbour There **are only a couple of Tickets remaining!!** **And a new Ticket Price (pages 7 and 8)**

PhD Scholarships Available at CSU Wagga Expressions of interest are sought for post-graduate students to complete PhD projects in the area of analytical and wine chemistry at the National Wine and Grape Industry Centre (NWGIC) located on the Wagga Wagga campus of Charles Sturt University in New South Wales, Australia. *Full details see page 9*

Last Call to Pre-register under REACH REACH process is at a critical stage: The European Union's regulation for Registration, Evaluation and Authorisation of Chemicals is approaching the pre-registration deadline, the end date being December 1st, 2008. Without valid pre-registration chemicals cannot be placed on the EU market. *Full details see page 10*

REQUEST FOR PROPOSAL DESCRIPTION A Global Diversified Manufacturing Company, invites proposals for technologies leading to **thermoplastic resins with very low coefficient of thermal expansion (CTE)** while maintaining flowability, ductility, and good surface appearance. . **Opportunity** Licensing, product acquisition, proof of concept leading to scale-up to manufacturing, joint development and supplier agreement. Please email john@anotec.com.au for more information.

HAVE YOUR SAY ON THE PROPOSED CONSTITUTION AND BY-LAW CHANGES If you are unable to attend the AGM but wish to vote either for or against the amendments please send a proxy vote to the Honorary General Secretary, RACI National Office, 21 Vale Street North Melbourne, VIC 3051, by close of business on Friday, 28 November. **The 'Appointment of Proxy – General' form is Schedule A2 of the By-laws and is available on the RACI website (the last few pages of the document deal with the voting by proxy)**

<http://www.raci.org.au/national/downloads/Amended%20RACI%20BY%20LAWS%202007.pdf>

Website of the Week: This week we look at **Chem Feeds** <http://www.chemfeeds.com/Special> thanks goes to John Zavras who suggested this website.

Upcoming RACI Conferences and Symposiums As evidenced by the lengthy E News' of late there is an awful lot going on at the moment. This article summarises all the upcoming conferences and symposia

Missed an edition of our weekly E-News? We now have an archive of old editions! Please see <http://www.chem.unsw.edu.au/RACI/News.html>

Its here!!! The New 2008/2009 Entertainment Book has arrived: This book has been an important fundraiser for our branch the last few years. Purchase your brand new 2008/2009 Entertainment™ Book *now*

Important Dates in Chemistry's History Nov 14-20 *We again will celebrate many famous chemists birthdays this week. Among these :the discoverer of anthracene, arsenic, and a pioneer of insulin research*

Please scroll down for further details.....

RACI (NSW) Analytical Chemistry Group - Honours Student's Presentation Evening



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(The NSW RACI Branch will be putting on Wine, and Cheese from 5.30pm at the event)

Where: University of Technology Sydney (Room 2.33, Building 4; officially labelled as CB04.02.33)

Cost: FREE

Each year, the NSW Analytical Chemistry Group has an evening where selected undergraduate students present their honours project work on some aspect of analytical chemistry (15 minutes presentation + 5 minutes questions). Their presentation skills and knowledge of their topic are judged by a panel and prizes of \$500 (First) and \$300 (Second) are awarded. Each presenter will receive one year's student membership to the RACI.

This year's presenters will be:

Amanda Van Gramberg (University of Technology Sydney) "Optimising the separation of amino acids, amines and amphetamines by capillary electrophoresis and lab-on-a chip technology using artificial neural networks"

Ellaine Munton (University of NSW) "Measurement Uncertainty and Metrological Traceability of Carbon Isotope Ratio Measurement Results for Doping Analysis"

Fiona Ky (University of Sydney) "Real-time Monitoring of Asymmetric Reactions by Polarimetry"

Bradley Green (University of Technology Sydney) "Multiple reaction monitoring (MRM) for targeted detection of pharmaceuticals in water using triple quadrupole mass spectrometer"

The order of presenting will be determined on the evening.

There is no charge for the meeting and all members and visitors are welcome to join with us in encouraging these talented young people. An informal dinner will be arranged at a local restaurant after the meeting for those who wish to attend (at their own cost, except for the student presenters, for whom the dinner is free).

For more information, contact Clarrie Ng by email
clarrieng@optusnet.com.au.

RACI Wall Planner 2009

Attention all Members – the 2009 Wall planner to be distributed in January 2009 is in the final stages of editing

Planning for this Calendar is solely organised by the NSW Branch. Events for the Calendar have been taken from the information available from the National offices website. The coordinator hopes that the 2009 wall planner will be as accurate and as useful as possible - ***therefore she needs your help!***

Does your group or section already have an event set for next year? Provide Edwina with the details! Even if you think she may know about your event – she would not object to reminded about your event. Drop her an email at racinsw@chem.edu.au

Whilst on the topic of the wall planner. Wondering how you can get the word out about your company or group to thousands of members all across Australia? Room on the wall planner still exists for some colour adverts. Please Contact Edwina to discuss advertising options

Vale Hans Freeman

Dear Colleagues,

It is my sad duty to pass on to you all the news that Hans Freeman passed away. Hans was a member of the academic staff from 1950, completing his PhD in 1957, and was Professor of Inorganic Chemistry from 1971 until his retirement in 1997. He was a pioneer in structural biology, and in the application of synchrotron and neutron beam science to chemical and biochemical problems. Hans remained active in research well after his retirement, and retained a keen interest in the School of Chemistry, especially through the Chemistry 1 Special Studies laboratory program and the Foundation for Inorganic Chemistry which he established, with Alex Boden, shortly after his appointment as Professor. The funeral will be private, however some preliminary discussions are being held about a Memorial Service. I will pass on more information a bout this as it becomes available.

Prof. Greg Warr
Head, School of Chemistry, F11
The University of Sydney
NSW, 2006, Australia

RACI NSW One-Day Organic Chemistry Symposium 2008
3rd December, School of Chemistry, The University of Sydney

- 8:30-9:10 Registration
- 9:10-9:15 Opening Remarks
- 9:15-9:40 **Stephen Hashmi**, Heidelberg University, "Gold Catalysis: Reactivity Patterns, Mechanisms and Benefits for Synthesis"
- 9:40-10:05 **Nadim A. Darwish**, School of Chemistry, UNSW, "L and Straight Shaped Norbornylogus Bridges with Steady Feet for Surface Electron Transfer Studies"
- 10:05-10:30 **Jimmy Lee**, School of Chemistry, The University of Sydney, "Synthesis and Photoinduced Electron Transfer in Porphyrins-Fullerene Donor-Acceptor Systems"

Coffee

- 11:00-11:25 **Jacqueline Poldy**, Department of Chemistry, ANU, "Fooled by a Flower: the Seductive Chemistry of *Chiloglottis* Orchids"
- 11:25-11:50 **Daniel Goldstein**, School of Chemistry, UNSW, "The Synthesis of Iridium Bisterpyridine Cytochrome *c* Bioconjugates for Bioelectronic Applications"
- 11:50-12:15 **Caroline Nesbitt**, School of Chemistry, The University of Sydney, "A Formal Total Synthesis of (-)-Kumausallene"

Lunch and Poster Session

- 1:45-2:10 **Shiva Prasad**, School of Chemistry, UNSW, Photocatalytic Reduction of NAD⁺ using tin(IV) porphyrins
- 2:10-2:35 **Stephen Butler**, School of Chemistry, The University of Sydney, "Cyclic peptide platforms as selective sensors for phosphate oxoanions"
- 2:35-3:00 **Thomas Fallon**, Research School of Chemistry, ANU "Double Additions to Dienes"

Coffee

- 3:30-3:55 **Lidia Matesic**, School of Chemistry, University of Wollongong, "N-Alkylisatins as Potent Cytotoxins"
- 3:55-4:20 **Fiona Ky**, School of Chemistry, The University of Sydney, "Real-time Monitoring of Asymmetric Reactions by Polarimetry"
- 4:20-5:00 **Jackie Gervay-Hague**, University of California, Davis, "Synthesis of Sulfone-based Nucleotide Isosteres: Identification of CMP-Synthetase Inhibitors"
- 5:00-5:15 Closing Remarks and Awards

BBQ and drinks at the School of Chemistry

We gratefully acknowledge generous sponsorship by the following



Do you supervise Hons students?

Did chemistry provide a solution?

Is your student eligible for an RACI prize...

... of \$200 and one year's RACI membership?

The 2009 Honours prize (RACI Western Sydney Section) will be awarded for the best Honours thesis produced in 2008 by a student who is resident and/or has studied or undertaken research in western Sydney¹ throughout the year.

The RACI Western Sydney Section Honours Prize is now open to

... applicants enrolled in ANY University, within ANY department/school/faculty. The project must include either 'pure' or 'applied' chemistry. This could be applied to fields such as agriculture, horticulture material science, nanotechnology, pharmacy, neuroscience, medicine, biochemistry, biology, environmental analysis, forensics, or any other discipline.

The winner will give an oral presentation at a meeting of the Royal Australian Chemical Institute Western Sydney Section during 2009 (date to be determined). **This is an opportunity to showcase your student's research to a range of RACI members and other students.**

The prize will be awarded to a project that demonstrates a high level of innovation, creativity and contribution to chemical knowledge. If more convenient, the thesis may be spiral- or 'perfect'-bound and may be submitted prior to examination as the final grade is not a determining factor.

Students should forward a copy of the thesis plus a covering letter containing personal details (including student's email address) to one of the contacts below. The thesis will be returned.

DEADLINE: MARCH 31ST 2009.
encouraged

Earlier submission is

Enquiries and submission to:

Dr Deidre Tronson (FRACI), 21 Eagle Creek Rd, Werombi, 2570.
Ph 02 4653 1430; email: deidre@bowtie.com.au.

OR leave the thesis, clearly marked "WSS Honours Prize", at the RACI office, UNSW.

¹ 'Western Sydney' is defined by the following postcodes: 2076-2077; 2111-2126; 2128; 2133; 2140-2168; 2170;2171; 2173; 2174; 2176; 2177; 2190-2200; 2205-2214; 2216-2234; 2558-2560; 2563-2579; 2745; 2747-2768; 2770; 2773-2787; 2790

An Invitation

The Royal Australian Chemical Institute (NSW Branch)
in conjunction with

The Dairy Industry Association (NSW Branch)
and

The Australian Institute of Food Science and Technology
(NSW Branch)

proudly presents:



RACI/AIFST/DIAA CHRISTMAS PARTY 2008 Friday 28th November – Darling Harbour

The RACI NSW Branch has joined this year, for the first time, the NSW Branches of AIFST and DIAA the celebration of the year past and so strengthening the relationship between the three organisations.

Members and Guests will board the beautifully restored **South Steyne** floating restaurant moored at Darling Harbour from 7pm for welcome drinks and finger food, before sitting down to a sumptuous 2 course dinner. Gary Kennedy will be our MC, raffling the many hampers donated annually by organisations from the Food and allied industries and providing musical entertainment as our DJ until the evening closes at 11.30pm.

The RSVP date is 14th November and it is advisable to book early as this venue has limited capacity. Being a combined event for several industry organisations this year capacity is expected to be met. Please book by calling or emailing Dr. Attila Tottszer on 02 9888 9077 or <attila.tottszer@advancedanalytical.com.au>. **HURRY!** Places are filling quickly for the 2008 Christmas party, an event enjoyed by members and their guests for many years now. **Seats are limited, BOOK NOW.**

Ticket Prices: RACI Member rate - **\$66.00**;
rate applicable for bookings made for 10 or more.

Non-Member - **\$99.00**

(Prices include G.S.T and drinks package which excludes spirits).

We thank all sponsors! Please take a moment to study the next page. Thank-you.





ACKNOWLEDGING OUR CONFIRMED SPONSORS

We wish to express our sincere appreciation to:

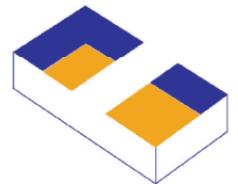
GOLD SPONSOR:



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PhD Scholarships Available at CSU Wagga



Expressions of interest are sought for post-graduate students to complete PhD projects in the area of analytical and wine chemistry at the National Wine and Grape Industry Centre (NWGIC) located on the Wagga Wagga campus of Charles Sturt University in New South Wales, Australia. Candidates are particularly sought for areas that deal with the impact of environmental factors and climate change on wine chemistry and quality.

Research at the NWGIC is based on a Wine Production Systems approach that has the following four interfacing themes:

- Vine health and the vine environment
- Envirophysiological research
- Environment and sustainable viticulture
- Wine Science and technology

Further information on the NWGIC can be viewed at <http://www.csu.edu.au/research/nwgic/>

Further information on Charles Sturt University can be viewed at <http://www.csu.edu.au/index.html>

Expressions of interest should be sent to Dr Paul Prenzler in the first instance at the address below and should include a CV and covering letter indicating the project area of interest by 12th December 2008.

Contact details are pprenzler@csu.edu.au

*Dr Paul Prenzler
National wine and Grape Industry Centre
Charles Sturt University
Locked Bag 588
Wagga Wagga NSW 2678
Australia*

Specific project areas where we are currently seeking students include the following.

Development of aroma compounds and phenolic compounds in Semillon infected with noble rot - This project will investigate the role of phenolic compounds, in the development of “noble rot” in Semillon, as compared to uninfected Semillon grapes. Seasonal dynamics of individual polyphenols will be determined, as affected by site and seasonal

environmental conditions, fungal infection, crop level and other viticulture manipulations considered relevant as the research evolves. Phenolic compounds will be determined at key stages of fruit development as well as during vinification and in the finished wine at different ages. Sensory analysis of trial wines and commercially produced wines will form an essential component of the project.

This project will be an opportunity for a student to gain experience in wine chemistry, liquid and gas chromatography, wine production processes, and sensory science.

Chemical characterisation of off-flavours produced in grape berries following fungal infection - Grape vines are prone to attack by a range of fungal pathogens; the mature berries are particularly susceptible in climates that experience summer rainfall during the ripening period. Diseases of the grape berry are referred to collectively as 'bunch rots'. There are a range of organisms involved in bunch rot of grapes, some act as pathogens while others grow as secondary invaders. All impact on grape and wine quality, producing off-flavours, colour reduction (in the case of red wines) and depending on the pathogen, problems in juice handling due to the formation of viscous polysaccharides. This project will examine the chemical nature of the off-flavours and aromas produced in bunch rot affected grapes.

Established knowledge on the chemical composition of Botrytis-affected grape berries will be used as a starting point for this work. Grape berries will be inoculated in the laboratory with a range of berry pathogens and then analysed at various time points following inoculation using analytical techniques (e.g. HPLC, GC-MS) to investigate the chemical profile of the grapes. The aim will be to see if compounds such as 1-octen-3-ol are produced in grapes following fungal infection by fungi other than Botrytis. A further aim is to determine if it is possible to detect off-flavours in grapes prior to the appearance of visible symptoms of berry rot.

This project is a multi-disciplinary one with the opportunity for a postgraduate student to gain experience in a wide range of analytical chemistry techniques and some plant pathology skills.

Scholarships – There are a number of scholarship opportunities available for both Australian and International students. Further details are available from Dr Paul Prenzler, pprenzler@csu.edu.au.

Additionally details of scholarships are available at the following web site http://www.csu.edu.au/research/higher_degrees/scholarships/ctr_nwgic.htm

Last Call to Pre-register under REACH

REACH process is at a critical stage: The European Union's regulation for Registration, Evaluation and Authorisation of Chemicals is approaching the pre-registration deadline, the end date being December 1st, 2008. Without valid pre-registration chemicals cannot be placed on the EU market. We have prepared an information package for you in order to help you to achieve the target date

So far over 10,000 companies have pre-registered their substances in the European Chemical Agency (ECHA); 95% of those are located in the European Union. Altogether, 400,000 pre-registrations have been submitted, but only about 150,000 have been successful.

The number of preregistrations has been increasing every month: Currently about 800 dossiers are being submitted per week, after which the processing takes a few days. In case of an invalid file the notification normally arrives after 8 hours.

The common causes of the pre-registration failure include wrong interpretation of REACH, wrong interpretation in the data validation process, omission of EINECS number, mistakes in the submission process through REACH IT, missing data, etc.

REACHLaw Ltd is a leading international Helsinki-based "Only Representative Service company" with subsidiaries and representatives in all the key markets globally. Our mission is to keep non-EU chemicals exporters on the EU market.

We are here to help you in fulfilling the pre-registration requirements by offering you our "Only Representative services". We have developed a readiness program in place to ensure that your company will meet the pre-registration deadline.

Please contact our Australian Partners for further information:

Amarish Thakur (Sydney), Mobile: 0409316950, amarish.thakur@pamirconsulting.com
<<mailto:amarish.thakur@pamirconsulting.com>>

REQUEST FOR PROPOSAL DESCRIPTION

A Global Diversified Manufacturing Company, invites proposals for technologies leading to **thermoplastic resins with very low coefficient of thermal expansion (CTE)** while maintaining flowability, ductility, and good surface appearance.

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<http://www.raci.org.au/national/downloads/Amended%20RACI%20BY%20LAWS%202007.pdf>

Website of the Week



Chem Feeds

<http://www.chemfeeds.com/>

A site where you can view pretty graphical chemical abstracts from various sources like JACS, Angewandte, JOCS, OrgLett, and a whole host of others. It even has the Angewandte puns!

Special thanks goes to John Zavras who suggested this website.

Upcoming Conferences and Symposiums



**23rd RACI Organic Division Conference,
ORGANIC 08, Hobart,**

Tasmania 7 – 12 December 2008

Register online at

<http://www.organic08.org/>

ACROSS Symposium on Advances in Separation Science



8-10th of December 2008. (<http://www.across.utas.edu.au/ASASS>)

The key dates for the conference

17th of October 2008	Abstract Deadline for Oral and Poster Presentations
31st of October 2008	Notification of abstract acceptance and finalisation of the program
14th of November 2008	Deadline for Early Registration
8th of December 2008	Opening of the Symposium

16th RACI R&D Topics Student Conference. This year it is being held again in NSW!
Macquarie University Saturday, December 6 - Tuesday, December 9
<http://www.cbms.mq.edu.au/rdttopics/index.html>

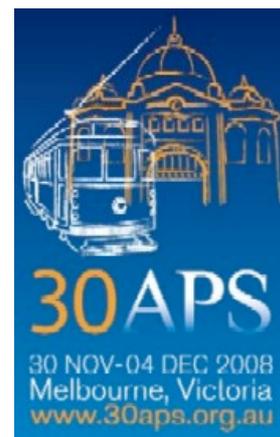
RACI Electrochemistry Symposium: New materials and New Methods in Electrochemistry Nov 27-28 @ UNSW

http://www.chem.unsw.edu.au/RACI/RACIElectrochemDiv%20webpage/raci_electrochemistry_symposium.htm

NSW RACI Organic Symposium 2008 Location: School of Chemistry, University of Sydney, NSW 2006 Date: Wednesday December 3rd
<http://www.chem.unsw.edu.au/RACI/NSWOrganic2008.pdf>

ChemEd 08 Notre Dame University, Fremantle, Western Australia Final
Registration: Closes 21 November 2008
<http://www.raci-chemed08.org>

30 APS - 30th Australasian Polymer Symposium The Albert Park Sebel Hotel,
Melbourne, Victoria <http://www.30aps.org.au>



Important Dates in Chemistry's History Nov 14-20

14

b. 1807 Auguste Laurent discovered anthracene, 1832; obtained phthalic acid from naphthalene, 1836; showed that carbolic acid is phenol, 1841; constructed a saccharimeter; evolved the nucleus theory of organic radicals (with Charles F. Gerhardt); Laurent's acid.

b. 1863 Leo Baekeland invented Velox paper & plastic Bakelite, patented in 1909; "father of the plastic industry".

15

d. 1193 St. Albertus Magnus discovered arsenic (As, 33) 1250; first to use affinity in the sense of chemical reactions.

• Humphry Davy announced the elementary nature of chlorine (Cl, 17) to the Royal Society, 1810.

16

b. 1881 Joel H. Hildebrand, researcher in solubility; introduced helium (He, 2) into deep-sea diving; lived to 101.

b. 16 Nov 1943 James W. Mitchell, With his collaborators at Bell Labs, he pioneered the development of x-ray fluorescence methods for part per billion (ppb) trace element determinations, innovated high accuracy activation analysis methods for ultratrace analysis, designed the first laser intracavity spectrophotometer for high accuracy practical determinations of sub-ppb levels of trace impurities, and invented the cryogenic sublimation technique for ultrapurification of liquid analytical reagents and chemicals for fabricating optical waveguides.

17

b. 1850 George T. Beilby invented process for retorting shale; synthesized alkaline cyanides & constructed first factory for its synthesis.

18

b. 1918 Lawrence E. Glendenin co-discovered promethium (Pm, 61) 1945, with J. A. Marinsky & C. D. Coryell.

b. 1789 Louis J. M. Daguerre, photographic pioneer and inventor of the daguerrotype.

b. 1906 George Wald, worked in field of chemistry of vision; Nobel Prize in Medicine (1967) with Ragner Granit and Haldan Keffer for their discoveries concerning the primary physiological and chemical visual processes in the eye.

19

b. 1887 James B. Sumner, researcher on enzymes & proteins; crystallized urease & showed it to be a protein (1926); Nobel Prize (1946) for his discovery that enzymes can be crystallized, shared with John H. Northrop & Wendell M. Stanley.

20

b. 1602 Otto von Guericke, invented water barometer, air pump, manometer, and sulfur electrostatic machine; performed Magdeburg hemisphere experiment.

b. 1873 William W. Coblentz, pioneer in infrared spectroscopy; founded radiometry section of National Bureau of Standards & headed for 40 years.

b. 1886 Karl von Frisch, discovered how bees orient and communicate; Nobel Prize in Medicine (1973) with Konrad Lorenz and Nikolaas Tinbergen for their discoveries concerning organization and elicitation of individual and social behaviour patterns. Died 1982.

b. 1892 James B. Collip, refined a method of removing and purifying insulin with [Frederick Banting](#) and [Charles Best](#)