The Royal Australian Chemical Institute, NSW

Branch Office:
Ground Floor Dalton Building, School of Chemistry , UNSW.

Email:
racinsw@chem.unsw.edu.au

Weekly E News –NSW

March 6th 2009

Let the Award and Prize nominations season begin!

Prime Minister's Prizes for Science

The Prime Minister's Prizes for Science recognise excellent and dedicated work in Australian science and science teaching. As well as the major prize, the Prime Minister's Prize for Science, two of the prizes are particularly relevant to physicists: the Malcolm McIntosh Prize for Physical Scientist of the Year, which recognises early-career research, and the Prime Minister's Prize for Excellence in Science Teaching in Secondary School.

More info:

https://grants.innovation.gov.au/SciencePrize/Pages/Home.aspx

Fresh Science

Fresh Science is a national competition that promotes the work of early-career scientists to the media and public. It serves as a communication boot camp, getting their stories out to local, national and international media, and giving them essential communication skills.

Nominations look for:

- early-career researchers with an upper limit of five years post-doc and no lower limit
- a peer-reviewed result which has had no media coverage
- some ability to present ideas in plain English.

Nominations close on Thursday 19 March 2009.

More info and online nomination: www.freshscience.org <http://www.freshscience.org>

L'Oréal For Women in Science fellowships: Australian and international

Applications for the 2009 L'Oréal Australia For Women in Science Fellowships will open on 1 April 2009. The Fellowships are open to female scientists no more than five years past their PhD, excluding periods of maternity leave.

Further details including instructions and full eligibility criteria, and a link to the online application form (from 1 April) can be found at: www.scienceinpublic.com/loreal <http://www.scienceinpublic.com/loreal>

Nominations for the 2010 UNESCO- L'ORÉAL International Fellowships will open in March. The International Fellowships are worth US$40,000 over two years and are available to female doctoral and post-doctoral scientists under 35 years old with a focus on Life Sciences to study at an institution outside Australia. Three of the 15 International Fellowships will be awarded in the Asia-Pacific Region, which includes Australia.

Applications close on 30 June 2009.

More information and to download the application form: www.unesco.org/en/fellowships/loreal <http://www.unesco.org/en/fellowships/loreal> .

The Australian Museum Eureka Prizes

The Eureka Prizes reward excellence in the fields of scientific research & innovation, science leadership, school science and science journalism & communication.

Nominations are now open. Entries close on Friday 1 May.

More info: http://amonline.net.au/eureka/.

Simple elixir called a 'miracle liquid'

(Thanks to John Zavras for providing the information)

It's a kitchen degreaser. It's a window cleaner. It kills athlete's foot. Oh, and you can drink it.

http://www.latimes.com/news/science/la-fi-magicwater23-2009feb23,0,4364552.story

Request for Proposal

Technologies to Enable Antiviral Fabrics - A multi-billion dollar textile manufacturer invites proposals for antiviral products that can be incorporated into or on fibres to create an antiviral fabric. Of particular interest are technologies that have an effect on avian flu. More information john@anotec.com.au

ACHEMA 2009

29. International Exhibition-Congress on Chemical Engineering, Environmental Protection and Biotechnology

Frankfurt am Main,

11 - 15 May 2009

http://www.achema.de/en/ACHEMA.html

RACI WESTERN SYDNEY SECTION

How to hit a moving target

When: Tuesday 10th March 2009
Venue: University of Western Sydney
Campbelltown Campus
(Building 22, Conference Room 5)

Programme:

6.00 Wine & Cheese
6.30 Special Guest Speaker: **Associate Professor Renate Griffith** *(UNSW)*

Proteins are important targets for pharmaceutical agents. Proteins are not static, they "move" in a variety of ways. These movements include induced fit upon the binding of a small molecule, and conformational changes upon activation. Some small-molecule binding sites are buried, or do not even exist in the absence of a small molecule. Proteins are also frequently mutated, and mutated proteins are often involved in disease states and in drug resistance.
Crystal structures of proteins provide only static snapshots of moving proteins. For various studies, such as drug design and development, the flexibility and the effects of mutations need to be considered. This seminar will present various computer-aided modelling methods able to consider "moving protein targets".

Associate Professor Griffith is currently with the Department of Pharmacology with the School of Medical Sciences developing new methods of computer-aided molecular design with the ultimate goal of developing new pharmaceuticals. She is currently working on many projects including the design of novel anti-HIV-SIDS agents, molecular shape and conformations of heterocyclic molecules, and drug-DNA interactions through collaborations with several universities.

Everyone is welcome to join the speaker and committee for dinner (own expense) at a local restaurant after the presentation.

For additional information please contact:

Dr Robyn Crumbie
Tel. 4620 3201
Email: r.crumbie@uws.edu.au

Important dates

Call for abstracts (oral and poster):
1 December 2008

Abstract submission deadline:
12 February 2009

Announcement of selected orals:
27 February 2009

Symposium registration

Includes: lunch, morning/afternoon tea

Early bird rate: $275 pp
(received before Feb 12, 2009)

Registration fee: $350 pp

10 student fee waivers are available (submit request to organising committee by 12 Feb 2009)

Conference dinner

Sunset Harbour Cruise

Fee: $70 pp

Public Forum Registration

RSVP required. Limited seats only.

Please email the number of seats required to events@science.usyd.edu.au

USISS:
The University of Sydney Institute of Sustainable Solutions
School of Chemistry, F11
T: +61 2 9351 2581
F: +61 2 9351 3329
E: cat_symp@chem.usyd.edu.au
www.science.usyd.edu.au/catalysis_symposium

The University of Sydney

The University of Sydney
Institute for Sustainable Solutions presents

Catalysis

A Major Key to Sustainability

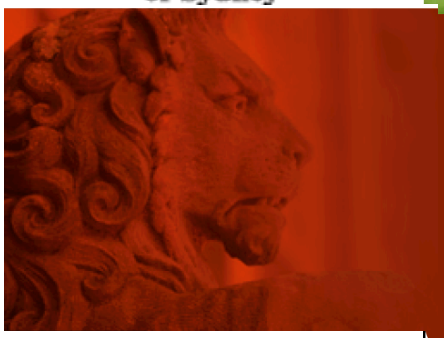
Public Forum and
International 3-Day Symposium

Sponsored by:

- USISS
- Centre for Sustainable Molecular Science and Technology
- Catalysis Society of Australia
- The Foundation of Inorganic Chemistry
- Ignite Energy Resources and Engineering Group
- Licella Pty Ltd
- Alpha Chemicals
- Australian Biodiesel Group

Registration & payment forms available as from December 15th, access via the web link

The University of Sydney



Yes, We Can:
Catalysing Hope for a Sustainable Future

5:45pm – 7:00pm Tuesday 14 April, 2009

Convened by **Robyn Williams** (The Science Show, ABC) and to be delivered by:
Professor Sir John Meurig Thomas (Cambridge) **Dr Frits Dautzenberg** (Serenix/ABB Lummus) **Dr Ian Maxwell** (MaxCo)
followed by a panel discussion including the 3 speakers and:
Professor Thomas Maschmeyer (USYD) **Professor Can Li** (Dalian, China) **Professor Dirk de Vos** (Leeuven, Belgium)

Professor Sir John Meurig Thomas *is one of the world's pre-eminent scientists and is currently based at the University of Cambridge. He is the recipient of 20 honorary doctoral degrees, has given over 100 named lectureships, holds more than 40 honorary fellowships in universities and colleges worldwide and has also had a new mineral 'Meurigite' named in his honour. Knighted by Queen Elizabeth II in 1991 for "services to chemistry and the popularisation of science," Sir John is the author of over 950 research papers on the materials and surface chemistry of solids, and over 100 review articles on science, education and cultural issues. He is the co-author of 25 patents, two University texts on Heterogeneous Catalysis and a biographicalphilosophica study of Michael Faraday.*

Dr Frits Dautzenberg *is an expert in applied catalysis and process development. Born and educated in the Netherlands, he received his PhD in Chemical Engineering from the Technical University of Eindhoven (TUE). His industrial career spans companies such as Shell, Catalytica Inc and ABB Lummus Global. Dr Dautzenberg has also taught a range of industry related courses as Adjunct Professor at the TUE. He has also published a large number of scientific articles and is named as the inventor on approximately 20 patents. Currently, Dr Dautzenberg is Founding Director of the Serenix Corporation - a catalyst and process technology consulting company, based in California.*

Dr Ian Maxwell *received his PhD in Chemistry from the Australian National University. He is the co-author of 25 internationally filed patents and 80+ scientific and technical articles and book chapters. He has more recently turned his attention to innovation and energy policy development and has recently written a book entitled "Managing Sustainable Innovation: The Driver for Global Growth" (to be published in early 2009 by Springer and distributed globally). He has more than 25 years experience in technology and new business development and currently serves as the CEO of a recently formed company, Maxco Consulting Group, which focuses on providing energy policy and technology innovation services in the Asia Pacific*

As the environmental state of the planet becomes more and more uncertain, the need for solutions that will effect genuine, significant change is increasingly crucial. Who will create the solutions to ensure that we can achieve a truly sustainable future? What is the science behind these solutions, and what are the hurdles to their implementation? Find out at this important public forum, as three world experts tackle the sustainability problem from a scientific, industrial and policy perspective. Learn all about the most up-to-date thinking addressing sustainability and society, and raise your own questions during the panel discussion, to be hosted by Robyn Williams of the ABC.

The evening will be introduced with the inaugural Australian performance of "(Distance, and) no space was seen" by the Australian composer Lewis Cornwell, exploring the East/ West Phoenix myth, combining Asian and Western instruments - and concluded with a reading by Sir John of extracts from poems by Dylan Thomas, including Fern Hill.

A cocktail reception in the University's Nicholson Museum will follow the lecture, an opportunity for further informal discussion with the people who are helping to secure our sustainable future.

Expect a unique, uplifting and unforgettable evening that will challenge and inspire you.

DETAILS

Tuesday 14 April, 2009 5:45pm – 7:00pm General Lecture Theatre, Main Quadrangle, University of Sydney followed by a cocktail reception in the University's Nicholson Museum **RSVP** to events@science.usyd.edu.au Limited seats only.

Engineering our Future: Are we up to the Challenge?

27 - 30 September 2009

Burswood Entertainment Complex
Perth, Western Australia

Call for Abstracts

CHEMECA 2009 Celebrating 40 Years

Call for Abstracts

Abstracts are now invited for paper and poster presentations.

If you wish to submit an abstract for consideration by the Technical Program Committee you must also intend to submit a full paper for peer review. However, extended abstracts instead of full papers will be acceptable from industrial authors. You must also register to attend the Conference. Online submission is the only method of receipt of abstracts.

The Poster Sessions for Chemeca 09 will be integrated with the Oral Sessions, as a unique innovation for this conference. Extended abstracts are sufficient for a poster presentation however, presenters are welcome to provide a full paper if they wish and this paper will be peer reviewed. Please note that some papers may be selected by the Technical Committee for poster presentation if the space for oral presentations is full. Authors will be advised if their paper is for oral or poster presentation when the full papers have been accepted.

Abstracts should be a maximum of 250 words. For more information regarding the length and format of abstracts visit www.chemeca2009.com, if you have questions regarding the on-line submission procedure, please email your query to program@icms.com.au

If you wish to present a paper or poster, please submit your abstract on-line at www.chemeca2009.com no later than **Friday, 6 March 2009**.

Confirmation of Receipt of Abstract

Immediately following submission via www.chemeca2009.com you will receive an electronic abstract receipt, including a submission reference number and confirmation of your personal password. These details should be used if you wish to edit your abstract up to and no later than the submission deadline **Friday, 6 March 2009**.

No changes will be possible after this deadline. Submissions of abstracts will NOT be accepted after this date.

Paper Submissions

An invitation to submit a full paper will be issued once all abstracts have been reviewed. The deadline for receipt of full papers for peer review is **Friday, 19 June 2009**.

Conference Office

ICMS Pty Ltd
84 Queensbridge Street
Southbank VIC 3006
Australia
E: chemeca2009@icms.com.au
T: + 61 3 9682 0244
F: + 61 3 9682 0288
W: www.chemeca2009.com

www.chemeca2009.com

IChemE SCENZ Society of Chemical Engineers New Zealand Inc. ENGINEERS AUSTRALIA The Royal Australian Chemical Institute Inc.

Chemistry Training from the National Measurement Institute

The National Measurement Institute (NMI) with be running the following training courses for analytical chemists in Sydney in March.

Name	Date	Location	Cost
Analytical method validation	17 – 18 March	Lindfield, NSW	$1410
Estimating Measurement Uncertainty for Chemists Part 1	19 March	Lindfield, NSW	$610
Estimating Measurement Uncertainty for Chemists Part 2	20 March	Lindfield, NSW	$800

The two-day Analytical method validation course introduces chemists to the many facets of method validation and allows the chemists to practice their skills in a number of workshops throughout the course. The following topics are covered:

- The why's and when's of method validations
- An overview of the validation process and the performance characteristics
- The design of validation studies and the use of interlaboratory validation studies
- Further uses of validation data and basic statistics required for method validation

The Estimating Measurement Uncertainty for Chemists has been revised for 2009. The course is now in two parts. Part 1 provides a basic understanding of the concepts of measurement uncertainty and is recommended for all analysts. Part 2 goes into further detail and evaluates the measurement uncertainty for real methods using real analytical data and is prefect for those who need to prepare uncertainty budgets and use uncertainty on a day to day basis.

For more information and registration forms for the training courses please contact NMI: by phone on (02) 8467 3796; by email training@measurement.gov.au; or visit our website http://www.measurement.gov.au/training

BioPartnerships 09

Developing Sustainable Alliances Between Biotech & Pharma
April 29 - May 01, 2009 · *Novotel on Collins, Melbourne, VIC*
FOR THE 1ST TIME IN AUSTRALIA, BIOPARTNERSHIPS 09 BRINGS TOGETHER AUSTRALIA'S LEADING PHARMACEUTICAL & BIOTECH COMPANIES TO TALK SPECIFICALLY ABOUT THEIR ALLIANCES; HOW BIOTECHS GET FUNDING AND HOW PHARMAS ARE BEST MANAGING THEIR PARTNERSHIP, AND MOST IMPORTANTLY HOW TO MITIGATE POTENTIAL AND UN-FACTORED RISKS.

http://iqpc.com.au/ShowEvent.aspx?id=160264
or contact **Georgina Artemi**
Director- *BioPartnerships Campaign*
International Quality & Productivity Centre (IQPC)
Phone: +61 2 9229 1037
Fax: +61 2 9223 3863
* Email: georgina.artemi@iqpc.com.au

Seminar -"Interesting moments in the life of an electrochemist"

Associate Professor Dieter Britz from the Department of Chemistry, University of Aarhus, Denmark, will present a seminar entitled "***Interesting moments in the life of an electrochemist***" on Tuesday, 17th March at Macquarie University.
Associate Professor Britz obtained his PhD from Sydney University in 1967 and has since been working on a number of electrochemical topics, starting with ac polarography, impedance measurements, instrumentation and, the last 20 years or so, digital simulation. The seminar will briefly outline some of the highlights (as seen by the presenter) of this research.

Venue: Room 322, Building F7B, Macquarie University (please refer to the campus map at http://www.ofm.mq.edu.au/maps_regional.htm; parking information is available at http://www.ofm.mq.edu.au/parking_intro.htm)

Date: **Tuesday, March 17, 2009**

Time: **6 pm for 6:30 pm**

Cost: **Free**

All attendees are welcomed to join the speaker at a dinner at their own cost after the seminar.

Seminar supported by RACI NSW Analytical Chemistry Group and Electrochemistry Division

The 2009 Honours prize (RACI Western Sydney Section)

YOUR HONOURS STUDENTS have had a break since finishing their thesis - NOW is a good time to consider their eligibility for the 2009 Honours prize (Western Sydney Section) if they reside, or have done their research, in Western Sydney. ALL WE NEED IS AN EXTRA COPY OF THEIR THESIS. NO NEED to wait for examiners' reports. Deadline 31st March, 2009; earlier submissions encouraged. Contact Deidre Tronson, deidre@bowtie.com.au **Please pass this information on to any colleagues in other departments who have Hons students who may be eligible**
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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[1] throughout the year.

The RACI Western Sydney Section Honours Prize is now open to ..... eligible 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 the 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 because 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. Earlier submission is encouraged

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

Nominations for RACI Awards are now open

Like last year we will feature a detailed description of one award each week during the nominations period. This week we feature ***C.S. Piper Award***

C.S. Piper Award

The C S Piper Award, originating in 1994, is governed as follows:

1. The name of the award is the C S Piper Award, funded on a bequest from the distinguished foundation member, C S Piper.
2. Applicants are not required to be members of the RACI but must be graduates under thirty five (35) years of age.
3. The award will be made by the Board of the RACI for the best published original research work carried out mainly in Australia in the fields either of soil chemistry or the mineral nutrition of plants and published within the preceding five years.
4. An assessment of the applicants' work will be made by an adjudicating panel appointed by the Board who may seek referees' reports.
5. If in the opinion of the Board, there is no candidate of sufficient merit, the award will not be made.
6. The formal presentation of the C S Piper Award will be at the RACI National Awards Dinner.
7. The successful candidate will deliver a lecture on the occasion of the presentation of the award or at a time decided by the recipient and the Board and may be invited to lecture to other branches of the RACI.
8. The award will consist of a medal and an $8,000 cash prize, plus travel expenses to the value of $2,000 if required.
9. The principal of the bequest will be held in trust by the Board and will be augmented by interest in order to maintain real value. The residue of interest received will be allocated to the cash prize after deduction of branch and candidate expenses.

Applications (4 copies) close 30th April every second year (on the odd numbered years) and should be forwarded to the RACI National Office,1/ 21 Vale Street, North Melbourne, Vic 3051.

Olle' Prize

The NSW Branch invites nominations for the **Archibald D Ollé Prize.**

Archibald Ollé was very active in the chemical and scientific life of NSW in the first 40 years of the twentieth century, and his wife, who outlived him, left a bequest to the RACI NSW Branch to his name with an annual prize. It is awarded to a member of the Institute who submits the "best treatise, writing or paper" on any subject relevant to the Institute's interests. Examples of previous winners include books and book chapters on key areas of chemistry, as well as critical scientific and technical reviews.
The NSW Branch Committee controls the Prize and has established the following conditions:

1. Nominations are invited from candidates themselves or from persons knowing suitable candidates and must be members of the RACI.

2. Each nominee shall submit a single scientific work published during the period 1st January 2008 until December 2008.

3. Nominations must be in writing, setting out the name, address, academic qualifications and present position of the nominee and be signed by the nominee and nominator.

4. Where the work involves more than one author, the nominator should arrange for **all** the other authors to send an indication of the contribution of the nominee. Though submission of multi-authored works is not discouraged, authors should be aware that in the past the adjudicators have found it very difficult to establish the relative merits of single and multi-authored works in terms of making an award to an individual.

5. Nominations should be addressed to:
The President
The Royal Australian Chemical Institute Inc. NSW Branch
School of Chemistry
UNSW
Sydney 2052
And must be lodged on or before Friday 27th March 2009

6. In all matters relating to this Prize, the decision of the NSW Branch Committee shall be final, and the Committee may not make an award if, in the opinion of the assessors, the submissions are not of a sufficiently high standard.

The result will be communicated to all entrants and will be published in "Chemistry in Australia"

Scientists in Schools

Information Sessions

Scientists in Schools brings together scientists/engineers and teachers for one-to-one, ongoing professional partnerships with the aim of enhancing science, technology and maths education in our schools. Through the partnerships, students are engaged and motivated in their learning of science, technology and maths and develop an increased awareness of the types and variety of exciting careers available in these areas.

If you're not yet registered, join us to hear first hand about the Scientists in Schools initiative and how it can support you as either a scientist/engineer or a science educator.

For more information about Scientists in Schools please visit www.scientistsinschools.edu.au.

Wednesday 11th of March
3.30 pm – 4.30 pm
North Ryde
Auditorium
Riverside Life Sciences Centre
Riverside Corporate Park,
11 Julius Avenue, North Ryde

The information session will run as follows:

15 min Networking - An opportunity to have something to eat and meet fellow scientists and science educators

45 min Presentation by CSIRO staff

To RSVP for catering please email sis.nsw@csiro.au or call 02 9490 8405
At least 1 day before the session.
Clearly state your name, position and organisation

Pollock Memorial Lecture

Thursday 30 April, 6.30pm, University of Sydney and the Royal Society of NSW
TITLE: Pollock Memorial Lecture: ***The universe from beginning to end***
SPEAKER: Brian Schmidt, Mt Stromlo Observatory, Australian National University
VENUE: Eastern Avenue Auditorium, University of Sydney, Camperdown campus
Brian will talk about dark matter and dark energy, two mysterious substances which make up 96% of the universe. New experiments at Mt Stromlo should give us a better understanding of these dark forms, and predict the ultimate fate of the cosmos.
More info: http://www.physics.usyd.edu.au/about/news_items/news_item12.shtml >
RSVP to: (02) 9351 3383 or outreach@physics.uyd.edu.au

Upcoming RACI Meetings

March 10th: ***WSS Section Meeting*** *"How to hit a moving target"* 6pm USW Campbelltown, Special Guest Speaker: Associate Professor Renate Griffith *(UNSW)*

March 17th ***Seminar supported by RACI NSW Analytical Chemistry Group and Electrochemistry Division*** Associate Professor Dieter Britz from the Department of Chemistry, University of Aarhus, Denmark, will present a seminar entitled "*Interesting moments in the life of an electrochemist*" at Macquarie University.

March 26th: ***Young Chemists Meeting*** – **Advance Notice!** Will be held at UNSW More details to follow next week

Website of the Week

NSW Titration Competition
http://www.nswtitration.com/Home.html

Observant members may have noticed some teething problems on the 2009 NSW titration site earlier in the week – but now it is all systems go and ready for registrations

Important Dates in Chemistry's History March 6 -12

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b. 1787 Joseph von Fraunhofer discovered dark lines in solar spectrum (Fraunhofer lines).

b. 1869 Aleksei E. Favorskii, researcher in the anionic rearrangements of acetylenes and a-haloketones.

➢ First report on Headspace Analysis was received as an abstract by R. N. Harger, E. G. Bridwell, and B. B. Raney (*J. Biol. Chem.* **1939,** *128*, xxxviii), 1939.

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b. 1788 Antoine-César Becquerel, first to use electrolysis to recover metals from ores, 1836; invented an electric thermometer.

b. 1792 John F. W. Herschel, inventor of photography on sensitized paper, introduced the terms, positive & negative for photography.

b. 1827 John H. Gladstone, researcher on refractive index of & relationship with density.

b. 1839 Ludwig Mond discovered Mond producer gas, nickel carbonyl & with J. Brunner founded company Brunner, Mond & Co that later became Imperial Chemical Industries (ICI); developed one of the first hydrogen-oxygen fuel cells.

b. 1857 Arthur Hantzsch, researcher in organic acids, electrical conductivity of organic compounds, sterochemistry of nitrogen compounds.

b. 1869 Ernst Julius Cohen, research on physical isomerism, tin allotropy**,** and stability of electrochemical cells; killed at Auschwitz.

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b. 1839 James M. Crafts, researcher on production of artificial minerals, pyroelectric phenomena of crystals, ketones & aldehydes; synthesized benzene homologues (Friedel-Crafts reaction).

b. 1879 Otto Hahn, discovered protactinium (Pa, 91) with L. Meitner; researcher on nuclear fission with F. Strassman (1938); Nobel Prize (1944) the discovery of fission of heavy nuclei.

b. 1886 Edward C. Kendall isolated thyroxine, 1915; Nobel Prize in Medicine (1950) with Philip Hench & Tadeus Reichstein for their discoveries relating to the hormones of the adrenal cortex, their structure and biological effects.

b. 1889 Farrington Daniels, teacher of physical chemistry; pioneer in solar technology.

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b. 1856 Edward G. Acheson, pioneer in development of electric furnace for production of SiC; prepared graphite lubricants-Oildag, Aquadag & Gredag.

b. 1912 Stanley G. Thompson codiscovered berkelium (Bk, 97), californium (Cf, 98) 1950, einsteinium (Es, 99) 1952, fermium (Fm, 100), & mendelevium (Md, 101) 1955.

b. 1923 Walter Kohn, developed density-functional theory, which makes it possible to study very large molecules; Nobel Prize (1998) with John A. Pople for his development of the density-functional theory

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b. 1762 Jeremias B. Richter discovered the law of equivalent proportions; first to establish stoichiometry, the basis of quantitative chemical analysis.

b. 1851 William McMurtie, researcher on methods for converting sewage to fertilizer, American Chemical Society president.

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b. 1818 Henri E. Sainte-Claire Deville, first to prepare pure aluminum; discovered toluene, 1841; anhydrous nitrogen pentoxide, 1849.

➢ Cato M. Guldberg & Peter Waage presented their paper "Studier over Affiniteten" describing the Law of Mass Action to the Norwegian Academy of Sciences & Letters, 1864.

12

b. 1790 John F. Daniell invented the Daniell electrochemical cell, dew-point hygrometer, and pyrometer.

b. 1824 Gustav R. Kirchhoff invented spectroscope with Robert Bunsen, 1859; discovered cesium (Cs, 55) 1860, & rubidium (Rb, 37) 1861, with Robert Bunsen; discovered that substances which emit radiation absorb the same type of radiation when cool (Kirchhoff's Law).

b. 1832 Charles Friedel, researcher on the synthesis of benzene homologues (Friedel-Crafts reaction).

b. 1838 William H. Perkin discovered mauve, first aniline dye in his home laboratory, 1856; Perkin reaction for condensation of unsaturated aromatic acids; synthesized tartaric acid, 1861, with B. P. Duppa, & coumarin; elucidated relationship between tartaric, funaric & maleic acids.

b. 1891 Michael Polanyi, researcher on reaction kinetics & crystal structures.

b. 1902 Leslie G. S. Brooker, researcher in the chemistry of photography.

➢ James D. Watson, in a letter to Max Delbru□ck, California Institute of Technology, Pasadena, Cal., revealed the double helix structure for deoxyribonucleic acid (DNA), 1953.

Ref: Monthly Historical Events In Chemistry by Leopold May, The Catholic University of America
http://faculty.cua.edu/may/Chemistrycalendar.htm