ICCC39
ADELAIDE AUSTRALIA 2010

# 39TH INTERNATIONAL CONFERENCE ON COORDINATION CHEMISTRY

Sunday 25 – Friday 30 July 2010
Adelaide Convention Centre
Adelaide, South Australia



# Program Book

ICCC39

# Welcome

The 2010 Conference organising committee welcomes you to the 39th International Conference on Coordination Chemistry at the award winning Adelaide Convention Centre.

This year's conference will encompass all aspects of coordination chemistry through exceptional plenary, keynote and section lectures along with outstanding poster presentations. The excellent scientific program will be conducted by speakers who are leaders in their field. They will offer broad and cutting edge presentations on coordination chemistry addressing issues of the 21st century, particularly those relating to energy, environmental and medicinal chemistry.

The conference social program is of an equally high standard to that of the scientific program and will undoubtedly be most appealing to both delegates and accompanying persons. We trust you will have a professionally satisfying and socially enjoyable experience at our meeting in our beautiful city.

## Table of Contents



## Organising Committee

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Event Planners Australia

# Hosts and Sponsors

ICCC39 gratefully acknowledges the sponsors of its
39th International Conference on Coordination Chemistry

## About The Royal Australian Chemical Institute

**www.raci.org.au**

The Royal Australian Chemical Institute (RACI) is the major professional body for chemists in Australia. It embraces all areas of research, production and technology of chemistry and spans academia, the chemical industry, government organisations and schools. The RACI publishes a journal, Chemistry in Australia, which caters for the professional needs and interests of its members. The Institute is very active in promotion of chemistry and associated sciences in schools, universities and the community generally.

## About the International Union of Pure and Applied Chemistry

**http://iupac.org/**

The International Union of Pure and Applied Chemistry (IUPAC) advances the worldwide aspects of the chemical sciences and contributes to the application of chemistry in the service of humankind. As a scientific, international, non-governmental and objective body, IUPAC can address many global issues involving the chemical sciences. IUPAC is the senior international chemical professional organisation and promotes chemical science in all of its aspects through its own in-house journals. It has responsibility of continued review of nomenclature and all associated matters to ensure that chemical symbolism is a powerful and well maintained international language.

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## Poster Session Sponsor

Inorganic Chemistry
including bioinorganic chemistry

## Contributing Sponsors

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## Recommended Publications

- Australian Journal of Chemistry
- Coordination Chemistry Review
- Royal Society of Chemistry

# Program Summary

Coordination chemistry combines the traditional areas of inorganic and organic chemistry and it is ever present in all aspects of the chemical, physical, and biological sciences. For example, coordination chemistry provides the means by which plants, humans and other animals take up essential metallic elements from the environment. Industrialists now use coordination chemistry on a daily basis as an environmentally friendly way of extracting metals from their ores in hydrometallurgical extraction processes and for purification and isolation of metals. The pharmaceutical industry uses coordination chemistry in various medications and in procedures such as MRI scanning and radioimaging. Under development are new coordination compounds capable of trapping and storing gases such as hydrogen and methane and, with the aid of the sun, facilitating the conversion of water into hydrogen and oxygen or sunlight directly into electrical energy. The 39th ICCC will bring together the world's leading coordination chemists to showcase the latest developments in this field of science and emerging topics. There will be a full range of plenary, keynote and contributed lectures, poster presentations as well as excellent opportunities to network with the participants at the various social events that are planned.

The conference program will be structured around the current and emerging themes of coordination chemistry, including

- Inorganic materials chemistry
- Metals in synthesis and catalysis, including metal extraction
- New challenges: energy and the environment
- Supramolecular chemistry
- Bioinorganic chemistry
- Werner complexes

# Plenary Speakers

## Professor Daniel Nocera

*Massachusetts Institute of Technology, United States of America*

Daniel G Nocera is the Henry Dreyfus Professor of Energy and Professor of Chemistry, Director of the Solar Revolutions Project and Director of the Eni Solar Frontiers Center at MIT. He studies the chemistry of renewable energy. He has discovered a solar fuels process that captures many of the elements of photosynthesis outside of the leaf. His recent efforts are devoted to bringing carbon-neutral, personalised energy to the poor and those of the non-legacy world.

## Professor David Parker

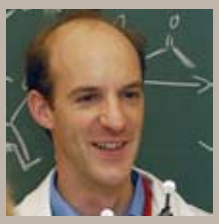
*FRS Durham University, United Kingdom*

David Parker is a native of the north-east of England and graduated with a First in Chemistry from Oxford University in 1978. He completed a DPhil with Dr John M Brown in 1980 on mechanistic studies in asymmetric catalysis. Following a NATO post-doctoral fellowship with Prof Jean-Marie Lehn in Strasbourg, he returned to Durham to take up a lectureship in chemistry in 1982 and was promoted to a professorship in chemistry in 1992. He received the RSC Hickinbottom Fellowship for 1988/9, the Corday-Morgan Medal and Prize in 1989, the ICI Prize in Organic Chemistry in 1991, the RSC Interdisciplinary Award in 1996, a Royal Society Leverhulme Trust Senior Research Fellowship (1998/9), the inaugural IBC Award for Supramolecular Science and Technology in 2000, the first RSC award for Supramolecular Chemistry in 2002, and a Tilden lectureship and Silver Medal in 2003. In 2002 he was elected as a Fellow of the Royal Society. He has held several visiting professorships and named lectureships and served as the chairman of the Chemistry Department at Durham in 1995-8 and 2003-6.

## Professor Kenneth Raymond

*UC Berkley, United States of America*

Kenneth N. Raymond received a BA in 1964 from Reed College in Oregon. Prior to his PhD from Northwestern University he began his faculty appointment at the University of California at Berkeley on July 1, 1967. There he has remained, becoming Associate Professor in 1974, Professor in 1978 and Chancellor's Professor in 2006. He has served as Vice Chair of the Berkeley Chemistry Department (1982-1984 and 1999-2000), Chair (1993-1996) and been a visiting professor or lecturer at many universities around the world. For his work in bioinorganic and coordination chemistry he was elected to the National Academy of Sciences in 1997 and the American Academy of Arts and Sciences in 2001 and has received a number of major awards including the DOE Ernest O. Lawrence Award (1984), the American Chemical Society Alfred Bader Award in Bioinorganic or Bioorganic Chemistry (1994), the Izatt-Christensen Award in Macrocyclic Chemistry (2005) and the ACS Award in Inorganic Chemistry (2008). Professor Raymond is a member of the editorial boards of several journals in the fields of inorganic and bioinorganic chemistry. In addition to his academic appointment on the University of California campus, he is a co-founder (2001) of Lumiphore Inc. which utilises new luminescent agents developed in his laboratory and Faculty Senior Scientist of the Chemical Sciences Division and Director of the Seaborg Center, Lawrence Berkeley National Laboratory.



## Professor Nils Metzler-Nolte

*University of Bochum, Germany*

Nils Metzler-Nolte (né Metzler) obtained his PhD from the University of Munich in 1994. After a postdoctoral year with M.L.H. Green in Oxford, he started independent research at the Max-Planck-Institut for Bioinorganic Chemistry. In 2000 he was appointed professor for pharmaceutical and bioinorganic chemistry at the University of Heidelberg. Since 2006, he has held the chair of Inorganic Chemistry at the University of Bochum. His research interest is in bioorganometallic chemistry and functional metal bioconjugates, including aspects of medicinal inorganic chemistry. His work has been recognised by several fellowships, awards, and guest lectureships. He is serving the community and his university in several functions e.g. as an editorial advisory board member of *EurJIC* and *Applied Organometallic Chemistry,* speaker of the DFG-funded research unit "Biological Function of Organometallic Compounds", steering committee member of the COST D39 action, Chairman of the 5th International Symposium on Bioorganometallic Chemistry in Bochum in 2010 and as speaker of the Research Department "Interfacial Systems Chemistry" at the same University.

## Poster Sessions

Posters will be on display throughout the conference, split over 2 sessions.

Poster session 1 will commence on Monday morning until Tuesday evening, with poster session networking and drinks between 1645 to 1800.

Poster session 2 will commence on Wednesday morning until Thursday evening, with poster session networking drinks between 1645 to 1800.

## Monday 26 July 2010

**Sargeson and Freeman Memorial Lecture**

*Time:* 1900 – 2100
*Venue:* *Plenary Hall, C*

## Thursday 29 July 2010

**Poster session networking drinks**

*Time:* 1645 – 1800
*Venue:* *Exhibition Halls J & K*

## Tuesday 27 July 2010

**Poster session networking drinks**

*Time:* 1645 – 1800
*Venue:* *Exhibition Halls J & K*

## Friday 30 July 2010

**RACI AGM**

*Time:* 1230 – 1330
*Venue:* *Plenary Hall, C*

## Professor Polly Arnold

*University of Edinburgh, United Kingdom*

Polly L Arnold obtained a BA from Oxford in 1994 and a DPhil from Sussex in 1997. She was awarded a Fulbright Scholarship for postdoctoral research at MIT, and returned to the UK to a lectureship at the University of Nottingham in 1999. She moved to the University of Edinburgh in 2007, and was promoted to chair in 2009. Recent awards include the Bessel Prize from the Alexander von Humboldt Foundation, the Chancellor's prize of the of the University of Edinburgh, the Sir Edward Frankland Prize Lectureship from the UK Royal society of Chemistry, and a Leadership Fellowship from the UK EPSRC. Her group is interested in small molecule activation reactivity by organometallic f- and d-block complexes and their applications in fundamental bonding studies and homogeneous catalysis.

## Professor Susumu Kitagawa

*Kyoto University, Japan*

Prof Kitagawa received his PhD at Kyoto University in 1979. He spent time as Associate Professor at Kinki University, and then moved to Tokyo Metropolitan University in 1992 as Professor of Inorganic Chemistry. He was invited to Kyoto University as Professor of Functional Chemistry in 1998. His main research field is coordination chemistry, focusing on chemistry of novel molecularly organic-inorganic hybrid compounds, particularly porous coordination polymers. He received the Chemical Society of Japan (CSJ) Award for Creative Work (2003), the Japan Society of Coordination Chemistry Award (2007), CSJ Award (2008) and Alexander von Humboldt Research Award (2009). He was a leader of MEXT Grant; Priority Area, "Chemistry of Coordination Space (2004 -2007)" and is a leader of the ERATO program, "Integrated Pores" and a deputy director of iCeMS. He is an International advisory board member for *Inorg.Chem.,Chem.Comm., Chem.Asian J., Chem.Mater., Inorg.Chim.Acta, Coord.Chem.Rev., CrystEngComm, Eur.J.Inorg. Chem., Chem.Lett.* and Topic Editor for *Cryst.Growth Design.*

## Professor Vivian W-W Yam

*The University of Hong Kong, Peoples Republic of China*

Professor Vivian W-W Yam obtained both her BSc(Hons) and PhD from The University of Hong Kong, and is currently the Philip Wong Wilson Wong Professor in Chemistry and Energy and Chair of Chemistry there. She was elected to Member of the Chinese Academy of Sciences and Fellow of TWAS, the Academy of Sciences for the Developing World. She was the recipient of the RSC Centenary Medal, the State Natural Science Award of PR China, and the Japanese Photochemistry Association (JPA) Eikohsha Award. Her research interests include the photophysics and photochemistry of transition metal complexes and clusters, supramolecular chemistry, and metal-based molecular functional materials for luminescence sensing, optoelectronics, optical memory and solar energy conversion.

## Awards

The 23rd Inorganic Award of the RACI, the Burrows Award, will be presented at the close of ICCC39. The Award commemorates George Joseph Burrows (1888-1950) who made many important contributions to coordination chemistry during his academic career at the University of Sydney, especially in the field of metal-tertiary arsine complexes. The Burrows awardee's scientific work published in the past 10 years, together with other evidence of his or her standing in the international community, are the relevant criteria. A major portion of the recipient's research must have been carried out in Australia and/or New Zealand.

## Anthony Wedd

Anthony Wedd is Professor of Chemistry in the School of Chemistry and Bio21 Research Institute, University of Melbourne, Australia. He was educated at the University of Tasmania, receiving a PhD under the supervision of Peter W. Smith. An important postdoctoral experience involved working at the Unit of Nitrogen Fixation, University of Sussex and interacting with Joseph Chatt, Geoffrey Leigh and Raymond Richards. He was appointed to La Trobe University in 1972 and moved to the University of Melbourne in 1991.

# Program

## SUNDAY 25 JULY

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|---|---|---|
| 1200 – 1730 | **Registration** | *Hall K* |
| 1730 – 1930 | **Welcome reception** | *Hall K* |

## MONDAY 26 JULY

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|---|---|---|---|---|
| 0730 – 1700 | **Registration** | | | *Hall K* |
| 0830 – 1000 | **Opening ceremony**<br>Chair: S Lincoln<br>**Plenary 1: Bioinorganic chemistry**<br>Chair: C Orvig<br>Lanthanide complexes as cellular probes and diagnostic agents **D Parker** (001) | | | *Hall C* |
| 1000 – 1030 | **Morning tea & exhibition** | | | *Hall J&K* |
| 1030 – 1245 | **Concurrent A1: Inorganic materials chemistry**<br>Chair: S Brooker | **Concurrent B1: Bioinorganic chemistry**<br>Chair: R Hartshorn | **Concurrent C1: Supramolecular chemistry**<br>Chair: K Murray | **Concurrent D1: Metals in synthesis (and catalysis)**<br>Chair: E M Hey-Hawkins |
| 1030 | **Concurrent keynote:**<br>Coordination Chemistry and Supramolecular Approaches to creating Functional Materials<br>**A Powell** (002) | **Concurrent keynote:**<br>Copper Complexes Designed as Diagnostic Radiopharmaceuticals<br>**P Donnelly** (008) | **Concurrent keynote:**<br>The Power of Weak Interactions for Constructing New Metallosupramolecular Assemblies<br>**P Steel** (014) | **Concurrent keynote:**<br>Homogeneous Catalysts with a Mechanical "Machine-like" Action. Catalytic Solar Water Splitting Inspired by Photosynthesis<br>**G Swiegers** (020) |
| 1000 | Homoleptic and heteroleptic peroxo complexes of Nb, Ta and Mo as versatile molecular precursors for multimetallic oxide materials<br>**M Devillers** (003) | When basic Chemistry meets Radiopharmaceutical Design: Coordinated Ligand Effects in the Substitution Kinetics of [Re(CO)3(L,L')(H2O)]n-<br>**H Visser** (009) | Catalysis Using Macrocycle Bound Copper(I): Active Template Synthesis of [2]Catenanes<br>**J Wu** (015) | Mechanisms of oxidation reactions: a binuclear intermediate in the oxidation of PtMe2(bipy) (bipy=2,2'-Bipyridine) by IPh(C,CSiMe3)(OTf) (OTf = Triflate)<br>**M Sharma** (021) |
| 1120 | Towards Metal Complexes with Multiple Valence Tautomeric Transitions<br>**C Boskovic** (004) | Selective Aggregation of a Pt-Gd Complex Within a Tumour Cell Nucleus<br>**L Rendina** (010) | Controlling Molecular Architecture in Tris-Chelate Complexes<br>**N Fletcher** (016) | Absolute Asymmetric Synthesis<br>**M Hakansson** (022) |
| 1140 | Lanthanoid Hydroxo Clusters - Plan, Make, Use!<br>**M Massi** (005) | Homo- and Heteroleptic Bismuth Arenesulphonates; Synthesis, Structure and Biological Activity<br>**P Andrews** (011) | Coordination behaviour of bis-pyridylimine ligands: polymers, metallamacrocycles and helicates<br>**K Gloe** (017) | Towards mechanism of catalytic hydroxylation of C1-C3 alkanes in mild conditions in the presence of Au-bioflavonoid complexes<br>**A Shestakov** (023) |
| 1200 | Redox Active Keggin-like {Mn13} Single Molecule Magnets<br>**G Newton** (006) | Interesting Observations between Kinetic and Crystallographic data of [Re(CO)3(L,L')(H2O)] Compounds<br>**M Schutte** (012) | Synthetic, Thermodynamic and Structural Study of three Macrocyclic Ligands with a number of Metal Ions. Inductive versus Steric Effects<br>**R Luckay** (018) | Some metal complexes of artemisinin derivatives and chromium (III) tridentate imino-pyridine substituted schiff base (N^N^N) - ethylene polymerization reaction<br>**J Obaleye** (024) |
| 1220 | Strong Ferromagnetic Interaction Observed in Linear Chain Rhodium(I)- Semiquinonato Complex<br>**M Mitsumi** (007) | Sc(III) and Ga(III) complexes of polydentate ligands for nuclear medicine. Solution and solid-state chemistry of overlooked metal ions.<br>**P Hermann** (013) | Soluble Graphene-based Ligands and Complexes<br>**N Lucas** (019) | Substantial Inverse Isotope Effects in the Hydrogen Atom Abstraction from L-Rh(III)-H/D+ Macrocyclic Complexes by Methyl Radicals in Aqueous Solutions<br>**D Meyerstein** (025) |
| | *Hall C* | *Meeting Rooms 1&2* | *Meeting Room 10* | *Meeting Room 11* |
| 1245 – 1345 | **Lunch & exhibition** | | | *Hall J&K* |
| 1345 – 1515 | **Plenary 2**<br>Chair: L Lindoy<br>**Plenary: Supramolecular chemistry**<br>A supramolecular enzyme mimic: 10^6-fold rate enhancement and chiral selectivity in a self-assembled host<br>**K Raymond** (026)<br>**Keynote: Metals in synthesis (and catalysis)**<br>"Naked" Metal Nanoparticles in Ionic Liquids from Metal Carbonyl Precursors: Synthesis, Characterization and Use as Hydrogenation Catalysts<br>**C Janiak** (027) | | | *Hall C* |

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| 1515 – 1545 | **Afternoon tea & exhibition** | | | *Hall J&K* |
| 1545 – 1740 | **Concurrent A2: Inorganic materials chemistry**<br>Chair: M Halcrow | **Concurrent B2: Bioinorganic chemistry**<br>Chair: L Rendina | **Concurrent C2: Supramolecular chemistry**<br>Chair: C Boskovic | **Concurrent D2: Metals in cynthesis (and catalysis**<br>Chair: A Masters |
| 1545 | **Concurrent keynote:**<br>Macrocyclic Coordination Architectures Displaying Multiple Electron-Transfer Processes<br>**M Abe** (028) | **Concurrent keynote:**<br>Anisotropy in Vibrational Spectroscopy: Nuclear Resonance Vibrational Spectroscopy<br>**W Scheidt** (033) | **Concurrent keynote:**<br>Structural Diversity in Complexes from Nitrogen-Rich Hybrid Ligands<br>**A Hor** (038) | **Concurrent keynote:**<br>Covalent and Non-Covalent Assemblies for Catalysis<br>**M Gandelman** (043) |
| 1615 | Thioether-functionalised phosphanides - surprisingly non-innocent ligands<br>**E Clark** (029) | Cu(II) bound to 5'-GMP and poly d(GC): Structural analysis by pulsed EPR spectroscopy<br>**B Spingler** (034) | Proton-induced Tuning of Metal-metal Interaction in Dinuclear Ru Complexes Bearing Benzimidazolyl Ligand<br>**M Haga** (039) | Metal complexes of benzimidazole-based N-heterocyclic carbene-pincer ligands<br>**D Brown** (044) |
| 1635 | New Vapochromic Hydrogen-Bonded Proton-Transfer Assemblies<br>**A Kobayashi** (030) | Mn2+ Complexes with Macrocycles ligands: Thermodynamic, Kinetic, Crystallographic and 1H/17O NMR Relaxation Studies<br>**I Lukes** (035) | Chromium and Vanadium 3d/4f Systems and the Investigation of their Magnetic Properties<br>**J Rinck** (040) | Unconventional Reactivity of an N-Heterocyclic Carbene Containing a 1,1´-Ferrocenediyl Backbone towards Small Molecules<br>**U Siemeling** (045) |
| 1655 | Putting the 'Spin' on Electron Transfer<br>**D D'Alessandro** (031) | Bioinorganic and Inorganic Perspectives of Metal-Coordinated Radicals<br>**R Mukherjee** (036) | Polyphosphorus Moieties in Coordination Chemistry<br>**M Scheer** (041) | Piano Stool Complexes of N-Heterocycle Carbenes with Pendant Pyridyl Functionalities<br>**G Saunders** (046) |
| 1715 | Neutral-Ionic Transition in Covalent-Bonded Donor/Acceptor Assemblies<br>**H Miyasaka** (032) | Hangman Corrole-Complexes as Biomimetic Models<br>**M Schwalbe** (037) | Recents Developments in Carbon-rich Organoiron-based Molecular Wires<br>**F Paul** (042) | New Insights into the Structures and Reactivity of Organocuprates and Amidocuprates<br>**R Davies** (047) |
| | *Hall C* | *Meeting Rooms 1&2* | *Meeting Room 10* | *Meeting Room 11* |
| 1900 – 2100 | **Sargeson and Freeman memorial lecture**<br>Chair: G Lawrance<br>Biotransformations and Mechanisms of Action of Ruthenium Anti-Cancer Pro-Drugs **P Lay** (048)<br>Structure and Function of Copper-Containing Amine Oxidases **D Dooley** (049)<br>2-Iminocarboxylates at Cobalt(III): Synthesis, Reactivity and Stereoselectivity **A Hammershøi** (050)<br>Using structural databases to develop and test models of metal-ligand bond‖deformation **T Hambley** (051)<br>Metallo-Supramolecular Strategies for Assembling New Nanoscale Molecular‖Structures **L Lindoy** (052) | | | *Meeting Rooms 1&2* |
| 2100 – 2200 | Post session drinks | | | |

## TUESDAY 27 JULY

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|---|---|---|---|---|
| 0800 – 1700 | **Registration** | | | *Hall K* |
| 0830 – 1000 | **Plenary 3 – Stanley Kirscher Memorial Lecture**<br>Chair – J Reedijk<br>**Plenary: Inorganic materials chemistry**<br>Evolution of Porous Coordination Polymers **S Kitagawa** (053)<br>**Keynote: New challenges: energy and the environment**<br>Light driven generation of hydrogen from water: New developments, new strategies and new results **R Eisenberg** (054) | | | *Hall C* |
| 1000 – 1030 | **Morning tea** | | | *Hall J&K* |
| 1030 – 1245 | **Concurrent A3: Inorganic Materials chemistry**<br>Chair: C Janiak | **Concurrent B3: Bioinorganic chemistry**<br>Chair: T Hambley | **Concurrent C3: Supramolecular chemistry**<br>Chair: A Hor | **Concurrent D3: Werner complexes**<br>Chair: A Blackman |
| 1030 | **Concurrent keynote:**<br>Syntheses and Cubic NLO Properties of Arylalkynylruthenium Dendrimers and Related Complexes<br>**M Humphrey** (055) | **Concurrent keynote:**<br>Dinuclear Ruthenium(II) Complexes as Selective Binding Agents for Non-Duplex DNA<br>**R Keene** (061) | **Concurrent keynote:**<br>Self-assembly of spherical structures<br>**A Williams** (067) | **Concurrent keynote:**<br>What's in a chemical shift? High Resolution 195Pt NMR as a tool in understanding the deceptively simple Pt(II/IV) chemistry in process solutions relevant to PGM separation and refining.<br>**K Koch** (073) |

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| 1100 | The Effect of Metal-Metal Interactions on Stacked Mononuclear and Dinuclear Rhodium 2,2' - biimidazole Carbonyl Complexes<br>**P Hirva** (056) | Ruthenium(II) Cyclopentadienyl Full-Sandwich Complexes for the Treatment of Cancer and other Disease States<br>**B Loughrey** (062) | A Chiral Calixarene Hydrogelator Tuned by Adding Salts, Switched with pH<br>**M Ogden** (068) | Quantification of Luminescence Quenching by C-H-Oscillators in Near-IR Emitting Lanthanoid Bipyridine Cryptates<br>**M Seitz** (074) |
| 1120 | Metalloamphiphiles as Functional Materials<br>**G Koutsantonis** (057) | Photo-activated Cytotoxins - Synthesis and Photochemistry of Heterodinuclear Ru(II)-Co(III) Complexes<br>**R Hartshorn** (063) | Coordination Chemistry Beyond the Molecules: A Short Analysis and Applications of a New Method for the Description of Closed Coordination Clusters<br>**G Kostakis** (069) | Kinetico-mechanistic studies on the formation of discrete cyanide-bridged polynuclear mixed valence compounds<br>**M Martinez** (075) |
| 1140 | Discovery and Development of Crystalline Chalcogenide Clusters Containing Zn8S Cores<br>**J Xie** (058) | Towards molecular transporters on lipid bilayers: Photocleavage of polypyridyl ruthenium complexes from model membranes, and back coordination<br>**S Bonnet** (064) | Molecular Alloys - Supramolecular Selection and Concentration Gradients in Crystals<br>**J McMurtie** (070) | Syntheses and Properties of Complexes having Pt->M (M = Au, Hg) Dative Bond<br>**T Yamaguchi** (076) |
| 1200 | Ru(II) polypyridine complexes attached to Ag nanoparticles in fractal aggregates: Evaluation of factors influencing surface-enhanced optical processes<br>**B Vlckova** (059) | Ruthenium(II) polypyridyl complexes: cellular DNA binding and cytotoxicity<br>**M Gill** (065) | Isothermal Titration Calorimetry of Simple Complexes and Helicates<br>**S Clifford** (071) | The Electronic Structure of Tris(dithiolene) Complexes of Vanadium and Rhenium: Where are the (Valence) Electrons?<br>**S Sproules** (077) |
| 1220 | On the fabrication and stabilization of copper-based nanoparticles for catalysis<br>**A Wheatley** (060) | Protonation induced spin-flip in FeIII-peroxo and -hydroperoxo complexes<br>**G Christian** (066) | Neutron Diffraction Studies of Hydrogen-Bonding Networks in Hydrated Ln/K Complexes<br>**D Turner** (072) | Syntheses of Ruthenium Complexes Bearing N-Ethyl-N,N-bis(pyridylmethyl)amine by Chloro Ligands Dissociation Accompanying a Metal-center Reduction<br>**H Nagao** (078) |
| | *Hall C* | *Meeting Rooms 1&2* | *Meeting Room 10* | *Meeting Room 1* |
| 1245 – 1345 | **Lunch & exhibition** | | | *Hall J&K* |
| 1345 – 1515 | **Concurrent A4: Inorganic Materials chemistry**<br>Chair: J A Real Cabezos | **Concurrent B4: Bioinorganic chemistry**<br>Chair: K Lo | **Concurrent C4: Other**<br>Chair: P Tasker | **Concurrent D4: Werner complexes**<br>Chair: E Coronado |
| 1345 | **Concurrent keynote:**<br>Spintronics Based on Single-Molecule Quantum Magnets<br>**M Yamashita** (079) | **Concurrent keynote:**<br>Stability of the Coordination Bond between the Heme Fe Atom and N-Terminal Amino Group in Denatured Hydrogenobacter thermophilus Cytochrome c552 and Its Effect on the Overall Protein Stability<br>**Y Yamamoto** (083) | **Concurrent keynote:**<br>Mono- bis- and tris- Imido Complexes of Uranium<br>**J Boncella** (087) | **Concurrent keynote:**<br>Computational Coordination Chemistry: Harnessing the Full Potential of DFT<br>**R Deeth** (091) |
| 1415 | Iron(II) triazole complexes: mono-, di- and tri-nuclear SCO complexes<br>**S Brooker** (080) | Probing the nature of the Co(III) ion in cobalamins: a comparison of the physical and coordination properties of aquacyanocobester and an aquacyano-stable yellow corrinoid<br>**H Marques** (084) | Lanthanoid and group 2 complexes involving aryloxide ligands of moderate steric bulk<br>**P Junk** (088) | Solvent Exchange on Homoleptic Acetonitrile Lanthanide Complexes<br>**L Helm** (092) |
| 1435 | Fe(II) spin crossover compounds based on 1-functionalized tetrazoles - a comparative study to elucidate the structure-property relationship<br>**P Weinberger** (081) | A di-imine copper(II) complex exhibiting a peculiar reactivity regarding its binding to albumin protein<br>**A M Da Costa Ferreria** (085) | Nature of the pnicogen - chalcogen bonds; from diatomic to complex organometallic molecules.<br>**M Kubicki** (089) | Stabilisation of Oxoanion Chelates through Steric Inhibition of Protonation: Co(III) Complexes containing Bidentate HCO3- and HPO42-<br>**A Blackman** (093) |
| 1455 | Guest-tunable Spin Crossover of Discrete Iron(II) Complexes of the Asymmetric Ligand N-((1H-imidazol-4-yl)methylene)-1-(pyridine-3-yl)methanamine (3-impy)<br>**D Price** (082) | Designing 64Cu complexing agents for use in Molecular Imaging and Personalised Medicine<br>**S Smith** (086) | Rhodium Chemistry of Nicotinamide-Functionalized N-Heterocyclic Carbene Ligands Designed for Hydride Ion-Carrier Capacity<br>**S Colbran** (090) | Mixed Valence Chemistry of Dimers of Oxo-carboxylato Triruthenium Complexes<br>**H Ohtsu** (094) |
| | *Hall C* | *Meeting Rooms 1&2* | *Meeting Room 10* | *Meeting Room 1* |

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| 1515 – 1545 | **Afternoon tea & exhibition** | *Hall J&K* |
| 1545 – 1645 | **Plenary 4**<br>Chair: P Lay<br>**Topic: Bioinorganic chemistry**<br>A Bioorganometallic Journey from Peptide Bioconjugates to Novel Metal-based Antibiotics **N Metzler-Nolte** (095) | *Hall C* |
| 1645 – 1800 | **Poster session 1**<br>Networking drinks, please refer to the abstract list for poster details | *Hall J&K* |

## WEDNESDAY 28 JULY

| | | | | |
|---|---|---|---|---|
| 0800 – 1300 | **Registration** | | | *Hall K* |
| 0830 – 1000 | **Plenary 5**<br>Chair: S Lincoln<br>**Plenary: New challenges: energy and the environment**<br>**Personalized Energy for the Non-legacy World**<br>**D Nocera** (096)<br>**Keynote: Supramolecular chemistry**<br>Emergent Self-assembly of Molecular Spheres **M Fujita** (097) | | | *Hall C* |
| 1000 – 1030 | **Morning tea & exhibition** | | | *Hall J&K* |
| 1030 – 1245 | **Concurrent A5:**<br>**Inorganic materials chemistry**<br>Chair: C Kepert | **Concurrent B5: Metals in synthesis (and catalysis)**<br>Chair: D Meyerstein | **Concurrent C5: Supramolecular chemistry**<br>Chair: K Gloe | **Concurrent D5:**<br>**Other**<br>Chair: P Junk |
| 1030 | **Concurrent keynote:**<br>Hofmann-like porous metal-organic frameworks exhibiting spin crossover behaviour<br>**J A Real Cabezos** (098) | **Concurrent keynote:**<br>The predictable variation of structure, electronics and reactivity of nonheme iron oxidation catalysts<br>**P Comba** (104) | **Concurrent keynote:**<br>Multifunctional Metallosupramolecular Nanoballs<br>**S Batten** (110) | **Concurrent keynote:**<br>Bioelectronics: molecular scales of analysis and sensing<br>**J Davis** (116) |
| 1100 | Unusual Hydrazono-Based Jahn-Teller Compressed Manganese(III) Spin-Crossovers Exhibiting Considerable Zero-Field Splitting<br>**M Shongwe** (099) | Control of the spin-state of Fe(III) in five-coordinated complexes with porphyrins by solvation effects<br>**P Stuzhin** (105) | Exploiting polydentate 1,2,3-triazoles "click" ligands to generate functional metallosupramolecular architectures<br>**J Crowley** (111) | Magnetic Molecules for Molecular Spintronics<br>**E Coronado** (117) |
| 1120 | Iron(II) Spin-Crossover Complexes Possessing Benzotriazole-Derived Ligands<br>**M Al-Mandhary** (100) | Arene Substituted Cyclopentadienyl Complexes of Zr and Hf<br>**D McGuinness** (106) | Supramolecular Nanomaterials and Mesophases Self-Organized from Luminescent Organoplatinum(II) Complexes<br>**W Lu** (112) | Advances in the Coordination Chemistry, Structure and Properties of Lanthanide Phthalocyanines and Related Macrocycles<br>**L Tomilova** (118) |
| 1140 | Multiple bistability in cyanide bridged Fe-Co complexes<br>**H Oshino** (101) | Pd-catalysed methoxycarbonylation reactions with Al(OTf)3 as co-catalyst<br>**B Williams** (107) | Two-dimensional Chirality Observed in the Surface Adsorbed Copper(II) Complexes of Alkyl-substituted Schiff-base Ligand<br>**K Miyamura** (113) | Heteroscorpionates - A Toolbox for Metalloenzyme Models, Organometallics, Supramolecular Chemistry and Hybrid Materials<br>**N Burzlaff** (119) |
| 1200 | Multifunctional Materials from Iron/Dipyrazolylpyridine Spin-Crossover Switches<br>**M Halcrow** (102) | Dawson-type [P2W18O62]6-, [S2W18O62]4- and [S2Mo18O62]4- polyoxometalates as photocatalysts for water oxidation in ionic liquid media<br>**A Bond** (108) | Prospective Nanomaterials on the Basis of Metal Complexes with Macrocyclic ligands<br>**A Tsivadze** (114) | Polyoxometallates derived from aryl-stibonic acids<br>**B Nicholson** (120) |
| 1220 | Chemically-controlled Spin Transition Behavior in Porous Coordination Polymers<br>**M Ohba** (103) | Silica-supported Organometallic Catalysts. How Innocent is the Support?<br>**A Masters** (109) | Small Cation Binding Utilising Proton Sponges<br>**P Plieger** (115) | Extending Cyanide Ligand Chemistry: The Coordination Chemistry of Cyanoacetylides<br>**P Low** (121) |
| | *Hall C* | *Meeting Rooms 1&2* | *Meeting Room 10* | *Meeting Room 1* |
| 1245 – 1345 | ***Lunch is available for purchase in the exhibition hall prior to departing on your afternoon tours*** | | | *Hall J&K* |
| 1245 | **Free afternoon or social tours** | | | |

## THURSDAY 29 JULY

| | | | | |
|---|---|---|---|---|
| 0800 – 1700 | **Registration** *Hall K* | | | |
| 0830 – 1000 | **Plenary 6**<br>Chair: R Keene<br>**Topic: Other**<br>The Versatility of Metal-Ligand Building Blocks - From Design to Assembly and Photofunctions **V Yam** (122)<br>**Keynote: Bioinorganic chemistry**<br>A Highly Stable Functionalizable Platform Chelate for Ga Isotopes **C Orvig** (123) *Hall C* | | | |
| 1000 – 1030 | **Morning tea & exhibition** *ACC, Hall J&K* | | | |
| 1030 – 1245 | **Concurrent A6: Inorganic materials chemistry**<br>Chair: A Powell | **Concurrent B6: Bioinorganic chemistry**<br>Chair: R Scheidt | **Concurrent C6: Supramolecular chemistry**<br>Chair: A Williams | **Concurrent D6: Don Stranks Presentations**<br>Chair: P Bernhardt |
| 1030 | **Concurrent keynote:**<br>Combining Multiple Functions within Metal-Organic Framework Materials<br>**C Kepert** (124) | **Concurrent keynote:**<br>Simultaneous Imaging of Cell Hypoxia and Cobalt Prodrug Activation in Spheroids Constructed from Transfected Cells<br>**T Hambley** (130) | **Concurrent keynote:**<br>Spin Switching, Photomagnetism and Supramolecular Effects in Polynuclear Iron(II) triazine-dipyridylamine and Linked - Tris(pyrazolyl)methane Compounds<br>**K Murray** (136) | Boron Rich DNA Metallointercalators for Boron Neutron Capture Therapy<br>**V Ching** (142) |
| 1100 | Post-synthetic Modification and Metalation of Metal-organic Frameworks<br>**Christian Doonan** (125) | PhotoCORMs - manganese tricarbonyl complexes and their bioconjugates for the targeted delivery of carbon monoxide to cellular systems<br>**U Schatzschneider** (131) | Modular Homochiral Porous Coordination Polymers: Rational Design, Enantioselective Sorption and Catalytic Properties<br>**V Fedin** (137) | Photo-activated Cytotoxins - Heterodinuclear Ru(II)-Co(III) Complexes with Potential Future Application as a Selective Cancer Treatment<br>**A Downward** (143) |
| 1120 | Host-Guest Chemistry of One-Dimensional Cu(II) Coordination Polymer<br>**S Noro** (126) | Physiologically-active diguanosine polyphosphates – synthesis, conformation, and properties of Ca2+-complexes<br>**B Fischer** (132) | Dehydration/resolvation studies of Metal Organic Framework compounds involving some First Row Transition Metal(II) cations and 1, 2, 4, 5-Benzenetetracarboxylic Acid<br>**G Watkins** (138) | Complexes of Bis(thiosemicarbazonato) Ligands for Amyloid Imaging in Alzheimer's Disease<br>**S Lim** (144) |
| 1140 | Microporous Metal-Organic Frameworks Based on Pillared Kagome Layers Showing Peculiar Absorbate Selectivity<br>**M Lah** (127) | Structural and equilibrium studies on complexes of Ca2+ and gluconate ions in the aqueous phase<br>**A Pallagi** (133) | Crystal Engineering: Synthesis and structures of supramolecular polymers with wavelike properties<br>**O Steward** (139) | Negative Thermal Expansion in Porous Framework Materials<br>**L Cameron** (145) |
| 1200 | Hydrogen and Methane Storage with lightweight metal-organic frameworks<br>**M Hill** (128) | Examining the Role of Iron and Manganese Coordination Chemistry in Neurodegenerative Disorders<br>**M Mehn** (134) | Features of the coordination chemistry, structure and networks formation of polyphosphorylporphyrins<br>**Y Gorbunova** (140) | Design & Characterization Of Luminescent Iridium (III) Complexes For Potential Optoelectrochemical Sensing Applications<br>**R Kiran** (146) |
| 1220 | Transition Metal Coordination Polymers from Functionalized 1,2,3-Triazoles<br>**S Bai** (129) | Diagnostic Imaging Agents based on Copper-64: Attachment of a Cage Amine Ligand to Cancer-Targeting Peptides<br>**M Ma** (135) | Reversible and Selective O2 Binding in a Metal-Organic Host<br>**P Southon** (141) | Solid-State Interactions of Hexaaryl[3]-radialenes with Metal Cations and Anions<br>**C Hollis** (147) |
| | *Hall C* | *Meeting Rooms 1&2* | *Meeting Room 10* | *Meeting Room 11* |
| 1245 – 1345 | **Lunch & exhibition** *Hall J&K* | | | |
| 1345 – 1515 | **Concurrent A7: Inorganic materials chemistry**<br>Chair: M Humphrey | **Concurrent B7: Bioinorganic chemistry**<br>Chair: H Marques | **Concurrent C7: Metals in synthesis (and catalysis)**<br>Chair: K Koch | **Concurrent D7: New challenges: energy and the environment**<br>Chair: R Eisenberg |
| 1345 | **Concurrent keynote:**<br>Soft Spin Crossover Compounds with Multifunction<br>**S Hayami** (148) | **Concurrent keynote:**<br>Luminescent Cyclometalated Iridium(III) Polypyridine Complexes as Biological Labels and Probes<br>**K Lo** (152) | **Concurrent keynote:**<br>Multifaceted P,N Ligands in Coordination Chemistry and Homogeneous Catalysis<br>**E Hey-Hawkins** (156) | **Concurrent keynote:**<br>Outer sphere coordination chemistry - new ligands for extractive metallurgy<br>**P Tasker** (160) |
| 1415 | High-Frequency and -Field EPR Spectroscopy of Mono- and Polynuclear Complexes of Rhenium(IV)<br>**J Krzystek** (149) | O2 and H2O Activation by Complexes with Carboxylato-Containing Pentadentate Ligands<br>**C McKenzie** (153) | (PCP) palladium complexes. Solid state structures and mechanism of CO2 insertion into allyl and methyl Ïƒ-bonds<br>**O Wendt** (157) | Solution Behaviour of f-Element Coordination Compounds<br>**M Loeble** (161) |

| | | | | |
|---|---|---|---|---|
| 1435 | Photo-Induced Charge Separation in Pt(II) Molecular Cascades **J Best** (150) | Efficient O-O bond formation mediated by iron(IV)oxo intermediates **K Ray** (154) | Hybrid Stacked/Laddered Organolithium Aggregates: A Structural Hypothesis for SuperBase Reactivity **M Gardiner** (158) | Redox-Active Monolayers: From Molecule-based Sensors to Molecular Logic and Memory Elements. **G de Ruiter** (162) |
| 1455 | Spectroscopic, spin, and magnetic properties of amidate-bridged platinum chain complexes of delocalized or itinerant electrons **K Matsumoto** (151) | In situ Mn K-edge XAS study of Sustained Water Oxidation by a biomimetic catalyst: New insights into the origin of water oxidation **R Hocking** (155) | An in situ HP-FTIR Spectroscopic Study of Phosphite Modified Hydroformylation **D Selent** (159) | Preparation and Characterization of Copper(II)-Terpy Complexes in Zeolite Y Cages **S Yamaguchi** (163) |
| | *Hall C* | *Meeting Rooms 1&2* | *Meeting Room 10* | *Meeting Room 11* |
| 1515 – 1545 | **Afternoon tea & exhibition** | | | *Hall J&K* |
| 1545 – 1645 | **Concurrent A8: Inorganic materials chemistry** Chair: G Koutsantonis | **Concurrent B8: Other** Chair: M Hardy | **Concurrent C8: Metals in synthesis (and catalysis)** Chair: K Koch | **Concurrent D8: New challenges: energy and the environment** Chair: R Eisenberg |
| 1545 | Efficient Charge Transfer Antenna Tetrathiafulvalene Ligand for the Sensitization of Yb(III) Luminescence **L Ouahab** (164) | Single crystal diffraction studies in coordination chemistry - Neutron diffraction becoming an accessible technique **A Edwards** (167) | Cyclopalladated Complexes: Application in Catalytic Transformations Of Unsaturated Hydrocarbons **S Mapolie** (170) | Rhenium(I) carbonyl-diimine photosensitizers: fluorescence, phosphorescence, ultrafast dynamics and function **A Vlcek** (173) |
| | Sensitised Trivalent Lanthanoid Luminescence in the Visible and Near Infra-Red **E Moore** (165) | Recent results from ANSTO's Neutron Scattering/ Deuteration Facility **A Edwards** (168) | Ethylene Tetramerisation: Diphosphinoamine Ligand Evaluation in Metal-Based Catalyst Precursor Models **A Roodt** (171) | Hydrogen Delivery and Storage: Ruthenium(II)-Phosphine Complexes for High Pressure H2 Production from Formic Acid **G Laurenczy** (174) |
| | Design and Studies of New Class of Readily Tunable Isocyano Rhenium Diimine Luminophore **C Ko** (166) | Recent results from ANSTO's facilities/research in applications of radioisotopes in solving medical, industrial and environmental issues **S Smith** (169) | Synthesis, Structural Characterization and Reactivity of Zerovalent Mono- and Binuclear Platinum-Carbonyl-Diphosphine Complexes **S Schreiner** (172) | Four-electron Oxidation of Water through Intramolecular Oxygen-oxygen Coupling on Dinuclear Ru Complexes **K Tanaka** (175) |
| | *Hall C* | *Meeting Rooms 1&2* | *Meeting Room 10* | *Meeting Room 11* |
| 1645 – 1800 | **Poster session 2** Networking drinks, please refer to the abstract list for poster details | | | *Hall J&K* |
| 1900 – 2300 | **Conference dinner** Proudly sponsored by ANSTO | | | *Hall G* |

## FRIDAY 30 JULY

| | | |
|---|---|---|
| 0830 – 1200 | **Registration** | *Hall K* |
| 0900 – 1030 | **Plenary 7** Chair: K Wainwright<br>**Plenary: Metals in synthesis (and catalysis)** Bond Activation Chemistry with Uranium Complexes **P Arnold** (176)<br>**Keynote: Supramolecular chemistry** Star-burst prisms and polymers: nano-scale hosts, new topologies and more **M Hardie** (177) | *Hall C* |
| 1030 – 1100 | **Morning tea** | *Hall J&K* |
| 110 0 – 1200 | **Plenary 8 – Burrows Award Lecture, Inorganic Chemistry Division of the AGM** Chair: P Bernhardt<br>**Plenary: Bioinorganic chemistry** How does Biology Cope with Copper? It is Toxic but Essential **A Wedd** (178) | *Hall C* |
| 1200 – 1230 | **Closing Ceremony** | *Hall C* |
| 1230 – 1345 | **RACI AGM** | *Hall C* |


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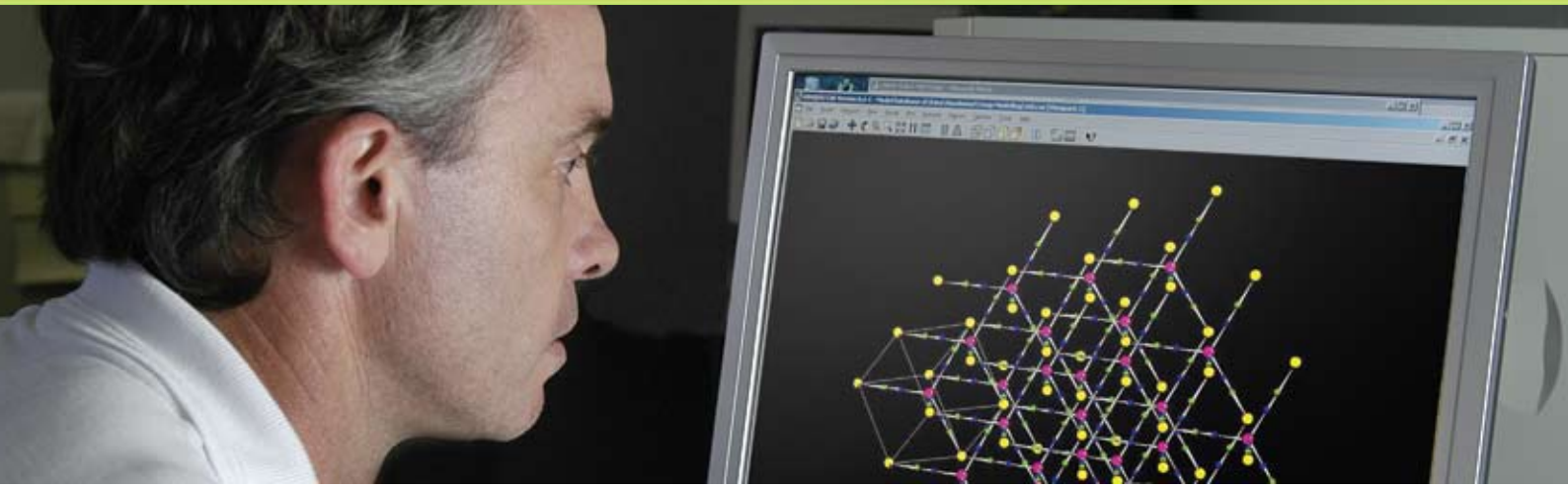

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Thursday

15:45 - 16:45

Meeting Rooms 1 & 2

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• Securing radioactive waste • Nanotechnology •

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• Silicon irradiation • Climate change research •

• Radiation detection • National Security • Water dating •

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# Social Program

## Conference Events

**Welcome Reception**

Adelaide welcomes you to ICCC39 at the official welcome reception of the conference. Renew old acquaintances and form new friendships over informal drinks and canapés.

*Date:* Sunday 25 July
*Time:* 1730 – 1930
*Venue:* Hall K, Adelaide Convention Centre
*Dress code:* Smart casual attire
*Tickets:* Complimentary for fulltime delegates
*Additional tickets:* AUD65

** Delegates will be provided with a list of recommended restaurants should they wish to dine after the reception.*

**Conference Dinner**

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Enjoy the unique blend of food and wine that South Australia is famous for at the ICCC39 conference dinner.

*Date:* Thursday 29 July
*Time:* 1900 – 2330
*Venue:* The Adelaide Convention Centre, North Terrace, Adelaide
*Dress code:* Smart casual attire
*Tickets:* AUD100 – Additional for all attendees

## Poster Sessions

Posters will be on display throughout the conference, split over 2 sessions. Poster session 1 will commence on Monday morning until Tuesday evening. Poster session 2 will commence on Wednesday morning until Thursday evening.

**Poster Session Networking Drinks**
*Date:* Tuesday 27 July 2010
*Time:* 1645 – 1800
*Venue:* Exhibition Halls J & K

**Poster Session Networking Drinks**
*Date:* Thursday 29 July 2010
*Time:* 1645 – 1800
*Venue:* Exhibition Halls J & K

## Conference Tours

*For delegates and their accompanying persons*

## Wednesday 28 July

**Adelaide Hills Wine Tour**
*Half day tour*
*Time:* 1245 – 1800
*Inclusions:* Wine tasting, shared regional platters, tea/coffee, chocolate tasting and all transport
*What to wear:* Flat shoes preferable
*Suitable age:* Adults 18+ (Children to be accompanied by an adult)
*Cost:* AUD77 per person

**McLaren Vale Wine Tour Including Dinner**
*Half day and evening tour*
*Time:* 1245 – 2230
*Inclusions:* Wine tasting, shared regional platters, tea/coffee, chocolate tasting, 3 course dinner including wines and all transport
*What to wear:* Flat shoes preferable
*Suitable age:* Adults 18+ (Children to be accompanied by an adult)
*Cost:* AUD157

**Hahndorf, Warrawong Wildlife Sanctuary & Mount Lofty Summit**
*Half day and evening tour*
*Time:* 1500 – 2200
*Inclusions:* Coach, guided tour
*Cost:* AUD122 per person (dinner not included)

**Bushwalking in the Adelaide Hills**
*Half day tour*
*Time:* 1300 – 1700
*Inclusions:* Transport, specialist guide, refreshments
*Cost:* AUD82 per person

**A Glimpse of Aboriginal Culture "Kurrendi Kumanga – Walking Together"**
*Half day tour*
*Time:* 1300 – 1700
*Inclusions:* Aboriginal cultural guide, entrance fees, museum tour and tastings
*Cost:* AUD97 per person

**Cleland Wildlife Park**
*Half day tour*
*Time:* 1300 – 1700
*Inclusions:* Transport, guide, entrance fees
*Cost:* AUD102 per person

**Adelaide Zoo Panda Tour**
*Half day tour*
*Time:* 1300 – 1700
*Inclusions:* Walking tour, guide, entrance fees and afternoon tea
*Cost:* AUD102

## Accompanying Persons Tours

## Monday 26 July 2010

**Adelaide's Cultural Heritage**
*Half day tour*
*Time:* 0930 – 1230
*Inclusions:* Guide, entrance fees
*Cost:* AUD57 per person

## Tuesday 27 July 2010

**Secrets and Surprises of the Adelaide Hills**
*Full day tour*
*Time:* 0900 – 1700
*Inclusions:* Transport, guide, lunch, entrance fees, and morning tea
*Cost:* AUD157 per person

## Thursday 29 July 2010

**A William Morris Discovery Tour 'Look into the Interiors'**
*Half day tour*

*Time:* 0930 – 1300
*Inclusions:* Coach, guide, entrance fees and morning tea
*Cost:* AUD102 per person

### Social Program Cancellation Policy

The conference reserves the right to cancel or vary optional activities if the minimum numbers are not reached. Regrettably, optional social functions and additional ticket cancellations cannot be refunded if participation is cancelled less than 72 hours prior to the event.

# Industry Exhibition

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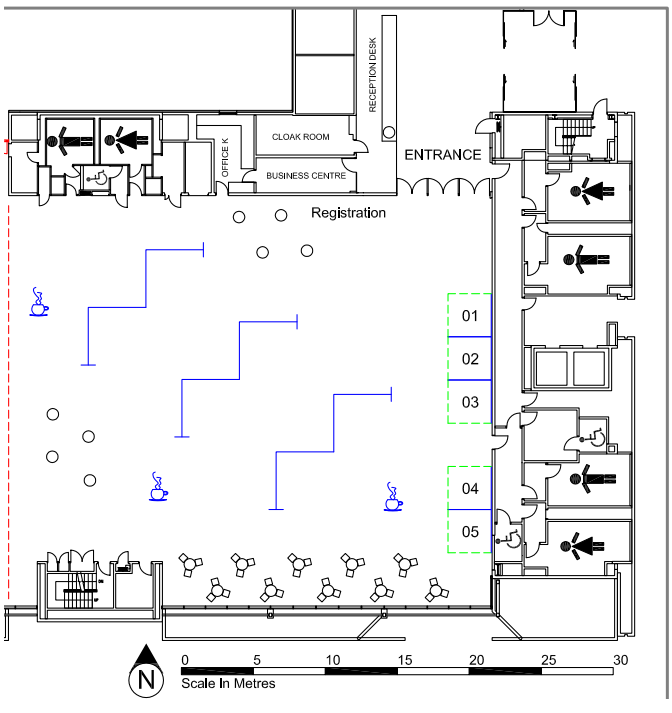
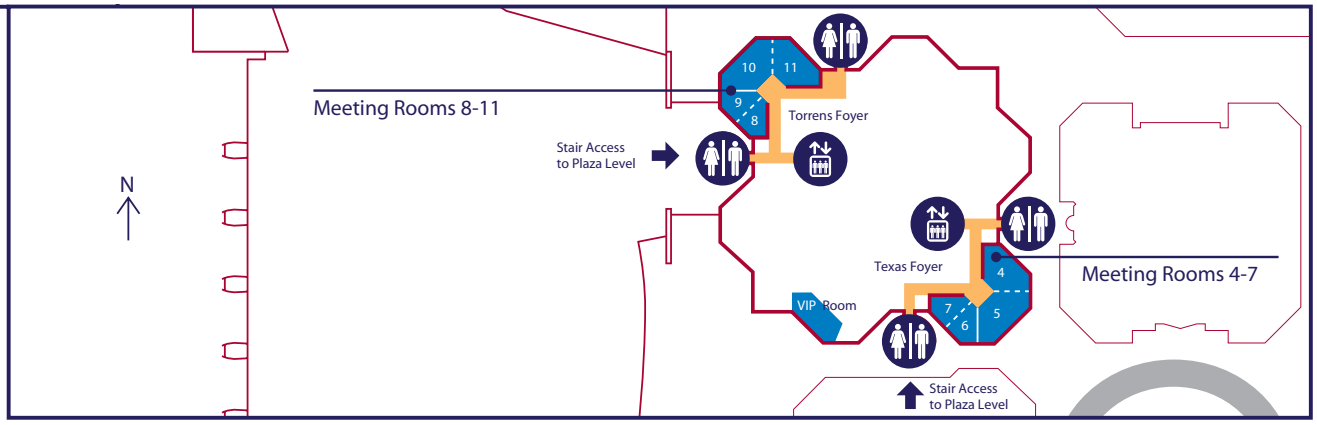
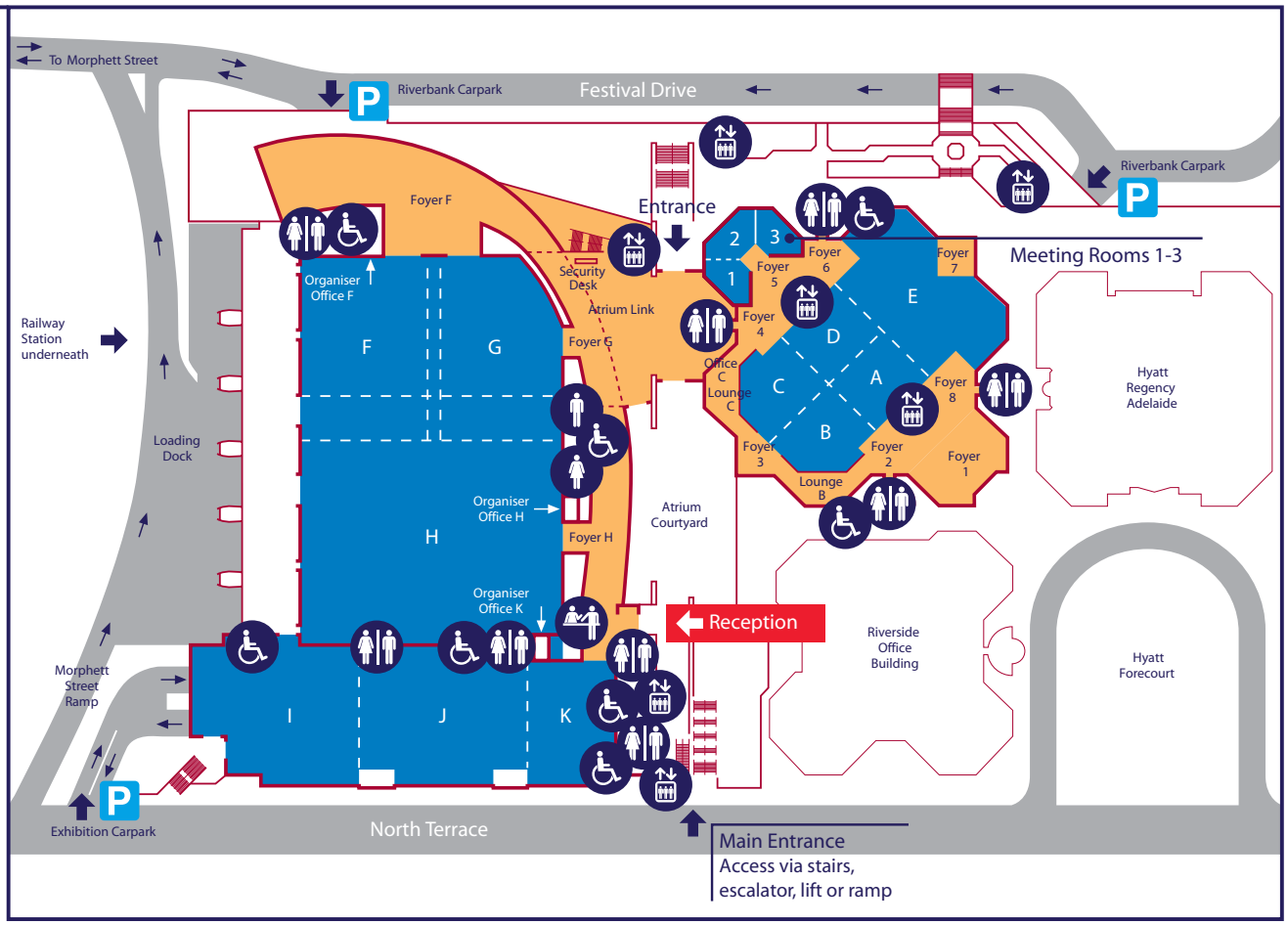


# Adelaide Convention Centre

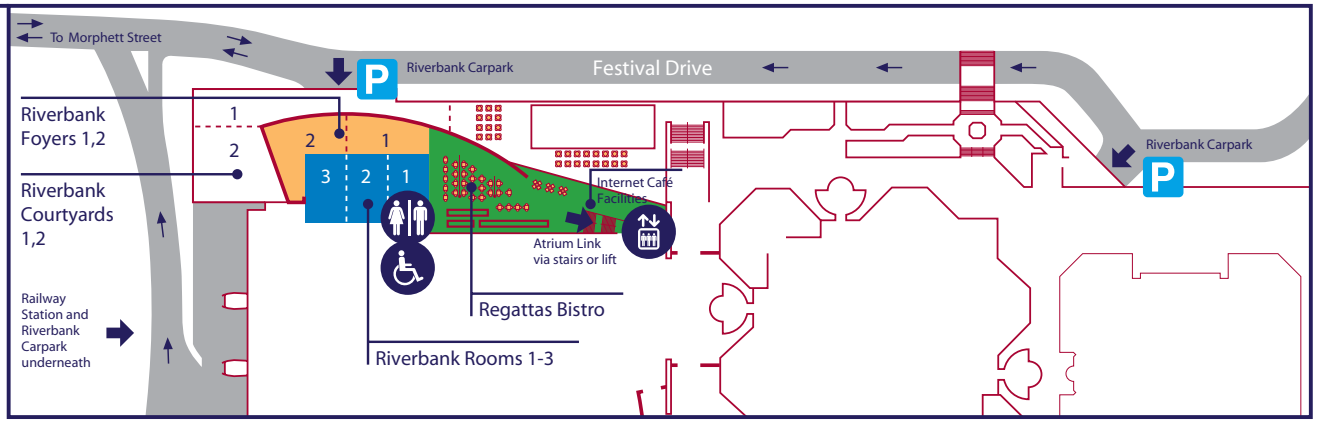
## Level One



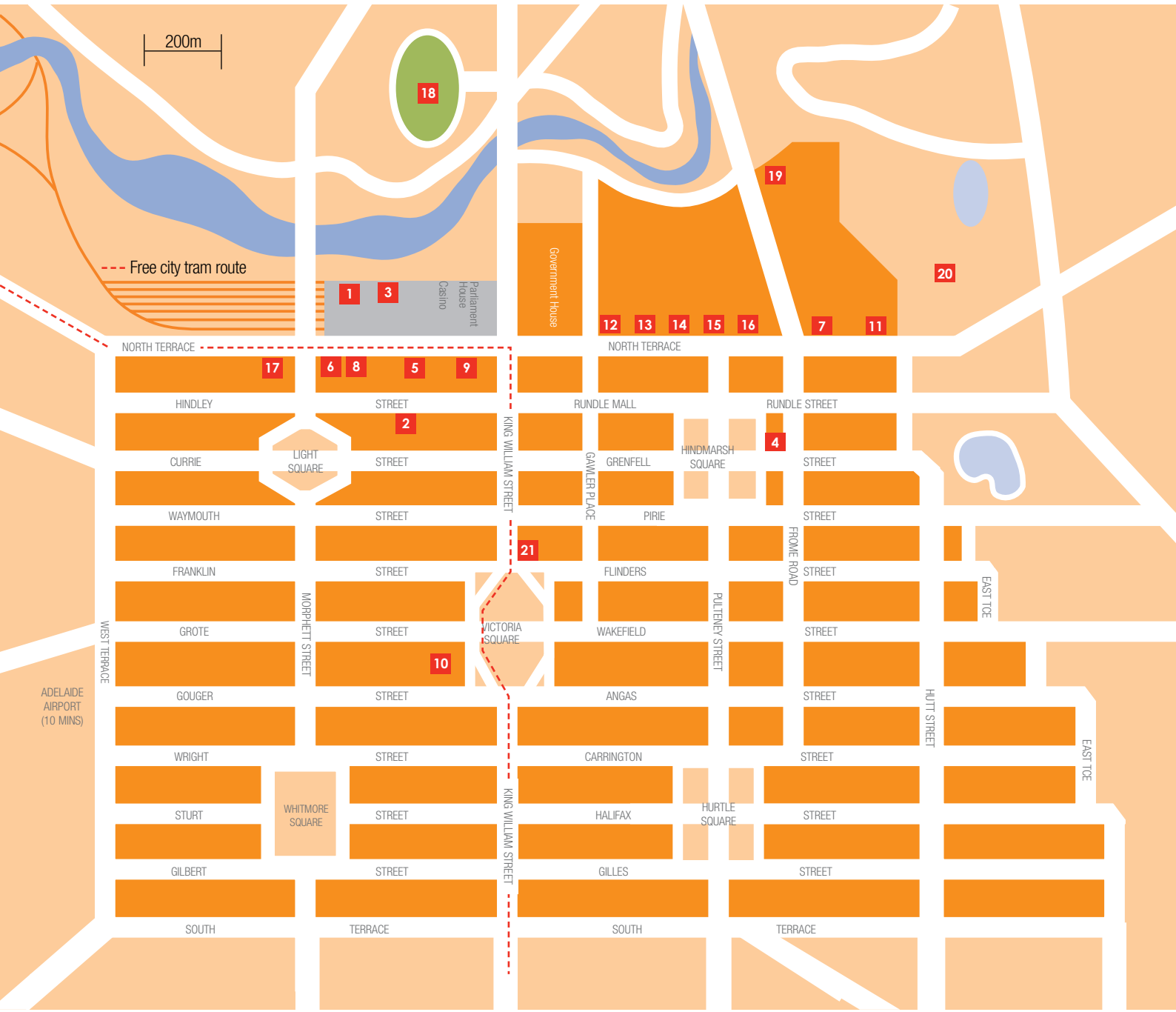

## Plaza Level



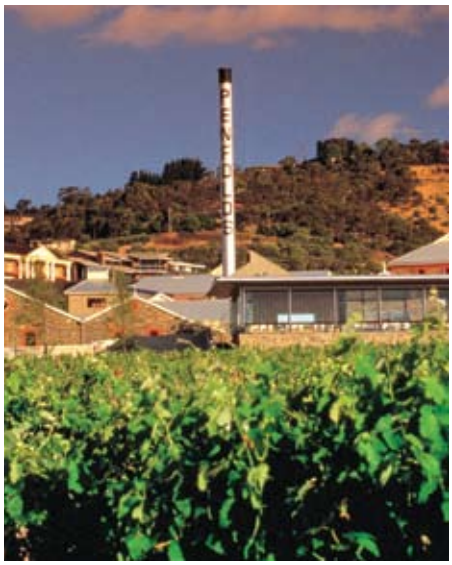

## Riverbank Level



# Map of Adelaide




1 Adelaide Convention Centre
2 Hotel Grand Chancellor Adelaide on Hindley
3 InterContinental Adelaide
4 Majestic Roof Garden
5 Mercure Grosvenor Hotel
6 Oaks Embassy
7 Royal Adelaide Hospital
8 Sebel Playford
9 Stamford Plaza
10 Central Markets
11 National Wine Centre of Australia
12 State Library of South Australia
13 South Australian Museum
14 The Art Gallery of South Australia
15 The University of Adelaide
16 The University of South Australia - City East
17 The University of South Australia - City West
18 Adelaide Oval
19 Adelaide Zoo
20 Adelaide Botanical Gardens
21 Adelaide Town Hall



# Other Useful Information

## Venue

Adelaide is home to Australia's first purpose-built convention centre. The Adelaide Convention Centre is a world-class facility and home of the ICCC39. Magnificently refurbished and recently expanded, it overlooks the picturesque River Torrens. The award winning Adelaide Convention Centre is consistently ranked among the world's top convention centres with a global reputation for quality. The facilities include the recently renovated plenary hall, various meeting rooms and exhibition halls.

For further information about the venue visit www.adelaidecc.com.au

**Adelaide Convention Centre**
North Terrace, Adelaide SA 5000
T: (08) 8212 4099

**South Australian Visitor and Travel Centre**
18 King William Street, Adelaide SA 5000
T: 1300 655 276

## ATMs and Foreign Exchange Services

Westpac Bank is located at 1 King William Street (on the corner of King William Street and North Terrace). The American Express Foreign Exchange is located within the Westpac Banking Corporation at 1 King William Street as well as Shop 32, CitiCentre Arcade, Rundle Mall.

Travelex is also located in the Adelaide CBD at Shop 4, Beehive Corner (corner of Rundle Mall and King William Street). Travelex hours of operation are listed below:

| | |
|---|---|
| Monday | 0900 – 1730 |
| Tuesday | 0900 – 1730 |
| Wednesday | 0900 – 1730 |
| Thursday | 0900 – 1730 |
| Friday | 0900 – 1800 |
| Saturday | 0900 – 1700 |
| Sunday | Closed |

## Messages

A message board will be located at the registration desk. Please advise potential callers to contact the Adelaide Convention Centre on telephone +61 (0)8 8212 4099 and ask for the ICCC39 registration desk. No guarantee can be given to deliver messages personally.

## Personal Mail

The conference managers do not accept responsibility for personal mail. Please have mail sent to your accommodation address.

## Climate

The average maximum temperature of Adelaide in July is 15°C (59°F).

## Dress

Smart casual attire is appropriate for conference sessions, the welcome reception and conference dinner. A jacket may be required for air-conditioned conference session rooms.

## Special Diets

Delegates who have specified their special dietary requests on their registration forms should identify themselves to the service staff at functions.

## Website

http://iccc2010.eventplanners.com.au

## Accommodation Venues

**InterContinental Adelaide**
North Terrace
(08) 8238 2400

**Sebel Playford**
120 North Terrace
(08) 8213 8888

**Majestic Roof Garden**
55 Frome Street (adjacent Rundle Street)
(08) 8100 4400

**Hotel Grand Chancellor Adelaide on Hindley**
Hindley Street
(08) 8231 5552

**Mercure Grosvenor Hotel**
North Terrace
(08) 8407 8888

**Oaks Embassy**
North Terrace
(08) 8124 9900

**Royal Adelaide Hospital**
North Terrace, Residential Wing, Hospital Grounds
(08) 8222 5169

# Conference Information

## Delegate Information

### Conference Venue

Adelaide Convention Centre
North Terrace, Adelaide SA 5000
T: (08) 8212 4099
F: (08) 8212 5101
W: www.adelaidecc.com.au

The Adelaide Convention Centre enjoys a global reputation for excellence and is consistently ranked among the world's top Convention Centers'.

### Conference Registration Desk

The registration desk will be located in Hall K at the Adelaide Convention Centre, and will be staffed at the following times:

| | |
|---|---|
| Sunday 25 July 2010 | 1200 – 1700 |
| Monday 26 July 2010 | 0700 – 1700 |
| Tuesday 27 July 2010 | 0800 – 1700 |
| Wednesday 28 July 2010 | 0800 – 1300 |
| Thursday 29 July 2010 | 0800 – 1700 |
| Friday 30 July 2010 | 0800 – 1230 |

### Registration Entitlements

Fulltime and student registration includes:

- Admission to all scientific sessions
- Industry exhibition admission
- Welcome reception
- Conference program book and other conference materials
- Morning and afternoon teas and lunches (as per the conference program)

*Note: Fulltime registration does not include the conference dinner.*

### Intention to Photograph

Delegates and others are advised that photographs may be taken during the conference and reproduced for promotional purposes.

### Internet Facilities

Wireless internet connection can be purchased from the Adelaide Conventions Centre's reception desk. A charge of $10 for 1 hour of usage applies. The Adelaide Convention Centre also provides a business centre, costs for use are listed below.

- $6 for 30 minutes
- $10 for 1 hour with each additional 30 minutes costing $5

## Useful Visitor Information

### Hospitals

**St Andrew's Hospital**
350 South Terrace, Adelaide
T: (08) 8408 2111

**Royal Adelaide Hospital**
North Terrace (eastern end)
T: (08) 8222 4000

**Women's and Children's Hospital**
72 King William Road, North Adelaide
T: (08) 8161 7000

### Emergency Details

Dial 000 if you need police fire or ambulance. When you phone 000 a Telstra operator will answer your call and ask whether you need police, fire or ambulance. The operator will then connect you to a qualified person in that field of work.

### Airport/Hotel Transfers

Adelaide Airport is located six kilometers due west of the Central Business District and is easily accessible by all modes of transport including car, taxi and bus.

The State transit website (www.adelaidemetro.com.au) has useful information regarding public transport options, including a trip planner function that will provide you with detailed information on how to get there.

Delegates will be required to make their own arrangements for transfer from the their hotel to the airport.

### Public Transport

Adelaide is an easy city to get around in. Public transport provides access for visitors to most major areas in both the city square mile and the suburbs. Taxis are plentiful too. Adelaide's 'City Free' is a free service for commuters who want to move through the city quickly. Buses travel along an inner city route, and trams travel through the middle of the city along King William Street, making it convenient for delegates to move around the central business district, accessing major venues and shopping facilities. For a round trip of Adelaide, delegates can also take a trip on the City Loop Bus Service. This cross suburban route circles Adelaide in both clockwise and anti-clockwise directions and crosses every main road leading to the city.

### Taxis

There is a taxi rank immediately in front of the Adelaide Convention Centre on North Terrace. There are additional ranks along North Terrace close to the convention centre. Taxis are available from the following agencies.

**Adelaide Independent Taxis:**
T: 13 22 11
W: www.aitaxis.com.au

**Suburban Taxis:**
T: 13 10 08
W: www.suburbantaxis.com.au

**Yellow Cab Company:**
T: 13 22 27
W: www.yellowcabgroup.com.au

### Bus

The Adelaide Convention Centre is well serviced with a number of bus routes running past on North Terrace, including a free bus running throughout the CBD www.transadelaide.com.au. Free trams are available outside the Adelaide Convention Centre on North Terrace. The tram is free from North Terrace along King William Street to South Terrace.

### Parking

The Adelaide Convention Centre operates both the Riverbank and Exhibition car parks, which are open 24 hours a day, 7 days a week. The car parks are under the Convention Centre (Riverbank) and beneath the exhibition hall. In total, 1250 spaces are available and provide easy access to the Adelaide Convention Centre, exhibition hall and Adelaide Plaza.

The following rates are apply and prices are GST inclusive.

### Casual Parking

$1.50 - First half hour or part thereof

$2.00 - 2nd half or part thereof

$3.50 - 2nd hour or part thereof

$2.00 - 3rd hour of part thereof

$1.00 - per hour after that to a maximum of $24.00 per 24 hour period

### Early Bird Parking

$9.00 - every day (in between 0500 and 0930 and out by 1830). Beyond 1830 casual rates will apply starting from the first hour as below and up to a maximum of $24.00 for any 24 hour period.

Voucher – Pay as you use by the hour/single entry and exit. Parking is based on casual spaces available at the time of entry.

For further information regarding car parking rates and services at the Adelaide Convention Centre, call the car park manager directly on (08) 8210 6740 or email charless@adelaidecc.com.au.

### Disabled Access

Elevators provide access from the car parks, street level and between all floors. The Adelaide Convention Centre has taken particular care to ensure all signage is large enough to be read by the visually impaired and staff are trained to speak clearly when making announcements to public areas. Hearing induction loops can be made available in any location.

### Tourist Refund Scheme

International travellers can claim back the goods and services tax (GST) and wine equalisation tax (WET) they have paid on goods bought in Australia that they are taking with them when they leave the country. The tax can be claimed back at international airports and seaports under the Tourist Refund Scheme (TRS), subject to conditions such as an AUD300 minimum purchase from one store, and the goods must be hand carried or worn on board the aircraft or ship. Details on the TRS are available on www.customs.gov.au on the 'advice for travellers' page.

# Abstracts

# Monday 26 July 2010
# Abstracts 001 – 052

# Tuesday 27 July 2010
# Abstracts 053 – 095

# Wednesday 28 July 2010
# Abstracts 096 – 121

# Thursday 39 July 2010
# Abstracts 122 – 175

# Friday 30 July 2010
# Abstracts 176 – 178

# Poster Session 1
# Abstracts 201 – 300

# Poster Session 2
# Abstracts 301 – 400

ICCC39