

Goldschmidt 2006

16th Annual V.M. Goldschmidt Conference 2006

27 August – 1 September 2006

Melbourne Exhibition and Convention Centre, Melbourne, Australia

www.goldschmidt2006.org

Conference topics shall highlight important issues, facilitate open discussion and provide fresh perspectives. Please visit the conference website for more details and to register for this not to be missed conference. A program summary is provided below.



Theme 1: Advances in techniques in geochemistry

Trevor Ireland, Andrew Berry

- S1-01: Nuclear methods in geochemistry
- S1-02: Reactions and processes at mineral surfaces and boundaries
- S1-03: Determining coordination and structure with synchrotron light
- S1-04: Techniques for Earthtime and CRONUS
- S1-05: Techniques for isotopic and abundance measurements of light elements
- S1-06: Techniques for heavy stable isotope analysis
- S1-07: Techniques for nanoscale geochemistry
- S1-08: Noble gases in the 21st century

Theme 2: Mineral deposits and ore geochemistry

Andy Barnicoat, Chris Heinrich

- S2-01: Quantitative hydrodynamic and thermodynamic modelling of hydrothermal processes
- S2-02: Fluid-melt-mineral interactions in nature and experiments
- S2-03: Element mobility in the regolith: ore body formation, dispersion and discovery
- S2-04: Geochemical and isotopic techniques – applications to ore deposits and exploration
- S2-05: Sources and mobility of metals across scales: from veins to the lithosphere
- S2-06: Sulfide Mineralogy and geochemistry; to mark the publication of Vol 60 in the Reviews in Mineralogy and Geochemistry series
- S2-07: Geochemistry of Platinum Group Elements and their ores

Theme 3: Solar system formation

Herbert Palme, Marc Norman

- S3-01: Chronology of the early Solar System (including an additional workshop on construction of a time scale for the early solar system)
- S3-02: Stellar and Nebular Processes
- S3-03: Planetary Formation and Differentiation
- S3-04: Geochemistry of Planetary Surfaces
- S3-05: Cosmochemistry of Habitable Planets

Theme 4: Convecting Mantle

Bernie Wood, Janne Blichert-Toft

- S4-01: Experimental constraints on upper mantle processes - a special symposium honouring Prof. David H Green
 - S4-02: Messages from the past—the signature of ancient subduction
 - S4-03: Early Mantle evolution
 - S4-04: Mantle-core interactions
 - S4-05: Perovskite and post-perovskite- stability, geochemical and geodynamical consequences
 - S4-06: Melting at ridges
 - S4-07: Volatiles in the mantle
 - S4-08: Plumes and large igneous provinces
- See also S5-07

Theme 5: Lithosphere evolution

Roberta Rudnick, Greg Yaxley

- S5-01: The deepest lithosphere and beyond: Diamonds and related research - a session in honour of Jeff W. Harris
- S5-02: Earth Evolution 4.5 to 3.5 Ga: Deciphering the Earliest Global Systems
- S5-03: Geochemical and geophysical probing of continental dynamics
- S5-04: Precambrian ophiolites and greenstone belts: insights into mantle dynamics and lithosphere evolution
- S5-05: Processes of mantle refertilisation and modification
- S5-06: Ross Taylor symposium – celebrating Ross' career and contributions
- S5-07: Shen-su Sun Symposium – Geochemical reservoirs and mantle convection (jointly with theme 4)
- S5-08: Continental Crust Subduction and Recycling
- S5-09: Granites and mantle-crust interaction

Theme 6: Subduction processes

Tim Elliott, Richard Arculus

- S6-01: Fluid loss during early (< 2 GPa) subduction
- S6-02: "Deep" fluid release from the slab
- S6-03: Mantle melting in subduction zones
- S6-04: Unscrambling differentiation
- S6-05: Mineralisation at subduction zones
- S6-06: Subduction zone evolution in 4-D

Theme 7: Geochemical constraints on timescales and mechanisms of tectonic processes

Derek Vance, Joerg Herrmann

- S7-01: Accessory phases and trace elements: links between geochronology and petrology
- S7-02: Up and down: Geochronological constraints on paleotopography and tectonic geomorphology
- S7-03: Fast and furious versus slow and steady: rates of tectonic and magmatic processes
- S7-04: Extreme metamorphism
- S7-05: Light elements in the continental crust
- S7-06: Fault systems: their geochronology and geochemistry

Theme 8: Biogeochemistry and the origin and evolution of life

Malcolm Walter, Mike Russell

- S8-01: Mediation across the abiotic-biotic transition at the dawn of life
- S8-02: Quantum aspects of life
- S8-03: Novel isotopic tracers of biogeochemical processes
- S8-04: Compound specific isotope analysis and its contributions to palaeoreconstruction
- S8-05: Major episodes of extinction, radiation and biogeochemical change
- S8-06: Microbe-mineral interactions
- S8-07: Life's signatures and products up to 2.0 Ga
- S8-08: Possible biogeochemistries of Mars
- S8-09: Timescales of human evolution

Theme 9: Aquatic geochemistry and fluids in the crust

John Mavrogenes, Sue Brantley

- S9-01: Fluid immiscibility in High T systems
- S9-02: Supercritical behaviour
- S9-03: Water-rock interaction in aquifers: reactions, rates, controls
- S9-04: Low-temperature geochemistry in surface environments
- S9-05: Nanoscale size effects on geochemical processes: reactivity, kinetics, and pathways

Theme 10: Surface processes, low temperature systems and landscape evolution

Paulo Vasconcelos, Rod Brown

- S10-01: Geochemistry, chronology and global consequences of terrestrial weathering
- S10-02: Low temperature thermochronometry: models, methods and applications
- S10-03: Terrestrial cosmogenic nuclides: surface process rates and/or dates?
- S10-04: Biogeochemical cycling of elements in the surficial environment
- S10-05: High resolution palaeoclimate chronologies and proxies
- S10-06: Synchrotron applications to environmental mineralogy
- S10-07: Mobility, availability and toxicity of pollutants
- S10-08: Geochemistry of wine

Theme 11: Ocean chemistry and circulation; climate and environment

Rachael James, Malcolm McCulloch

- S11-01: Deep-Sea Carbonate Systems
- S11-02: Marine biogeochemical forcing of Earth's atmosphere on short and long timescales
- S11-03: Ocean chemistry: past, present and future
- S11-04: Geochemical proxies for the past marine environment
- S11-05: Continental input of dissolved material to the oceans: control and fate
- S11-06: Absolute and relative chronologies of climate change

General Symposia

- G-01: Analytical geochemistry
- G-02: Atmospheric geochemistry
- G-03: Biogeochemistry
- G-04: Computational geochemistry
- G-05: Cosmochemistry
- G-06: Crystallography
- G-07: Environmental geochemistry/mineralogy
- G-08: Experimental geochemistry/petrology
- G-09: Geochronology
- G-10: Hydrology/Hydrogeochemistry
- G-11: Hydrothermal geochemistry
- G-12: Igneous geochemistry
- G-13: Isotope geochemistry
- G-14: Marine geochemistry
- G-15: Metamorphic geochemistry
- G-16: Mineral deposits