

2005-06

Journal articles

Bierlein F.P., Murphy F.C., Weinberg R.F. and Lees T., 2006. Distribution of orogenic gold deposits in relation to fault zones and gravity gradients: Targeting tools applied to the Eastern Goldfields, Yilgarn Craton, Western Australia. *Mineralium Deposita*, vol **41** (2), pp 107-126.

McLellan J.G., Oliver N.H.S and Hobbs B.E., 2006. The relative effects of deformation and thermal advection on fluid pathways in basin-related mineralisation. *Journal of Geochemical Exploration*, vol **89** (1-3), pp 271-275.

Page R.W., Stevens B.P.J. and Gibson G.M., 2005. Geochronology of the sequence hosting the Broken Hill Pb-Zn-Ag orebody, Australia. *Economic Geology*, vol **100** (4), pp 633-661.

Page R.W., Connor C.H.H., Stevens B.P.J., Gibson G.M., Preiss W.V. and Southgate P.N., 2005. Correlation of Olary and Broken Hill Domains, Curnamona Province: Possible relationship to Mount Isa and other north Australian Pb-Zn-Ag-Bearing Successions. *Economic Geology*, vol **100** (4), pp 663-676.

Phillips D. and Miller J.McL., 2005. $^{40}\text{Ar}/^{39}\text{Ar}$ dating of mica-bearing pyrite from thermally overprinted Archean gold deposits. *Geology*, vol **34** (5), pp 397-400.

Regenauer-Lieb K., Hobbs B., Yuen D., Ord A., Zhang Y., Muhlhaus H. and Morra B., 2005. From point defects to plate tectonic faults. *Philosophical Magazine*, vol **86** (21-22), pp 3373-3392.

[Sheldon, H.A., Ord, A., 2005. Evolution of porosity, permeability and fluid pressure in dilatant faults post-failure: Implications for fluid flow and mineralization. *Geofluids*, vol **5** \(4\), pp 272-288.](#)

Sheldon H.A., Barnicoat A. and Ord A., 2005. Numerical modelling of faulting and fluid flow in porous rocks: An approach based on critical state soil mechanics. *Journal of Structural Geology*, vol **28**, pp 1468-1482.

Vos I.M.A., Bierlein F.P. and Webb J., 2006. Geochemistry of Early Palaeozoic basalts in the Hodgkinson Province: A key to tectono-magmatic evolution of the Tasman Fold Belt System in north eastern Queensland, Australia. *International Journal of Earth Sciences*, vol **95** (4), pp 569-585.

Vos I.M.A. and Bierlein F.P., 2005. Characteristics of orogenic gold deposits in the Northcote district, Hodgkinson Province, North Queensland, Australia: Implications for tectonic evolution. *Australian Journal of Earth Sciences*, vol **53** (3), pp 469-484.

Zhang Y., Sorjonen-Ward P. and Ord A., 2005. Modelling fluid transport associated with mineralisation and deformation in the Outokumpu Cu-Zn-Co deposit, Finland. *Journal of Geochemical Exploration*, vol **89** (1-3), pp 465-469.

2004-05

Journal Articles

Bierlein F.P. and Betts P.G., 2004. The Proterozoic Mt Isa Fault Zone, north eastern Australia – is it really a ca. 1.9 Ga terrain-bounding suture? *Earth and Planetary Sciences Letters* **225**, pp 279-294.

Bierlein F.P., Weinberg R.F., Lees T.C. and Murphy F.C., 2004. Orogenic gold deposits and major fault zones: Targeting tools applied to the eastern Goldfields, Yilgarn Craton, Western Australia. *Mineralium Deposita* (in review).

Cleverley J.S. and Bastrakov E.N., 2004. K@GWB: A utility for generating GWB data files at 0-1000°C and 1-5000 bars. *Journal of Computers and Geoscience*, **31** (6), pp 756-767.

Drummond B.J., Hobbs R.W. and Goleby B.R., 2004. The effects of out-of-plane seismic energy on reflections in crustal-scale 2D seismic sections. *Tectonophysics* **388**, pp 213-224.

Feltrin L., McLellan J.G. and Oliver N.H.S., 2005. Modelling the giant, Zn-Pb-Ag Century deposit, Queensland, Australia. *Computers and Geosciences* (in review).

Forbes C.J., Betts P.G., Weinberg R.F. and Buick I.S., 2005. A structural metamorphic study of the Broken Hill Block, NSW, Australia. *Journal of Metamorphic Geology* (accepted).

Forbes C.J., Giles D., Betts P.G., Weinberg R.F. and Kinny P.D., 2005. Dating prograde amphibolite and granulite facies metamorphism in the Broken Hill Block, NSW, using *in situ* monazite U-Pb SHRIMP analysis. *Precambrian Research* (in review).

Gauthier L., Hagemann S.G., Robert F. and Pickens G., 2004. Structural architecture and relative timing of Fimiston gold mineralization at the Golden Mile deposit, Kalgoorlie. 2004 Gold and nickel deposits in the Norseman-Wiluna greenstone belt, Yilgarn craton, Western Australia – a field guide: *Western Australian Geological Survey Record* **2004/16**, pp 53-60.

Gregory M.J., 2005. Copper mobility in the Eastern Creek Volcanics, Mount Isa, Australia: Evidence from laser ablation ICP-MS of iron-titanium oxides. *Mineralium Deposita* (in review).

Gregory M.J., Wilde A.R. and Jones P.A., 2005. Uranium Deposits of the Mount Isa Region and their relationship to deformation, metamorphism and copper deposition. *Economic Geology* **100**, pp 537-546.

Kendrick M.A., Phillips D. and Miller J.McL., 2004. Part I. Stepwise heating of quartz: Implications for fluid inclusion analysis and the solubility of noble gases and halogens in quartz. *Geochimica et Cosmochimica Acta* (in review).

Kendrick M.A., Miller J.McL. and Phillips D., 2004. Part II. Evaluation of ^{40}Ar - ^{39}Ar quartz-fluid-inclusion ages: Examples from the Mt Isa Inlier, north east Australia. *Geochimica et Cosmochimica Acta* (in review).

Korsch R.J., Goleby B.R., Rawlings D.J., Gibson G.M. and Johnstone D.W., 2005. The 2002 Southern McArthur Basin Seismic Reflection Survey: The Anglo American Seismic Traverse. *Geoscience Australia Professional Opinion*, **2005/01**, pp 1-37.

Marshall L.J. and Oliver N.H.S., 2004. Silicate and oxide mineral and isotope geochemistry as monitors of fluid chemistry in district-scale metasomatic processes, eastern Mt Isa Block, Australia. *Geofluids* (in press).

Marshall L.J., Oliver N.H.S. and Davidson G.J., 2004. Carbon and oxygen isotope constraints on fluid sources and fluid-wallrock interaction in regional alteration and iron-oxide-copper-gold mineralisation, eastern Mt Isa Block, Australia. *Mineralium Deposita* (in revision).

Rubenach M.J., 2005. Relative timing of albitization and chlorine enrichment in biotite in Proterozoic schists, Snake Creek Anticline, Mount Isa Inlier, north eastern Australia. *Canadian Mineralogist*, **43**, pp 349-366.

Sheldon, H.A. and Ord, A., 2005. Evolution of porosity, permeability and fluid pressure in dilatant faults post-failure: Implications for fluid flow and mineralization. *Geofluids*, **5**, (in press).

Sheldon H.A., Barnicoat A.C. and Ord A., 2005. Faults as pathways versus faults as seals: Contrasting behaviour of high and low porosity rocks. *Geophysical Research Abstracts*, **7**, 00395.

Vos I.M.A., Bierlein F.P. and Teale G.S., 2004. Genesis of orogenic gold deposits in the Broken River Province, northeastern Queensland, Australia. *Australian Journal of Earth Sciences* (in press).

Vos I.M.A., Bierlein F.P., Barlow M.A. and Betts P.G., 2005. The Palmerville Fault, NE Queensland, Australia: A multi-disciplinary approach to understanding major fault systems. *Journal of Structural Geology* (in review).

Vos I.M.A., Bierlein F.P. and Heithersay P.S., 2005. A crucial role for slab break-off in the generation of world-class mineral deposits: Insights from central and eastern Australia. *Mineralium Deposita* (in press).

Wilde A.R., Jones P.A., Gessner K., Ailleres L., Gregory M.J. and Duncan R.J., 2005. A geochemical process model for the Mt Isa copper orebodies. *Economic Geology* (in review).

2003-04

Journal Articles

Baker, T., Van Achterberg, E., Ryan, C.G. and Lang, J.R., 2004. The composition and evolution of ore fluids in a magmatic-hydrothermal skarn deposit. *Geology*, **32**, pp 117-120.

Blenkinsop, T., Bierlein, F.P. and Mustard, R., 2004. Fault Roughness and Mineral Endowment: A Fractal Approach. *Geology*, (under review).

- Blewett, R.S., Cassidy, K.F., Champion, D.C., Henson, P.A., Goleby B.S., Jones, L.E.A. and Groenewald P.B., 2004. The Wangkathaa Orogeny: An example of episodic regional 'D2' in the late Archaean eastern Goldfields province, Western Australia. *Precambrian Research*, 130, pp 139-159.
- Cleverley, J.S. and Oliver, N.H.S., 2004. Equilibrium Dynamic Modelling of fluid-rock interaction concepts using HCh: Examples from K-alteration in Fe-oxide Cu-Au systems. *Geofluids*, (in review).
- Forbes, C.J. and Betts, P.G., 2004. Development of Type 2 fold interference patterns in the Broken Hill Block: Implications for strain partitioning across a detachment during the Olarian Orogeny. *Australian Journal of Earth Sciences*, 51, pp 173.
- Fomin, T., Crawford, A. and Johnstone, D., 2003. A wide-angle reflection experiment with Vibroseis sources as part of a multidisciplinary seismic study of the Leonora-Laverton Tectonic Zone, north eastern Yilgarn Craton. *Journal of Exploration Geophysics*, 34, No. 3, pp 147-150.
- Goleby, B.R., Blewett, R.S., Champion, D.C., Cassidy, K.F., Jones, L.E.A., Groenewald, P.B., Henson P.A., and Korsch, R.J., 2004. Deep seismic reflection profiling in the Archaean north eastern Yilgarn Craton, Western Australia: Implications for crustal architecture and mineral potential. *Tectonophysics*, (in press).
- Hunt, J.A., Baker, T. and Thorkelson, D., 2004. Regional-scale Proterozoic IOCG-mineralised breccia systems: examples from the Wernecke Mountains, Yukon, Canada. *Mineralium Deposita*, (accepted).
- McLellan, J.G., Oliver, N.H.S. and Schaub, P.M., 2004. Fluid flow in extensional environments: Numerical modelling with an application to Hamersley iron ores. *Journal of Structural Geology*, 26, pp. 1157-1171.
- Miller, J.McL., Phillips, D., Wilson, C.J.L. and Dugdale, L.J., 2004. Evolution of a hybrid orogenic zone in response to changing accretion dynamics: The Delamarian and Lachlan Orogens, SE Australia. *Journal of the Geological Society of London*, (submitted).
- Miller, J.McL. and Wilson, C.J.L., 2004. Structural analysis of faults related to a heterogeneous stress history: reconstruction of a dismembered gold deposit, western Lachlan Fold Belt, Stawell. *Journal of Structural Geology*, 26, pp. 1231-1256.
- Miller, J.McL. and Wilson, C.J.L., 2004. Stress controls on intrusion-related gold lodes: Wonga gold mine, Stawell, Western Lachlan Fold Belt, south eastern Australia. *Economic Geology*, (submitted).
- Mustard, R., 2004. Textural, mineralogical and geochemical variation in the zoned Timbarra Tablelands pluton, New South Wales. *Australian Journal of Earth Sciences*, 51/3, pp. 387-407.
- Oliver, N.H.S., Mark, G., Cleverley, J.S., Pollard, P.J., Rubenach, M.J., Marshall, L.J., Williams, P.J and Baker, T., 2004. The role of sodic alteration in the genesis of iron oxide-copper-gold deposits; eastern Mt Isa Block. *Economic Geology*, (in press).
- Ord, A., Hobbs, B.E. and Regenauer-Lieb, K., 2004. A smeared seismicity constitutive model. *Special issue of Earth, Planets and Space*.
- Regenauer-Leib, K. and Yuen, D.A., 2003. Subduction Initiation: solid or fluid mechanical instability. *Journal of Geodynamics*, special volume on Subduction Initiation, 2003a.
- Regenauer-Leib, K. and Yuen, D.A., 2003. Modelling shear zones in geological and planetary sciences: Solid- and fluid- thermal- mechanical approaches. *Earth Science Reviews*, 63, pp. 295-349.
- Regenauer-Lieb, K. and Yuen D.A., 2003. Positive feedback on interacting ductile faults from coupling of equation of state, rheology and thermal-mechanics. *Physics of Earth and Planetary Interiors*, in press 2004.
- Sayab, M., 2004. N-S shortening during orogenesis within the Mount Isa Inlier: The preservation of early E-W structures and their tectonic and metamorphic significance. *Journal of Structural Geology*. (in review).
- Sheldon, H. A. and Ord, A., 2004. Fluid flow and mixing in dilatant faults: Implications for mineralisation. *Geofluids*, (submitted).

Wijns, C., Poulet, T., Boschetti, F., Dyt, C. and Griffiths, C.M., 2003. Interactive inverse methodology applied to stratigraphic forward modeling. In A. Curtis and R. Wood (eds.), *Geological Prior Information*, Geological Society of London Special Publication, (in press).

Wilde, A.R., Bierlein, F.P. and Pawlitschek, M., 2004. Searching for buried treasure: Litho-geochemistry of orogenic gold deposits in Victoria, south east Australia. *Journal of Geochemistry Exploration*, 84/1, pp. 35-50.

Wilde, A.R., Gessner, K., 2004. Is the Mount Isa copper deposit the product of forced brine convection in the footwall of a major reverse fault? *Geology*, (in press).

Wilde, A.R., 2004. Significance of alteration assemblages for the origin and evolution of the proterozoic Nabarlek unconformity-related uranium deposit, Northern Territory, Australia: A discussion. *Economic Geology*, (in press).

Wyborn, L.A.I. and Esterle, J.S., 2003. GRID Computing – enabling the next generation of Solid Earth and Environmental Research in Australia. *Preview*, 106, pp 21-24.

Zhang, Y., Lin, G., Wang, Y.J., Roberts, P.A. and Ord, A. 2004. Numerical modelling of deformation and fluid flow in the Shui-Kou-Shan mineralisation district, Hunan Province, South China. *Ore Geology Reviews*, (under review).

2002-03

Journal Articles

Feltrin, L., Oliver, N.H.S., Kelso, I.J., and King, S., 2003. Basement metal scavenging during basin evolution: Cambrian and Proterozoic interaction at the Century Zn-Pb-Ag Deposit, Northern Australia. *Journal of Geochemical Exploration*, vol. 78–79c, pp. 159–162.

Forbes, C.J., Betts, P.G., and Lister, G.S., (in press). Synchronous development of Type 2 and Type 3 fold interference patterns: Evidence for recumbent sheath folds in the Allendale area, Broken Hill, NSW, Australia. *Journal of Structural Geology*.

McLellan, J.G., Oliver, N.H.S., Ord, A., Zhang, Y. and Schaub, P.M., 2003. A numerical modelling approach to fluid-flow in extensional environments: implications for genesis of large microplaty hematite ores. *Journal of Geochemical Exploration*, vol. 78-79c, pp. 675–679.

Wilde A. R., Simpson, L., Hanna, S., 2002, Preliminary Study of tertiary hydrothermal alteration and platinum deposition in the Oman ophiolite: *Journal of Virtual Explorer*, vol. 6, pp. 7–19

Zhang Y, Hobbs, B.E., Ord, A., Barnicoat, A., Zhao, C., Walshe, J.L., and Ge Lin., 2003. The influence of faulting on host-rock permeability, fluid flow and ore genesis of gold deposits: a theoretical 2D numerical model. *Journal of Geochemical Exploration*, vol. 78–79, pp. 279–284.