



Unravelling the tectonic framework of the Musgrave Province, central Australia

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References

- Aitchison, S.J. and Forrest, A.H., 1994. Quantification of Crustal Contamination in Open Magmatic Systems. *Journal of Petrology*, 35(2): 461-488.
- Amelin, Y.V., Neymark, L.A., Ritsk, E.Y. and Nemchin, A.A., 1996. Enriched Nd-Sr-Pb isotopic signatures in the Dovyren layered intrusion (eastern Siberia, Russia), evidence for source contamination by ancient upper-crustal material. *Chemical Geology*, 129(1-2): 39-69.
- Amelin, Y.V. and Semenov, V.S., 1996. Nd and Sr isotopic geochemistry of mafic layered intrusions in the eastern Baltic shield: Implications for the evolution of Paleoproterozoic continental mafic magmas. *Contributions to Mineralogy and Petrology*, 124(3-4): 255-272.
- Amelin, Y., Li, C., Valeyev, O. and Naldrett, A., 2000. Nd-Pb-Sr Isotope Systematics of Crustal Assimilation in the Voisey's Bay and Mushuau Intrusions, Labrador, Canada. *Economic Geology*, 95: 815-830.
- Andersen, T., 2002. Correction of common lead in U-Pb analyses that do not report Pb-204. *Chemical Geology*, 192(1-2): 59-79.
- Anderson, J.L., 1989. Proterozoic anorogenic granites of the southwestern United States. In: J.P. Jenny and S.J. Reynolds (Editors), *Geologic evolution of Arizona: Tuscon, Arizona Geological Society Digest*, pp. 211-238.
- Anderson, J.L. and Bender, E.E., 1989. Nature and Origin of Proterozoic a-Type Granitic Magmatism in the Southwestern United-States-of-America. *Lithos*, 23(1-2): 19-52.
- Anderson, C. and Samson, S.D., 1995. Temporal changes in Nd isotopic composition of sedimentary rocks in the Sevier and Taconic foreland basins: Increasing influence of juvenile sources. *Geology*, 23: 983-986.
- Anderson, H.E. and Davis, D.W., 1995. U-Pb geochronology of the Moyie Sills, Purcell Supergroup, southeastern British Columbia; implications for the Mesoproterozoic geological history of the Purcell (Belt) Basin. *Canadian Journal of Earth Sciences = Journal Canadien des Sciences de la Terre*, 32(8): 1180-1193.
- Arndt, N.T. and Goldstein, S.L., 1987. Use and abuse of crust-formation ages. *Geology*, 15: 893-895.
- Amdt, N.T., Czamanske, G.K., Wooden, J.L. and Fedorenko, V.A., 1993. Mantle and Crustal Contributions to Continental Flood Volcanism. *Tectonophysics*, 223(1-2): 39-52.
- Arriens, P.A. and Lambert, I.B., 1969. On the age and strontium isotopic geochemistry of granulite facies rocks from the Fraser Range, Western Australia, and the Musgrave Ranges, central Australia. *Geological Society of Australia, Special Publication*, 2: 377-388.
- Ballhaus, C. and Berry, R.F., 1991. Crystallization Pressure and Cooling History of the Giles Layered Igneous Complex, Central Australia. *Journal of Petrology*, 32(1): 1-28.
- Barker, F. and Arth, J.G., 1976. Generation of trondhjemite-tonalitic liquids and Archean bimodal trondhjemite-basalt suites. *Geology (Boulder)*, 4: 596-600.
- Barker, F., 1979. Trondhjemite: Definition, environment and hypotheses of origin. In: F. Barker (Editor), *Trondhjemites, dacites and related rocks*. Elsevier, Amsterdam, pp. 1-12.
- Barovich, K.M. and Foden, J., 2000. A Neoproterozoic flood basalt province in southern-central Australia: geochemical and Nd isotope evidence from basin fill. *Precambrian Research*, 100: 213-234.
- Bea, F., 1996. Residence of REE, Y, Th and U in granites and crustal protoliths; Implications for the chemistry of crustal melts. *Journal of Petrology*, 37: 521-552.
- Benbow, M.C., 1982. Stratigraphy of the Cambrian-?Early Ordovician Mount Johns Range. NE Officer Basin, South Australia. *Royal Society of South Australia. Transactions.*, 106: 191-211.
- Bennett, V.C. and DePaolo, D.J., 1987. Proterozoic crustal history of the western United States as determined by neodymium isotopic mapping. *Geological Society of America Bulletin*, 99: 674-685.
- Betts, P.G., Giles, D., Lister, G.S. and Frick, L.R., 2002. Evolution of the Australian lithosphere. *Australian Journal of Earth Sciences*, 49(4): 661-695.
- Betts, P.G. and Giles, D., 2006. The 1800-1100 Ma tectonic evolution of Australia. *Precambrian Research*, 144(1-2): 92-125.
- Black, L.P., Harris, L.B. and Delor, C.P., 1992. Reworking of Archean and Earlys. *Sedimentary Geology*, 141-142: 443-464.
- Black, L.P., Gregory, P., Withnall, I.W. and Bain, J.H.C., 1998. U-Pb zircon age for the Etheridge Group, Georgetown region, north Queensland: implications for relationship with the Broken Hill and Mt Isa sequences. *Australian Journal of Earth Sciences*, 45(6): 925-935.
- Black, L.P., Calver, C.R., Seymour, D.B. and Reed, A., 2004. SHRIMP U-Pb detrital zircon ages from Proterozoic and Early Palaeozoic sandstones and their bearing on the early geological evolution of Tasmania. *Australian Journal of Earth Sciences*, 51: 558-900.
- Camacho, A., 1997. An isotopic study of deep-crustal orogenic processes, Musgrave Block, central Australia. Ph.D. Thesis, Australian National University, Canberra.
- Camacho, A. and Fanning, C.M., 1995. Some Isotopic Constraints on the Evolution of the Granulite and Upper Amphibolite Facies Terranes in the Eastern Musgrave Block, Central Australia. *Precambrian Research*, 71(1-4): 155-181.

References

- Camacho, A. and McDougall, I., 2000. Intracratonic, strike-slip partitioned transpression and the formation and exhumation of eclogite facies rocks: An example from the Musgrave Block, central Australia. *Tectonics*, 19: 978-996.
- Chazot, G. and Bertrand, H., 1995. Genesis of Silicic Magmas During Tertiary Continental Rifting in Yemen. *Lithos*, 36(2): 69-83.
- Clarke, G.L., Buick, I.S., Glikson, A.Y. and Stewart, A.J., 1995. Structural and pressure-temperature evolution of host rocks of the Giles Complex, central Australia: evidence for multiple high pressure events. *AGSO Journal of Australian Geology and Geophysics*, 16: 127-146.
- Connors, K.A. and Page, R.W., 1995. Relationships between magmatism, metamorphism and deformation in the western Mount Isa Inlier, Australia. In: W.J. Collins and R.D. Shaw (Editors), *Time limits on tectonic events and crustal evolution using geochronology; some Australian examples*. Elsevier, Amsterdam, pp. 131-153.
- Conor, C.H.H., 1987. The geology of the Eateringinna 1:100000 sheet area eastern Musgrave Block, South Australia. MSc. Thesis, University of Adelaide, Adelaide.
- Creaser, R.A., 1995. Neodymium isotopic constraints for the origin of Mesoproterozoic felsic magmatism, Gawler Craton, South Australia. *Canadian Journal of Earth Sciences*, 32(4): 460-471.
- Crichton, J.G. and Condie, K.C., 1993. Trace elements as source indicators in cratonic sediments: a case study from the early Proterozoic Libby Creek Group, southeastern Wyoming. *Journal of Geology*, 101: 319-332.
- Dabard, M.P., Loi, A. and Peucat, J.J., 1996. Zircon typology combined with Sm-Nd whole-rock isotope analysis to study Brioverian sediments from the American Massif. *Sedimentary Geology*, 101: 243-260.
- Daly, S.J., Fanning, C.M. and Fairclough, M.C., 1998. Tectonic evolution and exploration potential of the Gawler Craton, South Australia. *AGSO Journal of Australian Geology & Geophysics*, 17: 145-168.
- Daly, S.J., Fanning, C.M. and Fairclough, M.C., 1998. Tectonic evolution and exploration potential of the Gawler Craton.. *AGSO Journal of Geology and Geophysics*, 17: 145-168.
- Dalziel, I.W.D., 1991. Pacific Margins of Laurentia and East Antarctica Australia as a Conjugate Rift Pair - Evidence and Implications for an Eocambrian Supercontinent. *Geology*, 19(6): 598-601.
- Daniels, J.L., 1974. The geology of the Blackstone Region of Western Australia. *Geological Survey of Western Australia, Bulletin*, 123.
- Depaolo, D.J., 1981. Trace-Element and Isotopic Effects of Combined Wallrock Assimilation and Fractional Crystallization. *Earth and Planetary Science Letters*, 53(2): 189-202.
- Depaolo, D.J., 1985. Isotopic Studies of Processes in Mafic Magma Chambers .1. The Kiglapait Intrusion, Labrador. *Journal of Petrology*, 26(4): 925-951.
- Dickin, A.P. and McNutt, R.H., 1990. Nd model-age mapping of Grenville lithotectonic domains; mid-Proterozoic crustal evolution in Ontario. In: C.F. Gower, T. Rivers and B. Ryan (Editors), *Mid-Proterozoic Laurentia-Baltica. Special Paper - Geological Association of Canada*. Geological Association of Canada, Toronto, ON, Canada, pp. 79-94.
- Dickinson, W.R., Beard, L.S., Brakenridge, G.R., Erjavec, J.L., Ferguson, R.C., Inman, K.F., Knepp, R.A., Lindberg, F.A. and Ryberg, P.T., 1983. Provenance of North American Phanerozoic sandstones in relation to tectonic setting. *Geological Society of America Bulletin*, 94.(2): 222-235.
- Direen, N.G. and Crawford, A.J., 2003. Fossil seaward-dipping reflector sequences preserved in southeastern Australia; a 600 Ma volcanic passive margin in eastern Gondwanaland. *Journal of the Geological Society of London*, 160(6): 985-990.
- Dobosi, G. and Jenner, G.A., 1999. Petrologic implications of trace element variation in clinopyroxene megacrysts from the Nograd volcanic province, north Hungary: a study by laser ablation microprobe-inductively coupled plasma-mass spectrometry. *Lithos*, 46(4): 731-749.
- Downes, H., Reichow, M.K., Mason, P.R.D., Beard, A.D. and Thirlwall, M.F., 2003. Mantle domains in the lithosphere beneath the French Massif Central: trace element and isotopic evidence from mantle clinopyroxenes. *Chemical Geology*, 200(1-2): 71-87.
- Drexel, J.F., Preiss, W.V. and Parker, A.J., 1993. The Geology of South Australia. Vol. 1. The Precambrian. South Australia. Geological Survey., *Bulletin* 54.
- Droux, A. and Delaloye, M., 1996. Petrography and geochemistry of Plio-Quaternary Calc-Alkaline volcanoes of Southwestern Colombia. *Journal of South American Earth Sciences*, 9(1/2): 27-41.
- Drummond, M.S. and Defant, M.J., 1990. A model for trondhjemite-tonalite-dacite genesis and crustal growth via slab melting: Archean to modern comparisons. *Journal of Geophysical Research*, 95: 21503-21521.
- Drummond, M.S., Defant, M.J. and Kepezhinskis, P.K., 1996. Petrogenesis of slab-derived trondhjemite-tonalite-dacite/adakite magmas. *Transactions of the Royal Society of Edinburgh*, 87: 205-215.
- Dunphy, J.M. and Ludden, J.N., 1998. Petrological and geochemical characteristics of a Paleoproterozoic magmatic arc (Narsajuaq Terrane, Ungava Orogen, Canada) and comparisons to Superior Province granitoids. In: A. Percival John and N. Ludden John (Editors), *Earth's evolution through the Precambrian*. Precambrian Research. Elsevier, Amsterdam, International, pp. 109-142.
- Eby, G.N., 1992. Chemical Subdivision of the a-Type Granitoids - Petrogenetic and Tectonic Implications. *Geology*, 20(7): 641-644.
- Edgoose, C.J., Camacho, A., Wakelin-King, G.W. and Simons,

- B., 1993. Kulgera, N.T. 1:250000 Geological Series. Northern Territory Geological Survey. Explanatory Notes SG53-5.
- Edgoose, C.J., Close, D.F., Stewart, A.J. and Duncan, N., 2002. Umbeara, N.T. 1:250000 Geological Series. Northern Territory Geological Survey. Explanatory Notes Sheet 5646.
- Edgoose, C.J., Scrimgeour, I.R. and Close, D.F., 2004. Geology of the Musgrave Block, Northern Territory. Northern Territory Geological Survey. Report 15.
- Ehrenberg, S.N. and Nadeau, P.H., 2002. Postdepositional Sm/Nd fractionation in sandstones: implications for Neodymium-isotope stratigraphy. *Journal of Sedimentary Research*, 72: 304-315.
- Eisele, J. and Isachsen, C.E., 2001. Crustal growth in southern Arizona; U-Pb geochronologic and Sm-Nd isotopic evidence for addition of the Paleoproterozoic Cochise Block to the Mazatzal Province. *American Journal of Science*, 301(9): 773-797.
- Ellis, D.J., 1992. Precambrian tectonics and the physiochemical evolution of the continental crust - Part 2: Lithosphere delamination and ensialic orogeny. *Precambrian Research*, 55: 507-524.
- Ellis, D.J. and Maboko, M.A.H., 1992. Precambrian tectonics and the physiochemical evolution of the continental crust. Part I: The gabbro-eclogite transition. *Precambrian Research*, 55: 491-506.
- Etheridge, M.A., Rutland, R.W.R. and Wyborn, L.A.I., 1987. Orogenesis and tectonic process in the early to middle Proterozoic of northern Australia. *Geophysical Union, Geodynamics Series*, 17: 131-147.
- Evans, K.V., Aleinikoff, J.N., Obradovich, J.D. and Fanning, C.M., 2000. SHRIMP U-Pb geochronology of volcanic rocks, Belt Supergroup, western Montana; evidence for rapid deposition of sedimentary strata. *Canadian Journal of Earth Sciences = Revue Canadienne des Sciences de la Terre*, 37(9): 1287-1300.
- Fanning, C.M., 1997. Geochronological synthesis of South Australia. Mines Department of South Australia, Open File Envelope 8918 (unpublished).
- Fanning, C.M., Ludwig, K.R., Forbes, B.G. and Preiss, W.V., 1986. Single and multiple grain U-Pb zircon analyses for the early Adelaidean Rook Tuff, Willouran Ranges, South Australia. In: D. Branch Colin (Editor), *Proceedings of the Eighth Australian geological convention*; Geological Society of Australia; Earth resources in time and space. Abstracts - Geological Society of Australia. Geological Society of Australia, Sydney, N.S.W., Australia, pp. 71-72.
- Fanning, C.M., Flint, R.B., Parker, A.J., Ludwig, K.R. and Blisset, A.H., 1988. Refined Proterozoic evolution of Gawler craton, southern Australia through U-Pb zircon geochronology. *Precambrian Research*, 40: 363-380.
- Fanning, C.M., 1995. Geochronological synthesis of southern Australia. Part 1 - the Curnamona Province. Envelope 8918 R1: 3-22.
- Fanning, C.M., Moore, D.H., Bennett, V.C. and Daly, S.J., 1996. The "Mawson Continent"; Archaean to Proterozoic crust in the East Antarctic shield and Gawler craton, Australia: a cornerstone in Rodinia and Gondwanaland. 14th Australian Geological Convention, Geol. Soc. Australia (Abstr.), 41: 135.
- Fedo, C.M., Nesbitt, H.W. and Young, G.M., 1995. Unraveling the effects of potassium metasomatism in sedimentary rocks and paleosols, with implications for paleoweathering conditions and provenance. *Geology*, 23(10): 921-924.
- Fitzsimons, I.C.W., 2000. Grenville-age basement provinces in East Antarctica: Evidence for three separate collisional orogens. *Geology*, 28(10): 879-882.
- Fitzsimons, I.C.W., 2003. Proterozoic basement provinces of southern and southwestern Australia, and their correlation with Antarctica. In: M. Yoshida, B.F. Windley and S. Dasgupta (Editors), *Proterozoic East Gondwana; supercontinent assembly and breakup*. Geological Society Special Publications, pp. 93-130.
- Flottmann, T., Hand, M., Close, D., Edgoose, C. and Scrimgeour, I., 2003. Thrust tectonic styles of the intracratonic Alice Springs and Petermann Orogenies, Central Australia. In: K. McClay (Editor), *Thrust Tectonics and Hydrocarbon Systems*, American Association of Petroleum Geologists.
- Flottmann, T., Hand, M., Close, D., Edgoose, C. and Scrimgeour, I., 2004. Thrust tectonic styles of the intracratonic Alice Springs and Petermann Orogenies, central Australia. In: R. McClay Ken (Editor), *Thrust tectonics and hydrocarbon systems*.
- Foden, J.D., Buick, I.S. and Mortimer, G.E., 1988. The petrology and geochemistry of granitic gneisses from the East Arunta Inlier, central Australia; implications for Proterozoic crustal development. *Precambrian Research*, 40-41: 233-259.
- Foden, J., Mawby, J., Kelley, S., Turner, S. and Bruce, D., 1995. Metamorphic events in the eastern Arunta Inlier; Part 2, Nd-Sr-Ar isotopic constraints. In: W.J. Collins and D. Shaw Russell (Editors), *Time limits on tectonic events and crustal evolution using geochronology; some Australian examples*. *Precambrian Research*. Elsevier, Amsterdam, International, pp. 207-227.
- Foerster, H.J., Tischendorf, G., Trumbull, R.B. and Gottesmann, B., 1999. Late-collisional granites in the Variscan Erzgebirge, Germany. *Journal of Petrology*, 40(11): 1613-1645.
- Frost, C.D. and Winston, D., 1987. Nd isotope systematics of coarse- and fine-grained sediments: examples from the middle Proterozoic Belt-Purcell Supergroup. *Journal of Geology*, 95: 309-327.
- Ganguly, J., Tirone, M. and Hervig, R., 1998. Diffusion kinetics of samarium and neodymium in garnet, and a method of determining cooling rates of rocks. *Science*, 281: 805-807.
- Ganguly, J. and Tirone, M., 1999. Diffusion closure temperature and age of a mineral with arbitrary extent of diffusion; Theoretical formulation and

References

- applications. *Earth Planet. Sci. Lett.*, 170: 131-140.
- Garzzone, C.N., Patchett, P.J., Ross, G.M. and Nelson, J., 1997. Provenance of Paleozoic sedimentary rocks in the Canadian Cordilleran miogeoclinal: a Nd isotopic study. *Canadian Journal of Earth Sciences*, 34: 1603-1618.
- Gatehouse, C.G., Benbow, M.C. and Major, R.B., 1986. The Murnaroo Formation of the Officer Basin. South Australia. Geological Survey. Quarterly Geological Notes, 97: 17-20.
- Gee, R.D., 1979. Structure and tectonic style of the Western Australian Shield. *Tectonophysics*, 58(3-4): 327-369.
- Giles, D., Betts, P. and Lister, G., 2002. Far-field continental backarc setting for the 1.80-1.67 Ga basins of northeastern Australia. *Geology (Boulder)*, 30(9): 823-826.
- Giles, D. and Nutman, A.P., 2002. SHRIMP U-Pb monazite dating of 1600-1580 Ma amphibolite facies metamorphism in the southeastern Mt Isa Block, Australia. *Australian Journal of Earth Sciences*, 49(3): 455-465.
- Giles, D., Betts, P.G. and Lister, G.S., 2004. 1.8-1.5-Ga links between the North and South Australian Cratons and the Early-Middle Proterozoic configuration of Australia. *Tectonophysics*, 380: 27-41.
- Gleason, J.D., Patchett, P.J., Dickinson, W.R. and Ruiz, J., 1994. Nd isotopes link Ouachita turbidites to Appalachian sources. *Geology*, 22: 347-350.
- Glikson, A.Y., Ballhaus, C.G., Clarke, G.L., Sheraton, J.W., Stewart, A.J. and Sun, S.-S., 1995. Geological framework and crustal evolution of the Giles mafic-ultramafic complex and environs, western Musgrave Block, central Australia. *AGSO Journal of Australian Geology and Geophysics*, 16: 41-67.
- Glikson, A.Y., Stewart, A.J., Ballhaus, C.G., Clarke, G.L., Feeken, E.H.J., Leven, J.H., Sheraton, J.W. and Sun, S.-S., 1996. Geology of the western Musgrave Block, central Australia, with particular reference to the mafic-ultramafic Giles complex. *AGSO Bulletin*, 239: 41-68.
- Goldstein, S., O'Nions, R.K. and Hamilton, P.J., 1984. A Sm-Nd isotopic study of atmospheric dust and particulates from major river systems. *Earth and Planetary Science Letters*, 70: 221-236.
- Goode, A.D.T., 1970. The petrology and structure of the Kalka and Ewarara layered basic intrusions, Giles Complex, central Australia. Ph.D Thesis, University of Adelaide, Adelaide.
- Goode, A.D.T. and Moore, A.C., 1975. High pressure crystallization of the Ewarara, Kalka and Gosse Pile intrusions, Giles Complex, central Australia. *Contributions to Mineralogy and Petrology*, 51(2): 77-97.
- Goode, A.D.T., 1976. Small scale primary cumulus igneous layering in the Kalka layered intrusion, Giles Complex, central Australia. *Journal of Petrology*, 17(3): 379-397.
- Goode, J.W., Myrow, P., Williams, I.S. and Bowring, S.A., 2002. Age and provenance of the Beardmore Group, Antarctica; constraints on Rodinia supercontinent breakup. *Journal of Geology*, 110(4): 393-406.
- Gorton, M.P. and Schandl, E.S., 2000. From Continents To Island Arcs: A Geochemical Index of Tectonic Setting for Arc-related and Within-plate felsic to intermediate volcanic rocks. *The Canadian Mineralogist*, 38: 1065-1073.
- Gravestock, D.I. and Hibbert, J.E., 1991. Sequence stratigraphy of the eastern Officer and Arrowie Basins: A framework for Cambrian oil search. *Aust. Petrol. Expl. Ass. J.*, 31: 177-190.
- Gravestock, D.I. and Sansome, A., 1994. Eastern Officer Basin geology and hydrocarbon potential. South Australian Department of Mines and Energy. Open file Envelope, 8591.
- Gray, C.M. and Oversby, V.M., 1972. The behaviour of lead isotopes during granulite facies metamorphism. *Geochimica et Cosmochimica, Acta*, 36: 939-952.
- Gray, C.M., 1978. Geochronology of granulite-facies gneisses in the western Musgrave Block, Central Australia. *Journal of the Geological Society of Australia*, 25 Part 7-8: 403-414.
- Gray, C.M. and Compston, W., 1978. A Rb-Sr chronology of the metamorphism and prehistory of central Australian granulites. *Geochimica et Cosmochimica, Acta* 42: 1735-1748.
- Gray, C.M., Cliff, R.A. and Goode, A.D.T., 1981. Neodymium-Strontium Isotopic Evidence for Extreme Contamination in a Layered Basic Intrusion. *Earth and Planetary Science Letters*, 56(DEC): 189-198.
- Haines, P.W., Hand, M. and Sandiford, M., 2001. Palaeozoic syn-orogenic sedimentation in central and northern Australia: a review of distribution and timing with implications for the evolution of intracontinental orogens. *Australian Journal of Earth Sciences*, 48: 911-928.
- Halama, R., Wenzel, T., Upton, B.G.J., Siebel, W. and Markl, G., 2003. A geochemical and Sr-Nd-O isotopic study of the Proterozoic Eriksfjord Basalts, Gardar Province, South Greenland - Reconstruction of an OIB signature in crustally contaminated rift-related basalts (vol 67, pg 831, 2003). *Mineralogical Magazine*, 67(6): 1338-1338.
- Halama, R. et al., 2004. Crustal contamination of mafic magmas: evidence from a petrological, geochemical and Sr-Nd-Os-O isotopic study of the Proterozoic Isortoq dike swarm, South Greenland. *Lithos*, 74(3-4): 199-232.
- Hand, M., Dirks, P., Powell, R. and Buick, I.S., 1992. How Well Established Is Isobaric Cooling in Proterozoic Orogenic Belts - an Example from the Arunta Inlier, Central Australia. *Geology*, 20(7): 649-652.
- Hand, M., Mawby, J., Kinny, P.D. and Foden, J., 1999. U-Pb ages from the Harts Range, central Australia; evidence for early Ordovician extension and constraints on Carboniferous metamorphism.

- Journal of the Geological Society of London, 156 Part 4: 715-730.
- Hand, M. and Sandiford, M., 1999. Intraplate deformation in central Australia, the link between subsidence and fault reactivation. *Tectonophysics*, 305: 121-140.
- Hand, M. and Sandiford, M., 1999. Intraplate deformation in central Australia, the link between subsidence and fault reactivation. In: M. Hamburger (Editor), *Tectonics of continental interiors*. *Tectonophysics*, pp. 121-140.
- Hand, M. and Buick, I.S., 2001. Tectonic evolution of the Reynolds-Anmatjira ranges; a case study in terrain reworking from the Arunta Inlier, central Australia. In: J.A. Miller, R.E. Holdsworth, S. Buick Ian and M. Hand (Editors), *Continental reactivation and reworking*. Geological Society of London, London, United Kingdom, 2001.
- Hart, S.R., Blusztajn, J., Dick, H.J.B., Meyer, P.S. and Muehlenbachs, K., 1999. The fingerprint of seawater circulation in a 500-meter section of ocean crust gabbros. In: N. Shimizu (Editor), *A group of papers in honor of Claude Allegre on his sixtieth birthday*. *Geochimica et Cosmochimica Acta*. Pergamon, Oxford, International, pp. 4059-4080.
- Hill, A.C., Cotter, K.L. and Grey, K., 2000. Mid-Neoproterozoic biostratigraphy and isotope stratigraphy in Australia. *Precambrian Research*, 100: 281-298.
- Hill, A.C. and Walter, M.R., 2000. Mid-Neoproterozoic (~830-750 Ma) isotope stratigraphy of Australia and global correction. *Precambrian Research*, 100: 181-211.
- Hoatson, D.M., Sun, S.S. and Claoue-Long, J.C., 2005. Proterozoic mafic-ultramafic intrusions in the Arunta Region, central Australia Part 1: Geological setting and mineral potential. *Precambrian Research*, 142(3-4): 93-133.
- Hoffman, P.F., 1980. Wopmay Orogen; a Wilson cycle of early Proterozoic age in the northwest of the Canadian Shield. *Special Paper - Geological Association of Canada*, 20: 523-549.
- Hoffman, P.F., 1988. United plates of America, the birth of a craton; early Proterozoic assembly and growth of Laurentia. *Annual Review of Earth and Planetary Sciences*, 16: 543-603.
- Hofmann, A.W., 1988. Chemical differentiation of the Earth; the relationship between mantle, continental crust, and oceanic crust. In: E. Welin (Editor), *Isotope geochemistry; the Crafoord symposium*. *Earth and Planetary Science Letters*. Elsevier, Amsterdam, Netherlands, pp. 297-314.
- Hoskins, D. and Lemon, N., 1995. Tectonic development of the eastern Officer Basin, central Australia. *Exploration Geophysics*, 26: 395-402.
- Hussain, M.F., Mondal, M.E.A. and Ahmad, T., 2004. Petrological and geochemical characteristics of Archean gneisses and granitoids from Bastar Craton, central India; implication for subduction related magmatism. *Gondwana Research*, 7(2): 531-537.
- Ireland, T.R., Flöttmann, T., Fanning, C.M., Gibson, G.M. and Preiss, W.V., 1998. Development of the early Paleozoic Pacific margin of Gondwana from detrital-zircon ages across the Delamerian Orogen. *Geology*, 26: 243-246.
- Ilriondo, A., Premo, W.R., Martinez, T.L.M., Budahn, J.R., Atkinson, W.W., Jr., Siems, D.F. and Guaras, G.B., 2004. Isotopic, geochemical, and temporal characterization of Proterozoic basement rocks in the Quitovac region, northwestern Sonora, Mexico; implications for the reconstruction of the southwestern margin of Laurentia. *Geological Society of America Bulletin*, 116(1-2): 154-170.
- Irvine, T.N., 1970. Crystallization sequences in the Muskox intrusion and other layered intrusions. 1. Olivine-pyroxene-plagioclase relations. *Geological Society of South Africa, Special Publication*, 1: 441-476.
- Irvine, T.N. and Baragar, W.R.A., 1971. A guide to the chemical classification of the common volcanic rocks. *Can J Earth Sci*, 8: 523-548.
- Jackson, S.E., Pearson, N.J., Griffin, W.L. and Belousova, E.A., 2004. The application of laser ablation-inductively coupled plasma-mass spectrometry to in situ U-Pb zircon geochronology. *Chemical Geology*, 211(1-2): 47-69.
- Johannes, W., Holtz, F. and Moller, P., 1995. REE distribution in some layered migmatites: constraints on their petrogenesis. *Lithos*, 35: 139-152.
- Johnson, D.M., 1998. XRF Analysis of Rocks and Minerals for Major and Trace Elements on a Single Low Dilution Li-tetraborate Fused Bead. *Advances in X-ray Analysis*, 41: 843-867.
- Karlstrom, K.E. and Bowring, S.A., 1993. Proterozoic orogenic history in Arizona, in Van Schmus, W.R. et al. eds, *Transcontinental Proterozoic Provinces*, Chapter 4. In: J.C. Reed Jr. et al. (Editors), *Precambrian: Conterminous U.S. Geology of North America; C2*, Geological Society of America, Boulder, pp. 188-211.
- Karlstrom, K.E., Ahall, K.I., Harlan, S.S., Williams, M.L., McLelland, J. and Geissman, J.W., 2001. Long-lived (1.8-1.0 Ga) convergent orogen in southern Laurentia, its extensions to Australia and Baltica, and implications for refining Rodinia. *Precambrian Research*, 111(1-4): 5-30.
- Kelly, N.M., Clarke, G.L. and Harley, S.L., 2005. Monazite behaviour and age significance in poly-metamorphic high-grade terrains: A case study from the western Musgrave Block, central Australia. *Lithos*, in press.
- Kepezhinskas, P.K., McDermott, F., Defant, M.J., Hochstaedter, A.G., Drummond, M.S., Hawkesworth, C.J., Koloskov, A.V., Maury, R.C. and Bellon, H., 1997. Trace element and Sr-Nd-Pb isotopic constraints on a three-component model of Kamchatka Arc petrogenesis. *Geochimica et Cosmochimica Acta*, 61(3): 577-600.
- King, P.L., White, A.J.R., Chappell, B.W. and Allen, C.M., 1997. Characterization and origin of aluminous A-type granites from the Lachlan Fold Belt, Southeastern Australia. *Journal of Petrology*, 38(3):

References

- 371-391.
- Korsch, R.J. and Lindsay, J.F., 1989. Relationships between deformation and basin evolution in the intracratonic Amadeus Basin, central Australia. *Tectonophysics*, 158: 5-22.
- Korsch, R.J., Goleby, B.R., Leven, J.H. and Drummond, B.J., 1998. Crustal architecture of central Australia based on deep seismic reflection profiling. *Tectonophysics*, 288(1-4): 57-69.
- Lambeck, K. and Burgess, B.K., 1992. Deep crustal structure of the Musgrave Block, central Australia: results from teleseismic travel-time anomalies. *Australian Journal of Earth Sciences*, 39: 1-20.
- Lambert, D.D., Walker, R.J., Morgan, J.W., Shirey, S.B., Carlson, R.W., Zientek, M.L., Lipin, B.R., Koski, M.S. and Cooper, R.L., 1994. Re-Os and Sm-Nd Isotope Geochemistry of the Stillwater Complex, Montana - Implications for the Petrogenesis of the J-M Reef. *Journal of Petrology*, 35(6): 1717-1753.
- Leven, J.H. and Lindsay, J.F., 1992. Morphology of the late Proterozoic to early Palaeozoic Officer Basin, South Australia. In: J.C. Dooley (Editor), *Improved technologies, revised solutions; papers of the 9th ASEG conference and exhibition. Exploration Geophysics (Melbourne)*. Australian Society of Exploration Geophysicists, Alderley, Queensland, Australia, pp. 191-196.
- Leven, R.J. and Lindsay, J.F., 1992. Morphology of the Late Proterozoic to Early Palaeozoic Officer Basin, South Australia. *Exploration Geophysics*, 23: 191-196.
- Lewry, J.F., 1981. Lower Proterozoic arc-microcontinent collisional tectonics in the western Churchill Province. *Nature (London)*, 294: 69-72.
- Li, X. and McCulloch, M.T., 1996. Secular variation in the Nd isotopic composition of Neoproterozoic sediments from the southern margin of the Yangtze Block: evidence for a Proterozoic continental collision in southeast China. *Precambrian Research*, 76: 67-76.
- Li, Z.X., Li, X.H., Zhou, H.W. and Kinny, P.D., 2002. Grenvillian continental collision in south China: New SHRIMP U-Pb zircon results and implications for the configuration of Rodinia. *Geology*, 30(2): 163-166.
- Lindsay, J.F., 1987. Sequence stratigraphy and depositional controls in late Proterozoic-Early Cambrian sediments of Amadeus Basin, central Australia. *AAPG Bulletin*, 71: 1387-1403.
- Lindsay, J.F. and Korsch, R.J., 1991. The evolution of the Amadeus Basin, central Australia. *Bulletin - Australia, Bureau of Mineral Resources, Geology and Geophysics*, 236: 7-32.
- Lindsay, J.F., 1995. Geological atlas of the Officer Basin, South Australia. Australian Geological Survey Organisation and Department of Mines and Energy, South Australia.
- Lindsay, J.F. and Leven, J.H., 1996. Evolution of a Neoproterozoic to Palaeozoic intracratonic setting, Officer Basin, South Australia. *Basin Research*, 8: 403-424.
- Luepke, J.J. and Lyons, T.W., 2001. Pre-Rodinian (Mesoproterozoic) supercontinental rifting along the western margin of Laurentia: geochemical evidence from the Belt-Purcell Supergroup. *Precambrian Research*, 111(1-4): 79-90.
- Maboko, M.A.H., 1988. Metamorphic and Geochronological Evolution in the Musgrave Ranges, Central Australia. Ph.D. Thesis, Australian National University.
- Maboko, M.A.H., Williams, I.S. and Compston, W., 1991. Zircon U-Pb chronometry of the pressure and temperature history of granulites in the Musgrave Ranges, central Australia. *Journal of Geology*, 99(5): 675-697.
- Maboko, M.A.H., McDougall, I., Zeitler, P.K. and Williams, I.S., 1992. Geochronological evidence for ~530-550 Ma juxtaposition of two Proterozoic metamorphic Terranes in the Musgrave Ranges, central Australia. *Australian Journal of Earth Sciences*, 39: 457-471.
- Maier, W.D., Arndt, N.T. and Curl, E.A., 2000. Progressive crustal contamination of the Bushveld Complex: evidence from Nd isotopic analyses of the cumulate rocks. *Contributions to Mineralogy and Petrology*, 140(3): 316-327.
- Major, R.B., 1973. The Pindyin Beds. *South Australian Geological Survey, Quarterly Notes*, 46: 1-5.
- Major, R.B. and Conon, C.H.H., 1993. Musgrave Block. In: D. J.F., W.V. Preiss and A.J. Parker (Editors), *The Geology of South Australia, Vol.1, the Precambrian*, Bulletin of Geological Survey, South Australia, pp. 156-167.
- Mark, G., 2001. Nd isotope and petrogenetic constraints for the origin of the Mount Angelay igneous complex: implications for the origin of intrusions in the Cloncurry district, NE Australia. *Precambrian Research*, 105(1): 17-35.
- Mark, G., 2001. Nd isotope and petrogenetic constraints for the origin of the Mount Angelay igneous complex: implications for the origin of intrusions in the Cloncurry district, NE Australia. *Precambrian Research*, 105: 17-35.
- Martin, H., 1986. Effects of steeper Archean geothermal gradient on geochemistry of subduction-zone magmas. *Geology (Boulder)*, 14: 753-756.
- Martin, H., 1994. The Archean grey gneisses and the genesis of continental crust. In: K.C. Condie (Editor), *Archean crustal evolution*. Elsevier, New York, pp. 205-258.
- Mazzucchelli, M., Rivalenti, G., Piccirillo, E.M., Girardi, V.A.V., Civetta, L. and Petrini, R., 1995. Petrology of the Proterozoic Mafic Dyke Swarms of Uruguay and Constraints on Their Mantle Source Composition. *Precambrian Research*, 74(3): 177-194.
- McCulloch, M.T. and Wasserburg, G.J., 1978. Sm-Nd and Rb-Sr chronology of continental crust formation. *Science*, 200: 1003-1011.
- McDonald, G.D., Collerson, K.D. and Kinny, P.D., 1997. Late

- Archean and Early Proterozoic crustal evolution of the Mount Isa block, northwest Queensland, Australia. *Geology*, 25(12): 1095-1098.
- McDonough, W.F. and Sun, S.S., 1995. The Composition of the Earth. *Chemical Geology*, 120(3-4): 223-253.
- McDougall, I. and Harrison, T.M., 1988. *Geochronology and Thermochronology by the $^{40}\text{Ar}/^{39}\text{Ar}$ Method*. Oxford Univ. Press, New York.
- McLaren, S., Sandiford, M. and Hand, M., 1999. High radiogenic heat-producing granites and metamorphism - An example from the western Mount Isa inlier, Australia. *Geology*, 27(8): 679-682.
- McLean, M.A. and Betts, P.G., 2003. Geophysical constraints of shear zones and geometry of the Hiltaba Suite granites in the western Gawler Craton, Australia. *Australian Journal of Earth Sciences*, 50(4): 525-541.
- McLennan, S.M., 1989. Rare earth elements in sedimentary rocks: influence of provenance and sedimentary processes. In: B.R. Lipin and G.A. McKay (Editors), *Geochemistry and Mineralogy of Rare Earth Elements*, pp. 169-200.
- McLennan, S.M., 1989. Sm-Nd and Rb-Sr chronology of continental crust formation. In: L. B.R. and M. G.A. (Editors), *Geochemistry and Mineralogy of Rare Earth Elements*, pp. 169-200.
- McLennan, S.M. and Taylor, S.R., 1982. Geochemical constraints on the growth of the continental crust. *Journal of Geology*, 90: 347-361.
- McLennan, S.M. and Taylor, S.R., 1991. Sedimentary rocks and crustal evolution: tectonic setting and secular trends. *Journal of Geology*, 99: 1-21.
- McLennan, S.M., Nance, W.B. and Taylor, S.R., 1980. Rare earth element-thorium correlations in sedimentary rocks, and the composition of the continental crust. *Geochimica et Cosmochimica. Acta*, 44: 1833-1839.
- McLennan, S.M., McCulloch, M.T., Taylor, S.R. and Maynard, J.B., 1989. Effects of sedimentary sorting on neodymium isotopes in deep sea turbidites. *Nature*, 337: 547-549.
- McLennan, S.M., Taylor, S.R., McCulloch, M.T. and Maynard, J.B., 1990. Geochemical and Nd-Sr isotopic composition of deep sea turbidites: Crustal evolution and plate tectonic associations. *Geochimica et Cosmochimica, Acta* 54(7): 2015-2050.
- McLennan, S.M., Hemming, S., McDaniel, D.K. and Hanson, G.N., 1993. Geochemical approaches to sedimentation, provenance, and tectonics. In: J. Johnsson Mark and A. Basu (Editors), *Processes controlling the composition of clastic sediments*. Special Paper - Geological Society of America. Geological Society of America (GSA), Boulder, CO, United States, pp. 21-40.
- Moore, A., 1970. The Geology of the Gosse Pile Ultramafic intrusion and of the surrounding granulites, Tomkinson Ranges, central Australia. Ph.D Thesis, University of Adelaide, Adelaide.
- Moores, E.M., 1991. Southwest United-States-East Antarctic (Sweat) Connection - a Hypothesis. *Geology*, 19(5): 425-428.
- Morton, J.G.G., 1997. Lithostratigraphy and environments of deposition. In: M. J.G.G. and D. J.F. (Editors), *The Petroleum Geology of South Australia*, Vol. 3: Officer Basin, pp. 47-86.
- Moussavi-Harami, R. and Gravestock, D.I., 1995. Burial history of the eastern Officer Basin, South Australia. *APEA Journal*, 35: 307-320.
- Mushkin, A., Navon, O., Halicz, L., Hartmann, G. and Stein, M., 2003. The petrogenesis of A-type magmas from the Amram Massif, southern Israel. *Journal of Petrology*, 44(5): 815-832.
- Myers, J.S., 1993. Precambrian history of the West Australian craton and adjacent orogens. *Annual Review of Earth and Planetary Sciences*, 21: 453-485.
- Myers, J.S., 1995. Geology of the Esperance 1:1000000 sheet. Western Australia Geological Survey. 1:1000000 Explanatory Notes.: 10p.
- Myers, J.S., Shaw, R.D. and Tyler, I.M., 1996. Tectonic evolution of Proterozoic Australia. *Tectonics*, 15(6): 1431-1446.
- Naqvi, S.M., Uday Raj, B., Subba Rao, D.V., Manikyamba, C., Nirmal Charan, S., Balaram, V. and Srinivasa Sarma, D., 2002. Geology and geochemistry of arenite-quartzwacke from the Late Archaean Sandur schist belt- implications for provenance and accretion processes. *Precambrian Research*, 114: 177-197.
- Nelson, D.R., Myers, J.S. and Nutman, A.P., 1995. Chronology and evolution of the middle Proterozoic Albany-Fraser Orogen, Western Australia. *Australian Journal of Earth Sciences*, 42(5): 481-495.
- Nelson, D.R., 2001. An assessment of the determination of depositional ages for Precambrian clastic sedimentary rocks by U-Pb dating of detrital zircons. *Sedimentary Geology*, 141-142: 37-60.
- Nesbitt, R.W. and Kleeman, A.W., 1964. Layered intrusions of the Giles Complex, central Australia. *Nature (London)*, 203: 391-393.
- Nesbitt, R.W. and Talbot, J.L., 1966. The layered basic and ultrabasic intrusives of the Giles Complex, central Australia. *Contributions to Mineralogy and Petrology*, 13: 1-11.
- Nesbitt, R.W., Goode, A.D.T., Moore, A.C. and Hopwood, T.P., 1970. The Giles complex, central Australia; a stratified sequence of mafic and ultramafic intrusions, Bushveld igneous complex and other layered intrusions, Symposium. Special Publication - Geological Society of South Africa, pp. 547-564.
- Nesbitt, H.W., 2003. Petrogenesis of siliciclastic sediments and sedimentary rocks. In: D.R. Lentz (Editor), *Geochemistry of Sediments and Sedimentary Rocks: Evolutionary Considerations to Mineral Deposit-Forming Environments*. Geological Association of Canada, pp. 39-51.

- Nesbitt, H.W., Fedo, C.M. and Young, D., 1997. Quartz and Feldspar Stability, Steady and Non-steady-State Weathering, and Petrogenesis of Siliciclastic Sands and Muds. *The Journal of Geology*, 105: 173-191.
- O'Hara, M.J., 1977. Geochemical evolution during fractional crystallisation of a periodically refilled magma chamber. *Nature (London)*, 266: 503-507.
- Occhipinti, S.A., Sheppard, S., Passchier, C., Tyler, I.M. and Nelson, D.R., 2004. Palaeoproterozoic crustal accretion and collision in the southern Capricorn Orogen; the Glenburgh Orogeny. In: A. Cawood Peter and M. Tyler Ian (Editors), *Assembling the Palaeoproterozoic Capricorn Orogen*. Elsevier, Amsterdam, International. 2004.
- Occhipinti, S.A., Sheppard, S., Passchier, C., Tyler, I.M. and Nelson, D.R., 2004. Palaeoproterozoic crustal accretion and collision in the southern Capricorn Orogen: the Glenburgh Orogeny. *Precambrian Research*, 128(3-4): 237-255.
- Ohlander, B., Mellqvist, C. and Skiold, T., 1999. Sm-Nd isotope evidence of a collisional event in the Precambrian of northern Sweden. In: F. Mengel (Editor), *Precambrian orogenic processes*. *Precambrian Research*. Elsevier, Amsterdam, International, pp. 105-117.
- Oliver, N.H.S., Holcombe, R.J., Hill, E.J. and Pearson, P.J., 1991. Tectono-metamorphic evolution of the Mary Kathleen fold belt, Northwest Queensland; a reflection of mantle plume processes? *Australian Journal of Earth Sciences*, 38(4): 425-455.
- Page, R.W. and Laing, W.P., 1992. Felsic metavolcanic rocks related to the Broken Hill Pb-Zn-Ag orebody, Australia; geology, depositional age, and timing of high-grade metamorphism. *Economic Geology and the Bulletin of the Society of Economic Geologists*, 87(8): 2138-2168.
- Page, R.W. and Sun, S.s., 1996. Age and provenance of granites and host sequences in the Eastern fold belt, Mount Isa Inlier. In: T. Baker, F. Rotherham Jackie, M. Richmond Julie, G. Mark and J. Williams Patrick (Editors), *MIC '96; New developments in metallogenic research; the McArthur-Mount Isa-Cloncurry minerals province; extended abstracts*. *Contributions of the Economic Geology Research Unit*, pp. 95-98.
- Page, R.W. and Sun, S.-S., 1998. Aspects of the geochronology and crustal evolution in the Eastern Fold Belt, Mt Isa Inlier. *Australian Journal of Earth Sciences*, 45: 343-361.
- Page, R.W., Stevens, B.P.J., Gibson, G.M. and Conor, C.H.H., 2000. Geochronology of Willyama Supergroup rocks between Olary and Broken Hill, and comparison to northern Australia. In: M. Peljo (Editor), *Broken Hill Exploration Initiative; abstracts of papers*. AGSO - Australian Geological Survey Organisation. Canberra, Australia. 2000.
- Page, R. et al., 2003. SHRIMP U-Pb geochronology in the Curnamona Province; improving the framework for mineral exploration. In: M. Peljo (Editor), *Broken Hill Exploration Initiative; abstracts from the July 2003 conference*. Geoscience Australia. Canberra, Australia. 2003.
- Park, A.F., 1985. Accretion tectonism in the Proterozoic Svecokarellides of the Baltic Shield. *Geology (Boulder)*, 13: 725-729.
- Parker, A.J. and Lemon, M.N., 1982. Reconstruction of the Early Proterozoic stratigraphy of the Gawler Craton, South Australia. *Journal of the Geological Society of Australia*, 29: 221-238.
- Patchett, P.J. and Arndt, N.T., 1986. Nd isotopes and tectonics of 1.9-1.7 Ga crustal genesis. *Earth and Planetary Science Letters*, 78(4): 329-338.
- Patchett, P.J. and Chase, C.G., 2002. Role of transform continental margins in major crustal growth episodes. *Geology (Boulder)*, 30(1): 39-42.
- Payne, J.L., Barovich, K. and Hand, M., 2006. Provenance of metasedimentary rocks in the northern Gawler Craton, Australia: Implications for Palaeoproterozoic reconstructions. *Precambrian Research*, 148: 275-291.
- Pearce, J.A., Harris, N.W. and Tindle, A.G., 1984. Trace element discrimination diagrams for the tectonic interpretation of granitic rocks. *J Petrology*, 25: 956-983.
- Pearce, N.J.G., Perkins, W.T., Westgate, J.A., Gorton, M.P., Jackson, S.E., Neal, C.R. and Chenerly, S.P., 1997. A compilation of new and published major and trace element data for NIST SRM 610 and NIST SRM 612 glass reference materials. *Geostandards Newsletter-the Journal of Geostandards and Geoanalysis*, 21(1): 115-144.
- Peccerillo, R. and Taylor, S.R., 1976. Geochemistry of Eocene calc-alkaline volcanic rocks from the Kastamonu area, northern Turkey. *Contributions to Mineralogy and Petrology*, 58: 63-81.
- Perini, G., Francalanci, L., Davidson, J. and Conticelli, S., 2004. Evolution and genesis of magmas from Vico Volcano, central Italy; multiple differentiation pathways and variable parental magmas. *Journal of Petrology*, 45(1): 139-182.
- Pidgeon, R.T., 1990. Timing of plutonism in the Proterozoic Albany Mobile Belt, southwestern Australia. *Precambrian Research*, 47: 157-167.
- Pisarevsky, S.A., Li, Z.X., Grey, K. and Stevens, M.K., 2001. A palaeomagnetic study of Empress 1A, a stratigraphic drillhole in the Officer Basin: evidence for a low-latitude position of Australia in the Neoproterozoic. *Precambrian Research*, 110: 93-108.
- Pisarevsky, S.A., Wingate, M.T.D. and Harris, L.B., 2003. Late Mesoproterozoic (ca 1.2 Ga) palaeomagnetism of the Albany-Fraser orogen: no pre-Rodinia Australia-Laurentia connection. *Geophysical Journal International*, 155: F6-F11.
- Plumb, K.A., 1985. Subdivision and correlation of the late Precambrian sequences in Australia. *Precambrian Research*, 29: 303-329.
- Poitrasson, F., Pin, C., Duthou, J.L. and Platevoet, B., 1994. The Size-Isotopic Evolution Connection among

- Layered Mafic Intrusions - Clues from a Sr-Nd Isotopic Study of a Small Complex. *Journal of Geophysical Research-Solid Earth*, 99(B5): 9441-9451.
- Prame, W.K.B.N. and Pohl, J., 1994. Geochemistry of pelitic and psammopelitic Precambrian metasediments from southwestern Sri Lanka: implications for two contrasting source-terrains and tectonic settings. *Precambrian Research*, 66: 223-244.
- Preiss, W.V. and Forbes, B.G., 1981. Stratigraphy, correlation and sedimentary history of Adelaidean (Late Proterozoic) basins in South Australia. *Precambrian Research*, 15: 255-304.
- Preiss, W.V., 1993. Neoproterozoic. In: J.F. Drexel, W.V. Preiss and A.J. Parker (Editors), *The geology of South Australia. Vol. 1, The Precambrian*. South Australia. Geological Survey. Bulletin, pp. 171-203.
- Preiss, W.V., 2000. The Adelaide Geosyncline of South Australia and its significance in the Neoproterozoic continental reconstruction. *Precambrian Research*, 100: 21-63.
- Preiss, W.V., 2000. The Adelaide Geosyncline of South Australia and its significance in Neoproterozoic continental reconstruction. *Precambrian Research*, 100(1-3): 21-63.
- Rankin, L.R., Martin, A.R. and Parker, A.J., 1989. Identification of a major crustal shear zone, northwest Gawler Craton, South Australia. *Australian Journal of Earth Sciences*, 36: 123-133.
- Reiners, P.W., Nelson, B.K. and Ghorso, M.S., 1995. Assimilation of Felsic Crust by Basaltic Magma - Thermal Limits and Extents of Crustal Contamination of Mantle-Derived Magmas. *Geology*, 23(6): 563-566.
- Roberts, M.P., Pin, C., Clemens, J.D. and Paquette, J.L., 2000. Petrogenesis of Mafic to Felsic Plutonic Rock Associations: the Calc-alkaline Que'rigut Complex, French Pyrenees. *Journal of Petrology*, 41(6): 809-844.
- Robinson, D.M., DeCelles, P.G., Patchett, P.J. and Garzzone, C.N., 2001. The kinematic evolution of the Nepalese Himalaya interpreted from Nd isotopes. *Earth and Planetary Science Letters*, 192: 507-521.
- Rollinson, H., 1993. *Using geochemical data: evaluation, presentation, interpretation*. Longman Group UK, Limited, London.
- Ross, G.M., Parrish, R.R. and Winston, D., 1992. Provenance and U-Pb geochronology of the Mesoproterozoic Belt Supergroup (northwestern United States); implications for age of deposition and pre-Panthalassa plate reconstructions. *Earth and Planetary Science Letters*, 113(1-2): 57-76.
- Ross, G.M. and Villeneuve, M., 2003. Provenance of the Mesoproterozoic (1.45 Ga) Belt Basin (western North America); another piece in the pre-Rodinia paleogeographic puzzle. *Geological Society of America Bulletin*, 115(10): 1191-1217.
- Rubatto, D., Williams, I.S. and Buick, I.S., 2001. Zircon and monazite response to prograde metamorphism in the Reynolds Range, central Australia. *Contributions to Mineralogy and Petrology*, 140(4): 458-468.
- Rutland, R.W.R., 1973. *Tectonic Evolution of the Continental Crust of Australia, Implications of Continental Drift to the Earth Sciences, Vol. 2; Part 10, Continental Evolution*. Academic Press, London, pp. 1011-1033.
- Sandiford, M. and Hand, M., 1998. Controls on the locus of intraplate deformation in central Australia. *Earth and Planetary Science Letters*, 162(1-4): 97-110.
- Sandiford, M., Hand, M. and McLaren, S., 2001. Tectonic feedback, intraplate orogeny and the geochemical structure of the crust; a central Australian perspective. In: J.A. Miller, R.E. Holdsworth, I.S. Buick and M. Hand (Editors), *Continental reactivation and reworking*, pp. 195-218.
- Sandiford, M., 2002. Low thermal Peclet number intraplate orogeny in central Australia. *Earth and Planetary Science Letters*, 201(2): 309-320.
- Sandiford, M. and McLaren, S., 2002. Tectonic feedback and the ordering of heat producing elements within the continental lithosphere. *Earth and Planetary Science Letters*, 204(1-2): 133-150.
- Sandiford, M., McLaren, S. and Neumann, N., 2002. Long-term thermal consequences of the redistribution of heat-producing elements associated with large-scale granitic complexes. *Journal of Metamorphic Geology*, 20(1): 87-98.
- Schaefer, B.F., 1998. *Insights into Proterozoic tectonics from the southern Eyre Peninsula, South Australia.*, University of Adelaide (South Australia). Ph.D. thesis.
- Scott, A.F. and Spear, G.W., 1969. Mallabie no. 1 well completion report. South Australia. Department of Mines and Energy. Open file envelope, 1172.
- Scott, D.L., Rawlings, D.J., Page, R.W., Tarlowski, C.Z., Idnurm, M., Jackson, M.J., Southgate, P.N., 2000. Basement framework and geodynamic evolution of the Palaeoproterozoic superbasins of north-central Australia; an integrated review of geochemical, geochronological and geophysical data. *Australian Journal of Earth Sciences*, 47(3): 341-380.
- Scrimgeour, I. and Close, D., 1999. Regional high-pressure metamorphism during intracratonic deformation; the Petermann Orogeny, central Australia. *Journal of Metamorphic Geology*, 17: 557-572.
- Scrimgeour, I.R., Close, D.F. and Edgoose, C.J., 1999. Petermann Ranges, N.T. 1:250000 Geological Series. Department of Mines and Energy, Northern Territory Geological Survey. Explanatory Notes SG52-7.
- Scrimgeour, I.R. and Close, D.F., 1999. Regional high pressure metamorphism during intracratonic deformation: the Petermann Orogeny, central Australia. *Journal of Metamorphic Geology*, 17: 557-572.
- Sears, J.W., Chamberlain, K.R. and Buckley, S.N., 1998.

References

- Structural and U-Pb geochronological evidence for 1.47 Ga rifting in the Belt Basin, western Montana. *Canadian Journal of Earth Sciences = Revue Canadienne des Sciences de la Terre*, 35(4): 467-475.
- Sears, J.W. and Price, R.A., 2000. New look at the Siberian connection: No SWEAT. *Geology*, 28(5): 423-426.
- Sen, C. and Dunn, T., 1994. Dehydration melting of basaltic composition amphibolite at 1.5 to 2.0 GPa: implications for the origin of adakites. *Contributions to Mineralogy and Petrology*, 117: 394-409.
- Sener, A.K., Young, C., Groves, D.I., Krapez, B. and Fletcher, I.R., 2005. Major orogenic gold episode associated with Cordilleran-style tectonics related to the assembly of Paleoproterozoic Australia? *Geology*, 33(3): 225-228.
- Shaw, R.D., 1991. The tectonic development of the Amadeus Basin, central Australia. *Bulletin Bureau of Mineral Resources, Australia, Canberra, A.C.T.*, 236: 447-476.
- Shaw, R.D. and Black, L.P., 1991. The history and tectonic implications of the Redbank thrust zone, central Australia, based on structural, metamorphic and Rb-Sr isotopic evidence. *Australian Journal of Earth Sciences*, 38: 307-332.
- Shaw, R.D., Zeitler, P.K., McDougall, I. and Tingate, P.R., 1992. The Palaeozoic history of an unusual intracratonic thrust belt in central Australia based on (super 40) Ar- (super 39) Ar, K-Ar and fission track dating. *Journal of the Geological Society of London*, 149(6): 937-954.
- Sheppard, S., Tyler, I.M., Griffin, T.J. and Taylor, W.R., 1999. Palaeoproterozoic subduction-related and passive margin basalts in the Halls Creek Orogen, northwest Australia. *Australian Journal of Earth Sciences*, 46(5): 679-690.
- Sheppard, S., Occhipinti, S.A. and Tyler, I.M., 2004. A 2005-1970 Ma Andean-type batholith in the southern Gascoyne Complex, Western Australia. In: A. Cawood Peter and M. Tyler Ian (Editors), *Assembling the Palaeoproterozoic Capricorn Orogen*. Elsevier, Amsterdam, International. 2004.
- Shimizu, K., Nakamura, E. and Maruyama, S., 2005. The geochemistry of ultramafic to mafic volcanics from the Belingwe greenstone belt, Zimbabwe: Magmatism in an Archean continental large Igneous Province. *Journal of Petrology*, 46(11): 2367-2394.
- Slack, J.F. and Stevens, B.P.J., 1994. Clastic metasediments of the Early Proterozoic Broken Hill Group, New South Wales, Australia: Geochemistry, provenance, and metallogenic significance. *Geochimica et Cosmochimica, Acta* 58: 3633-3652.
- Smith, D.R., Noblett, J., Wobus, R. A., Unruh, D., Douglass, J., Beane, R., Davis, C., Goldman, S., Kay, G., Gustavson, B., Saltoun, B., Stewart, J., 1999. Petrology and geochemistry of late-stage intrusions of the A-type, mid-Proterozoic Pikes Peak batholith (Central Colorado, USA): implications for petrogenetic models. *Precambrian Research*, 98(3-4): 271-305.
- Smithies, R.H., Champion, D.C. and Sun, S.S., 2004. Evidence for early LREE-enriched mantle source regions: Diverse magmas from the c. 3.0 Ga Mallina Basin, Pilbara Craton, NW Australia. *Journal of Petrology*, 45(8): 1515-1537.
- Snyder, D.B., Lucas, S.B. and McBride, J.H., 1996. Crustal and mantle reflectors from Palaeoproterozoic orogens and their relation to arc-continent collisions. In: T.S. Brewer (Editor), *Precambrian crustal evolution in the North Atlantic region*. Geological Society Special Publications. Geological Society of London, London, United Kingdom, pp. 1-23.
- Sparks, R.S.J., 1986. The Role of Crustal Contamination in Magma Evolution through Geological Time. *Earth and Planetary Science Letters*, 78(2-3): 211-223.
- Spiegel, C., Siebel, W., Frisch, W. and Berner, Z., 2002. Nd and Sr isotopic ratios and trace element geochemistry of epidote from the Swiss Molasse Basin as provenance indicators: implications for the reconstruction of the exhumation history of the Central Alps. *Chemical Geology*, 189: 231-250.
- Sprigg, R.C. and Wilson, R.B., 1959. The Musgrave mountain belt in South Australia. *Geological Rundschau*, 47: 531-542.
- Stainton, P.W., Weste, G. and Cucuzza, G., 1988. Exploration of PEL 23 and PEL 30, eastern Officer Basin, South Australia, 1983-1988. South Australia. Department of Mines and Energy Resources, 5073: 1243-1321.
- Steltenpohl, M., Hames, W., Andresen, A. and Markl, G., 2003. New Caledonian eclogite province in Norway and potential Laurentian (Taconic) and Baltic links. *Geology (Boulder)*, 31(11): 985-988.
- Stern, R.A., Syme, E.C., Bailes, A.H. and Lucas, S.B., 1995. Paleoproterozoic (1.90-1.86 Ga) arc volcanism in the Flin Flon Belt, Trans-Hudson Orogen, Canada. *Contributions to Mineralogy and Petrology*, 119(2-3): 117-141.
- Stevens, M.K. and Apak, S.N., 1999. GSWA Empress 1 and 1A well completion report, Yowalga Sub-basin, Officer Basin, Western Australia. *Geological Survey of Western Australia, Record 4*: 110p.
- Stewart, B.W. and Depaolo, D.J., 1990. Isotopic Studies of Processes in Mafic Magma Chambers .2. The Skaergaard Intrusion, East Greenland. *Contributions to Mineralogy and Petrology*, 104(2): 125-141.
- Stewart, K.P., 1992. High temperature felsic volcanism and the role of mantle magmas in Proterozoic crustal growth: The Gawler Range Volcanic Province, University of Adelaide (South Australia). Ph.D. thesis (unpublished).
- Stewart, A.J., 1995. Resolution of conflicting structures and deformation history of the Mount Aloysius granulite massif, western Musgrave Block, central Australia. *AGSO Journal of Australian Geology and Geophysics*, 16: 91-105.
- Stewart, K.P. and Foden, J.D., 2001. Mesoproterozoic granitoids of South Australia: Part 1 – the Gawler Craton, Department of Geology and

- Geophysics, University of Adelaide (unpublished).
- Sukanta, U., 1993. Sedimentology, sequence stratigraphy and palaeogeography of Marinoan sediments in the eastern Officer Basin, South Australia, Flinders University (South Australia). Ph.D. thesis (unpublished).
- Sun, S.S. and McDonough, W.F., 1989. Chemical and isotopic systematics of oceanic basalts; implications for mantle composition and processes. In: A.D. Saunders and M.J. Norry (Editors), *Magmatism in the ocean basins*. Geological Society of London: London, pp. 313-345.
- Sun, S.s. and Sheraton, J., 1992. Zircon U/ Pb chronology, tectono-thermal and crust-forming events in the Tomkinson Ranges, Musgrave Block, central Australia. *AGSO Research Newsletter*, 17: 9-11.
- Sun, S.s., Warren, R.G. and Shaw, R.D., 1995. Nd isotope study of granites from the Arunta Inlier, central Australia; constraints on geological models and limitation of the method. In: W.J. Collins and D. Shaw Russell (Editors), *Time limits on tectonic events and crustal evolution using geochronology; some Australian examples*. Precambrian Research. Elsevier, Amsterdam, International, pp. 301-314.
- Sun, S.-S., Sheraton, J.W., Glikson, A.Y. and Stewart, A.J., 1996. A major magmatic event during 1050-1080 in central Australia and an emplacement age for the Giles Complex. *AGSO Research Newsletter*, 24: 13-15.
- Taylor, S.R. and McLennan, S.M., 1985. *The Continental Crust: its composition and Evolution*. Blackwell, Oxford.
- Teasdale, J.P., 1997. Methods for understanding poorly exposed terranes: The interpretive geology and tectonothermal evolution of the western Gawler Craton. Ph.D Thesis, University of Adelaide, Adelaide.
- Thomas, B., 1990. Summary of seismic interpretation in the eastern Officer Basin. South Australia. Department of Mines and Energy. Report Book, 90/58.
- Thompson, B.P., 1970. A review of the Precambrian and Lower Palaeozoic tectonics of South Australia. Royal Society of South Australia. Transactions, 94: 193-221.
- Thompson, B.P., 1975. Musgrave Block - Regional geology. In: C.L. Knight (Editor), *Economic geology of Australia and Papua New Guinea*. 1. Metals. The Australian Institute of Mining and Metallurgy, pp. 451-454.
- Torsvik, T.H., Smethurst, M.A., Meert, J.G., Van, d.V.R., McKerrow, W.S., Brasier, M.D., Sturt, B.A. and Walderhaug, H.J., 1996. Continental break-up and collision in the Neoproterozoic and Palaeozoic; a tale of Baltica and Laurentia. *Earth-Science Reviews*, 40(3-4): 229-258.
- Turner, S., Foden, J., Sandiford, M. and Bruce, D., 1993. Sm-Nd isotopic evidence for the provenance of sediments from the Adelaide Fold Belt and southeastern Australia with implications for episodic crustal addition. *Geochimica et Cosmochimica Acta* 57: 1837-1856.
- Tyler, I.M., 2005. Australia; Proterozoic. In: C. Selley Richard, L.R.M. Cocks and R. Plimer Ian (Editors), *Encyclopedia of geology; Volume 1*. Elsevier Academic Press. Oxford, United Kingdom. 2005.
- Ugidos, J.M., Valladares, M.I., Recio, C., Rogers, G., Fallick, A.E. and Stephens, W.E., 1997. Provenance of Upper Precambrian-Lower Cambrian shales in the Central Iberian Zone, Spain: evidence from a chemical and isotopic study. *Chemical Geology*, 136: 55-70..
- Van Acherbergh, E., Ryan, C.G., Jackson, S.E. and Griffin, W.L., 2001. Data reduction software for LA-ICP-MS. In: J. Sylvester Paul (Editor), *Laser-ablation-ICPMS in the earth sciences; principles and applications*. Mineralogical Association of Canada. Ottawa, ON, Canada. 2001.
- Van Schmus, W.R., Bickford, M.E., Anderson, J.L., Bender, E.E., Anderson, R.R., Bauer, P.W., Roberston, J.M., Bowring, S.A., Condie, K.C., Denison, R.E., Gilbert, M.C., Grambling, J.A., Mawer, C.K., Shearer, C.K., Hinje, W.J., Karlstrom, K.E., Kisvarsanyi, E.B., Lidiak, E.G., Reed, J.C.J., Sims, P.K., Tweto, O., Silver, L.T., Treves, S.B., Williams, M.L. and Wooden, J.L., 1993. Transcontinental Proterozoic provinces. In: W.R. Van Schmus (Editor), *Precambrian conterminous U.S.: Boulder, Colorado*, Geological Society of America, *Geology of North America*, pp. 171-334.
- Volkert, R.A., Feigenson, M.D., Patino, L.C., Delaney, J.S. and Drake, A.A., 2000. Sr and Nd isotopic compositions, age and petrogenesis of A-type granitoids of the Vernon Supersuite, New Jersey Highlands, USA. *Lithos*, 50(4): 325-347.
- Voshage, H., Hofmann, A., Mazzucchelli, M., Rivalenti, G., Sinigoi, S., Raczek, I. and Demarchi, G., 1990. Isotopic evidence from the Ivrea zone for a hybrid lower crust formed by magmatic underplating. *Nature (London)*, 347: 731-736.
- Wade, B.P., Barovich, K. and Hand, M., 2005. Geochemistry and Provenance of a Mesoproterozoic (1.4 Ga) eastern Musgrave Block basin: Buddying up to the Belt-Purcell Basin. In: M.T.D. Wingate and S. Pisarevsky (Editors), *Supercontinents and Earth Evolution Symposium*, 2005. Geological Society of Australia Inc. Abstracts, pp. 43.
- Wade, B.P., Hand, M. and Barovich, K.M., 2005. Nd isotopic and geochemical constraints on provenance of sedimentary rocks in the eastern Officer Basin, Australia: implications for the duration of the intracratonic Petermann Orogeny. *Journal of the Geological Society*, 162: 513-530.
- Wade, B.P., Barovich, K. and Hand, M., 2005. Towards a tectonic synthesis for the Musgrave Block. In: H.e. al. (Editor), *STOMP 2005, Structure, Tectonics and Ore Mineralisation Processes Abstract Volume*, pp. pp.140.
- Wade, B.P., Barovich, K.M., Hand, M., Scrimgeour, I.R. and Close, D.F., 2006. Evidence for early Mesoproterozoic arc magmatism in the Musgrave Block, central Australia: Implications for Proterozoic crustal growth and tectonic reconstructions of

References

- Australia. *Journal of Geology*, 114(1): 43-63.
- Walter, M.R., Veevers, J.J., Calver, C.R. and Grey, K., 1995. Neoproterozoic stratigraphy of the Centralian Superbasin, Australia. *Precambrian Research*, 73: 173-195.
- Walter, M.R., Veevers, J.J., Calver, C.R., Gorjan, P. and Hill, A.C., 2000. Dating the 840-544 Ma Neoproterozoic interval by isotopes of strontium, carbon, and sulfur in seawater and some interpretative models. *Precambrian Research*, 100: 371-433.
- Wang, Y.J., Fang, W.M., Zhang, Y.H., Guo, F., Zhang, H.F. and Peng, T.P., 2004. Geochemical Ar-40/Ar-39 geochronological and Sr-Nd isotopic constraints on the origin of Paleoproterozoic mafic dikes from the southern Taihang Mountains and implications for the ca. 1800 Ma event of the North China Craton. *Precambrian Research*, 135(1-2): 55-77.
- Webb, A.W., 1980. Discordant K-Ar dates from Proterozoic metasedimentary rocks in southwestern Eyre Peninsula, South Australia; an example of excess (super 40) Ar in slates? *Journal of the Geological Society of Australia*, 27(1-2): 187-193.
- Webb, A.W., Thompson, B.P., Blisset, A.H., Daly, S.J., Flint, R.B. and Parker, A.J., 1982. Geochronology of the Gawler Craton, South Australia. South Australia. Department of Mines and Energy. Report Book, 82/86.
- Webb, A.W., 1985. Geochronology of the Musgrave Block. Mineral Resources Review, South Australian Department of Mines and Energy: 23-27.
- Wells, A.T., Forman, D.J., Ranford, L.C. and Cook, P.J., 1970. Geology of the Amadeus Basin, central Australia. *Bulletin - Australia, Bureau of Mineral Resources, Geology and Geophysics*, 100: pp.216.
- Whalen, J.B., Currie, K.L. and Chappell, B.W., 1987. A-Type Granites - Geochemical Characteristics, Discrimination and Petrogenesis. *Contributions to Mineralogy and Petrology*, 95(4): 407-419.
- Whalen, J.B., Syme, E.C. and Stern, R.A., 1999. Geochemical and Nd isotopic evolution of Palaeoproterozoic arc-type granitoid magmatism in the Flin Flon Belt, Trans-Hudson orogen, Canada. *Can J Earth Sci*, 36: 227-250.
- White, R.W. and Clarke, G.L., 1997. The role of deformation in aiding recrystallization: an example from a high-pressure shear zone, central Australia. *Journal of Petrology*, 38(10): 1307-1329.
- White, R.W., Clarke, G.L. and Nelson, D.R., 1999. SHRIMP U-Pb zircon dating of Grenville-age events in the western part of the Musgrave Block, central Australia. *Journal of Metamorphic Geology*, 17(5): 465-481.
- White, R.W., Powell, R. and Clarke, G.L., 2002. The interpretation of reaction textures in Fe-rich metapelitic granulites of the Musgrave Block, central Australia: constraints from mineral equilibria calculations in the system K₂O-FeO-MgO-Al₂O₃-SiO₂-H₂O-TiO₂-Fe₂O₃. *Journal of Metamorphic Geology*, 20(1): 41-55.
- Williams, I.S. and Claesson, S., 1987. Isotopic Evidence for the Precambrian Provenance and Caledonian Metamorphism of High-Grade Paragneisses from the Seve Nappes, Scandinavian Caledonides .2. Ion Microprobe Zircon U-Th-Pb. *Contributions to Mineralogy and Petrology*, 97(2): 205-217.
- Williams, I.S., Buick, I.S. and Cartwright, I., 1996. An extended episode of early Mesoproterozoic metamorphic fluid flow in the Reynolds Range, central Australia. *Journal of Metamorphic Geology*, 14(1): 29-47.
- Wingate, M.T.D., Campbell, I.H., Compston, W. and Gibson, G.M., 1998. Ion microprobe U-Pb ages for Neoproterozoic basaltic magmatism in south-central Australia and implications for the breakup of Rodinia. *Precambrian Research*, 87: 135-159.
- Wingate, M.T.D., Pisarevsky, S.A. and Evans, D.A.D., 2002. Rodinia connection between Australia and Laurentia; no SWEAT, no AUSWUS? *Terra Nova*, 14(2): 121-128.
- Wingate, M.T.D., Pirajno, F. and Morris, P.A., 2004. Warakurna large igneous province: A new Mesoproterozoic large igneous province in west-central Australia. *Geology*, 32(2): 105-108.
- Womer, M.B., Baker, R.N., Newman, E.J. and van Nieuwenhuise, R., 1987. Technical evolution of PEL 29, east Officer Basin, Australia. Report for Amoco Australia Production Company. South Australian Department of Mines and Energy Resources. Open file Envelope,, 6843.
- Wyborn, L.A.I., Page, R.W. and McCulloch, M.T., 1988. Petrology, geochronology and isotope geochemistry of the post-1820 Ma granites of the Mount Isa Inlier; mechanisms for the generation of Proterozoic anorogenic granites. *Precambrian Research*, 40-41: 509-541.
- Wyborn, D., 1992. Stratigraphy and geochemistry of Ordovician volcanics from the Lachlan fold belt in central New South Wales. In: B.D. Webby and J.R. Laurie (Editors), *Global perspectives on Ordovician geology*. A.A. Balkema. Rotterdam - Brookfield, Netherlands, pp. 495-497.
- Wyborn, L., 1998. Younger ca 1500 Ma granites of the Williams and Naraku Batholiths, Cloncurry district, eastern Mt Isa Inlier: geochemistry, origin, metallogenic significance and exploration indicators. *Australian Journal of Earth Sciences*, 45(3): 397-411.
- Young, D.N., Fanning, C.M., Shaw, R.D., Edgoose, C.J., Blake, D.H., Page, R.W. and Camacho, A., 1995. U-Pb Zircon Dating of Tectonomagmatic Events in the Northern Arunta-Inlier, Central Australia. *Precambrian Research*, 71(1-4): 45-68.
- Young, D.N. et al., 1995. U-Pb Zircon Dating of Tectonomagmatic Events in the Northern Arunta-Inlier, Central Australia. *Precambrian Research*, 71(1-4): 45-68.
- Young, D., Duncan, N., Sheraton, J., Sun, S.-S. and Camacho, A., 1998. Metallogenic Potential of Australian Proterozoic Granites. AGSO Presentation Material Volume: pp.139-144.

- Young, D.N., Duncan, N., Camacho, A., Ferenczi, P.A. and Madigan, T.L.A., 2002. Ayers Rock, N.T. 1:250000 Geological Series. Northern Territory Department of Business, Industry and Resource Development, Northern Territory Geological Survey. Explanatory Notes SG52-8.
- Zang, W. and McKirdy, D.M., 1993. Microfossils and molecular fossils from the Neoproterozoic Alinya Formation - a possible new source rock in the eastern Officer Basin. Central Australia Basins Workshop, Alice Springs, Programs and Abstracts, pp. 62-63.
- Zang, W.-L., 1994. Review of Neoproterozoic and Early Proterozoic magmatism in the Officer Basin, Northern Territory. In: A.H. Rest, A.H., 1994. Quantification of Crustal Contamination in Open Magmatic Systems. *Journal of Metamorphic Geology*, 12, 1-12.