



Exciting products from GEOSCIENCE AUSTRALIA to assist nickel explorers

PUBLICATIONS

Regional Mineral Systems Studies

- **'Nickel sulfide deposits in Australia: characteristics, resources, and potential'**, by Hoatson, Jaireth & Jaques, 2006. Major review paper that provides an up-to-date summary of the diverse settings and resources of nickel sulphide deposits in Australia. *Ore Geology Reviews*, 29, 3/4, October 2006, 177–241.
- **'Catching the nickel boom: New synthesis will aid nickel explorers'**. Short article summarises the major conclusions from the *Ore Geology Reviews* paper (see above). *AusGeo News* 83, September 2006, 22–27. www.ga.gov.au/ausgeonews/download.jsp
- **'Nickel sulphide metallogenic provinces: resources and potential'**. Short article describes a web-based information and mapping system that defines nickel metallogenic provinces. *AusGeo News* 79, September 2005. www.ga.gov.au/image_cache/GA7184.pdf
- **'Platinum-group-element mineralisation in Australian Precambrian layered mafic-ultramafic intrusions'**, by Hoatson, 1998. Special Issue of *AGSO Journal*, 17(4), 139–151.

Arunta Province—Proterozoic mafic-ultramafic intrusions

- **'Proterozoic mafic-ultramafic intrusions in the Arunta Region, central Australia. Part 1: Geological setting and mineral potential'**, by Hoatson, Sun & Claoué-Long, 2005. *Precambrian Research*, 142, 93–133.



- **'Proterozoic mafic-ultramafic intrusions in the Arunta Region, central Australia. Part 2: Event chronology and regional correlations'**, by Claoué-Long & Hoatson, 2005. *Precambrian Research*, 142, 134–158.
- **'Geophysical interpretation of Proterozoic mafic-ultramafic intrusions in the Arunta Region, central Australia'**, by Meixner & Hoatson, 2004. *Geoscience Australia Record* 2003/29, 125 p. www.ga.gov.au/about/corporate/ga_authors/record2003_29_toc.jsp
- **'Mineral potential modelling of Proterozoic mafic-ultramafic intrusions in the Arunta Region, central Australia'**, by Mieзитis, Jaireth & Hoatson, 2006. *Geoscience Australia Record* 2006/14, 56 p.
- **'Field investigations of Proterozoic mafic-ultramafic intrusions in the Arunta Province, central Australia'**, by Hoatson & Stewart, 2001. *Geoscience Australia Record* 2001/39, 87 p. www.ga.gov.au/image_cache/GA5868.pdf

Gawler Craton—Archaean Lake Harris Komatiite

- **'Late Archean Lake Harris Komatiite, central Gawler Craton, South Australia: geologic setting and geochemistry'**, by Hoatson et al., 2005. *Economic Geology*, 100, 349–374.

East Kimberleys and Pilbara Craton—Precambrian layered mafic-ultramafic intrusions

- **'Geology and economic potential of the Palaeoproterozoic layered mafic-ultramafic intrusions in the East Kimberley, Western Australia'**, by Hoatson et al., 2000. *Australian Geological Survey Organisation Bulletin* 246, 476 p.
- **'Petrology and platinum-group-element geochemistry of Archaean layered mafic-ultramafic intrusions, west Pilbara Block, Western Australia'**, by Hoatson et al., 1992. *Australian Geological Survey Organisation Bulletin* 242, 320 p.
- **'Archaean layered mafic-ultramafic intrusions in the west Pilbara Craton, Western Australia: a synthesis of some of the oldest orthomagmatic mineralizing systems in the world'**, by Hoatson & Sun, 2002. *Economic Geology*, 97, 847–872.

McIntosh layered mafic intrusion, East Kimberleys (photograph by Ian Oswald-Jacobs).

MAPS, PRESENTATIONS, DATASETS

- HOT OFF THE PRESS**
 - 'A Synthesis of Australian Proterozoic Mafic-Ultramafic Magmatic Events. Part 1: Western Australia'. Map summarising the major Proterozoic mafic±ultramafic magmatic and mineralising events in Western Australia. Available ~October 2006 at www.ga.gov.au/minerals/research/pubspres.jsp
- 'Web-based mapping of Australia's nickel sulphide metallogenic provinces: resources and potential'. Poster presented at the Society of Economic Geologists (SEG) 2004: Predictive Mineral Discover Under Cover Conference, Perth, September 2004. www.ga.gov.au/image_cache/GA5478.pdf
- 'Australian Nickel Resources Map', 1:10,000,000 scale, November 2005. www.ga.gov.au/image_cache/GA7657.pdf
- 'Australian Nickel Deposits, Occurrences, and Potential Map', 1:5,000,000 scale, February 2005. www.ga.gov.au/image_cache/GA6080.pdf
- 'Geophysical Interpretation: Harris Greenstone Belt, Gawler Craton, South Australia Map', 1:250,000 scale, September 2002. Preliminary interpretation of the Precambrian basement geology of the Harris Greenstone Belt based on aeromagnetics, gravity, and diamond drilling. www.ga.gov.au/image_cache/GA4119.pdf
- HOT OFF THE PRESS**
 - 'Proterozoic Mafic-Ultramafic Magmatic Events: Implications for Nickel Mineralisation'. Keynote address at the Australian Nickel Conference, Perth, 18-19 October 2006. Available ~October 2006 at www.ga.gov.au/minerals/research/pubspres.jsp#pres
- 'Nickel sulphide deposits in Australia: Challenges and new opportunities'. Keynote address at the Australian Nickel Conference, Perth, 19-20 October 2005. www.ga.gov.au/minerals/research/pubs/presentations/aus_ni_conf_2005.jsp
- 'Australia's Nickel Sulphide Deposits: Characteristics and New Ideas for Discovery'. Keynote address at the Australian Nickel Conference, Perth, 13-14 October 2004. www.ga.gov.au/minerals/research/pubs/presentations/aus_ni_conf.jsp
- 'Nickel Sulphide Deposits in Australia: Resources and Potential'. Presentation at the Prospectors and Developers Association of Canada (PDAC) convention, Toronto, Canada, 7-10 March 2004. www.ga.gov.au/minerals/research/pubs/presentations/hoatson_pdac2004.jsp
- 'Harris Greenstone Belt-Geophysical Interpretation of Basement Geology'. GIS package containing geological and geophysical layers with map-making function, May 2003. www.ga.gov.au/map/gawler_harris/
- 'Australian Mines Atlas'. Information on Australian minerals and energy deposits, mines and processing centres, including map-making function. www.australianminesatlas.gov.au



Panton layered mafic-ultramafic intrusion, East Kimberleys (photograph by Ian Oswald-Jacobs).

- 'Mineral Occurrence Data'. This web-mapping portal allows you to zoom, pan, search and display a national overview of mineral occurrence information with infrastructure and image backdrops. www.geoscience.gov.au/geoportals/minocc/
- 'GADDS'. Magnetic, radiometric, gravity, and elevation data in grid and vector formats from national and State/NT archives. www.geoscience.gov.au/gadds
- 'ACRES'. An index of free and commercial data from the Australian Centre for Remote Sensing (ACRES). www.ga.gov.au/acres/prod_ser/index.jsp
- 'Geoscience Portal'. A web-portal that provides access to geoscience information from the Australian, State, and Northern Territory governments. www.geoscience.gov.au/
- 'Download Free Datasets'. A search tool to discover all Geoscience Australia's products and datasets that are free to download. www.ga.gov.au/products/

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