

WD Maier: abbreviated CV

NEW: PhD and MSc projects!

- Komatiites in Finland and Russia
 - Keivitsa intrusion, Finland
- Hannukainen IOCG deposit, Lapland

EDUCATION

Ph.D., Rhodes University, April 1992

Thesis: Geochemical and petrological trends in the
UG2-Merensky Unit interval, Western Bushveld Complex.

Hauptdiplom (M.Sc.), Munich, December 1987.

Thesis: I. Mapping project in Tuscany, Italy;

II. Sedimentary features in the Sishen Iron Ore Deposit, South Africa.

EMPLOYMENT HISTORY

Professor

Dept. of Geology, University of Oulu, Finland

Since April 2009

Senior Research Fellow

Centre for Exploration Targeting, University of Western Australia

July 2006-March 2009

Research Professor

Sciences de la Terre, Université du Québec à Chicoutimi, Canada

December 2004 - June 2006

Lecturer - Professor

Dept. of Geology, University of Pretoria, South Africa

July 1997 – November 2004

Lecturer

Dept. of Geology, University of Port Elizabeth, South Africa

February 1996 - June 1997

Research Fellow

CERM, Université du Québec, Chicoutimi, Canada

September 1994 - January 1996

Post Doctoral Research Fellow

Department of Geology, Rhodes University, South Africa

March 1992 - December 1993

MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

Geological Society of South Africa (GSSA, since 1995)

Society of Economic Geologists (SEG, since 1996)

Society of Geology Applied to Mineral Deposits (SGA, since 2001)

IAGOD (since 2007)

PROFESSIONAL SERVICES / ADMINISTRATION

- Member of Council of the Geological Society of South Africa (2000-2005)
- Member of Council, Mineralogical Association of South Africa (2001-2004)
- Convener of the Scientific Awards Committee of the Geological Society of South Africa (2001)

EDITORIAL RESPONSIBILITIES

Member of editorial board: South African Journal of Geology (2001-present)

PUBLICATIONS IN PEER-REVIEWED JOURNALS

- Maier WD**, Barnes S-J, Sarkar A, Ripley E, Li C, Livesey T (2010) The Kabanga Ni sulfide deposits, Tanzania I: Geology, petrography, silicate rock geochemistry and sulfur and oxygen isotopes. *Mineralium Deposita*, accepted
- Maier WD**, Barnes S-J, Sarkar A, Ripley E, Li C, Livesey T (2010) The Kabanga Ni sulfide deposits, Tanzania II: Chalcophile and siderophile element geochemistry. *Mineralium Deposita*, accepted
- Jourdan F, Andreoli MAG, McDonald I, **Maier WD** (2009) $^{40}\text{Ar}/^{39}\text{Ar}$ thermochronology of the fossil LL6-chondrite from the Morokweng crater, South Africa. *Geochimica et Cosmochimica Acta*, in press
- Maier WD**, Barnes SJ, Campbell IH, Fiorentini ML, Peltonen P, Barnes S-J, Mithies RH (2009) Mantle magmas reveal progressive mixing of meteoritic veneer into the early Earth's deep mantle. *Nature*, 460, 620-623
- Koek M, Kreuzer OP, **Maier WD**, Porwal AK, Thompson M, Guj P (2009) A review of the PGM industry, deposit models and exploration practices: implications for Australia's PGM potential. *Resources Policy*, in press
- Barnes S-J, Savard D, Bedard P, **Maier WD** (2009) Selenium and sulfur concentrations in the Bushveld Complex of South Africa and implications for formation of the platinum-group element deposits. *Min Deposita*, DOI 10.1007/s00126-0237-3
- Sarkar A, Ripley EM, Li C, **Maier WD** (2008) Stable isotope, fluid inclusion, and mineral chemistry constraints on contamination and hydrothermal alteration in the Uitkomst Complex, South Africa. *Chem Geol.*, 257, 129-138.
- Godel B, **Maier WD**, Barnes S-J (2008) Platinum-group elements in the Merensky and J-M reefs: a review of current studies. *J. Geol. Soc. India*, 72, 595-609.
- Maier WD**, Barnes S-J (2008) Platinum-group elements in the UG1 and UG2 chromitites and the Bastard reef at Impala platinum mine, western Bushveld Complex, SAJG, 111, 159-176.
- Maier WD**, Barnes S-J, Bandyayera D, Peltonen P, Eglington B, Li C, Ripley E (2008) The petrogenesis and ore potential of the Kapalagulu and Musongati intrusions, Tanzania / Burundi. *Lithos*, 101, 24-53.
- Maier WD**, de Klerk L, Blaine J, Manyeruke T, Barnes S-J, Stevens MVA, Mavrogenes JA (2008) Petrogenesis of contact-style PGE mineralization in the northern lobe of the Bushveld Complex: comparison of data from the farms Rooipoort, Townlands, Drenthe and Nonnenwerth. *Mineralium Deposita*, 43, 255-280.
- Maier WD**, Barnes S-J, Chinyepi G, Setshedi I, Barton J, (2008). The petrogenesis of magmatic Ni-Cu-(PGE) deposits in NE Botswana: Compositional data from Phoenix, Selkirk, Tekwane, and intrusions in the Selebi-Phikwe area (Phikwe, Dikoloti, Lentswe, Phokoje). *Min Deposita*, 43, 37-60
- Maier WD**, Peltonen P, Livesey T (2007) The age of the Kabanga and Kapalagulu intrusions, western

- Tanzania: implications for prospecting magmatic sulphide deposits in the Kibaran belt. *Economic Geology*, 102, 147-154.
- Godel, B., Barnes S-J, **Maier WD** (2007) The Merensky Reef of the Bushveld Complex, South Africa: a mass balance of platinum group elements in sulfide minerals, platinum group minerals and the whole rock, *J. Petrology*, 48, 1569-1604.
- Maier WD**, Andreoli MAG, McDonald I, Higgins MD, Boyce AJ, Shukolyukov A, Lugmair GW, Ashwal LD, Graeser P, Ripley E, Hart R (2006). Discovery of a 25 cm asteroid clast in the giant Morokweng impact crater, South Africa. *Nature*, 441, 203-206.
- Godel, B., Barnes S-J, **Maier WD** (2006) 3-D distribution of sulphide minerals in the Merensky Reef (Bushveld Complex, South Africa) and the J-M reef (Stillwater Complex, USA) and their relationship to microstructures using X-ray computed tomography. *J Petrol.*, 47, 1853-1872.
- Maier, W.D.** (2005) Platinum-group element (PGE) deposits and occurrences: mineralization styles, genetic concepts, and exploration criteria. Invited presidential review, *Journal of African Earth Sciences*, 41, 165-191.
- Maier, W.D.**, Peltonen, P., Juvonen, R., Pienaar, C. (2005) Platinum-group elements in peridotite xenoliths and kimberlite from the Premier kimberlite pipe, South Africa. *South African Journal of Geology*, 108, 413-428.
- Li, C., Ripley, E.M., Sarkar, A., Shin, D., **Maier, WD** (2005) Origin of phlogopite-orthopyroxene inclusions in chromites from the Merensky Reef of the Bushveld Complex, South Africa, *Contrib. Mineral. Petrol.*, 119-130.
- Manyeruke, T, **Maier WD**, Barnes S-J. (2005) Major and Trace Element Geochemistry of the Platreef on the farm Townlands, northern Bushveld Complex. *S Afr J Geol.*, 108, 379-396.
- Li, C., Ripley, EM, Merino E., **Maier WD** (2004) Replacement of base metal sulfides by actinolite, epidote, calcite, and magnetite in the UG2 and Merensky Reef of the Bushveld Complex, South Africa. *Econ Geol* 99, 173-184.
- Maier, WD**, Barnes S-J (2004) Pt/Pd and Pd/Ir ratios in mantle-derived magmas: a possible role for mantle metasomatism. *S Afr J Geol.*, 107, 333-340.
- Maier, W.D.**, Gomwe, T., Barnes, S.-J., Li, C., Theart, H. (2004) Platinum-group elements in the Uitkomst Complex, South Africa, *Economic Geology*, 99, 499-516.
- Prichard, H.M., Barnes, S-J., **Maier, W.D.**, Fisher, P.C. (2004) Variations in the nature of the platinum-group minerals in a cross section through the Merensky reef at Impala Mines: implications for the mode of formation of the reef. *Canadian Mineralogist*, 42, 423-437.
- Barnes, S.J., **Maier, WD**, Ashwal, L (2004) PGE distribution in the Main Zone and Upper Zone of the Bushveld Complex. South Africa. *Chemical Geology*, 208, 293-317
- Li, C., Xu, ZH, de Waal, SA, Ripley, EM, **Maier WD** (2004) Magmatic and metamorphic controls on the compositions of olivine from the Jinchuan Ni-Cu sulfide deposit, western China, with implications for ore genesis. *Mineralium Deposita*, 39, 159-172.
- Maier, W.D.**, Roelofse, F., Barnes, S.-J. (2003) The concentration of the platinum-group elements in South African komatiites: implications for mantle sources, melting regime, and PGE fractionation during crystallization. *Journal of Petrology*, 44, 1787-1804.
- Maier, W.D.**, Barnes, S.-J., Gartz, V., Andrews, G. (2003) Pt-Pd reefs in magnetites of the Stella intrusion, South Africa: a world of new PGE exploration opportunities. *Geology*, 31, 885-888.
- Maier, W.D.** Peltonen, P., Grantham, G, Mattari, I. (2003) A new 1.9 Ga age for the Trompsburg intrusion, South Africa. *Earth and Planetary Science Letters*, 212, 351-360.
- Maier, W.D.** (2003) The potential for magmatic Ni sulfide ores in South African komatiites: a review. *South African Journal of Geology*, 106, 35-40.
- Maier, W.D.** and Barnes, S.-J. (2003) Platinum-group elements in the Boulder Bed, western Bushveld Complex, South Africa. *Mineralium Deposita*, 38, 370-380.
- Maier W.D.** Barnes, S.-J, and Marsh, J.S. (2003) The concentrations of the noble metals in Southern African flood-type basalts and MORB: implications for petrogenesis and sulphide exploration.

- Contributions to Mineralogy and Petrology, 146, 44-61.
- Maier, W.D.**, Marsh, J.S., and Barnes, S.-J. (2002) The distribution of PGE in the Insizwa lobe, Mount Ayliff Complex, South Africa : implications for Ni-Cu-PGE sulfide exploration in the Karoo Igneous Province. *Economic Geology*, v. 97, p. 1293-1306.
- Li, C., Ripley, E.M., **Maier, W.D.**, Gomwe, T.E. (2002) Olivine and sulfur isotopic compositions of the Uitkomst sulfide-bearing intrusion, South Africa : evidence for sulfur contamination and multiple magma emplacements. *Chemical Geology*, v. 188, p. 149-159.
- Barnes, S.J. and **Maier, W.D.** (2002) Platinum-group elements and microstructures of normal Merensky Reef from Impala Platinum Mines, Bushveld Complex. *Journal of Petrology*, 43, p. 103-128.
- Maier, W.D.** (2001) Platinum-group elements and minerals in southern African rocks - an introduction. *S. Afr. J. Geol.*, 104, 273-274.
- Maier, W.D.**, Barnes, S.-J., Ashwal, L. and Li, C. (2001) A reconnaissance study on the magmatic Cu-Ni-PGE sulfide potential of the Tete Complex, Mozambique. *S. Afr. J. Geol.* 104, 351-359.
- Maier, W.D.**, Barnes, S.-J., and van der Merwe, M.J. (2001) The concentrations of PGE in the Pyroxenite Marker, Bushveld Complex : implications for the formation of the Main Zone. *S. Afr. J. Geol.*, 104, 335-342.
- Maier, W.D.**, Sliiep, J, Barnes, S-J, de Waal, SA, Li, C (2001) PGE-bearing mafic-ultramafic sills in the floor of the eastern Bushveld Complex on the farms Blaauwboschkraal, Zwartkopje, and Waterval. *S. Afr. J. Geol.*, 297-308.
- Bumby AJ, Eriksson PG, van der Merwe R, **Maier W.D.** (2001) The stratigraphic relationship between the Waterberg and Soutpansberg Groups in Northern Province, South Africa: Evidence from the Blouberg area. *South African Journal of Geology*, 104 (3): 205-216
- Li, C. **Maier, W.D.** and de Waal, S.A. (2001) Magmatic Ni-Cu versus PGE deposits : contrasting genetic controls and exploration implications. *S. Afr. J. Geol.*, 309-318.
- Li, C, **Maier, W.D.**, de Waal, SA (2001) The role of magma mixing in the genesis of PGE mineralization in the Bushveld Complex: thermodynamic calculations and new interpretations. *Econ.Geol.*, 96, 653-662.
- Maier W.D.**, Li C, De Waal SA (2001) Why are there no major Ni-Cu sulfide deposits in large layered mafic-ultramafic intrusions? *Canadian Mineralogist*, 39, 547-556.
- De Waal SA, **Maier W.D.**, Armstrong RA, Gauert CDK (2001) The age and parental magma of the Uitkomst Complex, South Africa. *Canadian Mineralogist*, 39, 557-572
- Maier W.D.**, Arndt NT, Curl E (2000) Progressive crustal contamination of the Bushveld Complex: evidence from Nd isotopic analyses of the cumulate rocks. *Contributions to Mineralogy and Petrology*, 140, 316-327.
- Maier W.D.** (2000) Concentrations of platinum-group elements in Cu-sulphide ores at Carolusberg and East Okiep, Namaqualand, South Africa. *Mineralium Deposita*, 35, 422-429.
- Maier W.D.**, Barnes S-J (1999) Platinum-group elements in silicate rocks of the Lower, Critical and Main Zones at Union Section, Western Bushveld Complex: *Journal of Petrology*, 40, 1647-1671.
- Maier W.D.**, Barnes S-J (1999) The origin of Cu sulfide deposits in the Curaca Valley, Bahia, Brazil: evidence from Cu, Ni, Se, and PGE concentrations: *Economic Geology*, 94, 165-183.
- Maier W.D.**, Prichard HM, Barnes S-J, Fisher PC (1999) Compositional variation of laurite at Union Section in the Western Bushveld Complex: *South African Journal of Geology*, 102, 286-292.
- Maier W.D.**, Barnes S-J, De Waal SA (1998) Exploration for magmatic Ni-Cu-PGE sulphide deposits: a review of recent advances in the use of geochemical tools, and their application to some South African ores: *South African Journal of Geology*, 101, 165-182.
- Maier W.D.**, Barnes S-J (1998) Concentrations of rare earth elements in silicate rocks of the Lower, Critical, and Main Zones of the Bushveld Complex: *Chemical Geology*, 150, 85-103.
- Maier W.D.**, Bowen MP (1996) The UG2 - Merensky Reef interval of the Bushveld Complex northwest of Pretoria: *Mineralium Deposita*, 31, 386-393.
- Maier W.D.**, Barnes S-J (1996) Unusually high concentrations of magnetite at Caraiba and other Cu-

- sulfide deposits in the Curaça valley, Bahia, Brazil: *Canadian Mineralogist*, 34, 717-731.
- Maier WD**, Barnes S-J, Pellet T (1996) The economic significance of the Bell River Complex, Abitibi Sub-province, Québec: *Canadian Journal of Earth Sciences*, 33, 967-980.
- Maier WD**, Barnes S-J, De Klerk WJ, Teigler B, Mitchell AA (1996) Cu/Pd and Cu/Pt ratios of silicate rocks in the Bushveld Complex: Implications for PGE exploration: *Economic Geology*, 91, 1151-1158
- Maier WD** (1995) Olivine oikocrysts in Bushveld anorthosite: some implications for cumulate formation: *Canadian Mineralogist*, 33, 1011-1022.
- Maier WD**, Mitchell AA (1995) Grain-size variations of cumulus plagioclase in the Main Zone of the Bushveld Complex: *European Journal of Mineralogy*, 7, 195-204.
- Maier WD**, Teigler B (1995) A facies model for the Western Bushveld Complex: *Economic Geology*, 90, 2343-2349.
- Maier WD** (1994) Grain-size variations of cumulus plagioclase in the Upper Critical Zone of the Bushveld Complex: *Mineralogy and Petrology*, 50, 245-258.
- Maier WD**, Eales HV (1994) A facies model for the UG2 - Merensky Reef interval, Western Bushveld Complex: *Transactions Institution of Mining and Metallurgy*, 103, B65-B72.
- Maier WD**, Walters B (1994) The UG2-Merensky Reef interval at Amandelbult Section: lithological changes along strike: *South African Journal of Geology*, 97, 45-51.
- Maier WD**, Eales HV (1994) Plagioclase inclusions in orthopyroxene and olivine of the UG2 - Merensky Reef interval: regional trends in the Western Bushveld Complex: *South African Journal of Geology*, 97, 408-414.
- Eales HV, de Klerk WJ, Teigler B, **Maier WD** (1994) Nature and origin of orthopyroxenites in the Western Bushveld Complex, in the light of compositional data: *South African Journal of Geology*, 97, 399-407.
- Eales HV, Teigler B, **Maier WD** (1993) Cryptic variations of minor elements Al, Cr, Ti and Mn in lower and critical zone orthopyroxenes of the Western Bushveld Complex: *Mineralogical Magazine*, 57, 257 - 264.
- Eales HV, Botha WJ, Hattingh PJ, De Klerk WJ, **Maier WD**, Odgers ATR (1993): The mafic rocks of the Bushveld Complex: A review of emplacement and crystallization history and mineralization, in the light of recent data: *Journal of African Earth Sciences*, 16, 121-142.
- Eales HV, **Maier WD**, Teigler B (1991) The significance of corroded plagioclase feldspar inclusions in pyroxenites and norites of the Lower and Critical Zones, Western Bushveld Complex: *Mineralogical Magazine*, 55, 479-486.

BOOKS, CHAPTERS IN BOOKS, MAPS

- Maier WD**, Barnes S-J (2009) Formation of PGE deposits in Layered Intrusions. In C Li and EM Ripley (eds) *New developments in magmatic Ni-Cu and PGE deposits*. Geological Publishing House, Beijing, 250-276.
- Evins PM, Smithies RH, **Maier WD**, Howard HM (2009) *Holt, WA Sheet 4546, Geol Surv Western Australia, 1: 100 000 Geological Series*
- Smithies RH, Howard HM, **Maier WD**, Evins PM (2009) *Blackstone, WA Sheet 4545: Geol Surv Western Australia 1: 100 000 Geological Series*
- Maier WD**, Teigler B., Miller R. (2008) The Kunene anorthosite complex and its satellite intrusions. In R.Mc.G. Miller, (ed.), *The Geology of Namibia*, Geol. Survey of Namibia, 9-1 to 9-18
- Maier WD**, Barnes S-J. (2005) Geochemical prospecting: litho-geochemistry. In Mungall, J (ed), *Exploration for deposits of platinum-group elements*, Geol Assoc Canada, Short Course Series, V 35, 309-341.
- Barnes S-J, **Maier WD** (2002) PGE distributions in the Rustenburg Layered Suite of the Bushveld Complex, South Africa, in Cabri, L., (ed), *The geology, geochemistry, mineralogy and mineral beneficiation of PGE*, Canadian Institute of Metallurgy, Special Volume 54 p. 553-580

- Maier WD** (2001) Platinum-group elements in Southern African rocks. Special issue of the South African Journal of Geology, v. 104, Nr.4.
- Barnes S-J, **Maier WD** (1999) The fractionation of Ni, Cu and the noble metals in silicate and sulfide melts. In: Dynamic processes in magmatic ore deposits and their application in mineral exploration: R.R. Keays, C.M. Leshner, P.C. Lightfoot, & C.E.G. Farrow (Eds.), Geological Association of Canada, Short Course Notes, 13.
- Maier WD**, Eales HV (1997) Correlation within the UG2 - Merensky Reef interval of the Western Bushveld Complex, based on geochemical, mineralogical and petrological data: Geological Survey South Africa, Bulletin 120, 56 pp

RESEARCH OBJECTIVES

My main research interests presently are (i) petrological and geochemical processes in large magma chambers and in magma conduits (including lava channels) that are critical to our understanding of continental magmatism, mantle evolution, plate tectonics and the formation of magmatic ore deposits including PGE, Ni-Cu, Cr, and V-Ti-Fe deposits. Until a few years ago, my main focus has been on southern and central African examples, including the PGE mineralized Bushveld and Stella intrusions of South Africa, Ni deposits in the Tati greenstone belt and at Selebi Phikwe in Botswana, the Kunene gabbro-anorthosite Complex of Namibia/Angola, the Tete gabbro-anorthosite Complex of Mozambique, the Ni mineralized Kabanga-Kapalagulu-Musongati intrusions of Tanzania and Burundi, the Monts de Cristal intrusion of Gabon, and their satellite intrusions and associated flood-type basalts and komatiites. More recently, I have started to work on PGE deposits in Quebec and Ontario (Bell River and Fishtrap Complexes), the petrogenesis of Early Archean basalts and komatiites in the Pilbara craton of Australia, the Kuhmo/Ilomantsi belts of Finland, and the Dharwar craton of India, the PGE prospectivity of the Hart Dolerite, NW Australia, and the Ni-PGE potential of the mafic-ultramafic Giles Complex, central Australia. (ii) PGE concentrations of the Earth's upper mantle, based on southern African and Finnish mantle xenoliths, and peridotite mantle massifs (Outokumpu, Finland), implications for processes of partial melting and crystallization/metasomatism in the upper mantle, and applications to diamond exploration. (iii) The Morokweng meteorite and impact melt sheet.

CURRENT RESEARCH PROJECTS

Bushveld Complex: Origin of layering and PGE mineralization
Morokweng impact melt sheet and meteorite, South Africa
Mantle xenoliths from South Africa and Finland
Outokumpu and Jormua peridotite massifs, Finland
Fishtrap Lake Complex, Ontario
Giles Complex, Australia
Hart dolerite, Australia
Komatiites in Finland, Russia, India, and northern Quebec (**PhD and postdoc sought**)
Keivitsa intrusion, Finland (**PhD and several MSc sought**)
Monts de Cristal intrusion, Gabon
Kunene anorthosite Complex, Namibia

PRESENT COURSES

2-3rd year Ore Geology (30 L)
2-3rd year Introduction to Ore Mineralogy (22 L, 12 P)

3rd-4th year Regional Ore Geology (25 L)
2-3rd year Igneous Petrology (25L, sems)
3rd – 4th year Geology of Layered Intrusions (20L)
3rd -4th year Archean Geology (20L)
Ore Geology Excursion (2 weeks)
Ore Geology Seminar

PhD and MSc students

- J. Kannonaho, PhD (ongoing), Petrogenesis of komatiites hosted sulfide deposits, Finland, (U Oulu)
- S. Määttä, MSc (ongoing), Petrogenesis of Ni rich ore in the Keivitsa intrusion, Finland, (U Oulu)
- B. Telenvuo, MSc (ongoing), Geochemistry and stratigraphy of the Näränkäväära intrusion, Finland (U Oulu)
- M. Moilanen, MSc (ongoing), Petrogenesis of the Lomalampi PGE deposit, Lapland (U Oulu).
- B. Godel, Postdoc (October 2007 – May 2009): Geochemistry of dykes at Nebo-Babel, and implications for Ni exploration in the Musgrave Block (UWA)
- I. Gonzalez-Alvarez, Postdoc (November 2007-present): Global Ni assessment (UWA)
- Said Nuru, PhD (September 2007-Dec 2008): Petrogenesis of 2.7-2.9Ga basaltic and komatiitic dykes on the Yilgarn craton (UWA)
- T. Manyeruke, PhD (September 2003-2007): Petrogenesis of the Platreef on the farm Nonnenwerth, northern Bushveld Complex. (Uni Pretoria)
- B. Godel, PhD (2004-2007) Microstructures in the Merensky and J-M reefs: implications for ore petrogenesis (University of Quebec)
- C. Dionne-Foster, MSc (2004-2007) Ore petrology in the Frontier Zone, Raglan belt, Northern Quebec (Universite du Quebec)
- T. Manyeruke, MSc (April 2002-August 2003): Petrogenesis of the Platreef on the farm Townlands. (Uni Pretoria)
- T. Gomwe, MSc (Jan. 2000 - March 2002): Isotope and trace element geochemistry of the Uitkomst Complex intersected by deep borehole SH 176. (Uni Pretoria)
- V. Hulley, MSc (May 2000 – 2005) : Reaction relationships between country rock xenoliths and magma in the Uitkomst Complex. (Uni Pretoria)
- B. Albrechtsen, MSc (August 2000 - December 2002): The geology of the Ingeli lobe, Insizwa Complex, Eastern Cape Province, South Africa. (Uni Pretoria)
- E. Curl, PhD (1998 - 2001): Isotope, PGE and trace element characteristics of the parental melts to the Bushveld Complex: Significance with respect to plume-lithosphere interaction in the early Proterozoic and the genesis of magmatic sulphide deposits (Monash University).
- C. Gauert, PhD (1996-1998): The petrogenesis of the Uitkomst Complex, Mpumalanga Province, South Africa, (Uni Pretoria)

LECTURING IN SHORTCOURSES AND WORKSHOPS

- PGE in layered intrusions: Int Ni-Cu symposium, Xi'an, China, June 2009
- Ni shortcourse, UWA, Perth, February 2009
- Magmatic Ni deposits: Geological Survey of Finland, Helsinki, Finland, September 2008

- Magmatic Ni-PGE deposits of Africa. Africa Uncovered: Mineral Resources of the Future, SEG-GSSA 2008, 5-9 July, Johannesburg, South Africa
- Exploration for platinum-group elements (with S-J Barnes): PDAC, Toronto, Canada, Feb. 2008
- Ore deposit models: Nickel: intrusive hosted deposits. Centre for Exploration Targeting, Perth, February 22, 2007
- The Bushveld Complex, Centre for Exploration Targeting, UWA, Perth, October 11, 2006
- Assessment of sub-Saharan Ni-PGE potential, USGS-Council for Geoscience, Pretoria, South Africa, February 2006.
- Great Metallogenic Provinces of the World: The Bushveld Complex. Shortcourse, Mineral Exploration Roundup, Vancouver. Jan 21-22, 2006.
- Exploration for platinum-group element deposits, Univ Oulu, Finland, August 6-7, 2005.
- Mafic magmatic ore deposits (with JM Moore, JS Marsh). Rhodes University, Feb 14-18, 2005.
- Magmatic sulfide deposits. AESC, Hobart, Australia, Feb. 7-8, 2004.
- Exploration for magmatic Cu-Ni-PGE sulphide deposits. University of Pretoria, May 8-9, 2003.
- Mafic magmatic ore deposits. Rhodes University, February 11-15, 2003.
- Exploration for magmatic Cu-Ni-PGE sulphide deposits. Univ of Pretoria, April 25-26, 2002.
- Mafic magmatic ore deposits (with JM Moore, JS Marsh). Rhodes University, Feb 11-15, 2002.
- Mafic magmatic ore deposits (with JM Moore, JS Marsh). Rhodes University, Feb 12-16, 2001.
- Exploration for magmatic Cu-Ni-PGE sulphide deposits. Univ of Pretoria, June 12-13, 2000.
- Mafic magmatic ore deposits (with JM Moore, JS Marsh). Rhodes University, Feb 7-11, 2000.
- Ore deposits in mafic and ultramafic rocks (with G Cawthorn). Geological Society of South Africa, Wits University, Johannesburg, September 20-22, 1999.
- Exploration for magmatic Cu-Ni-PGE sulphide deposits. Univ Pretoria, June 14-16, 1999.
- Dynamic processes in magmatic ore deposits and their application to mineral exploration (with S-J Barnes): Geological Association of Canada, Sudbury, May 24-25, 1999.
- Mafic magmatic ore deposits (with JM Moore). Rhodes University, February 8-12, 1999.
- Mafic magmatic ore deposits (with HV Eales, JM Moore). Rhodes University, Feb 16-20, 1998.
- Exploration Models in Africa: Ni-PGE sulfide deposits. Plumes, Plates and Mineralization 97, University of Pretoria, April 16, 1997.
- Mafic magmatic ore deposits (with HV Eales, JM Moore). Rhodes University, Feb 17-21, 1997.
- Mafic magmatic ore deposits (with HV Eales, JM Moore). Rhodes University, Feb 7 - 11, 1994.