
KURT S. PANTER

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Academic Degrees

- 1995 **Ph.D.** Geology, New Mexico Institute of Mining and Technology, Socorro.
 Geology, Geochemistry and Petrogenesis of the Mt Sidley Volcano, Marie Byrd Land, Antarctica
- 1990 **M.S.** Geology, New Mexico Institute of Mining and Technology, Socorro.
 Genesis of Wolframite Mineralization in the Little Dragoon Mountains, Southeastern Arizona
- 1986 **B.A.** Geology, Western State College of Colorado, Gunnison, Colorado

Positions Held

- 2006- Associate Professor, Department of Geology, Bowling Green State University
- 2000-06 Assistant Professor, Department of Geology, Bowling Green State University
- 1998-00 Visiting Assistant Professor, Western State College of Colorado
- 1995-97 Postdoctoral Research Associate, Department of Earth and Environmental Sciences, New Mexico
 Institute of Mining and Technology (New Mexico Tech) – *refer to 1995 Research Award*
- 1993 Geology Instructor, Western State College of Colorado (1 semester)
- 1986-87 Intern & Physical Science Technician, Division of Eastern Mineral Resources, USGS Reston, Virginia

Summary of Research & Teaching Interests

My interests include field-based igneous petrology, volcanology, geochemistry and geochronology. My research specializes in the mantle origin, magma evolution and eruptive history of alkaline volcanoes in the SW Pacific - Antarctica & New Zealand. I also study volcanism in the northern Rio Grande Rift and San Juan Volcanic Field in the western U.S. My teaching consists of geology courses for non-majors, majors and graduate students. I also co-direct and teach an annual six week capstone field methods course in northern New Mexico and southern Colorado.

Publications

- Nyland, R.E., **Panter**, K.S., Rocchi, S., Di Vincenzo, G., Del Carlo, P., Tiepolo, M., Field, B., in prep., Age and Geochemistry of Early Miocene glass in sediments from the AND-2A Core, McMurdo Sound, Antarctica: magma petrogenesis and response to glaciations.
- Di Roberto A., Del Carlo P., Rocchi S., **Panter** K.S., in review, Early Miocene volcanic activity and paleoenvironment conditions recorded in tephra layers of the AND-2A core (southern McMurdo Sound, Antarctica), submitted to *Geosphere*.
- Fielding, C.R., Browne G.H., Field, B., Florindo, F., Harwood, D.M., Krissek, L.A., Levy, R., **Panter**, K.S., Passchier S.A., Pekar, S.F., 2011, Stratigraphic cyclicity from the ANDRILL AND-2A drillcore, Antarctica: a long-term, ice-proximal record of Early to mid-Miocene climate, sea-level and glacial dynamism. *Palaeogeography, Palaeoclimatology, Palaeoecology* (*P³*) 305, 337-351.
- Passchier, S., Browne, G., Field, B., Fielding, C.R., Krissek, L.A., **Panter**, K., Pekar, S.F. and ANDRILL-SMS Science Team, 2011, Early and Middle Miocene Antarctic glacial history from the sedimentary facies distribution in the AND-2A drill hole, Ross Sea, Antarctica. *Geological Society of America Bulletin* 123 (11-12), 2352-2365, doi:10.1130/B30334.1
- Di Vincenzo, G., Bracciali, L., Del Carlo, P., **Panter**, K., Rocchi, S., 2010, ⁴⁰Ar/³⁹Ar laser dating of volcanogenic products from the AND-2A core (ANDRILL Southern McMurdo Sound Project, Antarctica). *Bulletin of Volcanology* 27 (4), 487-505, doi: 10.1007/s00445-009-0337-z
- Del Carlo, P., **Panter**, K.S., Bassett, K., Bracciali, L., Di Vincenzo, G., Rocchi, S., 2009, The upper lithostratigraphic unit of ANDRILL AND-2A core (Southern McMurdo Sound, Antarctica): local volcanic sources, paleoenvironmental implications and subsidence in the western Victoria Land Basin. *Global and Planetary Change* 69, 142-161, doi: 10.1016/j.gloplacha.2009.09.002
- Panter**, K.S., Talarico, F., Bassett, K., Del Carlo, P., Field, B., Frank, T., Hoffman, S., Kuhn, G., Reichelt, L., Sandroni, S., Tavini, M., Bracciali, L., Cornamusini, G., von Eynatten, H., Rocchi, R., 2008, Petrologic and Geochemical Composition of the AND-2A Core, ANDRILL Southern McMurdo Sound Project, Antarctica.

- In: Harwood, D.M., Florindo, F., Talarico, F., and Levy, R.H., (editors), Studies from the ANDRILL, Southern McMurdo Sound Project, Antarctica. *Terra Antarctica* 15, no. 147-192.
- Fielding C.R., Atkins C.B., Bassett K.N., Browne G.H., Dunbar G.B., Field B.D., Frank T.D., **Panter** K.S., Pekar S.F., Krissek L.A., Passchier S., 2008, Sedimentology and stratigraphy of the AND-2A core, ANDRILL Southern McMurdo Sound Project, Antarctica. In: Harwood, D.M., Florindo, F., Talarico, F., and Levy, R.H., (eds), Studies from the ANDRILL, Southern McMurdo Sound Project, Antarctica. *Terra Antarctica* 15, no. 1, 77-112.
- Panter**, K.S., **Winter**, B., 2008, Geology of the side crater of the Erebus volcano, Antarctica. In: P.R. Kyle & C. Oppenheimer (editors), Mt. Erebus Volcano, Antarctica: Observations, Models, Impacts. *Journal of Volcanology and Geothermal Research*, 177 (3), 578-588, doi:10.1016/j.jvolgeores.2008.04.019.
- Panter**, K.S., Blusztajn, J., Hart, S., Kyle, P., Esser, R., McIntosh W., 2006, The origin of HIMU in the SW Pacific: evidence from intraplate volcanism in southern New Zealand and subantarctic islands. *Journal of Petrology*, 47 (9), 1673-1704.
- Finn, C.A., Müller, R.D., **Panter**, K.S., 2005, A Cenozoic diffuse alkaline magmatic province (DAMP) in the SW Pacific without rift or plume origin. *Geochemistry, Geophysics, Geosystems (G³)*, 6 (1), Q02005, doi:10.1029/2004GC000723
- Panter**, K.S., Hart, S.R., Kyle, P.R., Blusztajn, J., Wilch, T., 2000, Geochemistry of Late Cenozoic basalts from the Crary Mountains: Characterization of mantle sources in Eastern Marie Byrd Land, Antarctica. *Chemical Geology*, 165, 215-241.
- Panter**, K.S., Kyle, P.R., Smellie, J. L., 1997. Petrogenesis of a phonolite-trachyte succession at Mount Sidley, Marie Byrd Land, Antarctica. *Journal of Petrology*, 38, 1225-1253.
- Panter**, K.S., McIntosh, W.C., Smellie, J.L., 1994. Volcanic history of Mount Sidley, a major alkaline volcano in Marie Byrd Land, Antarctica. *Bulletin of Volcanology*, 56, 361-376.
- Smellie, J.L., McIntosh, W.C., Gamble, J.A., **Panter**, K.[T]., Kyle P.R., Dunbar N.W., 1993, Preliminary lithofacies assessment and ⁴⁰Ar/³⁹Ar ages of Cenozoic volcanic sequences in eastern Marie Byrd Land. *Antarctic Science*, 5, 105-106.
- Campbell, A.R., **Panter**, K.S., 1990, Comparison of fluid inclusions in coexisting (cogenetic?) wolframite, cassiterite and quartz from St. Michael's Mount and Cligga Head, Cornwall, England. *Geochemica Cosmochimica Acta*, 54, 673-681.
- Smellie, J.L., McIntosh, W.C., Gamble, J.A., **Panter**, K.S., 1990, Preliminary stratigraphy of volcanoes in the Executive Committee Range, central Marie Byrd Land. *Antarctic Science*, 2, 353-354.

Published reports and map

- Florindo F., Harwood D., Levy R., Action G., Fielding C., **Panter** K., Paulsen T., Talarico F., Taviani M., & the ANDRILL-SMS Science Team, 2008, Explanatory notes for the ANDRILL Southern McMurdo Sound project, Antarctica. In: Harwood, D.M., Florindo, F., Talarico, F., and Levy, R.H., (editors), Studies from the ANDRILL, Southern McMurdo Sound Project, Antarctica. *Terra Antarctica* 15, no. 1, 21-40.
- Panter** K.S., Castillo P., 2007, Petrogenesis and source of lavas from seamounts in the Adare Basin, Western Ross Sea: Implications for the origin of Cenozoic magmatism in Antarctica, In Antarctica: A Keystone in a Changing World – Online Proceedings of the 10th ISAES X, edited by A.K. Cooper & C.R. Raymond et al., *USGS Open-File Report 2007-1047*, 069. <http://pubs.usgs.gov/of/2007/1047/ea/of2007-1047ea069.pdf>
- Finn C.A., Anandakrishnan S., Goodge J., **Panter** K., Siddoway C., Wilson T. 2003. Potential of Airborne Geophysical Capabilities Discussed, *Eos Trans. AGU*, 84 (1), doi:10.1029/2003EO010005.
- Finn C.A., Anandakrishnan S., Goodge J., **Panter** K., Siddoway C., Wilson T., 2003, REVEAL: Remote Views and Exploration of Antarctic Lithosphere Workshop: The future of Antarctic airborne geophysical capabilities - Workshop Report. *U.S. Geological Survey Open File Report 03-065*, 129 pp.
- Love D.W., Maldonado F., Hallett B., **Panter** K.S., Reynolds C., McIntosh W., Dunbar N., 1998, Geology of the Dalies 7.5-min. quadrangle, Valencia County, New Mexico. New Mexico Bureau of Mines and Mineral Resources, *NMBMMR Open-File Geologic Map*, OF-GM 21, scale 1:24,000. <http://geoinfo.nmt.edu/publications/maps/ofgm/dalies/home.html>
- Wilch T.I., McIntosh W.C., **Panter** K.S., Dunbar N.W., 1993, Preliminary report on field investigations and ⁴⁰Ar/³⁹Ar geochronology of the Crary Mountains volcanoes, Marie Byrd Land, West Antarctica. *Antarctic Journal of the U.S.*, 28, 7-9.
- McIntosh W.C., **Panter** K.S., Smellie J.L., Gamble J.A., 1990, Austral summer 1989-1990 at the Executive Committee Range, Marie Byrd Land, Antarctica. *Antarctic Journal of the U.S.*, 25.

- Gamble J.A., Smellie J.L., McIntosh W.C., **Panter K.S.**, 1990, West Antarctic Volcano Exploration (WAVE) - volcanoes of the Executive Committee Range, West Antarctica. *New Zealand Antarctic Record*, 10, 16-17
- Adrian B.M., Hageman P.L., Cox L.S., **Panter K.S.**, 1988, Analytical results and sample locality map of soil and rock samples from the Wah Wah Wilderness Study Area (UT-050-073/040-205), Beaver and Millard Counties, Utah. *U.S. Geological Survey Open File Report*, 88-232.

Research Awards

- 2010 **P.I.** Collaborative Research: Geochemical transect from oceanic Adare Basin to adjacent continental Adare Peninsula: implications for the origin of intraplate (HIMU-like) alkaline magmas, **\$131,796** to BGSU for 2 years, NSF ANT-0943274. Co-PI: P. Castillo (Scripps Institute of Oceanography).
- 2008 **P.I.** A 20 million year record of volcanism in the AND-2A core: implications for the magmatic, tectonic and climate history of Antarctica, **\$71,942** for 18 months. ANDRILL U.S. Science Support Program (AUSSP), a multi-national science initiative funded by the NSF, subaward to Univ. Nebraska.
- 2007 **P.I.** Petrology and Geochemistry of Miocene Volcanic Rocks Recovered from the Southern McMurdo Sound (SMS) Drillsites, **\$39,218** to BGSU for 1 year. ANDRILL (AUSSP).
- 2006 **P.I.** Collaborative Research: Late Cenozoic Volcanism and Glaciation at Minna Bluff, Antarctica: Implications for Antarctic Cryosphere History, **\$116,833** to BGSU for 3 years. NSF OPP 05-38033. Co-PIs: T. Wilch (Albion College) and W. McIntosh (New Mexico Tech).
- 2006 **P.I.** Collaborative Research: Constraining the Petrogenesis and Mantle Source of Adare Basin Seamount Lavas, **\$32,750** to BGSU for 1 year. NSF OPP 05-38374. Co-PIs: P. Castillo and S. Cande (SIO).
- 2002 **Co-P.I.** Digital Field Mapping using PocketPC Computers, **\$85,564** to BGSU for 2 years. NSF DUE-0126785, Co-PIs: J. Frizado and C. Onasch (BGSU).
- 2001 **P.I.** Research Experiences for Undergraduates (REU) supplement to NSF OPP 0003702 for **\$5,000**.
- 2000 **P.I.** Volcanism at the Antarctic Rift Margin, NSF OPP 0003702, **\$70,000** to BGSU for 2 years.
- 1999 **Co-P.I.** Geologic Mapping of Unmapped Quadrangles in Curecanti National Recreation Area in Support of the National Park Service Geologic Resources Inventory. National Park Service–Western State College Task Agreement WSC-03, **\$17,825** for 1 year. Co-PIs: A. Stork & R. Fillmore (WSC).
- 1995 **Co-P.I.** Antarctic Rift and Hot Spot Volcanism, NSF OPP-9419686, **\$110,243** to New Mexico Tech for 2 years. Co-PIs: P. Kyle (NMT) and S. Hart (Woods Hole Oceanographic Institution).

Invited Talks

- 2011 Ohio University, May 13, *Volcanism on the edge: a geochemical transect from ocean to continent, Antarctica*
- 2010 ANDRILL SMS workshop, Erice, Sicily, April 10, *Evolution of the Erebus Volcanic Province*
- 2008 University of Arkansas, Nov. 7, *Antarctic climate, tectonism and volcanism*
- 2008 BGSU 7th Annual Res. Conf., Nov. 6, *Volcanoes, Ice and Climate Change*
- 2008 Gateway Antarctica (NZ), June 11, *Impact of Adare Basin seamounts on regional models for magmatism.*
- 2008 New Zealand Geological Society, May 13, *ANDRILL SMS Project, a 20 Ma record of climate & volcanism.*
- 2008 University of Canterbury (NZ) March 17, *Early mixing in Royal Society Range basalts, Antarctica.*
- 2007 U.S. McMurdo Station, Antarctica, October 15. *Overview of Cenozoic volcanism in McMurdo Sound area.*
- 2007 University of Canterbury (NZ) July 30, *The origin of alkaline magmas in Antarctica & southern New Zealand*
- 2007 Scripps Institute of Oceanography, May 3, *The origin of alkaline magmas in Antarctica & SW Pacific*
- 2007 University of Kentucky, April 26, *A geochemical view of the origin of Late Cenozoic volcanoes in Antarctica*
- 2007 Albion College, MI, March 20, *Adare Basin Seamounts*
- 2005 U.S. Antarctic Geological Drilling (ANDRILL) Program, Denver, April 1, *McMurdo Volcanism.*
- 2004 Michigan State University, April 15, *Geochemistry & origin of intraplate volcanism in the SW Pacific.*
- 2004 University of Akron, February 13, *Volcanism on a frozen continent*
- 2003 University of Toledo, October 24, *Plume versus non-plume sources for volcanism in the SW Pacific*
- 2002 College of Wooster, Ohio, November 14, *Volcanoes on Ice: a geochemical view of volcanism in Antarctica*
- 2002 Ohio State University, May 23, *Isotopic composition of alkaline basalts from South Victoria Land, Antarctica*
- 2002 University of South Carolina, March 18, *Mantle plumes and continental breakup*
- 1996 Woods Hole Ocean. Instit., Aug 1, *Geology, geochem. & petrogenesis of the Mt. Sidley volcano, Antarctica*

Abstracts Presented at National & International Meetings (student authors underlined>

- Panter**, K.S., Dunbar, N., Scanlan, M., Wilch, T., Fargo, A., McIntosh, W., 2011. Petrogenesis of alkaline magmas at Minna Bluff, Antarctica: evidence for multi-stage differentiation and complex mixing processes. *Eos Trans. AGU*, xx(xx), Fall meet. Suppl., Abstract pp. xxxx-xxxx

- Castillo, P., **Panter**, K.S., McIntosh, W.C., 2011. Mantle flow deduced from geochemical variations in alkaline magmas of HIMU affinity from continent to ocean, northwestern Ross Sea, Antarctica. *Eos Trans. AGU*, xx(xx), *Fall meet. Suppl., Abstract pp. xxxx-xxxx*
- Wilch, I., McIntosh, W., **Panter**, K., Dunbar, N., Smellie, J., Fargo, A., Ross, J., Antibus, J., Scanlan, M., Zimmerer, M., 2011. Two stage growth of the Late Miocene Minna Bluff Volcanic Complex, Ross Embayment, Antarctica: implications for glacial and volcanic history. *Eos Trans. AGU*, xx(xx), *Fall meet. Suppl., Abstract pp. xxxx-xxxx*
- Nyland, R., **Panter**, K., Del Carlo, P., Di Vincenzo, G., Rocchi, S., Tiepolo, M., Field, B., 2011. Geochemistry of Miocene glass in sediments from the AND-2A Core, McMurdo Sound, Antarctica: magma petrogenesis and response to glacial unloading. *Eos Trans. AGU*, xx(xx), *Fall meet. Suppl., Abstract pp. xxxx-xxxx*
- Panter**, K.S., Castillo, P., McIntosh, W.C., 2011. Geochemical variations in alkaline magmas of HIMU affinity from continent to ocean, northwestern Ross Sea, Antarctica – constraints on mantle source, flow and melting for volcanism. *International Symposium on Antarctic Earth Science (ISAES) XI*, Edinburgh, Scotland, July 10-15. *Abstract PS5.9*.
- Nyland, R., **Panter**, K., Del Carlo, P., Di Vincenzo, G., Rocchi, S., Tiepolo, M., Field, B., 2011. Evidence for early-phase explosive basaltic volcanism at Mt. Morning from glass-rich sediments in the ANDRILL AND-2A core and possible response to glacial cyclicality. *International Symposium on Antarctic Earth Science (ISAES) XI*, Edinburgh, Scotland, July 10-15. *Abstract PO5.9*.
- Del Carlo, P., Di Roberto, A., Rocchi, S., **Panter**, K.S., 2011. Early to Mid-Miocene tephra in the AND-2A core, ANDRILL Southern McMurdo Sound Project, Antarctica *International Symposium on Antarctic Earth Science (ISAES) XI*, Edinburgh, Scotland, July 10-15. *Abstract PO5.2*.
- Antibus, J., **Panter**, K., Wilch, T., Blusztajn, J., Dunbar, N., McIntosh, W., 2011. A meteoric water source for the formation of hyaloclastites at Minna Bluff, Ross Sea, Antarctica: A petrographic, geochemical and isotopic (Sr & O) investigation. *International Symposium on Antarctic Earth Science XI*, Edinburgh, Scotland, July 10-15. *Abstract PO5.6*
- Dunbar, N.W., **Panter**, K.S., Scanlan, M.K., Fargo, A., McIntosh, W.C., Wilch, T.I., 2011. Petrogenesis of alkaline magmas at Minna Bluff, Antarctica: evidence for high pressure fractionation and complex mixing processes. *International Symposium on Antarctic Earth Science XI*, Edinburgh, Scotland, July 10-15. *Abstract PO5.10*
- Wilch, T.I., **Panter**, K.S., McIntosh, W.C., Dunbar, N.W., Smellie, J.L., Fargo, A., Ross, J., Antibus, J., Scanlan, M., Zimmerer, M., 2011. Miocene evolution of the Minna Bluff Volcanic Complex, Ross Embayment, Antarctica. *International Symposium on Antarctic Earth Science XI*, Edinburgh, Scotland, July 10-15. *Abstract PS5.10*.
- Nyland, R. E., **Panter** K.S., Del Carlo P., Di Vincenzo, G., Rocchi, S., Field, B., 2010, Evidence of Early Miocene volcanism in McMurdo Sound from glass-rich sediments in the ANDRILL AND-2A core: source and possible response to glacial cyclicality. *Eos Trans. AGU*, 89(53), *Fall meet. Suppl., Abstract pp. C43B-0538*.
- Antibus, J.V., **Panter** K.S., Wilch, T., Dunbar, N., McIntosh, W., 2010, Stable isotope, cation chemistry and petrographic evidence of multiple water sources influencing the alteration of Antarctic hyaloclastites. *Eos Trans. AGU*, 89(53), *Fall meet. Suppl., Abstract pp. V13E-2402*
- Emery, W.D., **Panter**, K.S., 2010, Geology of Mid-Oligocene Nathrop Volcanics, Central Colorado Volcanic Field: Models for Extrusion, Alteration and Erosion. *Geological Society of America Abstracts with Programs*, Vol. 42, No. 5, p. 224.
- Chakraborty, S., **Panter**, K.S., Wilch, T.I., 2010, Evolution of phonolite and trachyte magmas at the Crary Mountains, Marie Byrd Land, Antarctica. *Geological Society of America Abstracts with Programs*, Vol. 42, No. 5, p. 103
- Antibus, J.V., **Panter** K., Dunbar, N., Wilch, T., McIntosh, W., 2010, Oxygen isotope and cation chemistry: evidence of multiple water sources influencing the alteration of Antarctic hyaloclastites. *Geochimica et Cosmochimica Acta* 74 (12) A26 *Suppl. 1*.
- Del Carlo, P., **Panter**, K., Bassett, K., Bracciali, L., Di Vincenzo, G., Rocchi, S., 2009. The upper lithostratigraphic unit of ANDRILL AND-2A core (Southern McMurdo Sound, Antarctica): local Pleistocene volcanic sources, paleoenvironmental implications and subsidence in the southern Victoria Land Basin. *Eos Trans. AGU*, 90(52), *Fall meet. Suppl., Abstract pp43A-1565*.
- Harwood, D.M., Florindo, F., Levy, R.H., Talarico, F., Acton, G., Browne, G., Field, B., Fielding, C., Krissek, L., **Panter**, K., Passchier, S., Pekar, S., and SMS Project Science Team, 2009. Miocene depositional history, sequences and chronostratigraphy of the ANDRILL AND-2A drillcore, Victoria Land Basin, Antarctica. *Eos Trans. AGU*, 90(52), *Fall meet. Suppl., Abstract PP41D-05*
- Panter**, K.S., Castillo, P., 2008. Petrology and source of lavas from seamounts in the Adare Basin, western Ross Sea: implications for the origin of Cenozoic magmatism in Antarctica. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl., Abstract V11F-05*

- Scanlan, M., **Panter**, K.S., Wilch, T.I., Dunbar, N.W., McIntosh, W.C., 2008. Petrology of inclusion-rich lavas at Minna Bluff, Antarctica: implications for magma origin, differentiation and eruption dynamics. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract V13C-2129
- Del Carlo, P., **Panter**, K.S., Rocchi, S., Bracciali, L., Field, B.D., and Bassett, K and the SMS ANDRILL Science Team, 2008. Petrology, geochemistry and origins of volcanic clasts and tephra from the AND-2A core, ANDRILL Southern McMurdo Sound Project, Antarctica. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract V13C-2126
- Dunbar, N.W., **Panter**, K.S., Scanlan, M.K., McIntosh, W.C., Wilch, T.I., 2008. Evidence for complex mixing processes controlling the composition of a wide range of alkaline volcanic rocks at Minna Bluff, Antarctica. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract V13C-2128
- Pound, K.S., **Panter**, K.S., 2008. Building on decades of research on the McMurdo Volcanic Group, Antarctica: a geologic field guide to Observation Hill. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract V13C-2137.
- Wilch, T.I., McIntosh, W.C., **Panter**, K.S., Dunbar, N.W., Smellie, J.L., Fargo, A., Scanlan, M., Zimmerer, M., Ross, J., Bosket, M., 2008. Volcanic & glacial geology of the Miocene Minna Bluff volcanic complex, Antarctica. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract V11F-06
- Passchier, S., Browne, G., Field, B., Fielding, C.R., Krissek, L.A., **Panter**, K., and ANDRILL-SMS Science Team, 2008. Early Miocene through Pleistocene facies and sequence stratigraphy of AND-2A, Antarctica. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract C21B-0515
- Fielding, C., Browne, G., Field, B., Florindo, F., Harwood, D., Krissek, L., Levy, R., **Panter**, K., Passchier, S., Pekar, S., and the SMS Science Team, 2008. Sequence stratigraphy of the ANDRILL Southern McMurdo Sound (SMS) project drillcore, Antarctica: an expanded, near-field record of Antarctic Early to Middle Miocene climate and relative sea-level change. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract C34B-04
- Bassett, K., **Panter**, K.S., diVincenzo, G., Del Carlo, P. & SMS Science Team, 2008, Recent rapid deepening of the southern McMurdo Sound recorded in the ANDRILL SMS drill core, Geosciences '08, 23-26 November, Te Papa, Wellington, New Zealand.
- Bosket, M., Wilch, T.I., **Panter**, K.S., McIntosh, W.C., Dunbar, N.W., 2008. Explosively erupted hydrovolcanic deposits at Minna Saddle, Antarctica: Evidence of Limited Ice-Magma Interaction, *The Geological Society of America Annual Meeting*, Houston. Abstract 157-3.
- Panter**, K.S., Del Carlo, P., Rocchi, S., Bracciali, L., Field, B., and Bassett, K., 2008, Petrology, Geochemistry and Origins of Volcanic Clasts and Tephra from the AND2-2A core, ANDRILL Southern McMurdo Sound Project, Antarctica. Southern McMurdo Sound Project Core Workshop, April 28-May 4, Tallahassee, Florida.
- Pound, K.S., **Panter**, K.S., 2008, A geologic field guide to Observation Hill, Ross Island: using teacher-inspired questions to frame the development of a community resource. Southern McMurdo Sound Project Core Workshop, April 28-May 4, Tallahassee, Florida.
- Fielding, C., Bassett, K., Browne, G., Field, B., Frank, T., Krissek, L., **Panter**, K., Passchier, S., and Pekar, S., 2008, Summary of on-ice stratigraphic and sedimentological results from SMS. Southern McMurdo Sound Project Core Workshop, April 28-May 4, Tallahassee, Florida.
- Panter**, K.S. and Castillo, P., 2007, Petrogenesis and source of lavas from seamounts in the Adare Basin, Western Ross Sea: Implications for the origin of Cenozoic magmatism in Antarctica, 10th International Symposium on Antarctic Earth Sciences, August 26-31, Santa Barbara, California, Abstract 2.P2.D-3.
- Scanlan, M.K., **Panter**, K.S., Dunbar, N.W., 2007, Evidence for magma mixing/mingling in lavas from Minna Bluff, South Victoria Land, 10th Intern. Symp. Antarctic Earth Sciences, Aug. 26-31, Santa Barbara, CA, Abst. PS-43.
- Wilch, T.I., McIntosh, W.C., Smellie, J.L., Dunbar, N.W., Fargo, A., Scanlan, M.K., Roberts, P.D., **Panter**, K.S., 2007, Late Miocene volcanism and glaciation at Minna Bluff, Antarctica, 10th International Symposium on Antarctic Earth Sciences, August 26-31, Santa Barbara, California, Abstract 4.A.A-7.
- Panter**, K.S., Wilch, T.I., 2006, Potential use of Cenozoic volcanic-glacial records from the upper Scott Glacier to interpret Antarctic cryosphere history and constrain mantle source and geodynamic evolution in the southern Transantarctic Mountains, Transantarctic Mountains Workshop, The Ohio State University, Sept. 6-9.
- Panter**, K.S., Blusztajn, J., Hart, S., Kyle, P., Esser, R. and McIntosh, W., 2006, The origin of HIMU in the SW Pacific: evidence from intraplate volcanism in southern New Zealand. Abstract. 58th annual meeting of the Rocky Mountain Section of GSA, Gunnison, CO
- Panter**, K.S., Blusztajn, J., Hart, S.R., Finn, C.A., Kyle, P.R., 2005, A HIMU source in metasomatised continental lithosphere. Abstract S09 A97. *15th Annual V.M. Goldschmidt Conference*, Moscow, Idaho.
- Finn, C.A., Müller, D.R., **Panter**, K.S., 2003, A Cenozoic alkaline magmatic province in the SW Pacific without rift or plume origin. *EOS Trans. AGU*, 84(46), *Fall Meet. Suppl.*, Abstract V31A-06.
- Dou, J., Levine, N.S., Frizado, J.P., **Panter**, K.S., 2003, Mining Claim Management Web GIS: a web-based GIS tool for the management of mining claim and natural resource information. *GSA Annual Meeting*, Seattle.
- Finn, C.A., Müller, D.R., **Panter**, K.S., 2003, Definition of a Cenozoic alkaline magmatic province in the SW Pacific without rift or plume origin. *Internat. Symposium on Antarctic Earth Sciences (ISAES IX)*, Potsdam, Germany.

- Finn, C.A., Müller, D.R., **Panter**, K.S., 2003, Definition of a Cenozoic alkaline magmatic province in the southwest Pacific without rift or plume origin. Abstract in *The Hotspot Handbook*, Proceedings of Penrose Conference Plume IV: Beyond the Plume Hypothesis, Hveragerdi, Iceland, August.
- Panter**, K.S., Blusztajn, J., Wingrove, D., Hart, S., Matthey, D., 2003, Sr, Nd, Pb, Os, O isotope, Major and trace element data from basalts, South Victoria Land, Antarctica: Evidence for open-system processes in the evolution of mafic alkaline magmas. *General Assembly of the European Geosciences Union*, Geophys. Res. Abst, v. 5, 07583.
- Finn, C.A., Muller, R.D., **Panter**, K., Moresi, L., 2002, Eocene slab detachment leads to Cenozoic alkali volcanism in the southwest Pacific. *GSA Annual Meeting*, Denver, Abstracts with Programs, v. 34.
- Greene, L., **Panter**, K., Stork, A., Fillmore, R., 2002, Evolution of an ancient braided drainage: analysis of fluvial gravels near Gunnison, Colorado. *GSA Annual Meeting*, Denver, Abstracts with Programs, v.34.
- Panter**, K., Blusztajn, J., Hart, S., Matthey, D., 2002, Potential contaminants of late Cenozoic volcanism in South Victoria Land, Antarctica: a geochemical view of the deep crust. *Remote Views and Exploration of Antarctic Lithosphere (REVEAL) Workshop*, August 5-8th, Denver, Colorado.
- Greene, L., **Panter**, K., Stork, A., Fillmore, R., 2001, Characterization of gravels interbedded with Oligocene ash-flow tuffs near Gunnison, Colorado: implications for ancient surface water hydrology and volcano-fluvial interaction. *GSA Annual Meeting*, Abstracts with Programs, v. 33.
- Panter**, K.S., Blusztajn, J., Hart, S.R., Kyle, P.R., 2001, A geochemical perspective on mantle plumes in West Antarctica. *Antarctic Neotectonics Workshop*, Abstracts & Programme, Terra Antarctica Pub., University of Siena, p. 61.
- Panter**, K.S., Hart, S.R., Kyle, P., 2000, Evidence for a Cretaceous Antarctic Plume ("Erebus Plume") in New Zealand. *EOS, Transactions, American Geophysical Union*, v. 81, p. F1357.
- Murphy, R., Stork, A., **Panter**, K., McIntosh, W., Esser, R., 2000, ⁴⁰Ar/³⁹Ar geochronology and petrogenesis of a middle Tertiary volcano-laccolith complex, Gunnison County, Colorado. *GSA Annual Meeting*, Abst w/ Programs, v. 32.
- Panter**, K.S., Hart, S.R., Kyle, P., Blusztajn, J., Wilch, T., 1999, Geochemistry of Late Cenozoic basalts from the Cray Mountains: characterization of mantle sources in eastern Marie Byrd Land, Antarctica. *GSA Annual Meeting*, Abstracts with Programs, v. 31.
- Coven, B., **Panter**, K., Stork, A., 1999, Absolute age of the West Elk volcanic field, Gunnison and Delta Counties, Colorado. *GSA Annual Meeting*, Abstracts with Programs, v. 31.
- Panter**, K.S., Hallett, B., Love, D., McKee, C., Thompson, R., 1999, A volcano revisited: a preliminary report on the geology & geochemistry of Los Lunas Volcano, central New Mexico. *New Mexico Geo. Soc. Ann. Meeting*, p. 57.
- Panter**, K.S., Blusztajn, J., Hart, S., Kyle, P., 1997, Late Cretaceous-Neogene basalts from Chatham Island: Implications for HIMU mantle beneath continental borderlands of the southwest Pacific. *Seventh Annual V. M. Goldschmidt Conference*, p. 156, LPI Contribution 921, Lunar and Planetary Institute, Houston.
- Panter**, K.S., Kyle, P.R., Smellie, J.L., 1995, Geochemical evolution of a phonolite-trachyte succession at Mt Sidley, Marie Byrd Land. *VII Intern. Symposium on Antarctic Earth Sciences*, Siena, Italy, 272.
- Panter**, K.S., Pankhurst, R.J., Kyle, P.R., Smellie, J.L., Mukasa, S., McIntosh, W., 1994, Petrogenetic interpretations of Sr, Nd, O and Pb isotopes from the Mount Sidley volcano, Marie Byrd Land, Antarctica. *8th International Conference on Geochronology, Cosmochronology and Isotope Geology*, U.S.G.S. Circular 1107, p. 241.
- Kyle, P.R., Pankhurst, R., Mukasa, S., **Panter**, K., Smellie, J., McIntosh, W., 1994, Sr, Nd and Pb isotopic variations in the Marie Byrd Land Plume, west Antarctica. *8th International Conference on Geochronology, Cosmochronology and Isotope Geology*, Berkeley, U.S.G.S. Circular 1107, p. 184.
- Panter**, K.S., Campbell, A.R., Kunk, M., 1991, Genesis of wolframite mineralization in the Little Dragoon Mountains, southeastern Arizona. *GSA Annual Meeting*, Abstracts with Programs, v.23.
- Panter**, K.S., McIntosh, W.C., Smellie, J.L., Gamble, J.A., 1991, Volcanic history of Mount Sidley, Marie Byrd Land, Antarctica. *VI International Symposium on Antarctic Earth Sciences*, Japan. N.I.P.R., p.476.
- Smellie, J.L., **Panter**, K.S., McIntosh, W.C., Kyle, P.R., 1991, Geochemical evolution of volcanoes in the Executive Committee Range, central Marie Byrd Land, west Antarctica. *VI International Symposium on Antarctic Earth Sciences*, Japan. National Institute of Polar Research, p.536.
- McIntosh, W.C., Smellie, J.L., **Panter**, K.S., 1991, Glaciovolcanic interactions in eastern Marie Byrd Land, Antarctica. *VI International Symposium on Antarctic Earth Sciences*, Japan. N.I.P.R., p.402.
- Kyle, P.R., McIntosh, W.C., **Panter**, K.S., Smellie, J.L., 1991, Is volcanism in Marie Byrd Land related to a mantle plume? *VI International Symposium on Antarctic Earth Sciences*, Japan. N.I.P.R., p.337.
- Hallett, R.B., Boryta, J.R., King, B., **Panter**, K.S., 1991, Geochemistry of late Pliocene to Early Pleistocene basalts and trachyandesites in the central Albuquerque-Belen basin, New Mexico. *Geological Society of America Rocky Mountain Section Meeting*, Abstracts with Programs, v.23.
- Campbell, A.R., **Panter**, K.S., 1989, Fluid inclusions in quartz and wolframite from Cligga Head and Saint Michael's Mt., Cornwall, England. *Pan-American Conference on Research on Fluid Inclusions*, v. 2, 16.
- Panter**, K.S., Campbell, A.R., 1988, A fluid inclusion study of ore and gangue minerals; implications to genetic relationships, Saint Michael's Mount, Cornwall, England. *GSA Annual Meeting*, Abstracts with Programs, 20.

Courses Taught

Regularly:	Earth Environments:	GEOL 1040 & honors, majors and non-majors with laboratory
	Earth Materials II (Petrology)	GEOL 3030, majors with laboratory
	Field Geology	GEOL 4940/6930, six-week capstone course for majors
Alternate years:	Geological Hazards	GEOL 1200, non-majors
	Volcanology	GEOL 4050/5050, undergraduate/graduate course
	Continental Rift Magmatism	GEOL 6800, graduate seminar
Other:	Mineralogy with Optics	GEOL 305 (Western State College, 1998)
	Principles of Geochemistry	GEOC 443 (New Mexico Tech, 1997)

Student Research Advisor and Committee Member*

Rebecca Alcorn	Evaluation of volcanic risk using GIS and remote sensing data (in progress)
Betsy Zunk	Characterization and provenance of lava clasts from the AND-2A drillcore (in progress)
Susan Krans	Oxygen isotope study of minerals in basalts from the Northern Ross Sea (in progress)
Joanne Antibus	Water source for alteration of hyaloclastites from Minna Bluff, Antarctica (in progress)
Roseanne Nyland	Characterization of volcanic ash, AND-2A core, McMurdo Sound, Antarctica (2011)
Will Emery	Geology of Nathrop Volcanics, Central Colorado Volcanic Field (2011)
Colleen O'Shea	Volcanic processes & fluvial sedimentation, McDermott Mem. Animas Fm, CO (2009)
Mary Scanlan	Petrology of inclusion-rich alkaline lavas, Minna Bluff, Antarctica (2008)
Suvankar Chakraborty	Petrology of alkaline magmas from the Crary Mountains, Antarctica (2007)
Dennis Wingrove	Early evolution of basanites from the Royal Society Range, Antarctica (2005)
Larry Greene	Characterization of gravels interbedded with Oligocene tuffs near Gunnison, CO (2002)
Randolph Williams*	Characterizing quartz cementation in hydrothermal flow – through experiments (in progress)
Daniel Winslow*	Effects of iron on the precipitation of silica cement in quartz-rich rocks (2010)
Jenn Markham*	The Peach Bottom Slate: a shear zone waiting to happen (2009)
Chris Pepple*	Effects of methane-rich fluids on crack healing & quartz cementation in rocks (2007)
Allyson O'Kane*	Role of water in grain-scale deformation within the Cove fault zone, PA (2005)
Roene Finehout*	An investigation of source water feeding Buck Creek, Great Sand Dunes, CO (2004)
Jianwei Dou*	Design and Implementation of a Mining Claim Management Web-based GIS (2003)
Charles Laurence*	Origin of compositional zoning in hydrothermal quartz veins, Silverton, CO (2003)

Undergraduates

Evan Turner	Petrographic & geochemical characterization of Minna Bluff lavas (BGSU, 2011)
Carrie Milz	Petrographic & geochemical characterization of Minna Bluff lavas (BGSU, 2011)
Kenny Brown	Petrographic & geochemical characterization of inclusions, Minna Bluff (BGSU, 2009)
Tim Hampel	Magma ascent rates and mixing at Minna Bluff, Antarctic (BGSU, 2009)
Elizabeth Colville	A petrographic analysis of Adare Basin seamounts, western Ross Sea (Albion, 2007)
Brian Winter	Geology of the side-crater of the Mt. Erebus volcano, Antarctica (BGSU, 2006)
Ryan P. Murphy	A petrographic analysis of Royal Society Range basalts, Antarctica (BGSU, 2002)
Rebecca Thompson	Petrographic analysis of the Los Lunas Volcano, Albuquerque Basin, NM (WSC, 2000)
Ryan T. Murphy*	Age & petrology of E. Beckwith Peak & Storm Ridge laccoliths, CO (WSC, 1999)
Brian Coven*	Age & petrology of the basal part of the West Elk volcanic pile, CO (WSC, 1998)

Professional Activities

2010-	Member of U.S. ANDRILL (Antarctic Drilling) Steering Committee (USSC)
2010	NSF, Office of Polar Programs proposal review Panelist (Aug. 16-18, Wash. D.C.)
2009-	Guest editor for Geosphere (a GSA online publication), special theme issue on ANDRILL SMS.
2008	Participant, Minerals, Inclusions & Volcanic Processes, MSA & GS short course, AGU (Dec 13-14)
2008	Organizer, session leader, and presenter - SMS ANDRILL workshop, Tallahassee, FL (Apr 28-May 4)
2007	Visiting Professor, University of Canterbury, Christchurch, New Zealand, 2007/08 academic year
2007	Co- Discipline Team Leader – Petrology/Geochemistry/Volcanology group, ANDRILL-SMS.
2007	Member of Sedimentology and Core Characterization team, ANDRILL-SMS
2006	Presenter, Transantarctic Mountains Workshop, OSU, Columbus, Sept. 6-9.
2005	Participant, Integrating Research and Education focus group, NAGT/DLESE, San Francisco, Dec. 6
2005	Participant, U.S. Antarctic Geological Drilling (ANDRILL) Workshop, Denver, April 1.

- 2004 Participant, Using Computer Technology, COSMOS Study Group, October 28, at WGTE in Toledo.
 2004 Participant, Handheld Technology for Teachers, COSMOS Study Group, Sept. 29, at COSI in Toledo.
 2003 Participant, Simulation & Imagery in Scientific Model Constr., COSMOS Study Group, Oct. 13, BGSU.
 2003 Participant, Teaching Petrology in the 21st Century, a NAGT/NSF workshop, Bozeman, MT, July 9-15.
 2003 Participant, Gordon Uno's Inquiry Teaching, COSMOS Study Group, January 25, BGSU.
 2002 Organizer & Presenter, Remote Views & Exploration of Antarctic Lithosphere, USGS/NSF, Denver, Aug 5.
 2001 Member & presenter, Active Volcanism Working Group, Antarctic Neo-Tectonics, Siena, Italy, July 11-15.
 2000 Participant, This Dynamic Planet workshops, GSA annual meeting, Reno, NV

Reviews for

- Journal of Petrology
- Geochemistry Geophysics Geosystems
- Earth & Planetary Science Letters
- Chemical Geology
- Contributions to Mineralogy and Petrology
- Geological Society of America
- Journal of Geophysical Research
- Journal of Volcanology & Geothermal Research
- Geophysical Research Letters
- Earth-Science Reviews
- Global & Planetary Change
- Sedimentary Geology
- New Zealand Jour. Geol. & Geophys.
- Mineralogy and Petrology
- Journal of South American Earth Sciences
- Computers & Geosciences
- Terra Antarctica
- McGraw-Hill Higher Education
- USGS Open-File Report Series
- NSF (EAR, OPP, MRI, IF)

Membership in Professional Organizations

American Geophysical Union
 Geological Society of America
 International Association of Volcanology and Chemistry of the Earth's Interior
 Geochemical Society

Honors & Awards

- 2000 U.S. Board on Geographic Names approved the Antarctic geographic name **Panter Ridge** (77°33'S 169°03'E) as recommended by Philip R. Kyle (New Mexico Tech).
 1989 New Mexico Tech Barkley Wycoff Award for outstanding student in Economic Geology.
 1986 National Association of Geoscience Teachers—U.S. Geological Survey summer field training internship program for outstanding performance in Western State College of Colorado field course.

Community Activities Promoting Science & Education

- 2011 Judge in 48th Ohio Junior Science & Humanities Symposium, March 24
 2010 Television interviews (Channel 13 ABC News, Toledo); Icelandic eruption, Chilean & Haitian earthquakes
 2009 *Climate change & related research in Antarctica*, Shakespeare Club, Greenville, Illinois, January 23
 2007 *Recent Travels to Antarctica*, 4th Grade, Conneaut Elementary, Bowling Green, May 22
 2007 *New Zealand Geography and Geology*, New Zealand Study Group, Department of Higher Ed., April 6
 2006 Webelo Scouts – helped ~70 scouts earn academics belt loop for Geology, November 17
 2006 *What is the Earth made of?* 3rd Grade, Conneaut Elementary, Bowling Green, May 2
 2006 *Fire and Life in Antarctica*, Bowling Green Women's Club, February 1
 2005 *Animals in Antarctica*, 2nd Grade, Conneaut Elementary, Bowling Green, February 25
 2005 *Antarctica – the Last Continent*, Rotary Club of Bowling Green, February 17
 2004 Teachers Toolbox Resource Fair for Educators, COSMOS rep., COSI Toledo, Oct 14.
 2004 *What is Geology?* Bowling Green Junior High 8th grade class, May 11.
 2004 *Antarctica*, 1st Grade, Conneaut Elementary, Bowling Green, January 22.
 2003 The Ohio Junior Science & Humanities symposium poster judging, Toledo, OH, March 27.
 2002 *Fire and Ice*, St. Rose Elementary, Perrysburg, OH, December 12.
 2002 East Toledo Junior High School Microscope Workshop for in-service teachers, October 17.
 2001 *Exploring minerals, rocks and volcanoes*, Child Development Center, BGSU, February and March.
 2001 Earth science speaker, 5th Grade, Conneaut Elementary, Bowling Green, December 18.
 2001 Career day speaker, *What is a Geologist?* Conneaut Elementary, Bowling Green, March 2.