

ADAM C. SIMON – CURRICULUM VITAE

Adam C. Simon
4505 S. Maryland Parkway
Las Vegas, NV, 89154-4010, U.S.A.

Phone: (702) 895-2916
E-mail: adam.simon@unlv.edu
Web: geoscience.unlv.edu/adamsimon.htm

EDUCATION

Johns Hopkins University, Earth and Planetary Sciences, Post-Doctoral Fellow, 2004 – 2005
University of Maryland, Geology, Ph.D., 2000 – 2003
Stony Brook University, Geology, M.S., 1995 – 1997
University of Maryland, Geology, B.S., 1992 – 1995
Jagiellonian University, Poland Language and Culture Exchange Program, 1990–1991

PROFESSIONAL APPOINTMENTS

Assistant Professor, Geoscience, University of Nevada Las Vegas, August, 2005 – present
Postdoctoral Scholar, Johns Hopkins University, 2004 – 2005
Postdoctoral Scholar, University of Maryland, 2003 – 2005
Research Assistant, Lecturer, 2000-2003, University of Maryland
Adjunct Lecturer, Northern Virginia Community College, 1998 – 2000
Research Scientist, Toxicology International, Inc., 1997 – 2000

PEER REVIEWED PUBLICATIONS (IF = Journal Impact Factor; student author underlined)

- Bell, A., Simon, A. and Guillong, M. (2009) Experimental constraints on Pt, Pd and Au partitioning in silicate melt – sulfide – oxide – aqueous fluid systems at 800C, 150 MPa and variable sulfur fugacity. *Geochimica et Cosmochimica Acta*, 73(19), 5778-5792. IF = 4.235
- Simon, A.C. and Pettke, T. (2009) Platinum solubility and partitioning in a felsic melt – vapor – brine assemblage. *Geochimica et Cosmochimica Acta*, 73(12), 438-454. IF = 4.235
- Simon, A.C., Candela, P.A., Piccoli, P.M. and Englander, L. (2008) The effect of crystal – melt partitioning on the budgets of copper, gold and silver. *American Mineralogist*, 93, 1437-1448. IF = 2.203
- Simon, A.C., Pettke, T., Candela, P.A., Piccoli, P.M., Heinrich, C. (2008) The partitioning behavior of silver in a vapor – brine – rhyolite melt assemblage. *Geochimica et Cosmochimica Acta*, 72(6), 1638-1659. IF = 4.235
- Hersum, T., Marsh, B., Simon, A. (2007) Dolerite partial melting of granitic country rock, melt segregation, and re-injection as dikes, McMurdo Dry Valleys, Antarctica. *Journal of Petrology*, 48(11), 2125-2148. IF = 4.289
- Boudreau, A. and Simon, A.C. (2007) Crystallization and degassing in the basement sill, McMurdo Dry Valleys, Antarctica, *Journal of Petrology*, 48(7), 1369-1386. IF = 4.289
- Simon, A.C., King, R.L., Pettke, T. and Usui, T. (2007), Chemical and physical processes affecting element mobility from the slab to the surface. In Simon, A.C., King, R.L., Pettke, T. and Usui, T., eds., *Chemical and physical processes affecting element mobility from the slab to the surface*, *Chemical Geology*, 239, 179-181. IF = 3.531
- Simon, A.C., Pettke, T., Candela, P.A., Piccoli, P.M., Heinrich, C. (2007) The partitioning behavior of As and Au in a haplogranite - vapor at magmatic conditions in sulfur-free and sulfur-bearing systems. *Geochimica et Cosmochimica Acta*, 71, 1764-1782. IF = 4.235

ADAM C. SIMON – CURRICULUM VITAE

- Simon, A.C., Frank, M., Pettke, T., Candela, P.A., Piccoli, P.M., Heinrich, C., Glascock, M. (2007) An evaluation of synthetic fluid inclusions for the purpose of trapping equilibrated coexisting immiscible fluids at experimental PVTX conditions. *American Mineralogist*, 92, 124-138. IF = 2.203
- Simon, A.C., Pettke, T., Candela, P.A., Piccoli, P.M., Heinrich, C. (2006) Copper partitioning in sulfur bearing magmatic systems. *Geochimica et Cosmochimica Acta*, 70, 5583-5600. IF = 4.235
- Simon, A.C., Pettke, T., Candela, P.A., Piccoli, P.M. and Heinrich, C.A. (2005) Gold partitioning in melt-vapor-brine systems. *Geochimica et Cosmochimica Acta*, 69, 3321-3335. IF = 4.235
- Simon, A.C., Pettke, T., Candela, P.A., Piccoli, P.M. and Heinrich, C.A. (2004) Magnetite solubility and iron transport in magmatic-hydrothermal environments. *Geochimica et Cosmochimica Acta*, 68, 4905-4914. IF = 4.235
- Simon, A.C., Pettke, T., Candela, P.A., Piccoli, P.M. and Heinrich, C.A. (2003) Gold solubility in magnetite: preliminary implications for magmatic gold budgets. *American Mineralogist*, 88, 1644-1651. IF = 2.203
- Nekvasil, H., Simon, A.C., and Lindsley, D.H. (2000), Crystal fractionation and the evolution of intra-plate hy-normative igneous suites; insights from their feldspars. *Journal of Petrology*, 41, 1743-1757. IF = 4.289

PEER-REVIEWED PUBLICATIONS IN PRESS OR IN PREPARATION (student)

- Simon, A.C. (in prep) The partitioning of Cu between pyrrhotite and silicate melt at variable sulfur fugacity. To be submitted to *Journal of Economic Geology*. IF = 1.377
- Bell, A., Simon, A., Guillong, M. and Heinrich, C. (in prep) The effect of degassing on ferrous/ferric ratios of silicate melt. To be submitted to *Geology*. IF = 3.89
- Frank, M.R., Simon, A., Pettke, T., Candela, P., Piccoli, P. and Heinrich, C. (submitted 2/10) Gold, copper and iron partitioning in sulfur-bearing vapor-brine-melt systems at 800°C and 100 MPa. *Geochimica et Cosmochimica Acta*. IF = 4.235
- Muntean, J., Cline, J, Simon, A. and Long, A. (submitted 2/10) Carlin-type gold deposits: The perfect ore system. *Nature Geoscience*. IF = not yet available
- Bell, A., Simon, A., Guillong, M. and Heinrich, C. (submitted 2/10) Au solubility in Cl- and S bearing basaltic melts at variable fO_2 . *Geochimica et Cosmochimica Acta*. IF = 4.235

INVITED PUBLICATIONS

- Simon, A. and Ripley, E. (in prep) The role of sulfur in the formation of magmatic ore deposits. *Reviews in Mineralogy and Geochemistry: Sulfur in Magmas and Melts and its Importance for Natural and Technical Processes*. Eds. Harald Behrens and James Webster

TECHNICAL REPORTS

- Ludington, S., John, D.A., Muntean, J.L., Hanson, A.D., Castor, S.B., Henry, C.D., Wintzer, N., Cline, J.S., and Simon, A. (2009) Mineral-resource assessment of northern Nye County, Nevada; a progress report: U.S. Geological Survey Open-File Report 2009-1271, 13 p.
- Eichelberger, J., Kiryukhin, A., and Simon, A. (2009) The magma-hydrothermal system at Mutnovsky Volcano, Kamchatka Peninsula, Russia. *Scientific Drilling*, 7.

ADAM C. SIMON – CURRICULUM VITAE

Simon, A. and Artz, Z. (2009) An Investigation of Igneous Intrusions at the Cortez Hills Carlin type Gold Deposit. Center for Research in Economic Geology (CREG), University of Nevada, Reno, U.S.A.

Artz, Z. and Simon, A. (2008) Igneous Geochronology and Petrography of the Cortez Hills Carlin-type Gold Deposit, Center for Research in Economic Geology, Reno, U.S.A.

NON-PEER REVIEWED PUBLICATIONS

Simon, A.C., (2008) The relationship between hydrogen fugacity and copper partitioning at magmatic conditions. In: T. Kazuyuki, T. Noriyoshi and J. Balachandran (Eds.), Water Dynamics, 5th International Workshop on Water Dynamics AIP Conference Proceedings 987, 105-107.

FUNDED PEER-REVIEWED GRANTS

Collaborative Research: Integrated investigations of isotopic fractionation in magmatic systems. U.S. National Science Foundation EAR Petrology and Geochemistry. Co-PIs: Chip Leshner, UC Davis; Craig Lundstrom, U. Illinois; Jim Van Orman and Daniel Lacks, Case Western Reserve; Simon, UNLV. U.S. National Science Foundation Petrology and Geochemistry, August, 2010 – July, 2013. Simon portion: \$148,000. Total is \$600,000.

Pan-American Current Research on Fluid Inclusions (PACROFI) Conference. U.S. National Science Foundation Petrology and Geochemistry. Co-PI Jean Cline. Jan., 2010 – Dec., 2010. \$21,350.

Platinum group element fractionation in mafic layered intrusions. U.S. National Science Foundation Petrology and Geochemistry, January, 2007 – Dec, 2010. \$164,763. Sole PI

Quantifying the mobility of gold in volcanic gases to build an improved exploration model for Nevada's hidden gold deposits. UNLV Research Development Award. Aug, 2008 – July, 2009. \$8,240. Sole PI

Acquisition of an electron backscatter detector (EBSD), UNLV Research Infrastructure Award Program, 2007. \$97,332, Co-PIs Pamela Burnley and Oliver Tschauner

Exploring the dynamics of volcanic eruptions. UNLV Presidential Research Award, Aug, 2007 – July, 2009. \$49,600. PI. Co-PIs Gene Smith, Rod Metcalf

Characterization of unsaturated flow in heap leach piles. U.S. National Science Foundation EPSCoR, Aug, 2007 – July, 2008. \$31,692. Co-PI Michael Nicholl

Using fluid inclusions to track fluid migration in sedimentary basins. UNLV New Investigator Award, Jan, 2006 – Dec, 2008. \$12,500. Sole PI

FUNDED CONTRACT RESEARCH

History and origin of mineral deposits in Northern Nye County, Nevada. U.S. Department of the Interior, U.S. Geological Survey. June, 2010 – May, 2011. \$20,000.

History and origin of mineral deposits in Northern Nye County, Nevada. U.S. Department of the Interior, U.S. Geological Survey. June, 2009 – May, 2010. \$75,000.

Quantifying element mobility at elevated pressure and temperature. UNLV High Pressure Science and Engineering Center (HiPSEC), DOE/NNSA, Aug, 2006 – July, 2011. \$375,000 as of May, 2010.

ADAM C. SIMON – CURRICULUM VITAE

MINING COMPANY SUPPORT

Defining stratigraphy and determining the influence of metamorphism as an ore control in the lower Paleozoic host rocks of the Getchell Carlin-type gold deposit, Nevada, U.S.A.

Barrick Gold Corporation, August, 2009 – July, 2010. \$30,000. Co-PI Jean Cline.

Igneous Geochronology and Petrography of the Cortez Hills Carlin-type Gold Deposit, Cortez, Nevada. Aug, 2007 – July, 2008, Center for Research in Economic Geology (CREG), University of Nevada, Reno, U.S.A. \$16,000.

INVITED TALKS

Simon, A.C. (2010) Experimental approaches to constrain metal mobility in magmatic Hydrothermal systems. The Hebrew University of Jerusalem.

Simon, A.C. (2010) The evolution of porphyry-Au deposits: a combined experimental and field approach. McGill University.

Simon, A. (2009; Keynote) Progress toward understanding the effects of the oxidation state of H-O-S-Cl bearing fluids on metal partitioning in magmatic systems. AGU Fall Meeting V52A-01.

Simon, A.C. (2009) Melt degassing and fluid evolution. University of Southern California
Bell, A., Simon, A.C. and Guillong (2009) The effect of sulfur fugacity on the partitioning of platinum, palladium and gold in magmatic systems. Geological Society of Canada – Mineralogical Society of Canada Annual Meeting, Toronto, Canada.

Simon, A.C. (2009) A magmatic source for gold in the Carlin-type gold deposits. Geological Society of Nevada, Las Vegas Chapter.

Simon, A.C. (2009) Scientific Abstracts: Who, What, Where, When, Why and How. Graduate & Professional Student Association Conference Skills Development Workshop. UNLV.

Simon, A.C. (2008) The evolution of platinum group element-rich layered mafic intrusions. University of Nevada, Reno

Simon, A.C. (2008) Experiments to constrain the mobility of elements at elevated pressure and temperature. High Pressure Science and Engineering Center Annual DOE Review.

Simon, A.C. (2008) The Formation of PGE-Reefs in Layered Mafic Intrusions: An Experimental Investigation. Geological Society of Nevada, Elko Chapter.

Simon, A.C. (2008) Writing Abstracts. Graduate & Professional Student Association Conference Skills Development Workshop

Simon, A.C. (2007, Keynote) The effect of hydrogen fugacity on ore mineral stability. 5th Annual Water-Rock Interactions Conference. Sendai, Japan.

Simon, A.C. and Pettke, T. (2007) Platinum solubility in a vapor – brine – melt assemblage, European Current Research on Fluid Inclusions (ECROFI).

Simon, A.C. (2007) Harnessing a dragon: The study of active volcanoes in Kamchatka, Russia. UNLV Forum Lecture.

Simon, A.C. (2007) Abstracts. Graduate & Professional Student Association Conference Skills Development Workshop

Candela, P.A., Piccoli, P., Simon, A. (2006) Experiments, equilibria, and ore metals: From magmas to porphyry systems. GSA Annual Meeting

Simon, A.C. (2006) Links between magmatism and Carlin-type ore deposits. Barrick Gold Corporation

Simon, A.C. (2006) Unraveling the links between magmatism and shallow-level ore bodies. Mutnovsky Scientific Drilling Program Workshop Proceedings. ISBN 5-85857-094-1

ADAM C. SIMON – CURRICULUM VITAE

- Simon, A.C. (2006) Volcanoes, plutons and precious metals: What's the connection? Northern Arizona University Geology Department Colloquium Series
- Simon, A.C., Pettke, T., Candela, P.A., Piccoli, P. and Heinrich (2006) Gold and arsenic partitioning at magmatic conditions. *Geochimica et Cosmochimica Acta*, 70(18), A591
- Simon, A.C. (2006) The behavior of copper in magmatic systems. University of Nevada Reno Geology Department Colloquium Series.
- Simon, A.C. (2005) Constraints on ore metal partitioning at magmatic conditions. Colorado School of Mines Colloquium Series (*cancelled owing to snow*)
- Simon, A.C. (2005) Experiments in geology. Johns Hopkins University, Department of Earth and Planetary Science Colloquium Series.
- Simon, A.C. (2003, keynote) Experiments using pre-fractured quartz to trap volatile phases: Can we believe the data. Geological Society of America Annual Meeting.
- Simon, A.C., Candela, P.A., Piccoli, P.M. (2002) Sulfur's effect on iron concentration in chloride-bearing magmatic fluids. *Eos Transactions AGU*, 83(05), Abstract V22A-04.
- Simon, A.C., Candela, P.A., Piccoli, P.M. and Frank, M. (2001) Chlorine and iron in magnetite-melt-volatile systems. 11th Annual V.M. Goldschmidt Conference, Abstract 3782. LPI Contribution No. 1088

VOLUNTEERED PRESENTATIONS (1 = undergraduate advisee; 2 = graduate advisee)

- Simon, A., Muntean, J., ²Aillaud, B. (2010) The formation of Au-rich porphyry deposits: Where is the Cu? GSA Annual Meeting
- Muntean, J., Cline, J., Simon, A., Longo, T. (2010) The origin of Carlin-type gold deposits. GSA Annual Meeting
- ²Didaleusky, J., Cline, A., Nowicki, S., Ludington, S. (2010) The metal potential of black shales of Eureka and Nye County, Nevada, USA., GSA Annual Meeting.
- ²Robertson, K., Simon, A., Smith, E., Kiryukhin, A., Mulcahy, S. and Selyangin, O. (2010) The evolution of Mutnovsky Volcano, Kamchatka, Russia. State of the Arc (SOTA) Conference, Greece
- Simon, A., Cline, J., Muntean, J. and Longo, T. (2010) Origin of Carlin-type gold deposits. Geological Society of Nevada Symposium: Great Basin Evolution and Metallogeny.
- ²Eck, N., Simon, A., Cline, J. and Wood, K. (2010) Effects of contact metamorphism on the host rocks, and controls on mineralization occurring within the metamorphic aureole of the Osgood stock at the Turquoise Ridge Carlin-type gold deposit, Nevada. Geological Society of Nevada Symposium: Great Basin Evolution and Metallogeny
- ²Aillaud, B., Simon, A. and Muntean, J. (2010) Formative Fluid Evolution at the Verde and Pancho Deposits of the Refugio District, Chile. Geological Society of Nevada Symposium: Great Basin Evolution and Metallogeny
- ²Bell, A., Simon, A. and Guillong, M. (2010) The effects of silicate melt degassing on iron and sulfur oxidation state. Pan-American Current Research on Fluid Inclusions Conference (PACROFI).
- ²Robertson, K., Simon, A., Smith, E., Kiryukhin, A., Mulcahy, S. and Selyangin, O. (2010) Evolution of an old, cold arc volcano: A case study at Mutnovsky, Kamchatka. Pan American Current Research on Fluid Inclusions Conference (PACROFI).
- ²Eck, N., Simon, A., Cline, J. and Wood, K. (2010) Magma intrusion, contact metamorphism and gold mineralization at Getchell, Nevada. PanAmerican Current Research on Fluid Inclusions Conference (PACROFI).

ADAM C. SIMON – CURRICULUM VITAE

- ²Aillaud, B., Simon, A. and Muntean, J. (2010) The evolution of porphyry gold deposits in the Chilean arc. PanAmerican Current Research on Fluid Inclusions Conference (PACROFI).
- Honn, D.K., Smith, E.I. Simon, A. and Spell, T. (2010) Redefining an igneous system: Magmatic evolution of the River Mountains Volcanic Suite and Wilson Ridge Pluton. GSA Cordilleran Section Meeting.
- ²Bell, A., Simon, A. and Guillong, M. (2009) Alkali and Fe exchange between basaltic liquids and supercritical chloride solutions at 200 MPa and 1298K: Geochemical implications for magmatic degassing. AGU Fall Meeting V51G-05.
- Honn, D.K., Smith, E.I. and Simon, A.C. (2009) A comparison of petrogenetic records from volcanic and plutonic segments of the linked River Mountains volcanic suite and Wilson Ridge pluton. AGU Fall Meeting V51A-1638
- Simon, A., Jugo, P., ²Bell, A., Guillong, M. and Heinrich, C. (2009) The effect of sulfur fugacity on the mobility of copper in magmatic-hydrothermal systems. European Current Research on Fluid Inclusions (ECROFI-XX).
- Simon, A., ²Robertson, K., Smith, E., ²Honn, D., Kiryukhin, A. and Selyangin, O. (2009) Volcanically powered geo/hydrothermal systems: A case study at Mutnovsky Volcano, Kamchatka. GSA Annual Meeting.
- Frank, M., Simon, A., Pettke, T., Candela, P., Piccoli, P. and Heinrich, C. (2009) Gold and copper partitioning in sulfur-bearing vapor-brine-melt systems at 800 C and 100 MPa. GSA Annual Meeting.
- Cline, J., Muntean, J., Longo, T. and Simon, A. (2009) Origin of Carlin-type gold deposits. GSA Annual Meeting.
- ²Robertson, K., Simon, A., Smith, E., Kiryukhin, A., and Selyangin, O. (2008) Geothermometry of Mutnovsky Volcano, Russia, and implications for magmatic evolution. GSA Annual Meeting.
- Simon, A. and Jugo, P. (2009) The misuse of Nernst-type D's: A case study with R factors. Goldschmidt Conference, A1226.
- ²Bell, A., Simon, A. and Guillong, M. (2009) REE, HFSE, LILE and transition metal exchange between basaltic melt and supercritical Cl-bearing aqueous fluid. Goldschmidt Conference, A106.
- ²Maglio, S., Simon, A., Tschauer, O., Frank, M.R., Chow, P., Xiao, Y., Shen, G. and Nicol, N. (2009) Trace element mass transfer using in situ techniques at subduction zone conditions. High Pressure Collaborative Access Team (HPCAT) Annual Meeting, Advanced Photon Source, Argonne National Laboratory, Argonne, IL.
- Simon, A. (2009) An Investigation of Igneous Intrusions at the Cortez Hills Carlin type Gold Deposit. Center for Research in Economic Geology (CREG), UNR, Reno, U.S.A.
- Honn, D., Smith, E. and Simon, A. (2008) New geochronology and evidence for magma mixing and comingling in the linked River Mountains-Wilson Ridge system, Nevada and Arizona. EoS Transactions AGU Fall Meeting. Abstract V23E-2167.
- ²Robertson, K., Simon, A., Kiryukhin, A., Selyangin, O., and Bindeman, I. (2008) Magmatic Processes at Mutnovsky Volcano: Insights Into Compositional Heterogeneity and Possible Melt Sources. EoS Transactions AGU Fall Meeting. Abstract V43A-2144.
- Simon, A.C., Eichelberger, J., West, M., Ramsey, M., Newman, A., Reed, M., Kiryukhin, A. and Selyangin, O. (2008) Mutnovsky Volcano: Exploring the feedback loop between arc volcanism and continental hydrothermal systems. EoS Transactions AGU Fall Meeting. Abstract V41E-08.

ADAM C. SIMON – CURRICULUM VITAE

- ¹Pages, S., ¹Hughes, C., ¹Norgan, J., Nicholl, M. and Simon, A. (2008) Experimental observations of unsaturated flow in dual-porosity granular media. Symposium on Understanding Near-Surface Environmental Processes, sponsored by the Desert Research Institute and Nevada Water Resources Association, Las Vegas, NV.
- ¹Pages, S., ¹Hughes, C., ¹Norgan, J., Nicholl, M. and Simon, A. (2008) Experimental observations of unsaturated flow in dual-porosity granular media. UNLV GeoSymposium, Las Vegas, NV.
- ²Robertson, K. and Simon, A. (2008) Compositional heterogeneity at Mutnovsky Volcano, Kamchatka, Russia. GSA Cordilleran Sectional Meeting, 30-5.
- ¹Swenberg, C., ²Bell, A. and Simon, A. (2008) Exploring the chemical behavior of the platinum group elements. GSA Cordilleran Sectional Meeting, 9-7.
- ¹Carter, J., ²Roberston, K., ²Maglio, S. and Simon, A. (2008) Studying fluid inclusions in the La Popa Basin, Mexico as an analog to fluid migration in sediments in the Gulf of Mexico. GSA Cordilleran Sectional Meeting, 32-1.
- ¹Pages, S., ¹Hughes, C., ¹Norgan, J., Nicholl, M. and Simon, A. (2008) Characterization of unsaturated flow in heap leach piles. GSA Cordilleran Sectional Meeting, 9-8.
- ²Artz, Z. and Simon, A. (2008) Igneous geochronology and petrography of the Cortez Hills Carlin-type gold deposit, Cortez, Nevada. GSA Cordilleran Sectional Meeting, 32-4
- ²Zellner, G. and Simon, A. (2008) Description of geology, ore mineralogy, and source constraints of mineralizing fluids, Little Giant Mine, Yavapai County, Arizona. GSA Cordilleran Sectional Meeting, 32-2.
- Simon, A.C. and ²Bell, A. (2007) Iron diffusivity in water saturated rhyolite melt. EoS Transactions AGU Fall Meeting.
- Honn, D., Simon, A., Smith, E. and Spell, T. (2007) The River Mountains volcanic section – Wilson Ridge pluton, a long lived multiphase mid-Tertiary igneous system in southern Nevada and northwestern Arizona, USA. EoS Transactions AGU Fall Meeting.
- ²Maglio, S., Frank, M., Simon, A., Tschauner, O., ²Aarestad, B., Hanchar, J. and Nicol, M. (2007) Quantifying element mass transfer at subduction zone conditions by using the hydrothermal diamond anvil cell and in-situ X-ray fluorescence. EoS Transactions AGU Fall Meeting.
- ²Bell, A., Simon, A., Guillong, M. and Heinrich, C. (2007) Experimental constraints on Pt-Pd Au partitioning in H₂O-haplogranite-sulfide-oxide phase assemblages. EoS Transactions AGU Fall Meeting.
- ²Bell, A. and Simon, A. (2007) An experimental investigation of PGE solubilities in basalt – vapor – brine – oxide – sulfide assemblages, ECROFI.
- ¹Sendis, A., ¹Sims, P.C., Tschauner, O. and Simon, A. (2007) A Raman spectroscopy study on determining metal-chloride concentrations in aqueous solutions. Summer Research Experience for Undergraduates (REU) Conference, UNLV.
- ¹Carter, J. and Simon, A. (2007) Studying fluid inclusions in the La Popa Basin, Mexico as an analog to fluid migration in sediments in the Gulf of Mexico. GeoSymposium, Department of Geoscience, UNLV.
- ²Artz, Z. and Simon, A. (2007) Petrology and age constraints on intrusive phases at Cortez, Nevada: Exploring the links between magmatism and Carlin-type mineralization. GeoSymposium, Department of Geoscience, UNLV.
- ²Bell, A. and Simon, A. (2007) Platinum group element mobility in silicate melts. GeoSymposium, Department of Geoscience, UNLV.

ADAM C. SIMON – CURRICULUM VITAE

- ²Zellner, G. and Simon, A. (2007) Source of ore fluids and conditions of mineralization at Bullard Pass, Yavapai County, Arizona. GeoSymposium, Department of Geoscience, UNLV.
- Frank, M.R., Simon, A., Pettke, T., Candela, P., Piccoli, P. and Heinrich, C. (2006) Gold, copper and iron partitioning in sulfur-bearing vapor-brine-melt systems at 800°C and 100 MPa. EoS Transactions AGU Fall Meeting.
- Simon, A.C., Pettke, T., Candela, P.A., Piccoli, P. and Heinrich (2006) Gold and arsenic partitioning at magmatic conditions. *Geochimica et Cosmochimica Acta*, 70(18), A591
- Simon, A.C., Pettke, T., Candela, P.A., Piccoli, P.M. and Heinrich, C.A. (2006) The behavior of copper at magmatic conditions. EoS Transactions AGU, U41A-05.
- Wilmot, M.S., Candela, P., Piccoli, P., Simon, A. and McDonough, W. (2006) Preliminary study of bismuth partitioning in mineral-melt systems. GSA Annual Meeting.
- Wilmot, M.S., Candela, P.A., Piccoli, P.M., Simon, A.C. and McDonough, W.F. (2006) Examination of the behavior of bismuth in shallow-level hydrothermal ore systems: Constraints based on hydrothermal experiments at 800°C and 100 MPa. EoS Transactions AGU, U41A-04.
- Simon, A.C. and Marsh, B.D. (2005) Pyroxene thermometry in the OPX Tongue of the Basement Sill, McMurdo Dry Valleys, Antarctica, EoS Transactions AGU, V13H-08.
- Boudreau, A.E. and Simon, A. (2005) Crystallization and degassing in the Ferrar Sills, Antarctica. EoS Transactions AGU, Fall Meeting 2005, Abstract V14H-06.
- Marsh, B.D., Simon, A., ²Charrier, A.D., ²Hersum, T.G. and Escholz, E. (2005) The McMurdo Dry Valleys Magmatic Laboratory Workshop of 2005 in Antarctica. EoS Transactions AGU, Fall Meeting 2005, Abstract V13H-02.
- Naslund, H.R., Bedard, J.H., Simon, A., and Mukasa, S.B. (2005) Small-scale modal layering the Dais section of the Basement Sill, Ferrar Province, Antarctica. EoS Transactions AGU, Fall Meeting 2005, Abstract V13H-04.
- Marsh, B.D., ²Hersum, T.G., Simon, A.C., ²Charrier, A.D. and Souter, B.J. (2005) Discovery of a funnel-like deep feeder zone for the Ferrar Dolerites, McMurdo Dry Valleys, Antarctica. EoS Transactions AGU, Fall Meeting 2005, Abstract V14H-03.
- Bedard, J.H., Fleming, T., Hersum, T., Marsh, B., Mathez, E., Mukasa, S.B., Naslund, H.R. and Simon, A. (2005) Evidence for channelized transfer of residual melts and fluids in the Basement Sill, Ferrar Province, Antarctica. EoS Transactions AGU, Fall Meeting 2005, V14H-05.
- ²Hersum, T.G., Simon, A.C. and Marsh, B.D. (2005) Silicic melt generation, segregation, and injection by dolerite partial melting of granitic wall rock, McMurdo Dry Valleys, Antarctica. EoS Transactions AGU, Fall Meeting 2005, Abstract V23A-0682.
- Simon, A.C., Candela, P., Pettke, T., Piccoli, P. and Heinrich, C. (2005) The effect of sulfur on melt-volatile phase partitioning of copper. GSA Annual Meeting, 65, 4.
- Simon, A.C. Simon, A.C., Pettke, T., Candela, P.A., Piccoli, P.M. (2005) The effect of volatile sulfur on metal partitioning at magmatic conditions. *Geochimica et Cosmochimica Acta*, 69(10), A657.
- Simon, A.C., Piccoli, P.M. and Candela, P.A. (2004) The effect of iron on the chlorine concentration in felsic melts. Eos Transactions AGU, 85(47), Fall Meeting Supplement.
- Piccoli, P.M., Simon, A.C., Candela, P.A. and ²Englander, L. (2004) Porphyry-ore systems: Constraints on copper, gold and silver behavior based on experiments. IAVCEI Meeting.

ADAM C. SIMON – CURRICULUM VITAE

- Williams, T.J., Piccoli, P.M., Candela, P.A., Simon, A.C. (2004) Minerals and reactions in miarolitic cavities in the Eocene Sawtooth Batholith, South Central Idaho. GSA Annual Meeting, 36(4), 69
- Simon, A.C., Candela, P.A., Piccoli, P.M., Pettke, T. and Heinrich, C.A. (2003) Vapor brine partitioning of iron and magnetite solubility as a function of pressure in the magmatic-hydrothermal Environment. Geological Association of Canada 2003 Annual Meeting.
- Simon, A.C., Candela, P.A., Piccoli, P.M., Pettke, T., and Heinrich, C.A. (2003) Gold Concentrations in Magmatic Vapor and Brine Near the Critical Point. Geological Association of Canada 2003 Annual Meeting.
- Simon, A.C., Candela, P.A., Piccoli, P.M., Pettke, T. and Heinrich, C.A. (2002) Gold solubility in magnetite. GSA Annual Meeting
- Simon, A.C., Candela, P.A. and Piccoli, P.M. (2001) An Experimental Study of magnetite solubility as a function of pressure along the dewpoint curve in the NaCl-, KCl-, HCl H₂O-Melt System. Simon Eos Transactions AGU, 82(47), Fall Meet. Suppl., V32B-968
- ¹Webber C.E., Candela, P.A., Piccoli, P.M. (2001) Generation of granitic dikes: Can texture, mineralogy, and geochemistry be used as guides to determine the mechanisms of diking? GSA Annual Meeting
- Simon, A.C. (2000) Chlorine and iron in magnetite melt-volatile systems. Graduate Research Interaction Day, University of Maryland.
- Nekvasil, H., Simon, A.C., Lindsley, D.H. (1998) The diversity among oceanic and continental hotspot magmatic suites; the possible role of Cl and F. GSA Annual Meeting, 29, 245.
- Simon, A.C. and Lindsley, D.H. (1997) An experimental study of the evolution of ferrodioritic liquid residual to anorthosite in the Laramie Anorthosite Complex, Wyoming, USA, GSA Annual Meeting, 29, 209.

TEACHING EXPERIENCE (u = undergraduate; g = graduate)

UNLV

2009-2010	^g Magmatic thermometers, barometers and gas fugacities ^{u, g} Metallic Ore Deposits (team taught; 50% contribution) ^u Optical Mineralogy ^u Physical Geology ^u Physical Geography
2008-2009	^g Time Management and Scientific Poster Presentation ^u Optical Mineralogy ^u Physical Geology, 2 lecture sections ^u Physical Geography
2007-2008	^g Magma evolution ^u Optical Mineralogy ^u Physical Geology ^u Physical Geography
2006-2007	^g Tectonics, Petrology and Fluids (team taught; 33% contribution) ^{u, g} Metallic Ore Deposits (team taught; 50% contribution) ^u Optical Mineralogy ^u Physical Geology ^u Physical Geography
2005-2006	^g Magma Emplacement

ADAM C. SIMON – CURRICULUM VITAE

^uPhysical Geology
^uPhysical Geography

Johns Hopkins University

2004-2005 ^gOre Deposit Geochemistry

University of Maryland

2004-2005 ^uOptical Mineralogy and ^uPhysical Geology

2003-2004 ^uOptical Mineralogy and ^uPhysical Geology

2002-2003 ^uOptical Mineralogy

Northern Virginia Community College

1998-2000 ^uPhysical Geology and ^uHistorical Geology

STUDENT ADVISEES

Current Graduate Students

Lindsey Clark, 2010 –, M.S., UNLV Geoscience (co-advisor Jean Cline, UNLV)

Jane Didaleusky, 2010 –, M.S., UNLV Geoscience (co-advisor Jean Cline, UNLV)

Elizabeth Tanis, 2010 –, Ph.D., UNLV Geoscience

Kelly Robertson, 2007 –, Ph.D., UNLV Geoscience

Greg Zellner, 2006 –, M.S., UNLV Geoscience

Zach Artz, 2006 –, M.S., UNLV Geoscience

Former Graduate Students

Nathan Eck, 2008 – 2010, M.S., UNLV Geoscience (co-advisor Jean Cline, UNLV)

Aaron Bell, Ph.D., 2006 – 2010, UNLV Geoscience

Brian Aillaud, M.S., 2008 – 2010, M.S., UNLV Geoscience (co-advisor John Muntean, UNR)

Steve Maglio, M.S. 2007 – 2009, UNLV Geoscience (co-advisor Oliver Tschauner, UNLV)

Current Graduate Student Committee Member

Daniel Antonio, 2010 –, Ph.D. UNLV Physics

Breetha Alagappan, 2009 –, Ph.D., UNLV Chemistry

Jordan Armstrong, 2008 –, M.S., Geoscience

Jeevan Jayakody, 2008 –, M.S., UNLV Geoscience

Lisa Hancock, 2008 –, M.S., UNLV Geoscience

Carla Eichler, 2008 –, M.S., UNLV Geoscience

Racheal Johnson, 2008 –, Ph.D., UNLV Geoscience

John Howard, 2007 –, M.S., UNLV Physics

Audrey Rager, 2007 –, Ph.D., UNLV Geoscience

Denise Honn, 2006 –, Ph.D., UNLV Geoscience

Former Graduate Student Committee Member

John Howard, 2006–2010, M.S., UNLV Physics

Ashley Tibbetts, 2006–2009, M.S., UNLV Geoscience

Timo Hoffman, 2006–2009, Ph.D., UNLV Chemistry

Elizabeth Tanis, 2006–2010, M.S., UNLV Physics

ADAM C. SIMON – CURRICULUM VITAE

Daniel Antonio, 2005–2009, M.S., UNLV Physics

Nicolle Keller, Ph.D., 2008, Australian National University (served as external reader)

Undergraduate Research Students

Bretty Petty, 2010 –, B.S., UNLV

Kirellos Sefein, 2010 –, B.S., UNLV

Aaron Acena, 2009 –, B.S., UNLV

Lindsey Clark, 2009 –, B.S., UNLV (starting MS in fall, 2010)

Seth Pages, 2007 – 2008, B.S., UNLV (current MS student at Texas Tech)

Jason Norgan, 2007 – 2008, B.S., UNLV

Carl Swenberg, 2006 – 2008, B.S., UNLV (current MS student at UNLV)

Pat DelVecchio, 2006 – 2007, B.S., UNLV (current MS student at UNLV)

Jonathan Carter, 2006 – 2007, B.S., UNLV (current MS student at UNLV)

Annalee Sendis, 2007 summer REU, La Verne University, CA

Patrick Sims, 2007 summer REU, UNLV Physics

PROFESSIONAL SERVICE

National Science Foundation Graduate Fellowship Review Panel, 2010

National Science Foundation Petrology and Geochemistry Review Panel, 2008

Reviewer for NSF Engineering Research Centers, 2009 – present

Reviewer for NSF Petrology and Geochemistry, 2004 – present

Reviewer for the following journals: Science, Geology, Chemical Geology, Geochimica et

Cosmochimica Acta, Journal of Geology, Journal of Economic Geology, GSA Bulletin,
Geochemical Journal, Ore Geology Review, Applied Geochemistry

CONFERENCE CONVENER

Simon, A. and Cline, J. (2010) PanAmerican Current Research on Fluid Inclusions (PACROFI),
University of Nevada Las Vegas, Las Vegas, NV, U.S.A., June 7 to 10, 2010.

CONFERENCE SESSION ORGANIZER

Lowenstern, J., Simon, A. and Alpers, C. (2010) Vapors, brines, sulfides and mines:

Understanding metal mobility in magma-hydrothermal systems and their supergene
successors. GSA Annual Meeting.

Werner, C., Hurwitz, S., Varekamp, J. and Simon, A. (2009) Hydrothermal systems and volatile
emissions of volcanic arcs. Geological Society of American Annual Meeting.

Simon, A.C., Penniston-Dorland, S. and Hanley, J. (2009) Fluids, Melts and Wall Rocks:
Processes of Metal Enrichment in Magmatic-Hydrothermal Ore Deposits. Goldschmidt
Conference.

Simon, A.C., Ramsey, M. and West, M. (2008) Arc Dynamics of Kamchatka I. Fall AGU
Meeting.

Simon, A.C. and Cline, J.C. (2008) Mineralization in the Western United States. Oral and Poster
sessions. GSA Cordilleran Sectional Meeting.

Simon, A.C. and Mavrogenes, J. (2007) Experiments in Geoscience: Challenges and Future
Directions. Fall AGU Meeting.

Simon, A.C. and Mavrogenes, J. (2007) Volcanoes, Plutons and Ore Deposits: What's the
Connection? AGU Spring Meeting, Acapulco, Mexico.

ADAM C. SIMON – CURRICULUM VITAE

- Simon, A.C. and Piccoli, P.M. (2006) Fluids in the Earth. AGU Spring Meeting, Baltimore.
- Marsh, B.D., Simon, A.C., Hersum, T.G. and Charrier, A. (2005) Magmatic systems: An Antarctic Perspective. AGU Fall Meeting.
- Simon, A.C. and Pettke, T. (2005) Subduction zone metamorphism: 2. Fluids from the slab to the surface. Fifteenth Annual V.M. Goldschmidt Conference.
- Simon, A.C. and Johns, D. (2002) Economic Geology: Carlin Au, low and high sulfidation Au-Ag-Cu, porphyry Au-Ag-Cu, and W-skarn deposits. GSA Annual Meeting.
- Simon, A.C., Candela, P.A. and Piccoli, P.M. (2002) Hydrothermal Environments: Coupling Experimental, Field, and Analytical Techniques. AGU Spring Meeting.

UNIVERSITY SERVICE

- UNLV Graduate Professional Student Association (GPSA) Faculty Advisor, 2008 – present
- University Senate Academic Standards Committee, 2007 – present
- University Senate Academic Integrity Appeal Panel, 2008 – present
- University Senate Sabbatical Leave Committee, 2006 – 2008
- Organized NSF Petrology and Geochemistry Program Director visit to UNLV, 2006

COLLEGE SERVICE

- UNLV High Pressure Science and Engineering Center Deputy Director search committee, 2008 – 2009
- UNLV High Pressure Science and Engineering Center faculty search committee, 2006 – 2007

DEPARTMENT SERVICE

- Faculty Mentor, Geoscience 101 Introductory Geology Course
- Geoscience Promotion and Tenure Committee, 2006 – 2010
- Chair, Search Committee for Research Assistant Professor position to direct the Electron Microanalysis and Imaging Laboratory, 2008-2009
- Faculty Supervisor, Geoscience Student "GeoSymposium", 2006 – 2007, 2007 – 2008
- Geoscience Scholarship Committee, 2006 – 2007
- Chair, Undergraduate Enrollment Working Group, 2006 – 2007
- Geoscience Colloquium Coordinator, Spring, 2006
- Geoscience Increasing Undergraduate Numbers Working Group, 2005 – 2006
- Chair, Geoscience Undergraduate Awards Committee, 2006
- Best Graduate Thesis Committee, 2006

COMMUNITY SERVICE

- Cub Master for Boy Scout Troop 713
- Head Basketball Coach, Las Vegas Boys and Girls Club, Winter 2009-2010
- Head Soccer Coach, Girls Regional Soccer, Fall/Spring 2002, 2003, 2004, 2005, 2006
- Head Soccer Coach, Boys Regional Soccer, Fall/Spring 2006, 2007, 2008, 2009
- Nevada Southern Regional K-12 Science Fair Judge, 2006, 2007, 2008, 2009
- Geoscience Educational Outreach, K-12 Career Days, classroom demonstrations; continual

COLLABORATORS (PAPERS, ABSTRACTS, PROPOSALS, CONFERENCES)

Ilya Bindeman – University of Oregon
Alan Boudreau – Duke University

ADAM C. SIMON – CURRICULUM VITAE

Pamela Burnley – UNLV Geoscience, High Pressure Science and Engineering Center
Philip Candela – University of Maryland
John Eichelberger – United States Geological Survey (USGS)
Mark Frank – Northern Illinois University
Michael Glascock – University of Missouri
Marcel Guillois – ETH, Zurich, Switzerland
John Hanchar – Memorial University of Newfoundland
Jacob Hanley – St. Mary's University, Canada
Chris Heinrich – ETH, Zurich, Switzerland
Taber Hersum – Exxonmobil Research Laboratory
Shaul Hurwitz – United States Geological Survey (USGS)
Mark Jellinek – University of British Columbia
Robert King – Washington State University
Alexey Kiryukhin – Russian Academy of Science
Daniel Lacks – Case Western Reserve
Chip Lesher – University of California Davis
Jacob Lowenstern – United States Geological Survey (USGS)
Craig Lundstrom – U. Illinois Urbana-Champaign
Bruce Marsh – Johns Hopkins University
John Mavrogenes – Australian National University
Andy Newman – George Tech University
Malcolm Nicol – UNLV Physics, High Pressure Science and Engineering Center
Scott Paterson – University of Southern California
Sarah Penniston-Dorland – U. Maryland
Nick Petford – Bournemouth University
Thomas Pettke – University of Bern, Switzerland
Philip Piccoli – University of Maryland
Mike Ramsey – University of Pittsburgh
Mark Reed – University of Oregon
Viacheslav Spichak – Russian Academy of Science
Oliver Tschauner – UNLV Physics, High Pressure Science and Engineering Center
Tomohiro Usui – University of Tennessee
Phil Wannamaker – University of Utah
Cindy Werner – United States Geological Survey (USGS)
Mike West – University of Alaska Fairbanks
Johan Varekamp – Wesleyan University
Jim Van Orman – Case Western Reserve