

## Adam C. Simon CV

### Adam Charles Simon

Department of Earth and Environmental Sciences  
Faculty Director, Michigan Research and Discovery Scholars  
University of Michigan  
1100 N. University Avenue, NUB 2534  
Ann Arbor, MI 48109-1005

### EDUCATION

2003 – 2005 Postdoctoral Fellow, The Johns Hopkins University  
2000 – 2003 PhD, University of Maryland  
1995 – 1997 M.Sc., Stony Brook University  
1992 – 1995 B.Sc., University of Maryland

### PROFESSIONAL POSITIONS

2021 – Director, [Michigan Research and Discovery Scholars](#) (MRADS)  
2019 – [Arthur F. Thurnau Professor](#) of Earth & Environmental Sciences  
2018 – Professor, [Program in the Environment](#) (PitE)  
2012 – 2018 Associate Professor, University of Michigan,  
2011 – 2012 Associate Professor, University of Nevada, Las Vegas, Geosciences  
2005 – 2011 Assistant Professor, University of Nevada, Las Vegas Geosciences  
2004 – 2005 Postdoctoral Fellow, The Johns Hopkins University  
2003 – 2004 Research Associate, University of Maryland  
1997 – 2000 Laboratory Manager, Environmental & Toxicology International, Inc.

### HONORS/AWARDS

2024 Society of Economic Geologists (SEG) Distinguished (Global) Lecturer  
2019 [Arthur F. Thurnau Professor](#)  
2018 Michigan Sustainability Case Studies Innovation Prize  
2017 University of Michigan Provost's Teaching Innovation Prize  
2017 Best Professor, selected by department undergraduate  
2016 Best Professor, selected by department undergraduate  
2015 Elected as a Fellow of the Society of Economic Geology  
2012 Graduate and Professional Student Association, Outstanding Contribution Award, UNLV  
2010 Distinguished Teacher Award for College of Sciences, UNLV  
2009 Graduate & Professional Student Association Faculty Service Award  
2006 Congressional Antarctica Service Medal

### PROFESSIONAL SERVICE

2024 Natural Sciences and Engineering Research Council of Canada, Canada  
Research Chair evaluation committee  
2024 Theme Co-Chair, Goldschmidt International Conference  
2024 Theme Co-Chair, International Geological Congress  
2024 Promotion and Tenure committee, University of Ottawa  
2024 Promotion and Tenure committee, University of British Columbia  
2023 Australia - Republic of Korea - United States Trilateral Dialogue

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2023 National Science Foundation Panel  
2023 Deutsche Forschungsgemeinschaft (DFG) German Research Foundation  
2023 – 2024 Chief Editor of Applied Earth Science  
2021 – National Academy of Sciences National Committee for Geosciences  
2021 Mineralogical Society of American Nominating Committee Chair  
2020 Mineralogical Society of American Award Committee, Chair  
2020 – Associate Editor, *Geochimica et Cosmochimica Acta*  
2019 – Society of Economic Geologists Fellows Committee, Chair  
2020 Tenure and Promotion review for Al al-Bayt University, Jordan  
2019 National Science Foundation Graduate Research Fellowships Panel  
2019 – 2022 Society of Economic Geologists, Chair of Committee on Committees  
2019 – 2022 Councilor, Mineralogical Society of America (MSA) global governing body  
2018 U. Michigan Ross Business School, Renewable Energy Case Competition  
2018 National Science Foundation Graduate Research Fellowships Panel  
2017 U. Michigan Ross Business School, Renewable Energy Case Competition  
2017 – Associate Editor, *Frontiers in Earth Science*  
2017 – Society of Economic Geologists Awards Committee  
2017 Estonian Research Council, Grant Proposal Reviews  
2017 National Science Foundation postdoctoral fellowship review panel  
2017 National Sciences and Engineering Council of Canada (NSERC) panel  
2016 – Associate Editor, *Journal of Economic Geology*  
2016 Tenure & Promotion Panel University of Leuven (KU Leuven), Belgium  
2016 Spring Panel, National Science Foundation, Petrology and Geochemistry  
2016 Reviewer, England's National Environmental Research Council (NERC)  
2016 Reviewer, National Science and Engineering Research Council of Canada  
2016 Fall Panel, National Science Foundation  
2016 – 2018 Councilor, Society of Economic Geologists  
2016 Reviewer, Fellowship Program, Wissenschaftskolleg zu Berlin  
2016 Co-chair, Theme 11: Mineral Resources, 2016 Goldschmidt Conference  
2014 – Faculty sponsor, Student Chapter of the Society of Economic Geologists  
2014 – Faculty sponsor, Student Chapter American Assoc. Petroleum Geologists  
2014 Organized and convened technical session for AGU Fall Meeting  
2014 Co-chair, Theme 11: Mineral Resources, 2014 Goldschmidt Conference  
2013 National Science Foundation Graduate Fellowship Review Panel  
2012 Organized and convened one technical session for AGU Fall Meeting  
2012 Gordon Conference Geochemistry of Mineral Deposits  
2011 National Science Foundation Graduate Fellowship Review Panel  
2010 Reviewer for NSF Engineering Research Centers  
2010 Lead convener, Pan-American Current Research on Fluid Inclusions  
2010 National Science Foundation Graduate Fellowship Review Panel  
2010 Geological Society of American Session Convener  
2008 National Science Foundation Petrology and Geochemistry Review Panel  
2009 Reviewer for NSF Engineering Research Centers  
2009 Geological Society of American Session Convener  
2008 AGU Fall Meeting Session Convener  
2008 GSA Cordilleran Section Meeting Session Convener

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2007 AGU Fall Meeting Session Convener  
2006 Chemical Geology, Guest Editor for Special Issue, Subduction Zones  
2006 AGU Spring Meeting Session Convener  
2005 AGU Fall Meeting Session Convener  
2005 Goldschmidt Session Convener  
2002 GSA Annual Meeting Session Convener  
2001 AGU Spring Meeting Session Convener

### UNIVERSITY SERVICE

2023 – 2024 University of Michigan Diversity, Equity and Inclusion (DEI) Committee  
2022 – 2023 College of LSA Carbon Neutrality Committee  
2021 – 2023 University of Michigan Rackham Graduate School Predoctoral Committee  
2021 – 2022 Committee for Rhodes, Marshall, Goldwater, and Astronaut Scholarships  
2021 – 2022 LSA College level committee to offset scope three carbon emissions  
2019 – 2023 International Travel Oversight Committee (Provost's Office)  
2018 – 2020 Executive Committee, Program in the Environment (PitE) major  
2018 – 2019 Teaching Academy mentor, College of Literature, Science, and the Arts  
2018 – 2021 Curriculum Committee, College of Literature, Science, and the Arts  
2017 – 2018 University of Michigan Energy Institute, Director search committee  
2017 – 2018 Co-chair, Committee to transition of the undergraduate Program in the Environment (PitE) program to shared governance between School for Environment and Sustainability and College of LSA  
2017 – 2018 UM President's Greenhouse Gas Reduction Committee  
2016 – 2017 Curricular Innovations Working Group, developing graduate curriculum recommendations for School of Environment and Sustainability (SEAS)  
2016 – 2017 Michigan Sustainability Case Studies (MSC) curriculum review committee  
2016 – 2017 Committee responsible for 5-year review of the University of Michigan Energy Institute  
2016 Member, Program in The Environment (PiTE) committee to revise Natural Sciences major  
2016 T & P Committee for Department of Communications candidate Sol Hart  
2014 – 2015 Chair, Program in The Environment (PiTE) Committee to develop 'Energy science and policy'  
2011 – 2012 Chair, UNLV Graduate College Student Funding Committee  
2011 – 2012 Member, UNLV Graduate College Executive Advisory Committee  
2011 – 2012 University Best Graduate Thesis/Dissertation Committee  
2010 – 2012 UNLV Faculty Senate Academic Standards Committee  
2007 – 2009 Chair, UNLV Faculty Senate Academic Standards Committee  
2008 – 2012 Faculty Advisor to UNLV Graduate Professional Student Association  
2008 – 2012 University Faculty Senate Academic Integrity Appeal Panel Member  
2008 – 2009 UNLV High Pressure Science and Engineering Center Director Search  
2006 – 2008 University Faculty Senate Sabbatical Leave Committee  
2006 – 2007 UNLV High Pressure Science and Engineering Center faculty search  
2006 Organized and hosted NSF Program Director site visit to UNLV

### DEPARTMENT SERVICE

## Adam C. Simon CV

- 2023 Promotion & Tenure Committee for Dr. Sierra Petersen
- 2021 – 2023 Executive Committee (elected by faculty)
- 2020 14-day field trip Israel and Jordan with 15 undergraduate/graduate students
- 2018 – 2021 Curriculum Committee
- 2013 – Alumni Board faculty liaison, alumni relations committee co-chair
- 2016 – Organize and host career panels each semester for undergraduate/graduate students
- 2016 7-day field trip with 18 undergraduate/graduate students to Ontario and Michigan's Upper Peninsula
- 2016 Monthly department electronic newsletter
- 2016 Annual department print Newsletter
- 2016 Alumni Relations Committee
- 2015 7-day field trip for 12 undergraduate/graduate students to Ontario
- 2014 – 2015 Alumni Relations Committee
- 2014 – 2015 Executive Committee
- 2014 2-week field trip with 21 students to Chile
- 2014 7-day field trip for 29 undergraduate/graduate students to Michigan's Upper Peninsula
- 2014 Member, Committee for the Promotion Review of Fuxiang Zhang
- 2014 Turner Postdoctoral Applicants Committee
- 2013 – 2014 Executive Committee (elected by faculty)
- 2013 Graduate Admissions Committee
- 2012 Committee for Promotion Review of Research Scientist Gordon Moore
- 2011 – 2012 Geoscience Graduate Coordinator (n = 60 students; no compensation)
- 2006 – 2012 Supervisor of the Electron Microanalysis and Imaging Laboratory (EMIL)
- 2010 – 2010 Chair, Search Committee, Director of Electron Microprobe Laboratory
- 2009 – 2010 Faculty Mentor, Introductory Geology Course Graduate Lecturers
- 2006 – 2010 Geoscience Promotion and Tenure Committee
- 2008 – 2009 Chair, Search Committee for Director of Electron Microprobe Laboratory
- 2006 – 2008 Faculty Supervisor, Geoscience Student GeoSymposium
- 2006 – 2007 Geoscience Scholarship Committee
- 2006 – 2007 Chair, Undergraduate Enrollment Working Group
- 2006 Geoscience Colloquium Coordinator
- 2005 – 2006 Geoscience Increasing Undergraduate Numbers Working Group
- 2006 Chair, Geoscience Undergraduate Awards Committee
- 2006 Committee, Best Graduate Thesis

### INVITED PRESENTATIONS

- 2024 International Geological Congress IGC 2024 (plenary speaker)  
[IEA-IEF-OPEC 14th Annual Symposium on Energy](#), Saudi Arabia  
Society of Economic Geologists Distinguished Lecture  
[Financial Times US Decarbonization and Industrial Transition Summit](#)  
Diag Days Lecture, University of Michigan Alumni Association  
Society of Economic Geologists Lithium webinar  
Virginia Tech Geosciences

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- 2023
- American Geophysical Union AGU Annual Meeting
  - [XVI Chilean Geological Congress, XVICGCh](#) (plenary speaker)
  - Universidad de Atacama
  - Alfred Gordji Distinguished Lecturer, Osher Lifelong Learning Institute
  - Central Michigan University
  - Defense TechConnect Innovation Summit & Expo (DC)
  - CREO, Clean, Renewable and Economic Opportunities (Montreal)
  - Environmental Law & Policy Center (EPLC)
  - Geological Society of America
  - Citizens Climate Lobby (Midwest Regional Conference)
  - Johns Hopkins University
  - Payne Institute for Public Policy Critical Minerals Symposium
  - Society for Geology Applied to Mineral Deposits (SGA) (Keynote)
  - [Society of Economic Geologists Annual Meeting](#)
  - Ivanhoe Mines
  - University of Lubumbashi
  - University of Kolwezi
  - Society for Geology Applied to Mineral Deposits Inaugural Field Workshop
  - HxGN Live Global 2023 meeting (keynote speaker and facilitator)
  - [University of Michigan Saturday Morning Physics](#)
  - National Tribal Roundtable (keynote)
  - Center for Strategic and International Studies (CSIS) (keynote)
  - Stanford University Mineral-X Symposium on Critical Minerals
  - Resilient Supply of Critical Minerals Workshop (keynote)
  - Citizens Climate Lobby (National)
  - Seoul National University
  - Pukyong National University (PKNU) University
  - Asia Foundation, Seoul, Republic of Korea
  - Cornell University (2 talks)
  - University of Texas Austin (2 talks)
  - University of Tehran
  - University of South Carolina
  - North Carolina State University
- 2022
- [TEDX University of Michigan](#)
  - University of Arizona
  - [GeoHUG Geologists, Geology Webinar](#)
  - American Geophysical Union Annual Meeting
  - Goethe University, Frankfurt
  - Stony Brook University
  - University of Lagos
  - University of Liberia
  - University of Geneva
  - Natural History Museum, London
  - Geological Society of America Annual Meeting
  - University of Western Australia
  - Society of Economic Geologists Annual Meeting

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Monash University, Australia  
Commonwealth Scientific and Industrial Research Organisation (CSIRO)  
University College Dublin  
North Carolina State University  
Colorado School of Mines  
Bureau of Economic Geology, Austin, Texas  
New Mexico Institute of Mining and Technology  
University of Texas El Paso

2021 Irish Centre for Research in Applied Geoscience (iCRAG)  
University College Dublin  
Workshop on Critical Metals (keynote)  
Institut de Physique du Globe de Paris  
University of Alaska  
Society of Economic Geologists Annual Meeting (keynote)

2020 University of Ottawa  
Department of Energy (Washington, DC)  
University of Maryland  
Ore Deposits Hub

2019 Chinese Academy of Sciences  
China University of Geosciences Beijing  
Society of Economic Geologists Annual Meeting  
Northern Illinois University

2018 Geologists of Jackson Hole, Wyoming  
Society of Economic Geologists Annual Meeting  
Goldschmidt Conference  
Gordon Conference, Geochemistry of Mineral Deposits  
Pan-American Current Research on Fluid Inclusions  
University of British Columbia  
Michigan Law School, *Journal of Law Reform* Annual Symposium  
University of Iowa

2017 Cornell University  
Advancing Health Communities, Environmental Engineering and Science  
Society for Geology Applied to Mineral Deposits (SGA, keynote)  
Society of Economic Geologists, Annual Meeting (Beijing) (keynote)  
Prospectors and Developers Association of Canada (PDAC)  
Akita University, Japan  
International Cooperation Agency Research Institute, Tokyo, Japan  
California State University Fullerton  
Brigham Young University  
Miami University of Ohio

2016 Geological Society of America Annual Meeting (keynote)  
Stanford University (two talks)  
Gordon Conference, Geochemistry of Mineral Deposits (keynote)  
University of Chile

2015 American Geophysical Union Fall Meeting  
University of Hannover, Germany

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- 2014 Goldschmidt Geochemistry Conference, Prague, Czech Republic  
Ralph J. Roberts Center for Research in Economic Geology  
Geological Society of America Annual Meeting  
Society of Economic Geologists Annual Meeting  
Goldschmidt Geochemistry Conference  
Western Michigan University  
Wayne State University
- 2013 University of North Dakota  
North Dakota State University  
AGU Fall Meeting, San Francisco  
Goldschmidt Geochemistry Conference
- 2012 University of Illinois Urbana-Champaign  
Geological Society of Nevada, Reno  
American Museum of Natural History  
University of Michigan, Department of Earth & Environmental Sciences
- 2011 Mineralogical Society of America, Sulfur Short Course, Goslar, Germany
- 2010 Hebrew University of Jerusalem  
McGill University
- 2009 University of Southern California  
Geological Society of Nevada, Las Vegas Chapter
- 2008 University of Nevada, Reno  
Geological Society of Nevada, Elko Chapter
- 2007 Tohoku University, Sendai, Japan  
Bern University, Switzerland
- 2006 Barrick Gold Corporation  
Northern Arizona University  
Institute of Seismology and Volcanology, Petropavlovsk, Russia  
Geological Society of Nevada, Las Vegas Chapter  
University of Nevada Reno  
Colorado School of Mines Colloquium Series
- 2005 Johns Hopkins University

### COMMUNITY OUTREACH

- 2023 University of Lubumbashi, Democratic Republic of Congo
- 2019 – 2020 Science Olympiad, Slauson Middle School, Ann Arbor Public Schools
- 2018 – 2019 Mentor for 6<sup>th</sup>-8<sup>th</sup> grade Academic Games team, Ann Arbor, MI
- 2016 – Co-organized, secured funding, and taught Coastal Oceanography  
Environment Science School (COESSING) annual summer school in  
Accra, Ghana for 150 students from Cameroon, Ghana, Ivory Coast,  
Nigeria, and Liberia
- 2017 Science Olympiad Coach, Map Reading, 4<sup>th</sup> and 5<sup>th</sup> grade
- 2016 Master event coordinator, 5<sup>th</sup> grade Battle of the Books,
- 2015 Master event coordinator, Battle of the Books, 4<sup>th</sup> grade
- 2015 Guest lecturer, Pioneer High School AP Environmental Science
- 2015 Team Leader, Battle of the Books, 3<sup>rd</sup> grade Lawton Elementary School
- 2014 Team Leader, Battle of the Books, 4<sup>th</sup> and 5<sup>th</sup> grades

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2013 Rock cycle demonstration, 2<sup>nd</sup> grade, Lawton Elementary School  
2013 5<sup>th</sup> grade Science Olympiad Coach, Lawton Elementary School  
2013 Earth Science mentor, 6<sup>th</sup> grade FLL robotics teams  
2010 – 2011 Geoscience Content Specialist, 2011 UNLV – Clark County School District  
Summer School VISIONS Program for K-5 Teachers  
2009 – 2012 Cub Master for Boy Scout Troop 713  
2006 – 2009 Nevada Southern Regional K-12 Science Fair Judge

### ACTIVE GRANTS

2023-2026, \$444,296 (Simon lead PI) NSF EAR, Collaborative Research: Testing endmember hypotheses for the source of mineralizing fluid(s) in iron oxide - copper - gold (IOCG) deposits.

2022-2024, \$357,603 (Simon sole PI) NSF EAR, Reconstructing the magmatic and hydrothermal evolution of the Au-rich, Cu-poor Dorado porphyry deposit, Chile: Implications for Cu/Au ratios in porphyry deposits worldwide.

### EXPIRED GRANTS

2019-2022, \$369,279 (Simon lead PI) NSF EAR, Testing the hypothesis that iron oxide - copper - gold (IOCG) and iron oxide - apatite (IOA) deposits evolve as parts of the same mineral system.

2015-2020, \$350,000 (Simon lead PI) 55.5%, NSF EAR, Sulfur Isotope Fractionation and Sulfur Partitioning between Apatite and Silicate Melts, Co-I Adrian Fiege, American Museum of Natural History

2013-2017, \$388,582 (Simon lead PI; portion \$214,683), 55.5%, NSF EAR, Collaborative Research: The Behavior of Sulfur During Magma Mixing and Implications for Magma Degassing and Ore Formation, Co-I Philipp Ruprecht, Columbia University Lamont-Doherty Earth Observatory  
2016-2017 \$33,000, University of Michigan Provost's Third Century Initiative to develop inquiry-based sustainability case studies.

2016, \$20,000, NSF EAR Geochemistry of Mineral Deposits Gordon Research Conference (GRC). Funded students and early career scientists to attend the GRC, held every 4 years.

2012-2016, \$379,393 (Simon lead PI; portion \$251,458), 55.5%, NSF EAR, Quantifying Rare Earth (REE) and High Field Strength (HFSE) Element Mobility in Fluids at Conditions Appropriate for Forearc to Subarc Cold and Hot Subduction Zones.

2010-2014, \$148,000 (Simon portion), 55.5%, NSF EAR, Collaborative Research: Integrated investigations of isotopic fractionation in magmatic systems. Co-PIs: Chip Leshner, UC Davis; Craig Lundstrom, U. Illinois; Jim Van Orman and Daniel Lacks, Case Western Reserve



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2010-2011, \$21,350, 0%, NSF EAR, Pan-American Current Research on Fluid Inclusions (PACROFI) Conference. Co-PI Jean Cline, UNLV.

2007-2013, \$164,763, 48.5%, NSF EAR, Platinum group element fractionation in mafic layered intrusions. Sole PI.

2010-2011, \$20,000 (Simon portion), 44%, U.S. Department of the Interior (USGS) History and origin of mineral deposits in Northern Nye County, Nevada. Co-Is, Andrew Hanson, Jean Cline, UNLV

2009-2010, \$75,000 (Simon portion), 44%, U.S. Geological Survey (USGS), History and origin of mineral deposits in Northern Nye County, Nevada. Co-Is, Andrew Hanson, Jean Cline, UNLV (Simon, 1/2 month)

2006-2012, \$570,733 (Simon portion), DOE NNSA, Quantifying trace element mobility at elevated pressure and temperature with applications to subduction zone recycling. Co-Is, Oliver Tschauner, Malcolm Nichol

2007-2008, \$15,000, NSF EPSCoR, Characterization of unsaturated flow in leach piles.

### INDUSTRY SUPPORT (DIRECT)

2011-2013, Characterizing ore mineralization at the Estelle property, Alaska. Millrock Resources and Teck Resources. Funded one M.S. student research project. \$20,000

2009-2010, 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, Co-PI Jean Cline. Funded one MSc. student research project. \$30,000.

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

### INDUSTRY SUPPORT (INDIRECT)

I have collaborated with and received in-kind support from Barrick Gold Corporation, Compañía Minera del Pacífico, Freeport McMoRan, Newmont Corporation, Kinross, Lundin.

### SYNCHROTRON BEAM TIME AWARDED (competitive, peer-reviewed proposals)

2022	24 shifts at the Advanced Photon Source
2022	9 shifts at the Swiss Light Source
2021	18 shifts at the National Synchrotron Light Source
2020	9 shifts at the Advanced Photon Source
2020	12 shifts at the Swiss Light Source
2020	9 shifts at the National Synchrotron Light Source
2019	6 shifts at the National Synchrotron Light Source

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2018	18 shifts at the Advanced Photon Source, Argonne, IL
2017	18 shifts at the Advanced Photon Source, Argonne, IL
2016	27 shifts at the Advanced Photon Source, Argonne, IL
2015	27 shifts at the Advanced Photon Source, Argonne, IL
2014	9 shifts at the Advanced Photon Source, Argonne, IL
2013	20 shifts at the Advanced Photon Source, Argonne, IL

### COURSES TAUGHT

Scale of 1.0 = lowest ranking, to 5.0 = highest ranking

Q1 = Overall, this was an excellent course.

Q2 = Overall, the instructor was a good teacher.

Enrol. = Total student enrollment

NC = Teaching evaluations not collected.

NA = Not Asked on this evaluation form

**University of Michigan** (u = undergraduate; g = graduate)

<u>Year</u>	<u>Type</u>	<u>Course Name</u>	<u>Credits</u>	<u>Enrol.</u>	<u>Q1</u>	<u>Q2</u>
2024	Lecture/ Discussion	<sup>u</sup> EARTH/ENVIRON 380	4	115		
2024	Lecture/ Discussion	<sup>u</sup> EARTH 582	4	5		
2023	Lecture/ Discussion	<sup>u</sup> ALA 104	1	115	4.9	4.9
	Field/Lecture	<sup>u</sup> EARTH/ENVIRON 344	4	17	4.8	4.9
	Lecture	<sup>u</sup> EARTH 116	4	17	4.8	4.8
2022	Lecture/Discussion	<sup>u</sup> ALA 104	1	97	4.9	4.9
	Field/Lecture	<sup>u</sup> EARTH/ENVIRON 344	4	17	4.8	4.9
2021	Lecture/ Discussion	<sup>u</sup> ALA 104	1	107	4.7	4.6
	Lecture/ Discussion	<sup>u</sup> EARTH/ENVIRON 380	4	155	4.8	4.8
	Lecture	<sup>u</sup> EARTH/ENVIRON 344	4	15	4.9.	4.8
2020	Lecture	<sup>u</sup> EARTH/ENVIRON 380	4	72	4.3	4.7
	Lecture	<sup>u</sup> EARTH/ENVIRON 344	4	30	4.3	4.9
	Lecture/ Discussion	<sup>u</sup> EARTH/ENVIRON 119	4	55	4.8	4.8
	Lecture/ Discussion	<sup>u/g</sup> EARTH 435	3	15	4.9	4.9
2019	Lecture/ Discussion	<sup>g</sup> EARTH 582	4	9	4.6	4.6
	Lecture/ Discussion	<sup>u</sup> EARTH/ENVIRON 380	4	131	4.5	4.7
	Lecture/ Discussion	<sup>u</sup> EARTH/ASTRO 255	3	30	4.5	4.6
	Field/Lecture	<sup>u</sup> EARTH/ENVIRON 344	4	15	4.8	5.0
	Lecture	<sup>u</sup> EARTH/ENVIRON 102	1	42	4.6	4.7
2018	Lecture/ Discussion	<sup>u</sup> EARTH/ENVIRON 380	4	129	4.6	4.8
	Lecture/ Discussion	<sup>u</sup> EARTH/ASTRO 255	3	32	3.9	4.8
	Field/Lecture	<sup>u</sup> EARTH/ENVIRON 344	4	14	5.0	5.0
2017	Lecture/ Discussion	<sup>u</sup> EARTH/ENVIRON 380	4	129	4.5	4.8
	Lecture/ Discussion	<sup>u</sup> EARTH/ASTRO 255	3	36	4.4	4.9
	Field/Lecture	<sup>u</sup> EARTH/ENVIRON 344	3	19	4.0	5.0
	Lecture	<sup>u</sup> EARTH/ENVIRON 102	1	67	4.5	4.7
	Lecture/ Discussion	<sup>u</sup> EARTH/ENVIRON 119	4	92	4.7	4.8
2016	Lecture/ Discussion	<sup>u</sup> EARTH/ENVIRON 380	4	133	4.6	4.9

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	Lecture/ Discussion	<sup>u</sup> EARTH/ASTRO 255	3	32	3.8	4.9
	Lecture	<sup>u</sup> EARTH/ENVIRON 344	3	22	4.9	5.0
	Lecture	<sup>u</sup> EARTH/ENVIRON 102	1	55	4.0	4.2
	Lecture/ Discussion.	<sup>u</sup> EARTH/ENVIRON 119	4	92	4.7	4.8
2015	Lecture/ Discussion	<sup>u</sup> EARTH/ENVIRON 380	4	131	4.7	4.9
	Lecture/Discussion	<sup>u</sup> EARTH/ASTRO 255	3	30	3.1	4.8
	Lecture/Discussion	<sup>g</sup> EARTH 582	4	5	5.0	5.0
	Field/Lecture	<sup>u</sup> EARTH/ENVIRON 344	1	10	4.6	4.7
	Field/Lecture	<sup>u</sup> EARTH 435	1	8	NC	NC
	Lecture	<sup>u</sup> EARTH/ENVIRON 102	1	80	4.8	4.9
	Lecture/Discussion	<sup>u</sup> EARTH/ENVIRON 119	4	125	4.6	4.9
	Lecture	<sup>u</sup> EARTH 435	1	20	5.0	4.3
2014	Lecture/Discussion	<sup>u</sup> EARTH/ENVIRON 380	4	109	4.7	4.8
	Field	<sup>u</sup> EARTH 436	1	19	4.9	4.7
	Field/Lecture	<sup>u</sup> EARTH/ENVIRON 344	3	15	4.8	4.8
	Lecture	<sup>u</sup> EARTH/ENVIRON 380	3	47	4.3	4.7
	Lecture/Discussion	<sup>g</sup> EARTH 582	4	5	4.5	4.8
2013	Lecture/Discussion	<sup>u</sup> EARTH/ENVIRON 380	4	107	4.4	4.8
	Lecture	<sup>u</sup> EARTH/ENVIRON 344	3	17	4.9	4.9
	Lecture/Discussion	<sup>u</sup> EARTH/ENVIRON 380	4	62	4.6	4.8

### University of Nevada Las Vegas (u = undergraduate; g = graduate)

2012	Lecture/Lab	<sup>u</sup> Physical Geology	4	75	4.7	4.6
2011	Lecture/lab	<sup>u</sup> Physical Geology	4	45	4.0	4.1
	Lecture/lab	<sup>g</sup> Metallic Ore Deposits	4	18	5.0	5.0
	Lecture/lab	<sup>u</sup> Metallic Ore Deposits	4	18	4.8	4.7
	Lecture	<sup>u</sup> Physical Geography	3	15	N/C	N/C
	Lecture/lab	<sup>u</sup> Physical Geology	4	56	3.9	4.1
2010	Lecture/lab	<sup>u</sup> Physical Geography	3	17	N/C	N/C
	Lecture/lab	<sup>u</sup> Optical Mineralogy	3	13	5.0	4.8
	Lecture/lab	<sup>u</sup> Physical Geology	4	45	4.3	4.9
2009	Lecture/lab	<sup>g</sup> Magma PTX	3	6	5.0	4.8
	Lecture/lab	<sup>u,g</sup> Metallic Ore Deposits	4	20	4.6	4.7
	Lecture/lab	<sup>u</sup> Physical Geography	3	15	NC	NC
	Lecture	<sup>g</sup> Time Management/Posters	1	18	NC	NC
2009	Lecture/lab	<sup>u</sup> Physical Geology	3	46	4.2	4.5
	Lecture/lab	<sup>u</sup> Physical Geology	3	44	4.4	4.5
	Lecture/lab	<sup>u</sup> Optical Mineralogy	3	12	4.8	4.7
2008	Lecture/lab	<sup>u</sup> Physical Geography	3	15	N/C	N/C
	Lecture/lab	<sup>g</sup> Magma evolution	3	5	5.0	4.8
	Lecture/lab	<sup>u</sup> Physical Geology	3	12	4.3	4.3
	Lecture/lab	<sup>u</sup> Optical Mineralogy	3	12	4.6	4.8
2007	Lecture/lab	<sup>u</sup> Physical Geology	4	49	4.2	4.5
	Lecture/lab	<sup>u</sup> Physical Geography	3	21	N/C	N/C
	Lecture/lab	<sup>g</sup> Tectonics, Petrology, Fluids	3	9	4.6	4.5
	Lecture/lab	<sup>u</sup> Optical Mineralogy	3	12	3.8	4.6

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2006	Lecture/lab	<sup>u,g</sup> Metallic Ore Deposits	4	6	3.7	3.7
	Lecture/lab	<sup>u</sup> Physical Geology	4	60	4.2	4.7
	Lecture/lab	<sup>u</sup> Physical Geography	3	20	4.3	4.4
	Lecture/lab	<sup>g</sup> Magma Emplacement	3	5	5.0	5.0
2005	Lecture/lab	<sup>u</sup> Physical Geology	4	60	4.8	3.8

### The Johns Hopkins University (evaluations not available)

2004	Lecture/lab	<sup>g</sup> Ore Deposit Geochemistry
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### University of Maryland (evaluations not available)

2005	Lecture/lab	<sup>u</sup> Optical Mineralogy
	Lecture/lab	<sup>u</sup> Physical Geology lectures and labs
2004	Lecture/lab	<sup>u</sup> Optical Mineralogy
	Lecture/lab	<sup>u</sup> Physical Geology lectures and labs
2003	Lecture/lab	<sup>u</sup> Optical Mineralogy
	Lecture/lab	<sup>u</sup> Physical Geology lectures and labs
2002	Lecture/lab	<sup>u</sup> Physical Geology lectures and labs

### Northern Virginia Community College (evaluations not available)

1998-2000	Lecture/lab	<sup>u</sup> Physical Geology
1998-2000	Lecture/lab	<sup>u</sup> Historical Geology

### POSTDOCTORAL RESEARCH FELLOWS (*underrepresented*)

2021 – present	<i>José Tomás Ovalle Ortega</i>
2021 – 2023	Xuyang Meng
2013 – 2016	Adrian Fiege
2013 – 2014	Yuping Yang

### CURRENT GRADUATE STUDENTS (Primary Advisor; *underrepresented student*)

2023 – present	Evan Hirsh, PhD
2022 – present	<i>Allyson Murray</i> , PhD
2021 – present	<i>Andres Felipe Gonzalez Duran</i> , PhD
2020 – present	Daniel Blakemore, PhD
2020 – present	Chris Emproto, PhD

### FORMER GRADUATE STUDENTS

(Primary Advisor; *underrepresented student*)

2018 – 2023	<i>Jackie Wrage</i> , PhD
2019 – 2023	<i>Justin Casaus</i> , MSc.
2017 – 2022	<i>Maria Alejandra Rodriguez Mustafa</i> , PhD,
2015 – 2019	<i>Nikita La Cruz</i> , PhD
2014 – 2019	Tristan Childress, PhD
2014 – 2018	<i>Brian Konecke</i> , PhD
2016 – 2018	<i>Gephen Sadove</i> , MSc.
2015 – 2016	<i>Daniel Korfeh</i> , MSc.

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2013 – 2019	<i>Jaayke Knipping</i> , PhD
2012 – 2015	Tom Hudgins, PhD
2011 – 2015	<i>Laura Bilenker</i> , PhD
2010 – 2014	<i>Liz Tanis</i> , PhD
2012 – 2014	Kevin Meazell, MS
2011 – 2014	<i>Ember Flagg</i> , MSc.
2010 – 2012	Seth Schueler, MSc.
2010 – 2012	<i>Lindsey Clark</i> , MSc.
2011 – 2012	<i>Jane Didaleusky</i> , MSc.
2008 – 2010	Nathan Eck, MSc.
2008 – 2010	Brian Aillaud, MSc.
2007 – 2011	Kelly Robertson, PhD
2007 – 2009	Steve Maglio, MSc.
2006 – 2008	<i>Greg Zellner</i> , MSc.
2006 – 2008	Zach Artz, MSc.
2006 – 2010	Aaron Bell, PhD

### UNDERGRADUATE STUDENTS MENTORED

(*underrepresented student*; UROP = undergraduate research opportunity program)

<i>Hannah Yorah</i>	2023 – 2024	independent study
Nate Obrigkeit	2023 – 2024	UROP
<i>Aysha Chowdhury</i>	2022 – 2023	UROP
Amartya Kattemalavadi		Honors thesis
James Roush		Senior thesis
Megan Ballema		UROP
Charlotte Corey		UROP
<i>Ifechukwu Ezeokoli</i>		UROP
<i>Asa Garcia</i>		UROP
<i>Carmen Hernandez</i>		UROP
Jordyn Ives		UROP
<i>Aiden Moskal-Linder</i>		UROP
Mallory Stabile		UROP
<i>Ela Trivedi</i>		UROP
<i>Hannah Yorah</i>		UROP
Samantha Barnes	2021 – 2022	UROP
<i>Andres Velasco</i>		UROP
Henry Bushell		UROP
Sabrina Lam		F/W terms independent study
Ian Goan	2021 – 2022	Honors thesis
Amartya Kattemalavadi		F/W terms independent study
Kyle Lachance		F/W terms independent study
<i>Madeleine Frank</i>	2020 – 2021	Honors thesis

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Amartya Kattemalavadi		F/W terms independent study
Kyle Lachance		F/W terms independent study
Anastasia Alexandrova		W term independent study
Elizabeth Ratajczyk		W term independent study
Danielle Turner		W term independent study
<i>Roland Amarteifio</i>	2019 – 2020	F/W terms independent study
Madelynn Carter		F/W terms independent study
Kristen Hayden		Honors thesis
<i>Idrees Schieber</i>		F term independent study
<i>Roland Amarteifio</i>		F/W term independent study
Madeleine Frank		F term independent study
Elizabeth Ratajczyk	2018 – 2019	F term independent study
Anastasia Alexandrova		F/W terms independent study
Madeleine Frank		Summer independent study/research
Elizabeth Ratajczyk		Summer independent study/research
Grant Dukus		Summer independent study/research
Logan Vear		F/W terms independent study
Sally Ruan		F/W terms independent study
Catherine Garton		F/W terms independent study
Elena Essa		F/W terms independent study
Gregory Cogut		Honors Thesis
<i>Lydia Whitbeck</i>		F/W terms independent study
Nathan Houghteling	2017 – 2018	F/W terms independent study
Mitchell Mead		F/W terms independent study
Elizabeth Rogers		Honors Thesis
Elena Essa		F/W terms independent study
Anne Rosett		Honors Thesis
Will Arnuk		Honors Thesis
<i>Sarah Dieck</i>		Honors Thesis
Alexandria Shand		F/W terms independent study
Bridget Lockman		F/W terms independent study
Zachary Brodkey		F/W terms independent study
Erich Eberhard		F/W terms independent study
Elizabeth Oliphant		F/W terms independent study
<i>Lydia Whitbeck</i>		F/W terms independent study
Katherine Mather		F/W terms independent study
Liam Wolfram		F/W terms independent study
Emma Forbes		F/W terms independent study
Will Arnuk		F/W terms independent study
Krysten Dorfman		F/W terms independent study
Ahana Shanbhogue		F/W terms independent study
Anne Rosett		F/W terms independent study
<i>Lydia Whitbeck</i>		F/W terms independent study
Jessica Hicks	2016 – 2017	F/W terms independent study
Anne Canavati		F/W terms independent study
Elizabeth Oliphant		F/W terms independent study

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<i>Jayson Toweh</i>		F/W terms independent study
Mark Finlay		F/W terms independent study
Erich Eberhard		F/W terms independent study
Thomas West		F/W terms independent study
Christopher Walker		F/W terms independent study
Emily Schottenfels	2015 – 2016	F/W terms independent study
Avery McIntyre		F/W terms independent study
Yuka Yamanishi		F/W terms independent study
<i>Andrea Davila</i>	2013 – 2014	Honors Thesis
Alex Wong		F/W terms independent study
Ryan Vanderwoude		F/W terms independent study
Ray Mahaffy		F/W terms independent study
University of Nevada Las Vegas		
<i>Brett Perry</i>	2010 – 2011	F/W terms independent study
<i>Kirellos Sefein</i>		F/W terms independent study
<i>Aaron Acena</i>	2009 – 2010	F/W terms independent study
<i>Lindsey Clark</i>		F/W terms independent study
Seth Pages	2007 – 2008	F/W terms independent study
Jason Norgan		F/W terms independent study
Carl Swenberg	2006 – 2008	F/W terms independent study
<i>Pat DelVecchio</i>		F/W terms independent study
Jonathan Carter		F/W terms independent study
Annalee Sendis	2007	Summer independent study/research
Patrick Sims	2007	Summer independent study/research

### Visiting scholars hosted

2014	Benjamin Winkler, University of Hannover
2014	Stefan Linsler, University of Hannover
2013 – 2015	Jaayke Knipping

### Member, Ph.D. Committee (Year Completed)

Mack Taylor (in progress); Bryanne Gordon (in progress) Julisan Street (in progress); Sha Chen (2022); Sooyeon Kim (2022); Sarah Brehm (2021); Juliana Mesa (2021); James Jolles (2020); Youngjae Kim (2019); Xiaofei Pu (2018) Chenghuan Guo (2017); Jiachao Liu (2017); Peng Ni (2017); Racheal Johnson (2015, UNLV); Laura Waters (2013); Audrey Rager (2012, UNLV); Chris Adcock (2012, UNLV); Denise Honn (2012, UNLV); Timo Hoffman (2009, UNLV Chemistry)

### External Member, Ph.D. Committee

2023	Eliza Smith, University of Western Australia
2022	Sigma Dwivedy, Indian Institute of Technology, India School of Mines,
2021	Alice Alex, University of Toronto
2021	Lillian Kendall-Langley, University of Western Australia
2019	Guillaume Lesage, University of British Columbia
2017	Christine Wawryk, University of Adelaide

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2008 Nicole S. Keller, Australian National University

### Member, Preliminary Examination Committee (Year Exam Taken)

Andres Felipe Gonzalez Duran (2023); Mack Taylor (2023); Bryanne Gordon (2023), Daniel Blakemore (2021); Chris Emproto (2021); Justin Casaus (2021); Jackie Wrage (2020); Allison Pease (2020); Maria Alejandra Rodriguez Mustafa (2019); Sooyeon Kim (2019); Sarah Brehm (2017); Sha Chen (2017); Nikita La Cruz (2016); Youngjae Kim (2016); Brian Konecke (2016); Tristan Childress (2016); Meredith Cologero (2016); Evan Killeen (2015); James Jolles (2015); Chenghuan Guo (2014); Liz Tanis (2013); Xiaofei Pu (2013); Laura Bilenker (2013); Kate Volk (2013); Tom Hudgins (2012); Chris Adcock (2012); Breetha Alagappan (2012); Racheal Johnson (2010); Denise Honn (2010); Kelly Robertson (2011); Aaron Bell (2008)

### Member, MSc. Thesis Committee (Year Completed)

Madeleine Frank (2023); Bryanne Gordon (2023); David Levine (2016); Forrest Gilfoy (2016); Kate Turner (2015); Carla Eichler (2012); Jordan Armstrong (2012); Jeevan Jayakody (2010); John Howard (2010); Elizabeth Tanis (2010); Ashley Tibbetts (2009); Daniel Antonio (2009); Lisa Hancock (2008)

**PUBLICATIONS** (Google Scholar: h-index = 38; i10-index = 66; citations = 5230)

### TEXTBOOKS

Kesler, S.E., Simon, A.C. (2015) Mineral Resources, Economics, and the Environment. Cambridge Press.  
Perkins, D., Henke, K.R., Simon, A.C., Yarbrough, L.D. (2019) Earth Materials: Components of a Diverse Planet. CRC Press.

### INVITED PAPERS

**Simon, A.C.**, Howell, R., Chang, Z., del Real, I., and Tassara, S. (2025) Formation and utilization of crustal magmatic ore deposits (porphyries, skarns and pegmatites) The Encyclopedia of Volcanoes (Third Edition) Academic Press.  
Reich, M. and **Simon, A.C.** (2025) Review of Critical Minerals. Annual Review of Earth and Planetary Sciences  
**Simon, A.C.**, Wilke, M., Jugo, P. (2025) The behavior of sulfur in plutonic igneous systems. Role of Sulfur in Planetary Processes: from Cores to Atmospheres  
Reich, M., **Simon, A.C.**, Barra, F., Palma, G., Hou, T. and Bilenker, L. (2022) Formation of iron oxide deposits. Nature Reviews Earth & Environment, 3, 758-775. <https://doi.org/10.1038/s43017-022-00335-3>  
Palma, G., Barra, F., Reich, M., **Simon, A.C.**, Romero, R. (2020) A review of magnetite geochemistry of Chilean iron oxide - apatite deposits and its implications for ore-forming processes. Ore Geology Reviews. 126, 103748.  
Kesler, S.E. and **Simon, A.C.** (2020) Custodianship of Global Mineral Resources. Encyclopedia of Geology, Eds: D. Alderton, S. A. Elias, Academic Press, 621-632. [doi.org/10.1016/B978-0-08-102908-4.00036-9](https://doi.org/10.1016/B978-0-08-102908-4.00036-9)



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**Simon, A.C.**, Knipping, J., Reich, M., Barra, F., Deditius, A.P., *Bilenker, L., Childress, T.* (2018) Kiruna-Type Iron Oxide-Apatite (IOA) and Iron Oxide Copper-Gold (IOCG) Deposits Form by a Combination of Igneous and Magmatic-Hydrothermal Processes: Evidence from the Chilean Iron Belt. Society of Economic Geology Special Publication No. 21, pp. 89-114.

Audétat, A. and **Simon, A.C.** (2012) Magmatic controls on porphyry Cu genesis. In: Economic Geology Monograph in honor of Richard Sillitoe. Eds. J.W. Hedenquist, M. Harris, F. Camus, Society of Economic Geologists Special Publication Number 16, 553-572.  
<https://app.ingemmet.gob.pe/biblioteca/pdf/SEG-SP16-553.pdf>

**Simon, A.C.** and Ripley, E. (2011) "16. The Role of Magmatic Sulfur in the Formation of Ore Deposits". *Sulfur in Magmas and Melts: Its Importance for Natural and Technical Processes*, edited by Harald Behrens and James D. Webster, Berlin, Boston: De Gruyter, 2011, pp. 513-578.  
<https://doi.org/10.1515/9781501508370-016>

**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.

### PEER-REVIEWED PUBLICATIONS

(graduate students; [undergraduate students](#); [postdoctoral scientists](#))

#### 2000

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.

#### 2003

**Simon, A. C.**, Pettke, T., Candela, P.A., Piccoli, P.M. and Heinrich, C.A. (2003) Experimental determination of Au solubility in rhyolite and magnetite: Constraints on magmatic gold budgets. *American Mineralogist*, 88, 1644-1651.

#### 2004

**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.

#### 2005

**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.

#### 2006

**Simon, A.C.**, Pettke, T., Candela, P.A., Piccoli, P.M., Heinrich, C. (2006) Copper partitioning in a melt-vapor-brine-magnetite-pyrrhotite assemblage. *Geochimica et Cosmochimica Acta*, 70, 5583-5600.

## Adam C. Simon CV

### 2007

- 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.
- Hersum, T., Marsh, B., **Simon, A.C.** (2007) Contact partial melting of granitic country rock, melt segregation, and re-injection as dike into Ferrar Sills, McMurdo Dry Valleys, Antarctica. *Journal of Petrology*, 48(11), 2125-2148
- 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.
- Simon, A.C.**, Pettke, T., Candela, P.A., Piccoli, P.M., Heinrich, C. (2007) The partitioning behavior of As and Au in a S-free and S-bearing magmatic systems. *Geochimica et Cosmochimica Acta*, 71, 1764-1782.

### 2008

- 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.
- Simon, A.C.**, Candela, P.A., Piccoli, P.M. and Englander, L. (2008) The effect of crystal – melt Partitioning on the budgets of Cu, Au and Ag. *American Mineralogist*, 93, 1437-1448.

### 2009

- Bell, A.*, **Simon, A.C.** and Guillong, M. (2009) Experimental constraints on Pt, Pd and Au partitioning and fractionation in silicate melt – sulfide – oxide – aqueous fluid systems at 800°C, 150 MPa and variable sulfur fugacity. *Geochimica et Cosmochimica Acta*, 73(19), 5778-5792.
- 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.

### 2011

- Bell, A.*, **Simon, A.C.** and Guillong, M. (2011) Gold solubility in oxidized and reduced, water saturated mafic melt. *Geochimica et Cosmochimica Acta*. 75(7), 1718-1732.
- Bell, A.*, and **Simon, A.C.** (2011) Evidence for the alteration of the  $Fe^{3+}/\Sigma Fe$  of silicate melt caused by the degassing of chlorine-bearing aqueous volatiles. *Geology*. 39(5), 499-502.
- Frank, M.R., **Simon, A.C.**, Pettke, T., Candela, P., Piccoli, P. (2011) Gold and copper partitioning in magmatic-hydrothermal systems at 800°C and 100 MPa. *Geochimica et Cosmochimica Acta*. 75(9), 2470-2482.
- Muntean, J., Cline, J, **Simon, A.C.** and Longo, A. (2011) Magmatic-hydrothermal origin of Nevada's Carlin-type gold deposits. *Nature Geoscience*, 4, 122-127.
- Simon, A.C.** and Ripley, E. (2011) The Role of Magmatic Sulfur in the Formation of Ore Deposits. In *Sulfur in Magmas and Melts: Its Importance for Natural and Technical Processes*, edited by Harald Behrens and James D. Webster, Berlin, Boston: De Gruyter, 2011, pp. 513-578.  
<https://doi.org/10.1515/9781501508370-016>

### 2012

- Audétat, A. and **Simon, A.C.** (2012) Magmatic controls on porphyry Cu genesis. In:

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Economic Geology Monograph in honor of Richard Sillitoe. Eds. J.W. Hedenquist, M. Harris, F. Camus, Society of Economic Geologists Special Publication Number 16, 553-572.

<https://app.ingemmet.gob.pe/biblioteca/pdf/SEG-SP16-553.pdf>

Pettke, T., Oberli, F., Audétat, A., Guillong, M., **Simon, A.C.**, Hanley, J.J., Klemm, L.M. (2012) Recent developments in element concentration and isotope ratio analysis of individual fluid inclusions by laser ablation single and multiple collector ICP-MS. *Ore Geol Reviews*, 44, 10-38.

*Tanis, E.A., Simon, A.C.*, Tschauner, O., Chow, P., Xiao, Y., Shen, G., Hanchar, J.M., Frank, M. (2012) Solubility of xenotime in 2 M HCl aqueous fluid from 1.2 to 2.6 GPa and 300 to 500 C. *American Mineralogist*, 97, 1708-1713.

### 2013

*Robertson, K., Simon, A.C.*, Pettke, T., Smith, E., Selyangin, O., Kiryukhin, A., Mulcahy, S.R., Walker, J.D. (2013) Melt inclusion evidence for magma evolution at Mutnovsky volcano, Kamchatka. *Geofluids*, 13, 421-439.

### 2014

Kirk, J.D., Ruiz, J., Kesler, S.E., **Simon, A.C.**, Muntean, J.L. (2014) Re-Os age of the Pueblo Viejo epithermal deposit, Dominican Republic. *Economic Geology*, 109, 503-512.

**Simon, A.C.**, Yogodzinski, G.M., *Robertson, K.*, Smith, E., Selyangin, O., Kiryukhin, A., Mulcahy, S.R., Walker, J.D. (2014) Evolution and genesis of volcanic rocks from Mutnovsky Volcano, Kamchatka. *Journal of Volcanology and Geothermal Research*, 286, 116-137.

### 2015

Fiege, A., Vetere, F., Iezzi, G., **Simon, A.C.**, Holtz, F. (2015) The roles of decompression rate and volatiles (H<sub>2</sub>O+Cl±CO<sub>2</sub>±S) on crystallization in (trachy-) basaltic magma. *Chemical Geology*, 411, 211-322

*Hudgins, T.*, Mukasa, S.B., **Simon, A.C.**, Moore, G., Barifajio, E. (2015) Melt inclusion evidence for CO<sub>2</sub>-rich melts beneath the western branch of the East African Rift: Implications for long-term storage of volatiles in the deep lithospheric mantle. *Contributions to Mineralogy and Petrology*, 169, Number 5, 1-18, 10.1007/s00410-015-1140-9

Kesler, S.E., Simon, A.C. (2015) Mineral Resources, Economics, and the Environment. Cambridge Press.

*Knipping, J.L., Bilenker, L., Simon, A.C.*, Reich, M., Barra, F., Deditius, A., Lundstrom, C., Bindeman, I., Munizaga, R. (2015) Giant Kiruna-type deposits form by efficient flotation of magmatic magnetite suspensions. *Geology*, 43, 591–594, doi:10.1130/G36650.1.

*Knipping, J.L., Bilenker, L., Simon, A.C.*, Reich, M., Barra, F., Deditius, A., Wälle, M., Heinrich, C.A., Holtz, F., Munizaga, R. (2015) Trace elements in magnetite from massive iron oxide-apatite deposits indicate a combined formation by igneous and magmatic-hydrothermal processes. *Geochimica et Cosmochimica Acta*, 171, 15-38.

*Tanis, E.A., Simon, A.C.*, Tschauner, O., Chow, P., Xiao, Y., Burnley, P., Cline II, C., Hanchar, J.M., Pettke, T., Shen, G., Zhou, Y. (2015) The mobility of Nb in rutile-

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saturated NaCl- and NaF-bearing aqueous fluids from 1-6.5 GPa and 300-800 C. *American Mineralogist*, 100, 1600-1609.

### 2016

- Bilenker, L., Simon, A.C.*, Reich, M., Lundstrom, C., Bindeman, I., Munizaga, R. (2016) Fe-O stable isotope pairs elucidate a high-temperature origin of Chilean iron oxide-apatite deposits. *Geochimica et Cosmochimica Acta*, 177, 94-104.
- Childress, T.M., Simon, A.C.*, Day, W.C., Lundstrom, C.C., Bindeman, I.N. (2016) Iron and oxygen isotope signatures of the Pea Ridge and Pilot Knob magnetite–apatite deposits, southeast Missouri, USA. *Economic Geology*, 111, 2033-2044.
- Reich, M., **Simon, A.C.**, Deditius, A., Barra, F., Chryssoulis, S., Lagas, G., Tardani, D., *Knipping, J., Bilenker, L., Sanchez-Alfaro, P., Roberts, M.P., Munziga, R.* (2016) Trace element signature of pyrite from the Los Colorados iron oxide-apatite (IOA) deposit, Chile: A missing link between Andean IOA and IOCG systems? *Journal of Economic Geology*, 111, 743-761.
- Tanis, E.A., Simon, A.C.*, Zhang, Y., Chow, P., Xiao, Y., Hanchar, J.M., Tschauner, O., Shen, G. (2016) Rutile solubility in NaF-NaCl-KCl-bearing aqueous fluids at 0.5-2.79 GPa and 250-650°C. *Geochimica et Cosmochimica Acta*, 177, 170-181.
- Yang, Y., Zhang, Y., Simon, A.C., Ni, P. (2016) Cassiterite dissolution and Sn diffusion in silicate melts of variable water content. *Chemical Geology*, 441, 162-176.

### 2017

- Barra, F., Reich, M., Selby, D., Rojas, P., **Simon, A.C.**, Salazar, E., Palma, G. (2017) Unraveling the Origin of the Andean IOCG Clan: A Re-Os Isotopes Approach. *Ore Geology Reviews*. 81, 62-78.
- Bilenker, L.B. Van Tongeren, J., Lundstrom, C.C., Simon, A.C.* (2017) Iron isotopic evolution during fractional crystallization of the uppermost Bushveld Complex layered mafic intrusion. *Geochemistry, Geophysics, Geosystems*, 18 (3), 956-972.
- Maroun, L.R.C., Cline, J.S., Simon, A., Anderson, P., Muntean, J.* (2017) High-Grade Gold Deposition and Collapse Breccia Formation, Cortez Hills Carlin-Type Gold Deposit, Nevada, USA. *Economic Geology*, 112, 707-740.
- Fiege, A., Ruprecht, P., **Simon, A.C.**, Bell, A.S., Göttlicher, J., Newville, M., Lanzirrotti, T., Moore, G. (2017) Calibration of Fe XANES for high-precision determination of Fe oxidation state in glasses: Comparison of results obtained at different synchrotron radiation sources. *American Mineralogist*, 102, 369-380.
- Fiege, A., Ruprecht, P., **Simon, A.C.** (2017) A magma mixing redox trap that moderates mass transfer of sulfur and metals. *Geochemical Perspectives Letters*, 3, 190-199.
- Konecke, B., Fiege, A., Simon, A.C., Parat, F., Stechern, A.* (2017) Co-variability of S<sup>6+</sup>, S<sup>4+</sup> and S<sup>2-</sup> in apatite as a function of oxidation state – implications for a new oxybarometer. *American Mineralogist*, 102, 548-557
- Konecke, B., Fiege, A., Simon, A.C., Holtz, F.* (2017) Cryptic metasomatism during late-stage lunar magmatism implicated by sulfur in apatite. *Geology*, 45 (8): 739-742.
- Ni, P., Zhang, Y., Simon, A.C., Gagnon, J.* (2017) Cu and Fe diffusion in rhyolitic melts during chalcocite "dissolution": Implications for porphyry ore deposits and tektites. *American Mineralogist*. 102, 1287-1301.

## Adam C. Simon CV

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### 2018

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**ABSTRACTS** I regularly deliver talks at academic and industry meetings and universities and all members of my research group present their research at one or more professional meetings annually. I do not track abstract submissions.