Curriculum Vitae
Alan Brandon

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Education

Ph.D. in Geology, University of Alberta, November, l992.

M.S. in Geology, University of Oregon, March, 1987.

B.S. in Geology, Oregon State University, June, 1983.

Employment

9/1/09-present. Associate Professor, University of Houston.

5/1/09-8/31/09. Research Associate Professor, University of Houston.

9/1/02-8/31/09. Adjunct Faculty, Rice University.

9/4/01-8/31/09. Space Scientist and Director, Osmium Isotope Laboratory, Johnson Space Center, NASA.

9/1/99-8/31/01. Assistant Professor, Northwestern University.

9/1/98-12/31/99. Assistant Research Scientist and Adjunct Member of the Graduate Faculty, University of Maryland.

11/1/96-9/1/98. Research Associate, University of Maryland.

11/1/94-11/1/96. Carnegie Fellow, Department of Terrestrial Magnetism, Carnegie Institution of Washington.

9/1/92-11/1/94. Postdoctoral Fellow at Massachusetts Institute of Technology.

7/1/88-8/31/92. Research Assistant, University of Alberta.

8/20/88-12/31/91. Teaching Assistant, University of Alberta.

3/15/88-5/31/88. Field Teaching Assistant, University of Washington.

1/1/85-3/15/87. Teaching Assistant, University of Oregon.

Funded Research Awards

4/1/13-8/15/13. University of Houston. "U-Pb Geochronology of Permian Oslo Rift, Norway, Granitoids", $3000, Small Grants.

1/1/12-12/31/14. Shell Oil Company. "The Re-Os Isotope Chronometer Applied to Dating Oil and Shale", $326,675.

1/1/12-12/31/14. NASA Cosmochemistry. "Isotopic Investigations of Planetary and Solar System Materials", $546,000, NNX12AD06G.

9/22/11-9/30/14. NSF, Petrology and Geochemistry. "Collaborative Research: Assessment of the Role of Water in Cratonic Roots and Their Post-Archean Margins on the Strength and Longevity of Continental Lithosphere", $96,283, EAR 1118388, Brandon PI allocation. With Anne Peslier, Jacobs, NASA JSC, and Phillip Janney, Arizona State.

2/15/11-1/31/14. NSF, Petrology and Geochemistry. "Testing Models for Continental Growth and Melt-Rock Interaction from ^{186}Os-^{187}Os-Hf-Nd-Sr Isotopes in SW USA

Mantle Xenoliths", $338,147, EAR 1048583.

2/15/11-1/31/13. NSF Earth Sciences Instrumentation and Facilities. "Acquisition of a Thermal Ionization Mass Spectrometer". $179,107, EAR 0947220.

10/1/10-5/31/12. NASA Planetary Major Equipment/Cosmochemistry. "Acquisition of a Thermal Ionization Mass Spectrometer for the University of Houston Chronology Laboratory", $181,578, NNX10AB37G S01.

2/09-2/13. NASA Lunar Science Institute. "Impact Processes in the Origin and Evolution of the Moon: New Sample-driven Perspectives", David Kring, Principal Investigator; Alan Brandon, Co-Investigator. Brandon Co-I allocation: Year 1 - $10,000, Year 2 $20,000, Years 3&4, $30,000.

8/1/10-5/31/12. NASA Cosmochemistry. "Isotopic Studies of Achondrites and the Moon", $213,000, NNX10AB37G.

10/01/07-9/30/09. NASA Cosmochemistry. "Isotopic Studies of Achondrites and the Moon", $550,000, RTOP 344-31-72-06.

10/01/04-9/30/07. NASA Cosmochemistry. "Isotopic Studies of Meteorites", $696,000, RTOP 344-31-72-06.

10/01/01-9/30/04. NASA Cosmochemistry. "A Re-Evaluation of the Re-Os and $^{142}Nd/^{144}Nd$ Isotopic Systematics in SNC Meteorites", $120,000, RTOP 344-31-72-06.

2/7/02-8/31/03. National Science Foundation, Petrology and Geochemistry. "A $^{186}Os/^{188}Os$-$^{187}Os/^{188}Os$ Investigation of Lavas From Iceland and the Austral Islands", $55,200, EAR 0296213 (this was a no cost extension of EAR 9804909 from Northwestern University to NASA Johnson Space Center).

9/1/00-3/31/02. National Science Foundation, Petrology and Geochemistry. "A $^{186}Os/^{188}Os$-$^{187}Os/^{188}Os$ Investigation of Lavas From Iceland and the Austral Islands", $93,874, EAR 0000908.

2/15/00-1/31/03. National Science Foundation, Earth Sciences Instrumentation and Facilities. "Acquisition of a Thermal Ionization Mass Spectrometer", $339,262, EAR 9910485.

1/1/00-8/31/01. National Science Foundation, Petrology and Geochemistry. "^{187}Re-^{187}Os, ^{190}Pt-^{186}Os, $^{34}S/^{32}S$ Isotopic Systematics of the Subcontinental Mantle of the Western United States", $81,530, EAR 0096207 (this was a no cost extension of EAR 9804909 from University of Maryland to Northwestern University).

9/1/98-7/31/00. National Science Foundation, Petrology and Geochemistry. "^{187}Re-^{187}Os, ^{190}Pt-^{186}Os, $^{34}S/^{32}S$ Isotopic Systematics of the Subcontinental Mantle of the Western United States", $144,000, EAR 9804909.

9/1/92-8/31/94. National Science Foundation. - NSF Earth Sciences Post-Doctoral Fellowship, "A Geochemical Study of Mantle Xenoliths from Modern Arcs" $71,114 EAR 9200972.

Honors

2009. Director's Commendation Award. NASA Johnson Space Center.

2002. Distinguished Postdoctoral Alumnus Award, University of Maryland.

2001. Northwestern University. Packard Fellowship Nominee.

1994-1996. Carnegie Institution of Washington Postdoctoral Fellowship.

1992-1994. National Science Foundation Earth Sciences Postdoctoral Fellowship.

Society Memberships

Geochemical Society.

American Geophysical Union.

Meteoritical Society.

Professional Service

2002-present. Associate Editor, Geochimica et Cosmochimica Acta.

2010. Organizer for 20th Annual Goldschmidt Conference Session: The Compositions of the Earth, the Earth-Moon System, and the Terrestrial Planets.

2008. Organizer for Spring AGU 'A Meeting of the Americas, Joint Assembly' Session: Recent advances in high precision mass spectrometry (TIMS, MC-ICP-MS, MC-SIMS) and their application in Earth and Planetary Sciences.

2008. Organizer for 18th Annual Goldschmidt Conference Sessions: Early Planetary Differentiation and Time-scales.

2005-2006. Organizer for two 16th Annual Goldschmidt Conference Sessions: Mantle-Core Interactions; Chronology of the Early Solar System.

2002-2005. Secretary, CAPTEM - Curation and Analysis Planning Team for Extraterrestrial Materials.

2003. Organizer for Fall AGU Special Session: The Core-Mantle Boundary.

2002-2003. Guest Editor for a special volume in Chemical Geology titled: Highly Siderophile Element Chemistry of the Earth, Moon and Planets, in honor of J.W. Morgan.

2001. Panel member, Petrology and Geochemistry Program, Geosciences, NSF.

2001. Session Chairman at the American Geophysical Union Fall Meeting.

2000. Program Committee, 63rd Annual Meeting of the Meteoritical Society in Chicago.

1998-1999. Guest Editor for a special volume in Chemical Geology titled: Interactions between Slab and Sub-Arc Mantle: Dehydration, Melting and Element Transport in Subduction Zones.

1998. Invited, keynote speaker for Geochemical Earth Reference Model Workshop, La Jolla, California, March 10-13.

1997-1998. Judge for student presentations at Fall AGU, VGP section.

1997. Organizer of Fall AGU Special Session: Material Transport During Dehydration and Melting of Slabs and Metasomatism in the Sub-Arc Mantle.

1995, 1996. Session Chairman at the American Geophysical Union Fall Meeting.

1993-1995. Guest Editor for Canadian Journal of Earth Sciences for a volume in memoriam to Richard StJ. Lambert, Volume 32, number 4, l995.

University of Houston Educational Service

January 1, 2103 to present. Adivor for Lillian Schaffer, PhD graduate student 'Water and oxygen fugacity studies of nominally anhydrous minerals in peridotite and pyroxenite xenoliths from the southwest USA'.

April 10, 2012 to present. Advisor for **Claire McLeod**, post-doctoral fellow, 'Hf and Nd isotope studies of the Moon'.

January 1, 2012 to present. Committee member for **Barry Shaulis**, PhD graduate student 'In-situ Hf isotope measurements and U-Pb chronology: applications to geology and cosmochemistry'.

January 1, 2012 to present. Committee member for **Thera Grosshans**, MS graduate student 'Constraints of mixing models of Martian source compositions of depleted shergottites – Inferred from QUE94201 and Tissint'.

January 1, 2012 to present. Committee member for **Matthew Loocke**, MS graduate student 'Spinel petrology of Godzilla Mullion peridotites'.

January 1, 2012 to present. Advisor for **Rosalind Armytage**, post-doctoral fellow, 'Isotope studies of Dish Hill mantle xenoliths and enstatite chondrites'.

September 1, 2011 to present. Committee member for **Nam Nguyen**, MS graduate student 'Tracing enriched mantle sources at Gakkel Ridge'.

September 1, 2011 to present. Advisor for **Shawn Wright**, PhD graduate student, 'Re-Os chronology and the distribution of PGE's in shales'.

January 1, 2011 to present. Advisor for **Jeremy Kent**, MS graduate student, 'Trace element studies of lunar granulites with implications to the origin and composition of the Moon's crust'.

January 1, 2012 to December 31, 2012. Advisor for **Jeremy Slaugenwhite**, undergraduate student research project, 'Isotopic constraints on magma mingling'.

January 1, 2011 to November 8, 2012. Committee member for **Jesse Dietderich**, MS graduate student, 'Isotopic Systematics of the Eucrite Jonzac: A Look Into the Eucrite Parent Body Using the Lu-Hf, Sm-Nd, Pb,Pb, and U-Pb Isotopic Systems'.

January 1, 2011 to October 25, 2012. Committee member for **Samuel Simmons**, MS graduate student, 'Lu-Hf and Sm-Nd Systematics of Apollo 17 Sample 78236: Age, Evolution and Investigation into the Neutron Fluence Correction on the Lu-Hf System'.

September 1, 2011 to May 1, 2012. Committee member for **Jennifer Campo**, undergraduate Honors thesis: 'Petrogenesis of Abyssal Peridotites from the Lena Trough (Arctic Ocean): Mantle Melting and Mechanisms of Early Oceanic Rifting'.

September 1, 2010 to October 5, 2012. Advisor for **Steven Braun**, MS thesis: 'Application of the Rhenium-Osmium Geochronometer to Neoproterozoic and Paleozoic Organic Rich Mudrocks'.

Current position: Exxon, Houston, Texas.

January 1, 2010 to August 31, 2011. Advisor for **John Shafer**, Assistant Research Scientist, 'Rb-Sr, Lu-Hf, and Sm-Nd isotope chronology studies of Moon and Mars meteorites'.

February 16, 2010 to January 30, 2011. Advisor for **David van Acken**, post-doctoral fellow, 'The Aubrite-Enstatite Chondrite Connection'.

Current position: ERC Postdoctoral Research Fellow, Steinmann-Institut, Universität Bonn, Germany.

June 1 to August 15, 2010. Advisor for **Steven Braun**, NASA Lunar Science Institute Student Intern, 'Trace Element Studies of Lunar Granulites'.

Current position: Exxon, Houston, Texas.

University of Houston Professional Service

2012-2013. Department of Earth and Atmospheric Sciences Safety Committee.

2012-2013. Graduate Geology Examining Committee.

2012-2013. Department of Earth and Atmospheric Sciences Organic Geochemistry Faculty Search. Committee Member.

2012-2013. Department of Earth and Atmospheric Sciences Space and Facilities Committee.

Fall Semester 2011. Department of Earth and Atmospheric Sciences Seminar Series Organizer.

2011-2012. Department of Earth and Atmospheric Sciences Personnel Committee.

NASA Research and Educational Activities

2009. NASA advisor for **David van Acken**, Oak-Ridge Associated Universities Post-Doctoral Fellow, 'The formation and differentiation history of the aubrite parent body'.

2008-2009. NASA advisor for **John Shafer**, Lunar and Planetary Institute Post-Doctoral Fellow, 'Rb-Sr, Lu-Hf, and Sm-Nd isotope chronology studies of Moon and Mars meteorites'.

2008. NASA advisor and host, for visiting PhD student **Emily Mullen**, University of Washington, 'Os isotope systematics of the primitive Mt. Baker lavas, Cascade Range, Washington'.

2008. Host, for Professor **Victoria Bennett**, Australian National University, Lunar and Planetary Institute Visiting Scientist Program, Constraints on early planetary differentiation from ^{146}Sm-^{142}Nd isotope systematics of 3.6-3.8 Ga rocks from China and Antarctica'.

2007. Host, for **Victoria Bennett**, Australian National University, Lunar and Planetary Institute Visiting Scientist Program, 'Constraints on early planetary differentiation from ^{146}Sm-^{142}Nd isotope systematics of 3.0-3.6 Ga rocks from the Greenland craton'.

2007. External Examiner for **Rasmus Andreasen**, PhD dissertation, Dartmouth College, Hanover, New Hampshire, 'Early Earth and solar system evolution - Insights from strontium, barium, neodymium, and samarium'.

2005-2007. NASA advisor for **Vinciane Debaille**, Lunar and Planetary Institute Post-Doctoral Fellow, 'Investigations on the the Martian mantle based on ^{176}Lu-^{176}Hf, ^{147}Sm-^{143}Nd and ^{146}Sm-^{142}Nd isotopic systematics.'

Current position: FNRS Chargée de Recherche, Université Libre de Bruxelles, Belgium.

2006. Host, for **Victoria Bennett**, Australian National University, Lunar and Planetary Institute Visiting Scientist Program, 'Constraints on early planetary differentiation from ^{146}Sm-^{142}Nd isotope systematics of 3.6-3.9 Ga rocks from the Greenland craton'.

2004-2006. Advisor, for **Kai Rankenburg**, National Research Counsel Post-Doctoral Fellow, 'A Re-Os isotopic and platinum group element investigation of ureilites'.

Current position: Instrumentalist, University of Western Australia, Crawley, Australia.

2005. NASA advisor and host, for visiting PhD student **Thomas Ireland**, University of Maryland, 'Os-He isotopic systematics of the Hawaiian plume'.

2004. NASA advisor and host, for visiting PhD student **John Shafer**, University of Notre Dame, 'Chemical evolution of the Hawaiian plume'.

2004. Advisor, for intern **Sarah Collins**, Imperial College, London, Lunar and Planetary Institute Summer Intern Program. 'A petrological study of lunar meteorite LAP 02205'.

2004. Host, for **Harry Becker**, University of Maryland, Lunar and Planetary Institute Visiting Scientist Program. 'Tungsten-182 as tracer for core-mantle interaction in the Earth and differentiation of the Martian mantle'.

Northwestern University Activities

2000-2001. Northwestern University, Weinberg College of Arts and Sciences Freshman Advisor.

2000-2001. Advisor, for Anne Peslier, Post-Doctoral Researcher.

Courses Taught

New courses developed (NEW) or heavily revised (REVISED)

University of Houston

Spring Semester 2013. GEOL XXX, Advanced Physical Geology

Spring Semester 2013. GEOL 1330, Physical Geology. 2 Sections.

Fall Semester 2012. GEOL 3373, Igneous and Metamorphic Petrogenesis.

Spring Semester 2012. GEOL 6374, Radiogenic Isotope Geochemistry.

Fall Semester, 2011. GEOL 1330, Physical Geology.

Fall Semester, 2011. GEOL 6396, Graduate Seminar in Geochemistry and Petrology.

Spring Semester, 2011. GEOL 1330, Physical Geology.

Fall Semester, 2010. GEOL 3373, Igneous and Metamorphic Petrogenesis (*REVISED*).

Spring Semester, 2010. GEOL 6397, Radiogenic Isotope Geochemistry (*NEW*).

Fall Semester, 2009. GEOL 1330, Physical Geology (*REVISED*).

Instructor evaluation data summarized for UH courses taught to date.
Values for 'strongly agree' to 'strongly disagree' are percent total responses.
Overall assessment of instructor: Entries for "The instructor is an effective teacher"

Semester/ Year	Course#	Responses	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Average Score Out of 5
Spring 2012	GEOL 6374	11	72.7	27.3	0.0	0.0	0.0	**4.7**
Fall 2011	GEOL 1330	17	52.9	41.2	5.9	0.0	0.0	**4.5**
Spring 2011	GEOL 1330	19	42.1	42.1	10.5	5.3	0.0	**4.2**
Fall 2010	GEOL 3373	27	42.3	23.1	30.8	0.0	3.8	**4.0**
Spring 2010	GEOL 6397	9	33.3	44.4	11.1	0.0	11.1	**3.9**
Fall 2009	GEOL 1330	20	40.0	40.0	20.0	0.0	0.0	**4.2**

Northwestern University

Spring Quarter, 2001. Geological Sciences 327, Radiogenic Isotope Geochemistry (*NEW*).

Fall Quarter, 2000. Geological Sciences 102, Freshman Seminar: A Journey to the Edge of the Solar System (*NEW*).

Spring Quarter, 2000. Geological Sciences 107, Plate Tectonics (*REVISED*).

Laboratory Experience

1988-present. University of Houston, NASA, Northwestern, Maryland, DTM, Woods Hole, and University of Alberta. Chemical separation and mass spectrometry for the Pt-Re-Os, Rb-Sr, Sm-Nd, and the U-Th-Pb isotopic systems.

1992-l999. Woods Hole, DTM. Ion microprobe analysis of minerals for trace element abundances in silicates and sulfur isotopes in sulfides from mantle peridotite xenoliths.

1990-1999. Maryland, DTM, University of Alberta. Electron probe microanalysis of silicate minerals and sulfides.

1984-1990. University of Oregon and Oregon State University. Instrumental neutron activation analysis of a wide spectrum of geological materials.

Invited Talks

2/15/13. Celebrating 100 Years of Teaching and Research in Earth Sciences, University of Alberta. Edmonton. "The Early History of Mars".

11/27/12. Chevron Energy Technology Company. "Application of the Re-Os Chronometer to Organic-Rich Mudrock and Petroleum".

9/12/12. Workshop on the Mantle of Mars: Insights from Theory, Geophysics, High-Pressure Studies, and Meteorites, Houston, Texas. "How and when did the Mars mantle acquire highly siderophile elements?"

6/27/12. 22nd Annual Goldschmidt Conference, Montreal, Canada. "The Shergottite Chronology Debate: In Support of Young Igneous Crystallization Ages."

5/16/11. University of Brussels, Belgium. "Making the Earth and the Moon, New Insights From Neodymium isotopes".

4/8/11. Texas A&M University, College Station, Texas. "Making the Moon, New Perspectives from Tungsten and Neodymium isotopes".

12/10. American Geophysical Union Fall Meeting, San Francisco, California. "Hafnium and Neodymium Isotope Evidence for Production of an Incompatible Trace Element Enriched Crustal Reservoir in Early Earth."

11/4/10. University of South Carolina, Columbia, South Carolina. "Making the Moon, New Perspectives from Tungsten and Neodymium isotopes".

7/20/10. Study of the Earth's Deep Interior (SEDI) Conference, Santa Barbara, California. "Neodymium in the Deep Earth".

7/27/09. Lunar and Planetary Institute, Houston, Texas. Lunar Science Institute Summer Intern Program. "Early Moon Timescales".

4/03/09. University of Houston, Houston, Texas. "Making the Moon: Perspectives From W and Nd Isotopes".

5/22/07. Dartmouth College, Hanover, New Hampshire. "Osmium From the Stars".

2/15/07. Arizona State University, Tempe, Arizona. "Application of the ^{146}Sm-^{142}Nd Geochronometer to Early Differentiation of the Earth and Moon".

2/14/07. Arizona State University, Tempe, Arizona. "The Debate Over Core-Mantle Interaction Continues".

1/30/07. University of California at Santa Cruz. "Application of the ^{146}Sm-^{142}Nd Geochronometer to Early Differentiation of the Earth and Moon".

1/29/07. University of California at Santa Cruz. "The Debate Over Core-Mantle Interaction Continues".

12/11/06. American Geophysical Union Fall Meeting, San Francisco, California. "High Precision Osmium Isotope Measurements Using New Generation Thermal Ionization Mass Spectrometry".

9/27/06. University of New Mexico, Albuquerque, New Mexico. "Osmium From the Stars".

2/24/06. Washington State University, Pullman, Washington. "The Pt/Os Ratio of the Earth's Mantle: Implications for Accretion and Early Differentiation Processes".

1/11/06. Lunar and Planetary Institute, Houston, Texas. "Platinum-osmium isotope evolution of the Earth's mantle: Constraints from chondrites and Os-rich alloys".

12/02/05. University of Houston, Houston, Texas. "Constraints on the highly siderophile element budget of the Earth's mantle from Pt-Os isotope systematics".

05/06/05. Rice University, Houston, Texas. "There and Back Again: The Osmium Cosmochemical Cycle".

10/01/04. Florida State University, Tallahassee, Florida. "Geochemical consequences of core-mantle interaction".

11/21/03. Rochester University, Rochester, New York. "The Debate Over Core-Mantle Interaction".

12/11/02. American Geophysical Union Fall Meeting, San Francisco, California. "Osmium isotope evidence for episodic continental lithosphere growth and stabilization over Earth history".

08/26/02. Highly Siderophile Element Workshop, Nancy, France. "Re-Os constraints on the chemical evolution and differentiation of the Martian mantle".

08/22/02. 12th Annual Goldschmidt Conference, Davos, Switzerland. "^{186}Os-^{187}Os systematics of Gorgona komatiites and Iceland picrites".

12/05/01. Rice University, Houston, Texas. "Applications to mantle geochemistry using coupled ^{186}Os-^{187}Os isotope systematics".

01/26/01. Johnson Space Center, NASA, Houston, Texas. "Highly siderophile element evidence for early differentiation of the Martian mantle".

06/15/00. Swiss Federal Institute of Technology (ETH), Zurich, Switzerland. "Coupled enrichments in ^{186}Os and ^{187}Os in some plumes: A core signature?"

05/19/00. Northwestern University, Evanston, Illinois. "Highly siderophile elements in terrestrial planets: The Martian example as viewed from the SNC meteorites."

02/17/00. University of Illinois at Chicago, Illinois. "^{186}Os-^{187}Os systematics of the mantle and some plumes".

02/11/00. The University of Chicago, Illinois. "Osmium isotopic evidence from plumes for core-mantle interaction".

11/17/99. Carnegie Institution of Washington, DC. "Re-Os isotopic evidence for early differentiation of the Martian mantle".

04/22/99. Washington State University, Pullman, Washington. Guest lecture for Geology 101 course: "River processes".

04/22/99. Washington State University, Pullman, Washington. "Applications of Os and Pb isotopes to geochronology and as process tracers".

03/12/99. University of Alberta, Edmonton, Alberta, Canada. "The Pt-Os isotopic system: A new tool for mantle geochemistry".

03/05/99. Northwestern University, Evanston, Illinois. "What do arc peridotite xenoliths reveal about slab material transport in the mantle wedge?"

03/04/99. Northwestern University, Evanston, Illinois. "The Pt-Os isotopic system: A new tool for mantle geochemistry".

6/8/98. Max-Planck-Institut fuer Chemie, Mainz, Germany. "Coupled ^{186}Os and ^{187}Os evidence for core-mantle interaction".

03/11/98. Scripps Institute of Oceanography, LaJolla, California. Geochemical Earth Reference Model Workshop. "Coupled ^{186}Os and ^{187}Os evidence for core-mantle interaction".

10/17/97. University of Maryland, College Park, Maryland. "Os recycling in subduction zones".

05/23/97. Smithsonian Institution of Washington, DC. "Isotopic evidence for metasomatism in arc mantle xenoliths from Simcoe, Washington, USA".

10/10/96. Rutgers University, New Brunswick, New Jersey. "Slab material transport in the mantle wedge: evidence from arc mantle xenoliths".

12/08/95. University of Oregon, Eugene, Oregon. "Constraints on rates of granitic magma transport from epidote dissolution kinetics".

01/18/95. Geological Society of Washington, Washington, DC. "Constraints on rates of granitic magma transport from epidote dissolution kinetics".

03/23/94. Department of Terrestrial Magnetism, Carnegie Institution of Washington, DC. "Isotopic constraints on the origin of granitoid rocks in the Omineca Crystalline Belt, British Columbia, Canada".

06/19/94. Woods Hole Oceanographic Institute, Woods Hole, Massachusetts. "Re-Os isotopic composition of arc mantle lithosphere, preliminary results".

11/12/93. University of Oregon, Eugene, Oregon. "Isotopic constraints on subcontinental lithospheric mantle sources for basalts: Neogene volcanism in the Pacific Northwest, USA".

02/19/91. University of Alberta, Edmonton, Alberta, Canada. "Geochemical constraints from igneous rocks of the Permian Oslo rift in Norway for the evolution of carbonatite-metasomatized mantle lithosphere".

09/22/89. University of Alberta, Edmonton, Alberta, Canada. "Trace element evidence for the origin of Miocene lavas from Bear Creek, Oregon".

05/15/87. University of Washington, Seattle, Washington. "Constraints on magma genesis behind the Neogene Cascade arc".

Publications

Publications in Peer-Reviewed Journals

CI = number of citations listed @ ISI Web of Science
Total citations as of 3/14/13: 2093, h-index = 25
*** - Papers with Post-docs or Students I advised during the research period**

Debaille, V., O'Neill, C.O., **Brandon, A.D.**, Haenecour P., Yin, Q.-Z., Mattielli, N., Treiman, A.H., Stagnant-lid tectonics in early Earth revealed by ^{142}Nd variations in late Archean rocks. ***Earth Planet. Sci. Lett.***, Resubmitted after positive review 12/22/12.

64. Wittig, N., Humayun, M., **Brandon, A.D.**, Huang, S., Leya, I., 2013. Coupled W-Os-Pt systematics of IVB iron meteorites: In situ neutron dosimetry for W isotope chronology. ***Earth Planet. Sci. Lett.*** 361, 152-161.

63. van Acken*, D., **Brandon, A.D.**, Lapen, T.J., 2012. Highly siderophile element and osmium isotope evidence for postcore formation magmatic and impact processes on the aubrite parent body. ***Meteor. Planet. Sci.***, 47, 1606-1623.

62. van Acken*, D., Humayun, M., **Brandon, A.D.**, Peslier, A.H., 2012. Siderophile trace elements in metals and sulfides in enstatite achondrites record planetary differentiation in an enstatite chondritic parent body. ***Geochim. Cosmochim. Acta***,

(83), 272-291. **CI: 1**

61. Brandon, A.D., Puchtel, I.S., Walker, R.J., Day, J.M.D., Irving, A.J., Taylor, L.A., 2012. Evolution of the martian mantle inferred from the ^{187}Re-^{187}Os isotope and highly siderophile element abundance systematics of shergottite meteorites. ***Geochim. Cosmochim. Acta*** (76), 206-235. **CI: 8**

60. Hui, H., Peslier, A.H., Lapen, T.J., Shafer*, J.T., **Brandon, A.D.**, Irving, A.J., 2011. Petrogenesis of basaltic shergottite Northwest Africa 5298: Closed-system crystallization of an oxidized mafic melt. ***Meteor. Planet. Sci.*** (46), 1313-1328. **CI: 1**

59. Brandon, A.D., 2011. Building a planet in record time. **INVITED. News and Views,** ***Nature***, (473), 460-461.

58. Ireland, T.J., Walker, R.J., **Brandon, A.D.**, 2011. ^{186}Os-^{187}Os systematics of Hawaiian picrites revisited: Additional insights into Os isotopic variations in ocean island basalts. ***Geochim. Cosmochim. Acta.*** (75), 4456-4475. **CI: 3**

57. van Acken*, D., **Brandon, A.D.**, Humayun, M., 2011. High-precision osmium isotopes in enstatite and rumurutite chondrites. ***Geochim. Cosmochim. Acta*** (75), 4020-4036. **CI: 5**

56. Shafer*, J.T., **Brandon, A.D.**, Lapen, T.J., Righter, M., Peslier, A.H., Beard, B.L., 2010. Trace element systematics and ^{147}Sm-^{143}Nd and ^{176}Lu-^{176}Hf ages of Larkman Nunatak 06319: Closed system fractional crystallization of an enriched shergottite magma. ***Geochim. Cosmochim. Acta*** (74), 7307-7328. **CI: 5**

55. Peslier, A.H., Hnatyshin, D., Herd, C.D.K., Walton, E.L., **Brandon, A.D.**, Lapen, T.J., Shafer*, J., 2010. Crystallization, melt inclusion, and redox history of a new Martian meteorite: olivine phyric shergottite LAR 06319, ***Geochim. Cosmochim. Acta***, (74), 4543-4576. **CI: 13**

54. Lapen, T.J., Righter, M., **Brandon, A.D.**, Debaille*, V., Beard, B.L., Shafer*, J.T., Peslier, A.H., 2010. A younger age for ALH 84001 and its geochemical link to shergottite sources in Mars. ***Science***, (328), 347-351. **CI: 33**

53. Murphy, D.R., **Brandon, A.D.**, Debaille*, V., Burgess, R., Ballentine, C., 2010. In search of a hidden long-term isolated sub-chondritic ^{142}Nd/^{144}Nd isotope reservoir at in the deep mantle: Implications for the Nd isotope systematics of the Earth. ***Geochim. Cosmochim. Acta*** (74), 738-750. **CI: 7**

52. Puchtel, I.S., Walker, R.J., **Brandon, A.D.**, Nisbet, E.G., 2009. Pt-Re-Os isotope and HSE systematics of the 2.7 Ga Belingwe and Abitibi komatiites. ***Geochim. Cosmochim. Acta*** (73), 6367-6389. **CI: 15**

51. Brandon, A.D., Lapen, T., Debaille*, V., Beard, B.L., Rankenburg, K., Neal, C., 2009. Re-evaluating ^{142}Nd/^{144}Nd in lunar mare basalts with implications for the early evolution and bulk Sm/Nd of the Moon. ***Geochim. Cosmochim. Acta*** (73), 6421-6445. **CI: 14**

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Post-Doctoral Fellows Supervised, Principal Advisor

University of Houston

Current. **Clair McLeod** 'Nd and Hf isotope studies of the Moon'.

Current. **Rosalind Armytage** 'Isotope studies of Dish Hill mantle xenoliths and enstatite chondrites'.

January 1, 2010 to August 31, 2011. **John Shafer** 'Rb-Sr, Lu-Hf, and Sm-Nd isotope chronology studies of Moon and Mars meteorites'.

February 16, 2010 to January 30, 2011. **David van Acken** 'The aubrite-enstatite chondrite connection'.

Current position: ERC Postdoctoral Research Fellow, Steinmann-Institut, Universität Bonn, Germany.

NASA Johnston Space Center

2009. **David van Acken** 'The formation and differentiation history of the aubrite parent body'.

Current position: Post-Doctoral Fellow, University of Alberta, Edmonton, Alberta, Canada.

2008-2009. **John Shafer** 'Rb-Sr, Lu-Hf, and Sm-Nd isotope chronology studies of Moon and Mars meteorites'.

2005-2007. **Vinciane Debaille** 'Investigations on the the Martian mantle based on ^{176}Lu-^{176}Hf, ^{147}Sm-^{143}Nd and ^{146}Sm-^{142}Nd isotopic systematics.'

Current position: FNRS Chargée de Recherche, Université Libre de Bruxelles, Belgium.

2004-2006. **Kai Rankenburg**, National Research Counsel Post-Doctoral Fellow, 'A Re-Os isotopic and platinum group element investigation of ureilites'.

Current position: Instrumentalist, University of Western Australia, Crawley, Australia.

Graduate Students Supervised, Principal Advisor, University of Houston

2010-2012. **Steven Braun**, MS: 'Application of the Rhenium-Osmium Geochronometer to Neoproterozoic and Paleozoic Organic Rich Mudrocks'.

Current position: Exxon, Houston, Texas.

Current**. Jeremy Kent**, MS, 'Trace element studies of lunar granulites with implications to the origin and composition of the Moon's crust'.

Current. **Shawn Wright**, PhD, 'Re-Os chronology and the distribution of PGE's in shales'.

Current. **Lillian Schaffer**, PhD, 'Water in the Earth's mantle'.