NAME Jacqueline Eaby Dixon, Ph.D.

Dean and Professor

**OFFICE ADDRESS** College of Marine Science

University of South Florida 140 Seventh Ave. South St. Petersburg, FL 33701 Phone: 727-553-3369 Fax: 727-553-3968

Email: jdixon@usf.edu

**HOME ADDRESS** 2626 Keystone Ct. N.

St. Petersburg, FL 33710 Phone (cell): 786-473-3476 Email: dixonjcq@live.com



### **EDUCATION**

1992 Ph.D. Geochemistry, California Institute of Technology

Dissertation: "Water and Carbon Dioxide in Basaltic Magmas" Advisors: Edward Stolper (Caltech) and John Holloway (ASU)

1983 M.S. Geology, Stanford University

Thesis: "Sr Isotopic Variations Along the Juan de Fuca Ridge" Advisors: Gail Mahood (Stanford) and David Clague (USGS)

1981 B.Sc. Geology, Stanford University

#### ADMINISTRATIVE EXPERIENCE

# University of South Florida

# January 2011 - present: Dean, College of Marine Science

- Oversight of 26 full time faculty, 34 research associates, 31 technical associates, 20 staff, ~100 graduate students
- Annual budget of ~\$21M including ~\$14M in sponsored research funding
- Played leading role in submission of interdisciplinary consortium proposal to Gulf of Mexico Research Initiative. USF/CMS was awarded \$11M over 3 years in 2011, \$20.2M over 3 years in 2014, and \$5M over three years in 2017 for research on long-term impact of Deepwater Horizon oil disaster
- Developed and implemented 2016-2021 College of Marine Science Strategic Plan

# University of Miami

# July 2009 - June 2010: Interim Dean, College of Arts & Sciences

- Oversight of 21 academic departments, 9 interdisciplinary programs, Lowe Art Museum, Center for Latin American Studies, and the Center for the Humanities
- Approximately 500 faculty, 260 teaching assistants, 225 staff, 4,000 undergraduates, and 600 graduate students
- Annual budget of ~\$90 million
- Oversaw submission of proposals to NIH & NSF American Recovery and Reinvestment Act for construction, renovation, and major instrumentation in life and physical sciences

 Successfully obtained \$15M NIH award to construct Neuroscience and Health Annex

# June 2006 – June 2010: Senior Associate Dean for Life and Physical Sciences, College of Arts & Sciences

- Oversight of 6 academic departments & 3 interdisciplinary programs
- Approximately 85 faculty, 100 teaching assistants, 33 staff, 1500 undergraduate majors, and 140 graduate students
- Annual budget of ~\$20.9 million, \$3.4 million in sponsored research funding
- Played leading role in creation and implementation of honors program for undergraduates interested in research-related careers in health science (Program for Integration of Science and Mathematics PRISM)

# June 2003 – June 2008: Director of the Undergraduate Program in Ecosystem Science and Policy

 Played leading role in creation and implementation of undergraduate majors (B.S. and B.A.) in Ecosystem Science and Policy

# **HONORS & AWARDS**

- 2016 Tuve Fellow, Department of Terrestrial Magnetism, Carnegie Institution of Washington
- 2016 Fellow of the American Association for the Advancement of Science (AAAS)
- 2013 USF Alliance for the Advancement of Florida's Academic Women in Chemistry and Engineering Honors
- 2007 Top-50 most cited article (Dixon et al., 2004) published in Earth & Planetary Science Letters 2004-2007
- 1998 Phi Kappa Phi, Faculty inductee
- 1997 NSF Early Career Development Award

## **ACADEMIC APPOINTMENTS**

# University of South Florida

Jan. 2011 - present: Professor, College of Marine Science

#### University of Miami

July 2008 - Dec. 2011: *Professor*, Department of Geological Sciences, College of Arts and Sciences

Nov. 1998 - June 2008: *Joint Appointment,* Department of Geological Sciences, College of Arts and Sciences and Division of Marine Geology and Geophysics, Rosenstiel School of Marine and Atmospheric Sciences

June 2003 - June 2008: *Professor*, Division of Marine Geology and Geophysics, Rosenstiel School of Marine and Atmospheric Sciences

June 1998 - May 2003: *Associate Professor*, Division of Marine Geology and Geophysics, Rosenstiel School of Marine and Atmospheric Sciences

Sept. 1992 - May 1998: *Assistant Professor*, Division of Marine Geology and Geophysics, Rosenstiel School of Marine and Atmospheric Sciences

## California Institute of Technology

Feb. 1992 - Aug. 1992: *Staff Scientist*, Division of Geological and Planetary Science Sept. 1985 - Feb. 1992: *Graduate Research Assistant*, Division of Geological and Planetary Sciences

#### University of California, San Diego

Sept. 1984 - June 1985: *Graduate Research Assistant*, Scripps Institution of Oceanography

## NON-ACADEMIC APPOINTMENTS

# U.S. Geological Survey

Sept. 1981 - Aug. 1984: Physical Science Technician and Scientific Navigator

#### RESEARCH INTERESTS

My research focuses on Earth's deep carbon dioxide and water cycles and the role of volatiles in magmatic processes. I specialize in Fourier Transform Infrared Spectroscopic analysis of silicate glasses formed during eruption of submarine volcanoes or trapped in crystals. My research utilizes experimental systems, as well as natural samples from midocean ridges and oceanic islands, including Hawaii, the Galapagos, and Iceland.

#### **PUBLICATIONS**

# **Juried or Refereed Journal Articles**

(39 articles,5113 citations for 38 articles (1623 since 2014), h-index 30 (2 since 2014), citations as of 3/1/2019 using Google Scholar)

- 39. Dixon, J. E., I. N. Bindeman, R. H. Kingsley, K. K. Simons, P. J. le Roux, T. R. Hajewski, P. Swart, C. H. Langmuir, J. G. Ryan, K. J. Walowski, I. Wada, and P. J. Wallace (2017) Light Stable Isotopic Compositions of Enriched Mantle Sources: Resolving the Dehydration Paradox. *Geochemistry, Geophysics, Geosystems*, doi: 10.1002/2016GC006743. (nothing yet, but asked to give keynote address at 2019 Goldschmidt in Barcelona)
- 38. Witham, F., Blundy, J. D., Dohn, S. C., Lesne, P., **Dixon, J. E.,** Churakov, S., and Botcharnikov, R. (2012) SolEx: A model for mixed COHSCI-fluid solubilities and exsolved gas compositions in basalt. *Computers & Geosciences* 45, 87-97. (73 citations)
- 37. **Dixon, J. E.** (2012) Working towards a sustainable global ocean: Research highlights at the College of Marine Science, University of South Florida. *Global Scientia* 1, 12-15. (*0 citations*)
- 36. Muller-Karger, F., Fanning, K., Hine, A., Hogarth, W., and **Dixon, J.** (2010) The College of Marine Science at the University of South Florida, *Gulf of Mexico Science* 2010 (1-2), 164-172. (*1 citation*)
- 35. **Dixon, J. E.**, Clague, D. A., Cousens, B., Monsalve, M. L., and Uhl, J. (2008) Carbonatite and silicate melt metasomatism of the mantle surrounding the Hawaiian plume: Evidence from volatiles, trace elements, and radiogenic isotopes in rejuvenated-stage lavas from Niihau, Hawaii. *Geochemistry, Geophysics, Geosystems* 9, Q09005, doi:10.1029/2008GC002076. (73 citations)
- 34. Dasgupta, R., and **Dixon, J. E.** (2009) Volatiles and volatile-bearing melts in the Earth's interior. *Chemical Geology* 262, 1-3. (*4 citations*)
- 33. Atlas, Z., **Dixon, J. E.**, Sen, G., Finny, M., and Martin-Del Pozzo, A. L. (2006) Melt inclusions from Volcán Popocatépetl and Volcán de Colima, Mexico: Melt evolution due to vapor-saturated crystallization during ascent. *Journal of Volcanology and Geothermal Research* 153, 221-240. (*54 citations*)
- 32. Rüpke, L., Morgan, J. P., and **Dixon, J. E.** (2006) Implications of subduction rehydration for the Earth's deep water cycle, In Earth's Deep Water Cycle. S. D. Jacobsen and S. van der Lee, editors, *American Geophysical Union Geophysical Monograph Series* 168, 263-276. (29 citations)
- 31. Hauri, E. H., Shaw, A. M., Wang, J., **Dixon, J. E.**, King, P. L., and Mandeville, C. (2006) Matrix effects in hydrogen isotope analysis of silicate glasses by SIMS. *Chemical Geology* 235, 352-365. (*52 citations*)

- 30. Asimow, P., **Dixon, J. E.**, and Langmuir, C. (2004) A hydrous melting and fractionation model for mid-ocean ridge basalts: Application to the Mid-Atlantic Ridge near the Azores. *Geochemistry, Geophysics, Geosystems* 5, Q01E16, doi: 10.1029/2003GC000568. (278 citations)
- 29. Cushman B., Sinton, J., Ito, G., and **Dixon, J. E.** (2004) Glass compositions, plume-ridge interaction, and hydrous melting along the Galápagos Spreading Center, 90.5°W to 98°W. *Geochemistry, Geophysics, Geosystems* 5, Q08E17, doi:10.1029/2004GC000709. (82 citations)
- 28. **Dixon, J. E.**, Dixon, T. H., Bell, D. R., and Malservisi, R. (2004) Lateral variation in mantle viscosity: Role of water. *Earth and Planetary Science Letters* 222, 451-467. (255 citations)
- Clague, D. A., Davis, A. S., and **Dixon, J. E.** (2003) Submarine strombolian eruptions on the Gorda mid-ocean ridge, In Explosive Subaqueous Volcanism. J. D. L. White, J. L. Smellie, and D. A. Clague (eds.), *American Geophysical Union Monograph* 140, 111-128. (53 citations)
- 26. **Dixon, J. E.**, Leist, L., Langmuir, C., and Schilling, J.-G. (2002) Recycled dehydrated lithosphere observed in plume-influenced mid-ocean ridge basalt. *Nature* 420, 385-389. (389 citations)
- Detrick, R. S., Sinton, J. M., Ito, G., Canales, J. P., Behn, M., Blacic, T., Cushman, B., Dixon, J. E., Graham, D. W., and Mahoney, J. J. (2002) Correlated geophysical, geochemical and volcanological manifestations of plume-ridge interaction along the Galápagos Spreading Center. *Geochemistry, Geophysics, Geosystems* 3, doi 10.1029/2002GC000350. (113 citations)
- 24. Hauri, E., Wang, J., **Dixon, J. E.**, King, P. L., Mandeville, C., and Newman, S. (2002) SIMS analysis of volatiles in silicate glasses 1. Calibration, matrix effects and comparisons to FTIR. *Chemical Geology* 183, 99-114. (*258 citations*)
- 23. Kingsley, R. H., Schilling, J-G., **Dixon, J. E.**, Swart, P., Poreda, R., and Simons, K. (2002) D/H ratios in basalt glasses from the Salas y Gomez mantle plume interacting with the East Pacific Rise: Water from old D-rich recycled crust or primordial water from the lower mantle? *Geochemistry, Geophysics, Geosystems* 3, doi:10.1029/2001GC000199. (38 citations)
- 22. Simons, K., **Dixon, J. E.**, Schilling J-G., Kingsley, R., and Poreda, R. (2002) Volatiles in basaltic glasses from the Easter-Salas y Gomez Seamount Chain and Easter Microplate: Implications for geochemical cycling of volatile elements. *Geochemistry, Geophysics, Geosystems* 3, doi:10.1029/ 2001GC000173. (125 citations)
- 21. **Dixon, J. E.**, Filiberto, J. R., Moore, J. G., Hickson, C. J. (2002) Volatiles in basaltic glasses from a subglacial volcano in Northern British Columbia: Implications for mantle volatiles and ice sheet thickness. In Volcano-Ice Interaction on Earth and Mars, J. L. Smellie and M. G. Chapman, eds., *Geological Society of London Special Publication 202*, 255-271. (31 citations)
- 20. **Dixon, J. E.**, and Clague, D. A. (2001) Volatiles in basaltic glasses from Loihi Seamount, Hawaii: Evidence for a relatively dry plume component. *Journal of Petrology* 42, 627-654. (268 citations)
- 19. Newman, A. V., Dixon, T. H., Ofoegbu, G., and **Dixon, J. E.** (2001) Geodetic and seismic constraints on recent activity at Long Valley Caldera, California: Evidence for viscoelastic rheology. *Journal of Volcanology and Geothermal Research* 105, 183-206. (120 citations)
- 18. Clague, D. A., Davis, A., Bischoff, J., **Dixon, J. E.**, and Geyer, R. (2000) Lava bubble-wall fragments formed by submarine hydrovolcanic explosions on Loihi Seamount and Kilauea Volcano. *Bulletin of Volcanology* 61, 437-449. (*83 citations*)
- 17. Clague, D. A., and **Dixon, J. E.** (2000) Extrinsic controls on the evolution of Hawaiian ocean island volcanoes. *Geochemistry, Geophysics, Geosystems* 1, 1010,

- doi:10.1029/1999GC000023. (51 citations)
- 16. **Dixon, J. E.**, Simons, K., Leist, L., Eck, C., Ricisak, J., Gifford, J., and Ryan, J. (2000) Provenance of stone celts from the Miami Circle Archeological Site, Miami, Florida. *Florida Anthropologist* 53, 328-341. (*2 citations*)
- 15. Sinton, J., Detrick, R., Ito, G., Canales, J. P., Cushman, B., Behn, M., Blacic, T., **Dixon, J. E.**, Graham, D., Lin, J., Mahoney, J., and the Shipboard Scientific Party (2000) Seismic and petrologic investigation of the effects of plume-ridge interaction at the Galápagos Spreading Centre. *InterRidge News* 9, 41-45. (*0 citations*)
- 14. **Dixon, J. E.** (1997) Degassing of alkalic basalts. *American Mineralogist* 82, 368-378. (241 citations)
- 13. **Dixon, J. E.**, Clague, D. A., Wallace, P., and Poreda, R. (1997) Volatiles in alkalic basalts from the North Arch volcanic field, Hawaii: extensive degassing of deep submarine-erupted alkalic series lavas. *Journal of Petrology* 38, 911-939. (242 citations)
- 12. **Dixon, J. E.**, Stolper, E. M., and Holloway, J. R. (1995) An experimental study of water and carbon dioxide solubilities in mid-ocean ridge basaltic liquids. Part I: Calibration and solubility models. *Journal of Petrology* 36, 1607-1631. (*592 citations*)
- 11. **Dixon, J. E.**, and Stolper, E. M. (1995) An experimental study of water and carbon dioxide solubilities in mid-ocean ridge basaltic liquids. Part II: Degassing of basaltic liquids. *Journal of Petrology* 36, 1633-1646. (297 citations)
- 10. **Dixon, J. E.**, and Pan, V. (1995) Determination of the molar absorptivity of dissolved carbonate in basanitic glass. *American Mineralogist* 80, 1339-1442. (*111 citations*)
- 9. Clague, D. A., Moore, J. G., **Dixon, J. E.**, and Friesen, W. B. (1995) Petrology of submarine lavas from Kilauea's Puna Ridge, Hawaii. *Journal of Petrology* 36, 299-349. (*223 citations*)
- 8. Holloway, J. R., **Dixon, J. E.**, and Pawley, A. R. (1992) An internally-heated, rapid-quench vessel. *American Mineralogist* 77, 643-646. (*41 citations*)
- 7. Clague, D. A., Weber, W. S., and **Dixon, J. E.** (1991) Picritic glasses from Hawaii. *Nature* 353, 553-555. (*142 citations*)
- 6. **Dixon, J. E.**, Clague, D. A., and Stolper, E. (1991) Degassing history of water, sulfur, and carbon in submarine lavas from Kilauea Volcano, Hawaii. *Journal of Geology* 99, 371-394. (225 citations)
- 5. **Dixon, J. E.**, and Dixon, T. H. (1989) Vesicles, amygdales and similar structures in fault generated pseudotachylites Comment. *Lithos* 23, 225-229. (*14 citations*)
- 4. **Dixon, J. E.**, Stolper, E., and Delaney, J. R. (1988) Infrared spectroscopic measurements of H<sub>2</sub>O and CO<sub>2</sub> contents in Juan de Fuca Ridge basaltic glasses. *Earth and Planetary Science Letters* 90, 87-104. (*378 citations*)
- 3. **Dixon, J. E.**, Clague, D. A., and Eissen, J. -P. (1986) Gabbroic xenoliths and host ferrobasalt from the southern Juan de Fuca Ridge. *Journal of Geophysical Research* 91, 3795-3820. (*75 citations*)
- 2. Clague, A., Frankel, C. S., and **Eaby, J. S.** (1985) The age and origin of felsic intrusions of the Thetford Mines Ophiolite, Quebec. *Canadian Journal of Earth Sciences* 22, 1257-1261. (*15 citations*)
- 1. **Eaby, J. S.**, Clague, D. A., and Delaney, J. R. (1984) Sr isotopic variations along the Juan de Fuca Ridge. *Journal of Geophysical Research* 89, 7883-7890. (*73 citations*)

# <u>Abstracts</u>

- 52. Dixon, J. E. (2018) Generation of Enriched Mantle Sources: Evidence from volatiles and Light Stable Isotopes. Goldschmidt conference, Boston, Session 02b, Abstract 2018001745.
- 51. Dixon, J. E., Bindeman, I., Kingsley, R. (2017) Hydrogen isotopic compositions of enriched mantle sources: Resolving the dehydration paradox. <u>AGU Fall Meeting</u>

- 2017, Abstract DI53A-07.
- 50. Dixon, J. E., Bindeman, I., Kingsley, R. (2017) Hydrogen isotopic compositions of enriched mantle sources: Resolving the dehydration paradox. <u>GSA Fall Meeting</u>, Abstract 208-8.
- 49. Dixon, J. E., Bindeman, I., Kingsley, R. (2017) Hydrogen isotopic compositions of enriched mantle sources: Resolving the dehydration paradox. <u>Goldschmidt</u> Conference 2017, Session 05q.
- 48. Bindeman, I., **Dixon J.,** Langmuir C., Palandri, J. (2015) D/H and water concentrations of submarine MORB glass around the world: analytical aspects, standardization, and (re)defining mantle D/H ranges. <u>AGU Fall Meeting 2015</u>, Abstract DI31A-2572.
- 47. **Dixon, J. E.,** Simons, K., Kingsley, R., le Rous, P., and Ryan, J. (2012) Progressive dehydration and re-equilibration of slab lithologies during subduction: Mechanism for recycling of heavy, hydrothermally-altered crust and mantle derived stable isotopic signatures into the deep mantle. <u>AGU Fall Meeting 2012</u>, Abstract V52A-07.
- Dixon, J., Clague, D., and Cousens, B. (2009) Carbonatite and Silicate Melt Metasomatism of Depleted Mantle Surrounding the Hawaiian Plume: Origin of Rejuvenated-Stage Lavas. 19th Annual Goldschmidt Conference, Davos, Switzerland, Abstract 2752.
- 45. Atlas, Z., and **Dixon, J.** (2008) Multi-stage degassing at Masaya Volcano, Nicaragua. GSA Abstracts with Programs 41, Southeastern Section, Abstract 154829.
- 44. **Dixon, J.**, Clague, D., Cousens, B., and Monsalve, M. L. (2008) Volatiles and trace elements in rejuvenated-stage lavas from Niihau, Hawaii: Evidence for carbonatite metasomatism. 18<sup>th</sup> Annual Goldschmidt Conference, Vancouver, BC, Canada, Abstract A220.
- 43. **Dixon, J.**, Clague, D., Cousens, B., and Monsalve, M. L. (2007) Volatiles and trace elements in rejuvenated-stage lavas from Niihau, Hawaii: Evidence for silicate melt and carbonatite metasomatism of the mantle surrounding the Hawaiian Plume. <u>EOS Trans. AGU</u> 88, Fall Meet. Suppl., Abstract DI43A-02.
- 42. Rau, C., Monsalve, M.L., **Dixon, J.**, Kingsley, R., and Schilling, J.-G. (2007) Water in Arctic mid-ocean ridge basalts: Evidence for a wet recycled crustal component in the Jan Mayen Plume. <u>EOS Trans. AGU</u> 88, Fall Meet. Suppl., Abstract V33B-1388.
- 41. Ferreira, P., Murton, B., **Dixon, J.**, and Boulter, C. (2007) Melt supply and magmatic evolution at a large central MOR volcano located in the Lucky Strike segment. <u>17<sup>th</sup></u> Annual Goldschmidt Conf., Cologne, Germany, Abstract A275.
- 40. **Dixon, J. E.** (2006) Water in the mantle sources of oceanic basalts. <u>EOS Trans. AGU</u> 87, Fall Meet. Suppl., Abstract V54A-04.
- Kingsley, R. H., **Dixon, J. E.**, Swart, P., Eiler, J., and Schilling, J.-G. (2006) Hydrogen and oxygen stable isotope ratios in MORBs from Arctic Mid-Atlantic Ridge segments near the Jan Mayen hotspot. <u>EOS Trans. AGU</u> 87, Fall Meet. Suppl., Abstract V23A-0598.
- 38. Rüpke, L. H., Phipps Morgan, J., and **Dixon, J.** (2006) Implications of subduction rehydration for Earth's deep water cycle. <u>EOS Trans. AGU</u> 87, Fall Meet. Suppl., Abstract V54A-01.
- 37. Atlas, Z. D., and **Dixon, J. E.** (2006) Interconnected magmatic conduit systems as recorded by melt inclusions from Masaya and Apoyo Calderas, Nicaragua. <u>EOS</u> Trans. AGU 87, Fall Meet. Suppl., Abstract V13D-06.
- 36. **Dixon, J.**, Clague, D., Cousens, B., and Monsalve, M. L. (2005) Volatiles in Hawaiian, submarine rejuvenated-stage lavas: Evidence for metasomatism by silicate and carbonatitic melts of the mantle surrounding the Hawaiian plume. <u>EOS Trans. AGU</u>

- 86, Fall Meet. Suppl., Abstract V51A-1469.
- 35. **Dixon, J.** (2005) Deep earth water cycle: Efficient dehydration of subducted lithosphere. EOS Trans. AGU 86, Fall Meet. Suppl., Abstract V52A-05.
- 34. LeRoux, P. J., **Dixon, J. E.**, Shirey, S. B., and Hauri, E. H. (2005) Boron isotope compositions of South Atlantic MORB and mantle sources. <u>Goldschmidt Conference Abstracts</u>, A94.
- 33. **Dixon, J.** (2004) Water in mantle-derived melts: Constraints on the mantle water cycle. <u>EOS Trans. AGU</u> 85, 947, Fall Meet. Suppl., Abtract T31F-08.
- 32. Dixon, T. H., **Dixon, J. E.**, Malservisi, R., Bell, D. R. (2004) Lateral variation in upper mantle viscosity: Role of water. <u>EOS Trans. AGU</u> 85, Joint Assembly Suppl., Abstract U54A-03, JA20.
- 31. Monsalve, M., Cousens, B., **Dixon, J.**, Clague, D. (2004) Volatiles in basaltic glasses from Ni'ihau and Kauai, Hawai'i. <u>EOS Trans. AGU</u> 85, West. Pac. Geophys. Meet. Suppl., Abtract V41A-41.
- Clague, D. A., Cousens, B. L., Davis, A. S., Dixon, J. E., Hon, K., and Moore, J. G. (2003) Submarine rejuvenated-stage lavas offshore Molokai, Oahu, Kauai, and Niihau, Hawaii. <u>EOS Trans. AGU</u> 84, Fall Meeting Suppl., Abstract V11B-01, F1468.
- 29. **Dixon, J. E.**, Dixon, T. H., Malservisi, R., and Bell, D. (2003) Lateral variation in upper mantle viscosity: role of water. <u>EOS Trans. AGU</u> 84, Fall Meeting Suppl., Abstract T31B-07, F1381.
- Dixon, J. E. (2003) Temporal evolution of water in the mantle. <u>EGS-AGU-EUG Joint Assembly</u>, Nice, France, 5, EAE03-A-04395.
   Dixon, J. E., Temporal evolution of water in the mantle. <u>Geochemical Earth Reference Model (GERM) Workshop</u>, Lyon, France, May 20-23.
- 27. **Dixon, J. E.** (2002) Wet versus damp plumes: Evidence for efficient dehydration of recycled crust and sediments. EOS Trans. AGU 83, Spring Meeting Suppl., S383.
- Detrick, R. S., Sinton, J. M., Ito, G., Canales, J. P., Behn, M., Blacic, T., Cushman, B., Dixon, J. E., Graham, D. W., and Mahoney, J. J. (2002) Plume-ridge interaction along the Galápagos Spreading Center. <u>EOS Trans. AGU</u> 83, Spring Meeting Suppl., S345.
- 25. **Dixon, J. E.** (2001) Volatiles in mantle plumes. In <u>Eleventh Annual V. M. Goldschmidt Conference</u>, Abstract # 3409. LPI Contribution No. 1088, Lunar and Planetary Institute, Houston. (Invited keynote speaker for session)
- 24. Leist, L., **Dixon, J.**, and Schilling, J-G. (2001) Water concentrations in enriched mantle components in the South Atlantic: Evidence for efficient dehydration of recycled crust and sediments. <u>EOS Trans. AGU</u> 82, Fall Meeting Suppl., F1285.
- 23. **Dixon, J. E.**, and Langmuir, C. (2001) Water concentrations in enriched mantle components in the north Atlantic: Evidence for efficient dehydration of recycled crust and sediments. EOS Trans. AGU 82, Fall Meeting Suppl., F1401.
- 22. Simons, K., **Dixon, J. E.**, Schilling J-G., Kingsley, R., and Poreda, R. (2001) Volatiles in basaltic glasses from the Easter-Salas y Gomez Seamount Chain and Easter Microplate: Implications for geochemical cycling of volatile elements. <u>EOS Trans.</u> <u>AGU</u> 82, Fall Meeting Suppl., F1373.
- Sinton, J., Detrick, R. S., Canales, J. P., Ito, G., Behn, M., Blacic, T., Cushman, B., and Dixon, J. E. (2001) Correlated geophysical, geochemical, and volcanological manifestations of plume-ridge interaction along the Galápagos Spreading Center, 90.5-98° W. <u>EOS Trans. AGU</u> 82, Fall Meeting Suppl., F1204.
- 20. Cushman, B. J., **Dixon, J. E.**, Graham, D., and Sinton, J. M. (2001) Plume-affected geochemical trends in along-axis samples from the Galapagos Spreading Center, 90°30'W to 98°W. EOS Trans. AGU 82, Fall Meeting Suppl., F1213.

- Reynolds, J. R., Clague, D. A., Hon, K., **Dixon, J. E.**, and Cousens, B. (2001)
   Observations on the origin of submarine volcanic cone morphologies in Hawaii. <u>EOS Trans. AGU</u> 82, Fall Meeting Suppl., F1281.
- 18. **Dixon, J. E.**, Filiberto, J., Moore, J. M., and Hickson, C. J. (2000) Volatiles in basaltic glasses from a subglacial volcano in northern British Columbia: Implications for mantle volatiles and ice sheet thickness. Volcano/Ice Interaction on Earth and Mars Conference, University of Iceland, Reykjavík, Iceland, p. 11.
- 17. Simons, K. K., **Dixon, J. E.**, Devey, C. W. (1999) Volatile contents of basaltic glasses from the Foundation Seamount Chain. <u>EOS Trans. AGU</u> 80, Fall Meeting Suppl., F1091
- 16. **Dixon, J. E.**, and Clague, D. A. (1999) Volatiles in basaltic glasses from Hawaiian submarine lavas: Evidence for a relatively dry plume component. <u>EOS Trans. AGU</u> 80, Fall Meeting Suppl., F1198.
- 15. Simons, K. K., **Dixon, J. E.**, and Reynolds, J. R. (1998) Volatile contents of Austral Island glasses. IAVCEI meeting, Cape Town, South Africa.
- 14. **Dixon, J. E.**, Engel, H., Moore, J. M., and Hickson, C. J. (1998) Volatiles in basaltic glasses from a subglacial volcano in northern British Columbia: Implications for mantle volatiles and ice sheet thickness. <u>IAVCEI meeting</u>, Cape Town, South Africa.
- 13. **Dixon, J. E.**, and Clague, D. A. (1998) Volatiles in basaltic glasses from Loihi Seamount, Hawaii: Evidence for a relatively dry plume component. <u>EOS Trans. AGU</u> 79, Fall Meeting Suppl., F939.
- 12. Batiza, R., Coleman, T., White, J. D. L., Pan, Y., and **Dixon, J. E.** (1998) Deep sea hyaloclastites: Evidence for high flow velocity. <u>EOS Trans. AGU</u> 79, Fall Meeting Suppl., F956.
- 11. **Dixon, J. E.**, and Clague, D. A. (1997) Evolving volcanoes and degassing styles in Hawaii. Geol. Soc. Am. Annual Meeting A-191.
- 10. **Dixon, J. E.**, Kingsley, R., Schilling, J. -G., and Poreda, R. (1997) Water and CO<sub>2</sub> concentrations in basaltic glasses from the Easter Microplate-Easter-Sala y Gomez Seamount Chain: Implications for water in mantle reservoirs. <u>EOS Trans. AGU</u> 78, Fall Meeting Suppl., F688.
- 9. Clague, D. A., Davis, A. S., and **Dixon, J. E.** (1997) Formation of bubble-wall fragments during submarine eruptions on Loihi Seamount and Kilauea Volcano. <u>EOS Trans. AGU</u> 78, Fall Meeting Suppl., F792.
- 8. Poreda, R. J., Kingsley, R., Schilling, J. -G., **Dixon, J. E.**, and Swart, P. (1997) Plume-Ridge Interactions along the Easter Seamount Chain (ESC): Mixing and degassing of volatiles. EOS Trans. AGU 78, Fall Meeting Suppl., F688.
- 7. **Dixon, J. E.**, Langmuir, C., and Horan, S. (1996) Water and carbon dioxide in MAR glasses (22 41° N): Implications for the role of water in the generation of MORB. Abstract for the InterRidge Mid-Atlantic Ridge Symposium, Reykjavik, Iceland, <u>Journal of Conf. Abstracts</u> 1, 749-888.
  - **Dixon, J. E.**, Deep degassing of water from alkalic basalts. Meeting of the Mineralogical Society and Volcanic Studies Group of Great Britain, "Magmatic Processes 1996: Are the Answers in the Laboratory?" 2.
- 6. C. J. Hickson, Moore, J. G., and **Dixon, J. E.** (1995) Subglacial volcanoes of northern British Columbia, Canada. <u>EOS Trans. AGU</u> 76, Fall Meeting Suppl., F199.
- 5. **Dixon, J. E.**, and Clague, D. A. (1994) Volatiles in alkali basalts from the North Arch volcanic field, Hawaii: Degassing or mantle metasomatism. <u>EOS Trans. AGU</u> 75, Fall Meeting Suppl., 718.
- 4. Clague, D. A., and **Dixon, J. E.** (1993) Volatiles in Hawaiian magmas. <u>International</u> Workshop on Interplate Volcanism. Polynesian Plume Province, Papeete/Tahiti.
- 3. **Dixon, J. E.**, Stolper, E., and Holloway, J. R. (1992) Solubilities of water and carbon dioxide in basaltic magmas. EOS Trans. AGU 73, Spring Meeting Suppl., 348.

- Dixon, J. E., Stolper, E. M., and Holloway, J. R. (1991) Solubilities of water and carbon dioxide in basaltic magmas. <u>GSA Fall Meeting</u> 23, A93.
   Clague, D. A., and Dixon, J. E., Volatiles in submarine nephelinitic to basanitic glasses from the North Arch volcanic field. <u>EOS Trans. AGU</u> 72, Winter Meeting Suppl., 563.
- 1. **Dixon, J. E.**, and Burnett, D. S. (1987) U volatization as a mechanism for <sup>238</sup>U <sup>230</sup>Th disequilibrium in young volcanic rocks. IUGG XIX General Assembly, 406.

# **INVITED TALKS**

- 2016 Tuve Lecture, Department of Terrestrial Magnetism, Carnegie Institution of Washington
- 2009 ETH, Switzerland, Marie Curie Research Training Network *Crust to Core The Fate of Subducted Material* Workshop "The Deep Carbon Cycle"
- 2008 Brown University
- 2008 Cardiff University
- 2008 FIU
- 2006 Stanford University
- 2005 Fall AGU
- 2003 Caltech
- 2002 Spring AGU, Frontier talk
- 2001 Eleventh Annual Goldschmidt Conference
- 2001 Pennsylvania State University
- 2001 Arizona State University
- 2000 University of South Carolina
- 1999 McGill University
- 1998 University of South Florida
- 1998 USGS/Cascade Volcano Observatory
- 1998 Florida State University
- 1997 Carnegie Institute of Washington
- 1997 Miami Geological Society
- 1996 Yale University
- 1996 University of Rhode Island, Association of Women Geoscientists, Distinguished Lecturer
- 1994 & 1996 Lamont Doherty Earth Observatory
- 1994 University of Miami/RSMAS/Blue Planet Lecture
- 1994 University of Washington
- 1993 Duke University
- 1993 Harvard

#### RESEARCH AND INFRASTRUCTURE FUNDING

Administrative PI or Co-PI (>\$41.4M of funding over 6 years)

<u>USF College of Marine Science/USGS Cooperative Agreement</u> (~\$10M funding for facilities and graduate student support 2011-2018)

# <u>Construction / Renovation / Interdisciplinary Centers / Diversity / Education and Outreach Funding (~\$32M over 5 years)</u>

6. (2012) **NOAA-NA12NMF4630051:** "Tampa Bay Coastal Watershed Inquiries, Stewardship and Education Provides Sustained Teacher Professional Development",

- Greely, T (P.I.), **Dixon, J. (Co-P.I.),** \$100,000 for 1 year (7/1/12 11/30/14). Funding for teacher training through our Education and Outreach program.
- 5. (2011) **Gulf of Mexico Research Initiative-SA12-10/GoMRI-0:** "Center for Integrated Modeling and Analysis of the Gulf Ecosystem (C-IMAGE), Murawski, S. (P.I.), Dixon, J. + many others (**Co-P.I.**s), \$11,002,000 total for 5 years; Dixon portion ~\$165K/yr (09/1/11 9/17/15). Originally the P.I., I was an active participant in interdisciplinary-team building and proposal writing. After funding, the P.I. role was assumed by S. Murawski.
- 4. (2011) Florida SUS/Board of Governors/USF Scholar Boost Award-1001101243: "CMS Interdisciplinary Research Grants (IRG), Dixon, J. (P.I.), \$150,000 for 1 year (11/17/10 6/30/12). Start-up funding from the state used for interdisciplinary research seed grants to foster research ties between the College of Marine Science, other USF colleges, and local state and federal partners.
- (2011) NSF/OCE-0963392: "Renovation of research laboratories in the College of Marine Science – MSL Building", Dixon, J. (P.I. status assumed after becoming Dean), \$1,898,232 for 2 years (8/15/10 -- 7/31/13). I supervised completion of the project after joining USF.
- 2. (2009) NIH ARRA grant: "Construction of a Neuroscience Health Annex" Provost T. Leblanc, PI (application rules required University of Miami's chief financial officer to be PI), written by K. Tosney, L. Glaser, D. Wellens, P. McCabe, J. Dixon, \$18,000,000 with \$5,000,000 cost share from UM, 2009- 2013. I brought together a team of biologists, neuroscientists, and psychologists to create a new interdisciplinary center in response to stimulus funding opportunities. We designed the building and wrote the proposal on a tight schedule. The construction was completed on time and on budget.
- 1. (2008) **NSF ADVANCE:** "SEEDS at the University of Miami" (#0820128, K. Tosney, PI; I originally served on the SEEDS Steering Committee and then served as Co-PI from 2009 to 2010 after I became Interim Dean of A&S) \$1,101,951 2008-2013. I was actively involved in implementation of SEEDS activities at the University of Miami.

# Research PI or Co-PI (~\$1.5 M over 14 yrs)

- 12. (2004) **NSF/OCE-0351149**: "Collaborative Research: Temporal evolution of mantle water: Quantifying the effects of recycling efficiently dehydrated lithosphere into the deep mantle", joint project with University of Rhode Island, UM portion \$289,885 for 3 years (2/04 2/07, + two year no cost extentison), 1 month/year for J. Dixon.
- 11. (2000) **NASA**: Volcano plume monitoring using unmanned aerial vehicles, joint project with the Southwest Research Institute, UM PIs Dixon, T., Dixon, J., and Milne, P., UM portion \$257,553 for 3 years **(1/00 1/03)**, avg 1 month /year for J. Dixon.
- (2000) NSF/OCE: "A seismic and petrologic investigation of the effects of plume-ridge interaction along the Galapagos Spreading Center", joint project with University of Hawaii and Woods Hole Institution of Oceanography, UM portion \$51,850 for 3 years (1/15/00 – 1/14/03), 1 month/year for 3 years for J. Dixon.

- 9. (1999) Participant in **U.S. Dept. of Education** Grant "Project SUCCEED: School University Community Coalition for Excellence in Education"
- 8. (1997) **NSF/OCE-9702795:** "Early Career Award: Origin and Evolution of Volatiles in Submarine and Subglacial Alkalic Magmas", Dixon (P.I.), 5 yrs., \$409,318 (April 15, 1997-2002 + 1 year no cost extension), 2 months/year for J. Dixon.
- 7. (1996) **NSF/EAR-9600029:** "Collaborative Research: Temporal and Spatial Variations of Magmatic Volatiles and Trace Elements in Glass Fragments and Phenocryst Inclusions in Pyroclastic Rocks...", Smith (P.I., University of Puerto Rico), Mattioli (Co-P.I., University of Puerto Rico), and Dixon (Co-P.I., University of Miami), 3 years, \$88,900.
- 6. (1995) **NSF/OCE-9530373:** "Collaborative Research: Volatiles in Mantle Plumes: Implications for Geochemical Cycling of Volatile Elements", Dixon (P.I.), and Schilling (Co-P.I., Univ. of Rhode Island), 3 years, \$190,491.
- 5. (1995) **University of Miami**, Instructional Advancement Grant "Upgrade of Igneous Petrology Laboratory"; Dixon (P.I.), 1 yr., \$1015.
- 4. (1994) **NSF/OCE-9416692:** Acquisition of an infrared microscope; Dixon (P.I.), 1 year, \$12.400.
- 3. (1994) **NSF/EAR-9417949:** Acquisition of an infrared microscope; Dixon (P.I.), 1 year, \$12,400.
- 2. (1993) **NSF/OCE-9302574:** The Effect of Water on the Degree of Mantle Melting in the Petrogenesis of Midoceanic Ridge Basalt, **J. Dixon (P.I.)** and C. Langmuir (co-P.I., Lamont-Doherty), 3 years; \$221,473.
- 1. (1993) **University of Miami**, General Research Support Award, Dixon (P.I.), 1 year, \$5000.

## **TEACHING**

Climate Change (Honor's College, USF IDH 3350)

Introduction to Ecosystem Science and Policy (UM ECS 111)

Volcanoes and Society (UM GSC 131)

Field Study of Volcanoes (UM GSC 311)

Environmental Geochemistry (UM GSC 410)

Igneous and Metamorphic Petrology (UM GSC 440)

Introduction to Geochemistry (UM/RSMAS MGG 513)

Active Margins (UM/RSMAS MGG 584)

Submarine Volcanism (UM/RSMAS MGG 677)

"Volcanoes and Society" Module for SECME (SE Conference for Minorities in Education)
Teacher Training Institute

### THESIS AND DISSERTATION ADVISING

Michael Lutz (UM), MS Committee Member (graduated 8/97) Michael Finny (UM), MS Committee Chair (graduated 8/00) Kyla Simons (UM), MS Committee Chair (graduated 8/00) Loretta Leist (UM), MA Committee Chair (graduated 5/04)

Buffy Cushman (UH), external M.S. Committee Member

Zachary Atlas (FIU), external M.C. Committee Member

Peter LaFemina (UM), Ph.D. Committee Member (graduated 5/06)

Zachary Atlas (UM), Ph.D. Committee Chair (graduated 2008)

Arum Sumdersan (UM), Ph.D. Committee Member (graduated 2008)

Jhonny Orbulescu (UM), Ph.D. Committee Member (graduated summer 2010)

Katie Inderbitzen (UM), Ph.D. Committee (graduated summer 2012)

Scott Baker (UM), Ph.D. Committee (graduated summer 2012)

Candice Simmons (USF), Ph.D. Committee Member (graduated fall 2013)

William Abbott (USF), MS Committee Member (graduated fall 2015)

## PROFESSIONAL AND HONORARY SOCIETY MEMBERSHIPS

p	•
2011 - present	American Association for the Advancement of Science
1982 - present	American Geophysical Union
1992 - 2007	International Association of Volcanology and Chemistry of the Earth's

Interior
1992 - 2007 Mineralogical Society of America

1998 induction Phi Kappa Phi

1990 - present The Geochemical Society

2014 - present The Oceanography Society

# **PROFESSIONAL SERVICE**

2015 - present	Chair, Consortium for Ocean Leadership Executive Board
2014 - present	Member of the Ocean Exploration Advisory Board for the National
	Oceanic and Atmospheric Administration (NOAA)
2014 - present	Member, College of Science Visiting Committee, Nanyang
	Technological University, Singapore
2013 - present	Consortium for Ocean Leadership (COL) Executive Board
2014 - 2017	Chair, Florida Institute of Oceanography Advisory Board
2011 - present	Southern Association of Marine Laboratories (SAML) USF/CMS representative
2011 - present	
	representative)
2012 - 2013	AAAS review panel on University of North Carolina System marine activities
2012 - present	Cooperative Institute for Marine Atmospheric Studies (CIMAS)
·	Executive Advisory Board
2011 - present	Florida Institute of Oceanography Council Member
2010 - 2014	University of Florida Department of Geological Sciences Advisory Board
2011 - present	Consortium for Ocean Leadership (COL) Member
2008 - 2009	HERS Institute at Wellesley College (intensive residential professional
	development experiences for women in mid- and senior-level positions
	in higher education administration)
2008 - 2009	Member of Planning Committee – Goldschmidt Conference
2003 - 2007	U.S. National Committee for Geodesy and Geophysics
1999 - present	Member of the Steering Committee, Geochemical Earth Reference
1999	Model Initiative
1999 1996 - 1997	Invited Participant, NSF Workshop on RIDGE-Iceland Collaboration  Macelwane Award Committee, American Geophysical Union
	INDUCTIVALE AWALU COLLILIUEE ALICIUALI GEODINSICAL ULIOLI

1996	Invited Participant, NSF Workshop on the Future of Marine Science,
	Oregon
1994	Invited participant, Workshop on SAR Interferometry and Change
	Detection, Boulder, Colorado
1994	Invited participant, RIDGE Workshop on Global Impact of Hydrothermal
	Circulation, Boulder, Colorado
1993 - 19	95; 1999; 2007 NSF Panel Member, Ocean Sciences Division, Marine
	Geology and Geophysics Program

# **PROFESSIONAL SERVICE - EDITORIAL**

2002-2008	Associate Editor:	Geochemistry, Geophysics, Geosystems
2008-2009	Guest Editor:	Chemical Geology Special Volume on "Volatiles
	and Melts in the Earth	's Interior"
1990-present	Manuscript Reviewer:	American Mineralogist
·	AGU Monographs	
		Bulletin of Volcanology
		Canadian Journal of Earth Science
		Earth and Planetary Science Letters
		Earth Science Reviews
		Geology
		Geochemica et Cosmochimica Acta
		Nature
		Science
1990-present	Proposal Reviewer:	NSF-OCE/MGG and EAR Programs

# **UNIVERSITY SERVICE**

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2019 – present	Chair, Cluster 10, Program Alignment in Marine Science, Sustainability
	and Environment, USF Consolidation
2014 - 2015	Chair, Search Committee for Director of the Florida Institution of
	Oceanography
2013 - 2014	Chair, Search Committee for Dean of the College of Engineering
2013 - 2017	Member, USF Budget Reengineering Committee
2011 - present	Campus Leadership Council
2011 - present	Council of Deans
2012	USF System Academic Affairs Retreat
2012-2017	Budget Re-engineering/Requirement Development Committee
2012	USF Student Showcase, London and Birmingham and University of
	Exeter MOU

# University of Miami

2007 - 2008	First-Year Seminar Planning Committee
2007	ADVANCE Grant Committee
2007 - 2008	SACS-QEP Implementation Committee
2006 - 2007	SACS-QEP Planning Committee
2006	Environmental Mineralogist Search Committee Chair
2003 - 2010	Abess Center for Ecosystem Science and Policy Advisory Committee
1997 - 1998	UM Research Council
1997 - 1998	Geological Sciences Curriculum Revision Committee
1994 - 2004	Division of Marine Geology and Geophysics Academic Committee

# **COMMUNITY SERVICE**

# St. Petersburg

2018 - present	Member, Planning Committee, Joint Institute for Gulf of Mexico Studies
2014 - present	Member, Board of Governors, St. Petersburg Chamber of Commerce
2014	Member, St. Petersburg Chamber of Commerce Community Economic
	Development Strategy Group
2014	Member, St. Petersburg Pier Working Group
2013 - 2014	USF St. Petersburg Strategic Planning Committee
2013 - 2018	Pier Aquarium/Secrets of the Sea Marine Exploration Center Board
	Member
2011 - present	St. Petersburg Ocean Team Member