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### Education

- 1997 Ph.D.: Chemical Oceanography, University of Hawaii, Honolulu, Hawaii.  
*The chemistry of lava-seawater interactions at the shoreline of Kilauea Volcano*
- 1992 M.S.: Chemical Oceanography, University of Hawaii, Honolulu, Hawaii.  
*Determination of manganese in seawater using flow injection analysis with online pre-concentration and spectrophotometric detection*
- 1986 B.S.: Chemistry, DePaul University, Chicago Illinois.

### Experience

- 2001-pres. Affiliate Assistant Professor, Department of Oceanography, University of Washington, Seattle.
- 1999-pres. Research Scientist, Joint Institute for the Study of the Atmosphere and Ocean, University of Washington and the Pacific Marine Environmental Laboratory (PMEL), Seattle, Washington.
- 1997-1999. National Research Council Post-Doctoral Fellow. National Oceanographic Atmospheric Administration, PMEL , Seattle, Washington.
- 1988-1996 University of Hawaii at Manoa, Research Assistant, Department of Oceanography.
- 1987 Hazardous waste environmental assessment. Pearl Harbor Public Works Facility.
- 1986-1987 Teaching Assistant, University of Hawaii at Manoa, Department of Chemistry.
- 1985 Summer Intern, Harbor Branch Foundation, Inc., Fort Pierce Florida.
- 1984-1986 Research Assistant, DePaul University, Department of Chemistry .
- 1983 Marine Science Counselor, SeaCamp, Big Pine Key Florida.
- 1982 Research Apprentice, Naval Research Laboratory, Washington, D.C..
- 1981 N.S.F. Summer Science Institute, Humboldt State University, Arcata, California.

### Leadership Experience

- 2007-2010 Advisory Committee, NSF-Marine Geology and Geochemistry Data Systems
- 2006 Session co-chair Fall 2006 AGU Meeting: "Recent Deep-Sea Eruptions"
- 2006-2009 Steering Committee, NSF-Ridge 2000
- 2002 Convener: 2002 Ocean Sciences Meeting: "Chemical Oceanography: Metals"
- 1995 Vice President, Oceanography student association, University of Hawaii (UH)
- 1992 Student-Faculty Representative, Dept. of Oceanography, UH.

1991 President, Oceanography student association,

### Professional Societies

American Geophysical Union

### Manuscripts in Progress

- Resing, J. A.**, E. T. Baker, F. Martinz, B. Taylor, G. Massoth, J. Lupton, S. Walker, G. Lebon. (2008). The extent and nature of hydrothermal venting on the East Lau Spreading Center in the Lau Back Arc Basin. To be submitted to *G<sup>3</sup>*. Rough draft available.
- Butterfield, D.A., Lupton, J.E., Lilley, M.D., Chiba, H. Roe, K.K., Takano, M.B., Evans, L. Ramos, F. Stern, R.J., Nakamura, K-I, Larson, B. Resing, J.A., Embley, R.W. (2008). Magma degassing, acid alteration, and metal volatility at the actively erupting NW Rota-1 submarine volcano, Mariana arc

### Publications in Peer Reviewed Journals

- Resing, J.A.**, Baker, E.T., Lupton, J.E., Walker, S.L., David A. Butterfield, G. J. Massoth, K. Nakamura, (2009), Chemistry of hydrothermal plumes above submarine volcanoes of the Mariana Arc, *Geochem. Geophys. Geosyst.*, 10, Q02009, doi:10.1029/2008GC002141.
- Buck, C.S., W.M. Landing, **J.A. Resing**. (2008) Particle size and aerosol iron solubility: A high-resolution analysis of Atlantic aerosols, *Marine Chemistry*, doi:10.1016/j.marchem.2008.11.002, In Press.
- Buck, C.S., W.M. Landing, **J.A. Resing**, C.I. Measures. (2008) The solubility and deposition of aerosol Fe and other trace elements in the North Atlantic Ocean: Observations from the A16N CLIVAR/CO<sub>2</sub> repeat hydrography section, *Mar. Chem.*, doi:10.1016/j.marchem.2008.08.003, In Press.
- Love, B. A., **J. A. Resing**, J. P. Cowen, J. E. Lupton, D. J. Fornari, T. M. Shank, and D. Biller (2008), Methane, manganese, and helium in hydrothermal plumes following volcanic eruptions on the East Pacific Rise near 9°50'N, *Geochem. Geophys. Geosyst.*, 9, Q06T01, doi:10.1029/2008GC002104.
- Baker, E.T., R.M. Haymon, **J.A. Resing**, S.M. White, S.L. Walker, K.C. Macdonald, and K. Nakamura (2008). High-resolution surveys along the hot spot-affected Galápagos Spreading Center: 1. Distribution of hydrothermal activity. *Geochem. Geophys. Geosyst.*, 9(9), doi: Q09003, doi:10.1029/2008GC002028.
- White, S. M., J. D. Meyer, R. M. Haymon, K. C. Macdonald, E. T. Baker, and J. A. Resing (2008). High-resolution surveys along the hot spot-affected Galápagos Spreading Center: 2. Influence of magma supply on volcanic morphology, *Geochem. Geophys. Geosyst.*, 9, Q09004, doi:10.1029/2008GC002036.
- Haymon, R., S. M. White, E. T. Baker, P. G. Anderson, K. C. Macdonald, and **J. A. Resing** (2008). High-resolution surveys along the hot spot-affected Galápagos Spreading Center: 3. Black smoker discoveries and the implications for geological controls on hydrothermal activity, *Geochem. Geophys. Geosyst.*, doi:10.1029/2008GC002114.
- Walker, S.L., E.T. Baker, **J.A. Resing**, W.W. Chadwick, Jr., G.T. Lebon, J.E. Lupton, and S.G. Merle (2008). Eruption-fed particle plumes and volcanoclastic deposits at a submarine

- volcano: NW Rota-1, Mariana arc. *J. Geophys. Res.*, 113, B08S11, doi: 10.1029/2007JB005441.
- Baker, E.T., R.W. Embley, S.L. Walker, **J.A. Resing**, C.E.J. de Ronde, G.J. Massoth, and K.-I. Nakamura (2008): Hydrothermal activity and volcano distributions along the Mariana Arc. *J. Geophys. Res.* In Press JGR.
- Massoth, G.J., E.T. Baker, T. Worthington, J.E. Lupton, C. de Ronde, R.A. Arculus, S.L. Walker, K. Nakamura, J.-I. Ishibashi, P. Stoffers, **J.A. Resing**, R. Greene, and G. Lebon (2007), Multiple hydrothermal sources along the south Tonga arc and Valu Fa Ridge. *Geochem. Geophys. Geosyst.*, 8(11), Q11008, doi:10.1029/2007GC001675.
- Embley, R.W., E.T. Baker, D.A. Butterfield, W.W. Chadwick, Jr., J.E. Lupton, **J.A. Resing**, C.E. de Ronde, C., Nakamura, K., Tunncliffe, V., Dower, J., Merle, S.G., (2007), Exploring the Submarine Ring of Fire: Mariana Arc - Western Pacific, *Oceanography*, 20, 68-79.
- Haymon, R.M., E.T. Baker, **J.A. Resing**, S.M. White, K.C. Macdonald, K.C. and the GalAPAGoS Team, (2007), Hunting for Hydrothermal Vents Along the Galapagos Spreading Center, *Oceanography* 20, 100-107.
- Resing, J.A.**, G. Lebon, E. T. Baker, J. E. Lupton, R. W. Embley, G. J. Massoth, W.W. Chadwick, Jr., C.E.J. de Ronde (2007) Venting of acid-sulfate fluids in a high-sulfidation setting at NW Rota-1 submarine volcano on the Mariana Arc, *Economic Geology*, 102, no.6, 1047-1061.
- de Ronde, C.E.J., E.T. Baker, G.J. Massoth, J.E. Lupton, I.C. Wright, R.J. Sparks, S.C. Bannister, M.E. Reyners, S.L. Walker, R.R. Greene, J. Ishibashi, K. Faure, **J.A. Resing**, and G.T. Lebon (2007): Submarine hydrothermal activity along the mid-Kermadec Arc, New Zealand: Large-scale effects on venting. *Geochem. Geophys. Geosyst.*, 8(Q07007), doi: 10.1029/2006GC001495
- German, C.R., E.T. Baker, D.P. Connelly, J.E. Lupton, J. Resing, R.D. Prien, S.L. Walker, H.N. Edmonds, and C.H. Langmuir (2006): Hydrothermal exploration of the Fonualei Rift and Spreading Center and the North East Lau Spreading Center. *Geochem. Geophys. Geosyst.*, 7, Q11022, doi: 10.1029/2006GC001324
- Lupton, J., D. Butterfield, M. Lilley, L. Evans, K.-I. Nakamura, W. Chadwick, Jr., J. Resing, R. Embley, E. Olson, G. Proskurowski, E. Baker, C. de Ronde, K. Roe, R. Greene, G. Lebon, and C. Young (2006): Submarine venting of liquid carbon dioxide on a Mariana Arc volcano. *Geochem. Geophys. Geosyst.*, 7, Q08007, doi: 10.1029/2005GC001152.
- Baker, E.T., **J.A. Resing**, S.L. Walker, F. Martinez, B. Taylor, and K.-I. Nakamura (2006): Abundant hydrothermal venting along melt-rich and melt-free ridge segments in the Lau back-arc basin. *Geophys. Res. Lett.*, 33, L07308, doi: 10.1029/2005GL025283.
- Martinez, F., B. Taylor, E. Baker, **J. Resing**, S. Walker. 2006. Opposing trends in crustal thickness and spreading rate along the back-arc Eastern Lau Spreading Center: Implications for controls on ridge morphology, faulting, and hydrothermal activity, *Earth Planet. Sci. Lett.* 245, 655–672, doi:10.1016/j.epsl.2006.03.049.
- Buck, C. S., W. M. Landing, **J.A. Resing**, G. T. Lebon. 2006. Aerosol Iron and Aluminum Solubility in the Northwest Pacific Ocean: Results from the 2002 IOC Cruise. *Geochem. Geophys. Geosyst.* 7, No. 4, doi:10.1029/2005GC000977.
- Embley, R.W., Chadwick, W.W., Baker, E.T. Butterfield, D.A., **Resing, J.A.** de Ronde, C.E. Tunncliffe, V., Lupton, J.E., Juniper S.K., Rubin, K.H., Stern, R.J., Lebon, G.T., Nakamura, K., Merle, S.G., Hein, J.R., Wiens, D.A., Tamura, Y. 2006. Long-Term Eruptive Activity at a Submarine Arc Volcano, *Nature*, doi:10.1038/nature04762

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- Gharib, J. J., F. J. Sansone, **J. A. Resing**, E. T. Baker, J. E. Lupton, G. J. Massoth. 2005. Methane dynamics in hydrothermal plumes over a superfast spreading center: East Pacific Rise 28-32S *Journal Geophysical Research*, 110(B10), B10101, doi: 10.1029/2004JB003531.
- Resing, J.A.**, J.E. Lupton, R.A. Feely, M.D. Lilley. 2004. CO<sub>2</sub> and <sup>3</sup>He in hydrothermal plumes: Implications for Mid-Ocean Ridge CO<sub>2</sub> flux, *Earth Planet. Sci. Lett.*, 226, 449-464, DOI: 10.1016/j.epsl.2004.07.028.
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- Embley, R.W., E. T. Baker, W. W. Chadwick, Jr., J. E. Lupton, **J. A. Resing**, G. L. Massoth, K. Nakamura. 2004. Explorations of Mariana Arc Volcanoes Reveal New Hydrothermal Systems, *EOS, Trans. AM. Geophys. Un.* 85, no. 4. 37,39.
- Baker, E.T., R.P. Lowell, **J.A. Resing**, R.A. Feely, R.W. Embley, G.J. Massoth, and S.L. Walker. 2004. Decay of hydrothermal output following the 1998 seafloor eruption at Axial Volcano: Observations and models, *J. Geophys. Res.* 109, B01205, doi:10.1029/2003JB002618.
- Resing, J.A.** and F.J. Sansone. 2002: The chemistry of lava-seawater interactions II: The elemental signature. *Geochim. Cosmochim. Acta* 66, no.11, 1925-1941
- Sansone, F.J., C.R. Benitez-Nelson, **J.A. Resing**, E.H. DeCarlo, S.M. Vink, J.A. Heath, and B.J. Huebert 2002: Geochemistry of atmospheric aerosols generated from lava-seawater interactions. *Geophys. Res. Lett.* 29 (9), 10.1029/2001GLO13882.
- Baker, E.T., R.N. Hey, J.E. Lupton, **J.A. Resing**, R.A. Feely, J.J. Gharib, G.J. Massoth, F.J. Sansone, M. Kleinrock, F. Martinez, D.F. Naar, C. Rodrigo, D. Bohnenstiehl, and D. Pardee (2002): Hydrothermal venting along Earth's fastest spreading center: East Pacific Rise, 27.5°–32.3°S. *J. Geophys. Res.* 107 (B7), 10.1029/2001JB000651.
- Resing, J.A.**, R.A. Feely, G.J. Massoth, and E.T. Baker. 1999. The water column chemical signature after the 1998 eruption of Axial Volcano. *Geophys. Res. Lett.* 26, 3645-3648.
- Feely, R.A., E.T. Baker, G.T. Lebon, J.F. Gendron, **J.A. Resing**, and J.P. Cowen. 1999. Hydrothermal particle composition at Axial Volcano following the January–February 1998 eruption. *Geophys. Res. Lett.* 26, 3649-3652.

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- Resing, J.A.**, F.J. Sansone. 1999. The chemical signature of lava-seawater interactions: The generation of acidity. *Geochim. Cosmochim. Acta.*, 63, 2183-2198.
- Baker, E.T. and 12 others. 1998. Axial Volcano Awakes: Preliminary Report of the Detection of and Response to the January, 1998, Eruption at Axial Volcano, Juan de Fuca Ridge. *Ridge Events*, 9, no. 1. 1-5.
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- Harris, A.J., L.P. Flynn, S.K. Rowland, L. Keszthelyi, P.J. Mouganis-Mark, **J.A. Resing**. 1998. Calculation of lava effusion rates from Landsat-TM data. *Bull. Volc.* 60(1), 52-71.
- Wheat, C.G., M.J. Mottl, E.T. Baker, R.A. Feely, J.E. Lupton, F.J. Sansone, **J.A. Resing**, G.T. Lebon, and N.C. Becker. 1997. Chemical anomalies in the water column caused by low-temperature hydrothermal venting: Baby Bare Outcrop on the eastern flank of the Juan de Fuca Ridge. *J. Geophys. Res.*, 102, no. B7, 15433-15446.
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- Resing, J.A.**, F.J. Sansone. 1996. Al and pH anomalies in the Manus Basin: Reappraised: Comments on the paper by T. Gamo et al., "Hydrothermal plumes in the eastern Manus Basin, Bismarck Sea: CH<sub>4</sub>, Mn, Al and pH anomalies". *Deep Sea Res. I.* 43, 1867-1872.
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- Measures, C.I., J.C. Yuan, **J. Resing**. 1995. Determination of iron in seawater by flow injection analysis using in-line preconcentration and spectrophotometric detection. *Mar. Chem.*, 50, 3-12.
- Landing, W.M., G.A. Cutter, J.A. Dalziel, A.R. Flegal, R.T. Powell, D. Schmidt, A. Shiller, P. Statham, S. Westurlund, **J. Resing**. 1995. Analytical intercomparison results from the 1990 Intergovernmental Oceanographic Commission Open-Ocean Baseline Survey for trace metals: Atlantic Ocean. *Mar. Chem.*, 49, 253-265.
- Resing, J.A.**, C.I. Measures. 1994. Fluorometric determination of Al in seawater by flow injection analysis with in-line preconcentration. *Anal. Chem.*, 66, no. 22, 4105-4111.
- Baker, E.T., R.A. Feely, M.J. Mottl, F.J. Sansone, C.G. Wheat, **J.A. Resing**, J.E. Lupton. 1994. Hydrothermal plumes along the East Pacific Rise, 8o40' to 11o50' N: Plume distribution and relationship to the apparent magmatic budget. *Ear. Planet. Sci. Lett.*, 128, 1-17.
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- Resing, J.**, G. Tien, R. Letelier, D. Karl, D. Jones. 1993. Hydrogen peroxide in the Palmer-LTER region: II. Water column distributions. *Antarc. J. U.S.*, 28, no. 5, 227-229.
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- Lupton, J.E., E.T. Baker, M.J. Mottl, F.J. Sansone, C.G. Wheat, **J.A. Resing**, G.J. Massoth, C.I. Measures, R.A. Feely. 1993. Chemical and physical diversity of hydrothermal plumes along the East Pacific Rise, 8o 45'N to 11o50'N. *Geophys. Res. Lett.*, 20, no. 24: 2913-2916.
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### **First Authored Abstracts and Titles Presented at Colloquia**

- Resing, J A**, Baker, E, Martinez, F, Buck, N, Walker, S, Seewald, J, Proskurowski, G, Lupton, J, Wheat, G. 2008. Hydrothermal Plume Geochemistry along the East Lau Spreading Center, *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract V53D-07.
- Resing, J**, Baker, E, Lebon, G, Walker, S, Haymon, R, Nakamura, K Lupton, J. 2006. The Chemistry of Hydrothermal Plumes Along the Galapagos Spreading Center, *Eos Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract V14A-08. **INVITED**.
- Resing, J.**, E. Baker, F. Martinez, G. Lebon, S. Walker, G. Massoth, B. Taylor, J. Lupton, R. Greene, K. Nakamura. 2004. Characteristics of Hydrothermal Activity in the Lau Back Arc Basin, *Eos Trans. AGU*, Fall 2004 Meeting.
- Resing, J.**, G. Lebon, E. Baker, J. Lupton, K. Nakamura, G. Massoth, R. Embley. 2003. Geochemical Characterization of Hydrothermal Plumes Above Hydrothermally Active Volcanos on the Mariana Arc, *Eos Trans. AGU*, Fall 2003 Meeting
- Resing, J.**, G. Wheat, E. Baker, 2003, An integrated study approach to Time Critical Studies, White paper for Ridge 2000 Community Meeting, Boulder, CO, November 6-8, 2003.
- Resing, J.**, G. Wheat, H. Jannasch, J. Plant, E. Baker, W. Lavelle, (2002) Long-term trace element monitoring at Axial Volcano using Osmotic samplers in hydrothermal Plumes. *EOS-Trans AGU*, 83, Ocean Science meeting Abstract OS31F-88.
- Resing, J.**, G. Lebon, E. Baker, S. Walker, K. Nakamura, B. Silvers. 2002. Using Hydrothermal Plumes and Their Chemical Composition to Identify and Understand Hydrothermal Activity at Explorer Ridge. *Eos Trans. AGU*, 83, (47), Fall Meeting Suppl., Abstract T11C-1265.
- Resing, J.**, R. Feely, E. Baker, J. Lupton. 2000. The Evolution of the Water-Column-Chemical Signature of the 1998 Axial Eruption at Axial Volcano, Juan de Fuca Ridge. *EOS Trans. AGU*, 80, no. 49, p.OS5: **INVITED**.
- Resing, J.**, R. Feely, E. Baker, G. Lebon, G. Massoth, R. Collier. 1998. The Water-Column-Chemical Signature of the 1998 Axial Eruption: Axial Volcano, Juan de Fuca Ridge. *EOS Trans. AGU*, 79, no. 45, p. F831-832.

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- Resing, J.A.,** C.G. Wheat, R.A. Feely, F.J. Sansone, E.T. Baker, M.J. Mottl. 1998. The chemistry of hydrothermal plume along 9-12N EPR. RIDGE Workshop on the Results of Field Studies along the East Pacific Rise, 9 - 10N, Santa Barbara, CA, September 1998.
- Resing, J.A.,** and F.J. Sansone, 1997. The generation of acidity from lava seawater interactions. *EOS Trans. AGU*, 78, no. 46, p F804-F805.
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- Resing, J.A.,** F. Sansone. 1995. Lava-seawater experiments and the unique chemical signature of lava-seawater interactions. *EOS Trans. AGU*, 76, no. 46, p. F709.
- Resing, J.A.,** F. Sansone. Chemical signatures of submarine eruptions. Gordon Research Conference, June, 1995.
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- Resing J.A.,** C.I. Measures. 1994. Application of micro-column techniques to trace element determination in flow injection analysis. Winter Conference on Flow Injection Analysis (WC-FIA 94), San Diego, Ca., Jan. 1994.
- Resing, J.A.,** F.J. Sansone, C.G. Wheat, G.J. Massoth, E. Baker. 1993. The water column signature of the 1993 Coaxial eruption site on the Juan de Fuca Ridge. *EOS Trans. AGU*, 74, no. 43, p. 620.
- Resing, J.A.,** F.J. Sansone, C.G. Wheat, C.I. Measures, G.M. McMurtry, P.N. Sedwick, G.J. Massoth. 1992. The extraction of aluminum from hot rock: The elemental signature of an eruptive vs. classical hydrothermal system. *EOS Trans. AGU*, 73, no. 43, p. 254.
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### **Co-authored Presentations and Abstracts**

- Baker, E T, Resing, J A, Martinez, F, Walker, S L, Buck, N, Edwards, M H, Nakamura, K. 2008. Hydrothermal Cooling Within the Lau Integrated Study Site: No Evidence for Off-axis Discharge, *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract V53D-06.
- Walker, S L, Baker, E T, de Ronde, C E, Yoerger, D, Embley, R W, Davy, B, Resing, J A, Nakamura, K. 2008. High-Resolution Distribution of Temperature, Particle and Oxidation/Reduction Potential Anomalies From a Submarine Hydrothermal System: Brothers Volcano, Kermadec Arc, *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract V41B-2077.
- Martinez, F, Baker, E T, Resing, J A, Edwards, M H, Walker, S L, Buck, N. 2008. Distribution of Hydrothermal Activity at the Lau ISS: Possible Controlling Parameters, *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract V53D-05.

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- Martinez, F., B. Taylor, E. Baker, **J. Resing**, S. Walker. 2005. Opposing trends in crustal thickness and spreading rate along the back-arc Eastern Lau Spreading Center: Controls on ridge morphology, faulting, and hydrothermal activity, *Eos Trans. AGU*, 86(52), *Fall Meet. Suppl.*, Abstract T31A-0473.
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- Lupton, J, M. Lilley, E. Baker, D. Butterfield, R. Embley, B. Silvers, **J. Resing**, E. Olson, L. Evans, G. Lebon, R. Greene. 2002. Gas Chemistry of Hydrothermal Systems of the Explorer Ridge, NE Pacific Ocean. *Eos Trans. AGU*, 83, (47), Fall Meeting Suppl., Abstract T11C-1268.
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- Gharib, J., **J.A. Resing**. 1996. Dissolved concentrations of Co, Ni, and Al in water column samples taken during Loihi Seamount *EOS Trans. AGU*, 77, no. 46, p. F398.
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- Lupton, J.E., and 8 others. 1992. Water-column survey of hydrothermal discharge along the East Pacific Rise 9°48'N to 11° 50'N. *EOS Trans. AGU*, 73, no. 43, p. 252.
- Sansone, F.J., and 3 others. 1992. Manganese/methane variability in hydrothermal plumes above the EPR, 8°48' N - 11° 52' N. *EOS Trans. AGU*, 73, no. 43, p. 254.
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- Sansone, F.J., and four others. 1989. Sea-surface hydrothermal plumes associated with Hawaiian volcanism. *EOS Trans. AGU*, 71, p. 1722.

### **Current Funding**

- Title:** Collaborative Research: Rapid Response to a Submarine Eruption at W. Mata Volcano: NSF-MGG, Ridge 2000, Margins 4/09-4/10. Co-PIs: K.Rubin, J. Cowen, J. Huber.
- Title:** Collaborative Research: A Submarine Eruption on the North East Lau Spreading Center, a RAPID Response Effort, NSF-MGG, Ridge 2000, 4/09-4/10. Co-PIs: William Lange, C. Moyer, D. Clague, D. Caress, T. Shank.
- Title:** Collaborative Research: Strombolian eruptions, magma degassing, and hydrothermal discharge at an active submarine arc volcano NSF: OCE-MGG 10/08-10/10, Co-PIs: W. Chadwick, D. Butterfield, M.Lilley.
- Title:** Collaborative Research: Investigating the Distribution of Hydrothermal Activity and its Geologic and Geophysical Controls at the Lau Integrated Studies Site NSF: OCE-MGG, Ridge 2000, 09/07-8/10, Co-PIs: F. Martinez, E. Baker.
- Title:** Collaborative Research: Global Ocean Survey of Dissolved Iron and Aluminum and Aerosol Iron and Aluminum Solubility Supporting the CLIVAR Repeat Hydrography Project (2007-2009). NSF: OCE-Chem. Ocn., 03/07 - 02/10 Co-PIs: W. Landing, C. Measures.
- Title:** Enhancing Exploration Efficiency with Specific Application to Exploration of the Galapagos Spreading Center NOAA-Ocean Exploration, 03/05-03/09.

### **Past Funding**

- Title:** Collaborative Research: Hydrothermal System Response to Magma Supply and Crustal Thickness Gradients Along the Galapagos Spreading Center, 89.5-94W. NSF: MGG and NOAA Ocean Exploration, 05/04-05/08, Co-PIs: R. Haymon, K MacDonald, T. Shank, S. White, E. Baker.

- Title:** Submarine Ring of Fire 2005-2007: Exploring Western Pacific Arc Volcanoes NOAA Ocean Exploration, 03/05-02/08, Co-PIs R. Embley, E. Baker, J. Lupton, D. Butterfield, J. Resing, J. Baross, M. Lilley, W. Chadwick.
- Title:** Iron in the Equatorial Undercurrent: Data and Models NSF Chemical Oceanography, 09/04-08/08 CO-PI: James Murray.
- Title:** Exploring the Submarine Ring of Fire NOAA Ocean Exploration, 04/02 - 03/05, CO-PIs R. Embley, E. Baker, W. Lavelle, J. Lupton, D. Butterfield, J. Resing, J. Baross, M. Lilley, W. Chadwick, R. Dziak C. Moyer, M. Tivey.
- Title:** Endeavour Rapid Response. NOAA-Ocean Exploration, 03/05-09/05, Co-PIs: J Resing, E. Baker, W. Chadwick, R. Embley.
- Title:** Collaborative Research: Global ocean survey of dissolved iron and aluminum and aerosol iron and aluminum solubility supporting the Repeat Hydrography (CO<sub>2</sub>) project. NSF Chem.Ocn. 02/03-02-06 Co-PIs: Christopher Measures, William Landing
- Title:** Using Suspended Particulate Matter in Hydrothermal Plumes in the Lau Basin to Better Identify Hydrothermal Source Variability. NSF Ridge 2000, 08/04-07/07.
- Title:** Collaborative Research: Investigating the interrelationships between crustal structure, volcanism, and hydrothermal activity along the backarc East Lau Spreading Center. NSF: RIDGE2000/MGG, 09/03- 08/06 Co-PIs: F. Martinez, B. Taylor, E. Baker.

## Field Experience

- 2008 Exploration of the NE Lau Spreading Center, 16 days, T.G. Thompson.
- 2008 Controls on Hydrothermal Activity at the Lau ISS, 35 days, RV Kila Moana
- 2007 Detailed Exploration of Brothers Seamount, 17 days, MV Sone
- 2006 Fe in the Equatorial Under Current, 28 days, RV Kila Moana
- 2006 Submarine Ring of Fire, 26 days, RV Melville
- 2005 Galapagos Spreading Center, 39 Days, T.G. Thompson.
- 2005 Endeavour Response, 6 Days RV T.G. Thompson.
- 2004 Lau Basin Hydrothermal survey. 35 Days RV Kila Moana
- 2003 The Submarine Ring of Fire: Mariana Arc. 25 days RV T.G. Thompson.
- 2002 Exploration of Explorer Ridge. Two legs Totaling 25 days. RV T.G. Thompson.
- 2001 Juan de Fuca and Axial volcano hydrothermal emissions. 17 days RV Wecoma.
- 2001 Astoria Canyon, Ocean Exploration-Lewis and Clarke Legacy, 10 days R.H. Brown.
- 2001 Gorda Ridge Event detection response cruise, RV New Horizon, 7 days.
- 2000 Juan de Fuca and Axial volcano hydrothermal emissions. 17 days R.H. Brown.
- 1999 Juan de Fuca and Axial volcano hydrothermal emissions. 17 days RV Wecoma.
- 1998 Loihi, seismic event follow up cruise. 7 days: RV Kaimikai O'Kanaloa.
- 1998 Axial Volcano eruption, response follow up. 18 days NOAA Ship R.H. Brown.
- 1998 28-32S EPR hydrothermal survey of earth's fastest spreading center. 41 days RV Melville.
- 1998 Axial Volcano eruption, Rapid Response Cruise. 7 days RV Wecoma.
- 1997 Loihi seismic event follow up cruise. 7 days: RV Kaimikai O'Kanaloa.
- 1996 Loihi seismic event rapid response cruise. 7 days: RV Kaimikai O'Kanaloa.
- 1990-1995 The interaction of molten lava with seawater, 20 1-3 day field trips on the Island of Hawaii.
- 1993 Vents cruise, leg III. 12 days: NOAA ship Discoverer.

- 1992 Loihi, hydrothermal plume survey, 7 days: *RV Thomas G. Thompson*.
- 1992 Microbial dynamics of the Antarctic spring bloom. 25 days: *RV Polar Duke*.
- 1991 Hydrothermal plume survey, East Pacific Rise 9<sup>0</sup>-11<sup>0</sup> N. 30 days: *RV New Horizon*.
- 1989 Hawaii ocean time series. 5 days: *RV Kaimalino*.
- 1989 Carbonate chemistry of Penguin Bank Hawaii. 5 days: *RV Thomas Cromwell*.
- 1988 Chemistry of hydrothermal venting, Juan de Fuca ridge. 30 days: *RV Atlantis II/Alvin*.
- 1986 Coral collection and recruitment studies, Great Barrier Reef, Australia: 20 field days.

### **Student Involvement**

- 2007** Mentor: Hollings Fellow, Dondra Biller (UCSD)
- 2006-** Dissertation committee member, Lia Osiander, University of Washington
- 2004** Sponsored a field internship for an undergraduate student. (Jamie Smith, Depaul University)
- 2003** Sponsored a field internship for an undergraduate student. (Kelly Kaiser, Depaul University)
- 2002** Sponsored an Internship for a student from Marine Advanced Technology Education (MATE) Program  
Sponsored a field internship for two undergraduate students. (Angela Opiola, Depaul University and Andrea Toth, DePaul University).
- 2001** Sponsored a field internship for an undergraduate student.(Angela Opiola, Depaul University)
- 2000** Master Thesis Committee Member, James Jamshid Gharib, University off Hawaii  
Sponsored Teacher for Teacher at Sea Program (together with E. Baker)  
Sponsored a Midshipman for internship (together with E. Baker)
- 1999** Sponsored Teacher for Teacher at Sea Program (together with E. Baker)  
Sponsored two Midshipman for internship (together with E. Baker)
- 1998** Sponsored Teacher for Teacher at Sea Program (together with E. Baker)  
Sponsored two Midshipman for internship (together with E. Baker)

**Jamsheed Gharib.** Defined masters project (Distribution of Methane rich Venting along the SEPR)

**Rebecca Reitmeyer.** Advised masters project: Aluminum distributions in the Eurasian Basin of the Arctic Ocean During this project Becky used the method I developed for aluminum analysis in seawater.

**Jin Chun Yuan.** Defined masters project (Open Ocean Fe determinations by flow injection analysis)