CURRICULUM VITAE

Gary M. McMurtry

PRESENT POSITION: Associate Professor
Department of Oceanography
School of Ocean and Earth Science and Technology
University of Hawaii at Manoa
Honolulu, Hawaii 96822
Tel. No. (808) 956-6858
Fax No. (808) 956-9225
E-Mail: garym@soest.hawaii.edu
Web: www.soest.hawaii.edu/oceanography/

BIOGRAPHICAL:

Date of Birth - February 25, 1950
Place of Birth - California, U.S.A.
Home Tel. No. - (808) 395-1005
Cellular Tel No. - (808) 222-0221

EDUCATION:

Ph.D. Geology and Geophysics, University of Hawaii, Honolulu, 1979
M.S. Geology and Geophysics, University of Hawaii, Honolulu, 1975
B.S. Geological Sciences, University of California, Riverside, 1972

PROFESSIONAL EXPERIENCE:

1988-Present Associate Professor, Department of Oceanography, University of Hawaii, Honolulu, Hawaii.

1999-2000 Affiliate Scientist, In Situ Center of Excellence, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California.

1991-1992 Guest Scientist, Earth and Environmental Sciences Division, Los Alamos National Laboratory, Los Alamos, New Mexico.

1986-1988 Associate Geochemist, Marine Geochemistry Division, Hawaii Institute of Geophysics, University of Hawaii, Honolulu, Hawaii.

1983-1988 Science Program Director, National Undersea Research Program at the University of Hawaii, Hawaii Undersea Research Laboratory.

1983-1986 Associate Director, Electron Microscopy Laboratory, Hawaii Institute of Geophysics, University of Hawaii, Honolulu, Hawaii.

1980-1986 Assistant Geochemist, Marine Geochemistry Division, Hawaii Institute of Geophysics, University of Hawaii, Honolulu, Hawaii.

1979-1980 Post-doctoral Research Geologist, Geological Research Division, Scripps Institution of Oceanography, University of California, San Diego, California.

PROFESSIONAL SOCIETIES:

Member, American Association for the Advancement of Science
Member, American Geophysical Union
Member, Marine Technology Society
Member, Pacific Congress on Marine Science & Technology (PACON) Society
Member, Sigma Xi, the Scientific Research Society of North America
Lifetime Member, The Hawaiian Academy of Science

HONORS:

Member, California Scholarship Federation, 1968
Honors at entrance, University of California, Riverside, 1968
Honors at graduation, University of California, Riverside, 1972
National Science Foundation Antarctic Service Medal, 1979
Biographical Citation: Who's Who in the West, 1987-
Who's Who of Emerging Leaders in America, 1988-
Who's Who in American Education, 1992-
Who's Who in Science and Engineering, 1994-
Who's Who in the World, 1994-
Who's Who in Asia & the Pacific Nations, 1999-
Who's Who in America, 2005-

MAJOR RESEARCH EXPEDITIONS:

Land –based

Mammoth Mountain, CA, UH-USGS in situ $^{3}He/^{4}He$ monitoring, 2017-present
Kilauea Volcano, Mt. Lassen Volcano, CA, V-CAFÉ Research, 2012-present
Hawaiian Islands (all), Megatsunami Deposits Research, 2002-present
Bermuda, Bahama Islands, Megatsunami Deposits Research, 2004-2008
Ruapehu Volcano, New Zealand, USDOE Magmatic Gas Research, 1996
Sierra Negra & Alcedo Volcanoes, Galapagos Islands, Ecuador, USDOE Magmatic Gas Res., 1995
Mount St. Helens Volcano, Washington, USDOE Magmatic Gas Research, 1994
Iwodake Volcano, Satsuma Iwojima, Japan, USDOE Magmatic Gas Research, 1993
Galeras Volcano, Colombia, USDOE Magmatic Gas Research, 1993
Pacaya Volcano, Guatemala, USDOE Magmatic Gas Research, 1992
Kilauea Volcano, Hawaii, USDOE Magmatic Gas Research, 1990-91
Mt. Erebus Volcano, Ross Island, Antarctica, NSF U.S. Antarctic Research Program, 1978-79
Island of Hawaii, NSF & USDOE Hawaii Geothermal Project, 1973-1978

At Sea

Papua New Guinea-July, 1998 tsunami submarine survey, R/V *Kairei*, 1999
South Central Pacific, R/V *Sonne*, Midpac 4 cruise, 1990
Loihi Seamount, R/V *Moana Wave*, 1988
Loihi Seamount, R/V *Hakuho Maru*, 1985
Hawaiian Archipelago, R/V *Kana Keoki*, 1982, 1984
North Fiji Basin, R/V *Kana Keoki*, 1982

At Sea and Subsea

Ulleung Basin, South Korea, R/V *Tamhae II*, KISOS sled diving, 2013, 2014
Costa Rica Margin, R/V *Atlantis*, *Alvin* diving, 2005
Pitcairn and Tahiti Hotspots, R/V *L'Atalante*, *Nautile* diving, 1999
Hawaiian giant submarine landslides, R/V *Kairei*-ROV *Kaiko* diving, 1998
Loihi Seamount, R/V *Ka'imikai-o-Kanaloa*, HURL *Pisces V* diving, 1996, 1997, 1998
Loihi Seamount, R/V *Kila*, HURL *Pisces V* diving, 1987-88, 1990, 1992, 1993
Loihi Seamount, R/V *Atlantis II*, *Alvin* diving, 1987
Teahitia & Macdonald Seamounts, R/V *Le Suroit*, *Cyana* diving, 1989
Cross Seamount, R/V *Kila*, HURL *Pisces V* diving, 1988
Northern Mariana Island Arc, R/V *Atlantis II*, *Alvin* diving, 1987
Gorda-Juan de Fuca Ridges, R/V *Atlantis II*, *Alvin* diving, 1984
Hawaiian Archipelago, HURL *Makali'i* diving, 1982-84
Enewetak Atoll, HURL *Makali'i* diving, 1981

PUBLICATIONS: **92 publications; 73 in refereed journals (*); 1 revision; 3 in prep.**

2019 ***McMurtry, G. M**., DeLuze, J. R., Hilton, D. R. and Blessing, J. E, Differential diffusion of helium isotopes in glass, quantum-tunneling ^{3}He enrichment, and portable ^{3}He/^{4}He monitoring of mantle processes, *Sci. Reports*, 9, 5213*,* doi/10.1038/s41598-019-41360-5.

*__McMurtry, G.M.__, L. A. Dasilveria, K. A. Falinski, and T. P. Fischer, VGAM: Compact and Low Power Mass Spectrometer-based Instrumentation for Volcanic Gas Monitoring, *Geochemistry Geophysics Geosystems* DOI: 10.1029/2019GC008258.

2017 Kim, Y., J.-H. Chun, **G. M. McMurtry** and L. A. Dasilveira, 2017, Deep-Ocean Mass Spectrometer (DOMS) for *in situ* analysis of dissolved methane in seawater from the Ulleung Basin, East Sea, *Journal Geological Society Korea*, 53 (6), 863-871.

2012 **McMurtry, G. M.**, I. Kolotyrkina, J. S. Lee and K. H. Kim, Underwater Mass Spectrometers for *In Situ* Monitoring of Dissolved Gases and Volatile Organic Compounds in Deep Ocean and Coastal Environments, in Proceed. Oceans 2012, MTS and IEEE, Yeosu, South Korea, 6 pp.

2011 **McMurtry, G. M.**, I. Kolotyrkina, G. Brucker and J. Rathbone, New Generation Underwater Mass Spectrometers for Dissolved Gases and Volatile Organic Compound Detection and *In Situ* Monitoring in the Oceans, in Proceed. Oceans 2011, MTS and IEEE, Kona, Hawaii, 4 pp.

***McMurtry, G. M.**, J. F. Campbell, G. J. Fryer, and J. Fietzke, 2010, Uplift of Oahu, Hawaii during the past 500 k.y. as recorded by elevated reef deposits: Reply to Comment by Hearty, *Geology,* 39, e236-e237, doi:10.1130/G32067Y.1.

2010 *Füri, E., D. R. Hilton, M. D. Tryon, K. M. Brown, **G. M. McMurtry**, W. Brückmann, and C. G. Wheat (2010), Carbon release from submarine seeps at the Costa Rica fore arc: Implications for the volatile cycle at the Central America convergent margin, *Geochem. Geophys. Geosyst.*, 11, Q04S21, doi:10.1029/2009GC002810.

***McMurtry, G. M.**, J. F. Campbell, G. J. Fryer, and J. Fietzke, Uplift of Oahu, Hawaii during the past 500 k.y. as recorded by elevated reef deposits, *Geology* 38, 27-30.

2008 ***McMurtry, G.M.**, D. R. Tappin, P. N. Sedwick, I. Wilkinson, J. Fietzke and B. Sellwood, Reply to Mega-highstand or megatsunami? Discussion of McMurtry et al. "Elevated marine deposits in Bermuda record a late Quaternary megatsunami": Sedimentary Geology, 200, 155-165, 2007 (Aug. 07) by Paul J. Hearty and Storrs L. Olson, *Sedimentary Geology*,203, 313-319.

2007 ***McMurtry, G.M.**, D. R. Tappin, P. N. Sedwick, I. Wilkinson, J. Fietzke and B. Sellwood, Elevated marine deposits in Bermuda record a late Quaternary megatsunami, *Sedimentary Geology 200*, 155-165.

2006 *Williams, M., I. P. Wilkinson, D. R. Tappin, **G. McMurtry** and G. J. Fryer, The Hawaiian megatsunami of 110 ± 10 Ka: the use of microfossils in detection, *Journal of Micropalaeontology 25*, 55-56.

2005 ***McMurtry, G.**, J. Wiltshire and A. Bossuyt , 2005, Hydrocarbon Seep Monitoring Using In Situ Deep Sea Mass Spectrometry, Proceedings of Oceans 2005, IEEE Oceanic Engineering Society, 041126-22 p.1-6.

McMurtry, G., J. Wiltshire and A. Bossuyt , 2005, A Deep - Ocean Mass Spectrometer to Monitor Hydrocarbon Seeps and Pipelines, Proceedings of the Offshore Mechanics and Arctic Engineering Conference, American Society of Mechanical Engineers, OMAE 2005-67146 p.1-8.

2004 *__McMurtry, G. M.,__ D. R. Tappin, G. J. Fryer, I. P. Wilkinson, M. Williams, J. Fietzke, D. Garbe-Schoenberg and P. Watts, Megatsunami deposits on Kohala Volcano, Hawaii, from flank collapse of Mauna Loa, *Geology 32*, 741-744.

*__McMurtry, G. M.,__ P. Watts, G. Fryer, J. R. Smith and F. Imamura, Giant landslides, mega-tsunamis, and paleo-sea level in the Hawaiian islands, *Marine Geology 203*, 219-233.

2003 *Hekinian, R., J.L. Cheminée, J. Dubois, P. Stoffers, S. Scott, C. Guivel, D. Garbe-Schönberg, C. Devey, B. Bourdon, K. Lackschewitz, **G. McMurtry**, and E. Le Drezen, Pitcairn hotspot in the South Pacific: Distribution and composition of submarine volcanic sequences, *J. Volcanol. Geotherm. Res. 121*, 219-245.

*Garrison, G. H., C. R. Glenn and **G. M. McMurtry**, Measurement of submarine groundwater discharge in Kahana Bay, Oahu, Hawaii, *Limnology and Oceanography 48*, 920-928.

2002 *Tappin, D. R., P. Watts, **G. M. McMurtry**, Y. Lafoy and T. Matsumoto, Prediction of slump generated tsunamis: the July 17th 1998 Papua New Guinea tsunami, *Sci. Tsunami Hazards 20*, 222-238.

*Kanamatsu, T., E. Herrero-Bervera and **G. M. McMurtry**, Magnetostratigraphy of deep-sea sediments from areas adjacent to the Hawaiian Islands: implications for ages of turbidites derived from submarine landslides, in Takahashi, E., P. Lipman, M. Garcia, J. Naka, and S. Aramaki (eds.), "Evolution of Hawaiian Volcanoes: Recent Progress in Deep Underwater Research", AGU Monograph 128, 51-63.

2001 *Sedwick, P. N. , P. T. Harris, L. G. Robertson, **G. M. McMurtry**, M. D. Cremer and P. Robinson, Holocene sediment records from the continental shelf of Mac. Robertson Land, East Antarctica, *Paleoceanography 16*, 212-225.

McMurtry, G. M. and S. J. Smith, Mass SURFER: a low-power underwater mass spectrometer for monitoring dissolved gas, solutes and large organic compounds, Proceed. Oceans 2001, Marine Tech. Soc. and IEEE, Honolulu, 259-263.

McMurtry, G. M., Deep-Sea Sediment: Authigenic Deposits, in J. Steele, S. Thorpe and K. Turekian (eds.) *Encyclopedia of Ocean Sciences*, Academic Press, London, 201-212.

*Tappin, D. R., P. Watts, **G. M. McMurtry**, Y. Lafoy and T. Matsumoto, The Sissano, Papua New Guinea tsunami of July 1998: offshore evidence on the source mechanism, *Mar. Geology 175*, 1-23.

2000 *Wheat, C. G., H. H. Jannach, J. N. Plant, C. L. Moyer, F. J. Sansone and **G. M. McMurtry**, Continuous sampling of hydrothermal fluids from Loihi Seamount after the 1996 Event, *J. Geophys. Res. 105*, 19,353-19,367.

*VonderHaar, D. L., **G. M. McMurtry**, D. Garbe-Schoenberg, D. Stüben and B. K. Esser, Platinum and other related element enrichments in Pacific ferromanganese crust deposits, in Glenn, C. R., et al.

(eds.) *Marine Authigenesis: from Global to Microbial* , Society for Sedimentary Geology (SEPM) Special Publ. No. 66, 287-308.

*Goff, F. and **G. M. McMurtry**, Tritium and stable isotopes of magmatic waters, *J. Volcan. Geotherm. Res. 97*, 347-396.

*Naka, J., E. Takahashi, D. Clague, M. Garcia, E. Herrero-Bervera, J. Ishibashi, O. Ishizuka, K. Johnson, T. Kanamatsu, I. Kaneoka, K. Kayano, P. Lipman, A. Malahoff, **G. McMurtry**, B. Midson, J. Moore, J. Morgan, J. Muller, T. Naganuma, K. Nakajima, T. Oomori, A. Pietruszka, K. Satake, D. Sherod, T. Shibata, K. Shinozaki, T. Sisson, J. Smith, S. Takareda, C. Thornber, M. Toiszumi, F. Trusdell, N. Tsuboyama, T. Ui, S. Umino, K. Uto, Tectono-Magmatic Processes Investigated at Deep-Water Flanks of Hawaiian Volcanoes, *EOS, Trans. Am. Geophys. Un. 81,* 221, 226-227.

*Goff, F., **G. M. McMurtry**, J. A. Stimac, A. Roldán-Manzo, D. Counce and D. R. Hilton, Contrasting hydrothermal activity at Sierra Negra and Alcedo volcanoes, Galapagos Achipelago, Ecuador, *Bull. Volcanology 62*, 34-52.

*Smith, C. R., L. A. Levin, D. J. Hoover, **G. M. McMurtry** and J. D. Gage, Variations in bioturbation across the oxygen minimum zone in the Northwest Arabian Sea, *Deep-Sea Res. II 47*, 227-257.

1999 ***McMurtry, G .M.**, E. Herrero-Bervera, M. Cremer, J. Resig, C. Sherman, J. R. Smith and M. E. Torresan, Stratigraphic constraints on the timing and emplacement of the Alika 2 giant Hawaiian submarine landslide, *J. Volcan. Geotherm. Res.* 94, 35-58.

*Tappin, D. R., T. Matsumoto, P. Watts, K. Satake, **G. M. McMurtry**, M. Matsuyama, Y. Lafoy, Y. Tsuji, T. Kanamatsu, W. Lus, Y. Iwabuchi, H. Yeh, Y. Matumotu, M. Nakamura, M. Mahoi, P. Hill, K. Crook and L. Anton, Sediment slump likely caused 1998 Papua New Guinea tsunami, *EOS, Trans. Am. Geophys. Un. 80*, 329,334, 340.

1998 *Hilton, D. R., **G. M. McMurtry** and F. Goff, Large variations in vent fluid $CO_2/^3He$ ratios signal rapid changes in magma chemistry at Loihi Seamount, *Nature 396*, 359-362.

*Sedwick, P. N., P. T. Harris, L. G. Robertson, **G. M. McMurtry**, M. D. Cremer and P. Robinson, A geochemical study of marine sediments from the Mac. Robertson Shelf, East Antarctica: initial results and paleoenvironmental implications, *Ann. Glaciology 27*, 268-274.

1997 *Hilton, D. R., **G. M. McMurtry** and R. Kreulen, Evidence for extensive degassing of the Hawaiian mantle plume from helium-carbon relationships at Kilauea Volcano, *Geophys. Res. Lett.* 24, 3065-3068.

*Duennebier, F. K., N. C. Becker, J. Caplan-Auerbach, D. A. Clague, J. Cowen, M. Cremer, M. Garcia, F. Goff, A. Malahoff, **G. M. McMurtry**, B. P. Midson, C. L. Moyer, M. Norman, P. Okubo, J. A. Resing, J. M. Rhodes, K. Rubin, F. J. Sansone, J. R. Smith, K. Spencer, X. Wen, and C. G. Wheat, Rapid response to submarine activity at Loihi Volcano, Hawaii, *Eos, Trans. Am. Geophys. Un. 78*, 229-233.

1995 *VonderHaar, D. L., J. J. Mahoney and **G. M. McMurtry** , An evaluation of strontium isotopic dating of ferromanganese oxides in a marine hydrogenous ferromanganese crust, *Geochim. Cosmochim. Acta 59*, 4267-4277.

Glenn, C. R. and **G. M. McMurtry**, Scientific studies and history of the Ala Wai canal, an artificial tropical estuary in Honolulu, *Pacific Science 49*, 307-318.

*Glenn, C. R. , S. Rajan, **G. M. McMurtry**, and J. Benaman, Geochemistry, mineralogy, and stable isotopic results from Ala Wai esturine sediments: records of hypereutrophication and abiotic whitings, *Pacific Science 49*, 367-399.

***McMurtry, G. M.**, A. Snidvongs and C. R. Glenn, Modeling sediment accumulation and soil erosion with ^{137}Cs and ^{210}Pb in the Ala Wai canal and central Honolulu watershed, Hawaii, *Pacific Science 49*, 412-451.

***McMurtry, G. M.**, J. C. Wiltshire, and J. P. Kauahikaua, Heavy metal anomalies in coastal sediments of Oahu, Hawaii, *Pacific Science 49*, 452-470.

*Spencer, K. J., E. H. De Carlo, and **G. M. McMurtry**, Isotopic clues to the sources of natural and anthropogenic lead in sediments and soils from Oahu, Hawaii, *Pacific Science 49*, 492-510.

*Raine, L. M., B. Z. Siegel and **G. M. McMurtry**, Mercury accumulation in sediments of the Ala Wai Canal and in soils and stream sediments of the central Honolulu watershed, *Pacific Science 49*, 511-525.

1994 *Garbe-Schoenberg, C.-D. and **G. M. McMurtry**, In situ micro-analysis of platinum and rare earths in ferromanganese crusts by laser abaltion-ICP-MS (LAICPMS), *Fresenius J. Anal. Chem. 350*, 264-271.

*Goff, F., J. A. Stimac, A. C. L. Larocque, J. B. Hulen, **G. M. McMurtry**, A. I. Adams, A. Roldan-M., P. E. Trujillo, Jr., D. Counce, S. J. Chipera, D. Mann, and M. Heizler, Gold degassing and deposition at Galeras Volcano, Colombia, *GSA Today 4*, 241, 244-247.

***McMurtry, G. M.**, D. L. VonderHaar, A. Eisenhauer, J. J. Mahoney, and H.-W. Yeh, Cenozoic accumulation history of a Pacific ferromanganese crust, *Earth Planet. Sci. Lett. 125*, 105-118.

*Stüben, D., N. E. Taibi, **G. M. McMurtry**, J. Sholten, P. Stoffers, and D. Zhang, Growth history of a hydrothermal silica chimney from the Mariana backarc spreading center (southwest Pacific, 18° 13'N), *Chem. Geology 113*, 273-296.

*Sedwick, P. N., **G. M. McMurtry**, D. Hilton, and F. Goff, Carbon dioxide and helium in hydrothermal fluids from Loihi Seamount, Hawaii, USA: temporal variability and implications for the release of mantle volatiles, *Geochim. Cosmochim. Acta 58*, 1219-1227.

McMurtry, G. M., E. H. De Carlo, and K. H. Kim, Geochemistry of north central North Fiji Basin sediments, in Kroenke, L. W. and J. V. Eade, eds., *Basin Formation, Ridge Crest Processes, and Metallogenesis in the North Fiji Basin*, Circum-Pacific Council for Energy and Mineral Resources, Earth Sci. Series, Springer-Verlag, New York, Vol. 15, 137-169.

1993 *Ravizza, G. and **G. M. McMurtry**, Osmium isotopic variations in metalliferous sediments from the East Pacific Rise and the Bauer Basin, *Geochim. Cosmochim. Acta 57*, 4301-4310.

***McMurtry, G. M.**, P. N. Sedwick, P. Fryer, D. L. VonderHaar and H.-W. Yeh, Unusual geochemistry of hydrothermal vents on submarine arc volcanoes: Kasuga Seamounts, Northern Mariana Arc, *Earth Planet. Sci. Lett. 114*, 517-528.

1992 *Sedwick, P. N., **G. M. McMurtry** and J. D. Macdougall, Chemistry of hydrothermal solutions from Pele's Vents, Loihi Seamount, Hawaii, *Geochim. Cosmochim. Acta 56*, 3643-3667.

*Stüben, D., P. Stoffers, J.-L. Cheminée, M. Hartmann, **G. M. McMurtry**, H. H. Richnow, A. Jenisch and W. Michaelis, Manganese, methane, iron, zinc and nickel anomalies in hydrothermal plumes of Teahitia and Macdonald volcanoes, *Geochim. Cosmochim. Acta 56*, 3693-3704.

*De Carlo, E. H. and **G. M. McMurtry**, Rare earth element geochemistry of ferromanganese deposits from the Hawaiian Archipelago, *Chem. Geology 95,* 235-250.

1991 *Cheminée, J.-L., P. Stoffers, **G. McMurtry**, H. Richnow, D. Puteanus, and P. Sedwick, Gas-rich submarine exhalations during the 1989 eruption of Macdonald Seamount, *Earth Planet. Sci. Lett. 107*, 318-327.

*Kim, K. H. and **G. M. McMurtry**, Radial growth rates and ^{210}Pb ages of hydrothermal massive sulfides from the Juan de Fuca Ridge, *Earth Planet. Sci. Lett. 104*, 299-314.

***McMurtry, G. M.**, E. H. De Carlo and K. H. Kim, Accumulation rates, chemical partitioning, and Q-mode factor analysis of metalliferous sediments from the North Fiji Basin, *Mar. Geology, 98*, 271-295.

*Murphy, E., **G. M. McMurtry**, K. H. Kim and E. H. De Carlo, Geochemistry and geochronology of a hydrothermal ferromanganese deposit from the North Fiji Basin, *Mar. Geology*, *98*, 297-312.

*Sedwick, P. N., **G. M. McMurtry** and G. W. Tribble, Chemical alteration of seawater by lava from Kilauea Volcano, Hawaii, *Mar. Geology, 96*, 151-158.

1990 *Sedwick, P. N., T. Gamo and **G. M. McMurtry**, Manganese and methane anomalies over the North Fiji Basin spreading center, *Deep-Sea Res., 37*, 891-896.

VonderHaar, D. L. and **G. M. McMurtry**, A geochemical interpretation of two ferromanganese crusts from Schumann Seamount in the Hawaiian Archipelago, in Aoki, H., ed., *Atlas: Mineral Resource of the Sea Floor - Cobalt-Rich Manganese Crust*, Tokai University Press, Simizu, Japan, 114-119.

Stoffers, P., A. Singer, **G. McMurtry**, A. Arquit and H.-W. Yeh, Geochemistry of a hydrothermal nontronite deposit from the Lau Basin, Southwest Pacific, in von Stackelberg, U. and U. von Rad, eds., *Geological Evolution and Hydrothermal Activity in the Lau and North Fiji Basins*, Geologisches Jahrbuch, D92, Bundesanstalt für Geowissenschaften und Rohstoffe, Hanover, 615-628.

1988 *Karl, D. M., **G. M. McMurtry**, A. Malahoff and M. O. Garcia, Loihi Seamount, Hawaii: an active submarine volcano with a distinctive hydrothermal system, *Nature*, *335*, 532-535.

Malahoff, A., A. M. Arquit and **G. M. McMurtry**, Sulfide, sediment and biological zonation at Ashes vent field, Axial Volcano, in De Luca, M. P. and I. Babb, eds., *Global Venting, Midwater, and Benthic Ecological Processes*, National Undersea Research Program Res. Rep. 88-4, NOAA Office of Undersea Research, Rockville, Md., 235-245.

1987 *De Carlo, E. H., **G. M. McMurtry** and K. H. Kim, Geochemistry of ferromanganese crusts from the Hawaiian Archipelago I. northern survey areas, *Deep-Sea Res.*, *34*, 441-467.

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*Sakai, H., H. Tsubota, T. Nakai, J. Ishibashi, T. Akagi, T. Gamo, B. Tilbrook, G. Igarashi, M. Kodera, K. Shitashima, S. Nakamura, K. Fujioka, M. Watanabe, **G. McMurtry**, A. Malahoff and M. Ozima, Hydrothermal activity on the summit of Loihi seamount, Hawaii, *Geochem. J.*, *21*, 11-21.

Wiltshire, J. C. and **G. M. McMurtry**, Deep-sea sampling of consolidated material by submersible, in *Proceed. Oceans 87*, Mar. Tech. Soc. and IEEE, Halifax, Nova Scotia, Canada, 1052-1057.

1986 ***McMurtry, G. M.**, R. C. Schneider, P. L. Colin, R. W. Buddemeier and T. H. Suchanek, Vertical distribution of fallout radionuclides in Enewetak Lagoon sediments: effects of burial and bioturbation on the radionuclide inventory, *Bull. Mar. Sci.*, *38*, 35-55.

*Colin, P. L., T. H. Suchanek and **G. M. McMurtry**, Water pumping and particulate resuspension by Callianassids (Crustacea: Thalassinidea) at Enewetak and Bikini Atolls, Marshall Islands, *Bull. Mar. Sci.*, *38*, 19-24.

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McMurtry, G. M. and J. M. Sinton, Geochemical methods for the determination of marine mineral resources, in Johnson, C. J. and A. L. Clark, eds., *Pacific Mineral Resources: Physical, Economic, and Legal Issues*, East-West Resource Systems Institute, East-West Center, Honolulu, 227-272.

1985 ***McMurtry, G. M.**, R. C. Schneider, P. L. Colin, R. W. Buddemeier and T. H. Suchanek, Redistribution of fallout radionuclides in Enewetak Atoll lagoon sediments by callianassid bioturbation, *Nature*, *313*, 674-677.

Woollard, G. P. and **G. M. McMurtry**, Mineralization in relation to the dynamic processes along the Peru-Chile Trench, in *Trans. Fourth Latin American Geological Conference*, Port-of-Spain, Trinidad and Tobago, vol. 2, 1064-1076.

1984 **McMurtry, G. M.**, E. H. Chave and R. H. Wilson, High technology undersea research at the Hawaii Undersea Research Laboratory, in *Proceed. Pacific Congress on Mar. Tech.*, Mar. Tech. Soc., Honolulu, *OST1*, 17-23.

1983 ***McMurtry, G. M.**, C.-H. Wang and H.-W. Yeh, Chemical and isotopic investigations into the origin of clay minerals from the Galapagos hydrothermal mounds field, *Geochim. Cosmochim. Acta*, *47*, 475-489.

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1982 *Malahoff, A., **G. M. McMurtry**, J. C. Wiltshire and H.-W. Yeh, Geology and chemistry of hydrothermal deposits from active submarine volcano Loihi, Hawaii, *Nature*, *298*, 234-239.

1981 *Cox, M. E. and **G. M. McMurtry**, Vertical distribution of mercury in sediments from the East Pacific Rise, *Nature*, *289*, 789-792.

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