

David Kadko

CURRICULUM VITAE

April 2018

PERSONAL

Current academic rank: Professor, Florida International University

Primary department: Applied Research Center

Citizenship: United States

HIGHER EDUCATION

Brooklyn College, City University of New York
(Chemistry), B.S. (Magna Cum Laude) 1973.
Columbia University (Oceanography), M.A. 1974.
Columbia University (Oceanography), M.Phil. 1975.
Columbia University (Oceanography), Ph.D. 1981.

EXPERIENCE

Florida International University, Assoc. Director, Applied Research Center; Professor (res). 2014-
Florida State University, Courtesy Professor Appointment Lamont-Doherty Earth Observatory, Columbia University Adjunct Senior research scientist 2013-
National Science Foundation, Assoc. Prog. Officer 2010 -
University of Miami, RSMAS, Professor 1999-2000.
University of Cambridge (UK); Fulbright Fellow 1996-2014
University of Miami, RSMAS, Associate Professor 1996
College of Oceanography, Oregon State University, Assistant Prof. (Sr. Res.), 1990-1996.
College of Oceanography, Oregon State University, Research Associate, 1989-90.
U.S. Geological Survey, Menlo Park, California, NRC Postdoctoral Fellowship, 1983-88.
Lamont-Doherty Geological Observatory, Columbia University, Research Assistant 1981-83.
Brooklyn College, Research Assistant 1974-80.
1973.

PUBLICATIONS

Peer-reviewed:

Approximately 70. Listed in: <https://arc.fiu.edu/staff/david-c-kadko/>

ABSTRACTS

Kadko, D., and W. S. Broecker. (1978). In-situ and laboratory radon flux measurements from a deep tow surveyed area of the East Pacific. EOS, Trans. Amer. Geophys. Union. 59, 1097.

Kadko, D. (1979). A detailed study of uranium series nuclides in metalliferous sediments near the East Pacific Rise. EOS, Trans. Amer. Geophys. Union. 60, 850.

Kadko, D. (1980). A detailed study of uranium-series nuclides in two box cores taken at MANOP site S. EOS, Trans. Amer. Geophys. Union. 61, 1006.

Kadko, D. (1981). A detailed study of uranium series nuclides for several sedimentary regions of the Pacific. Symposium on Dissertations in Chemical Oceanography, Univ. Hawaii.

Kadko, D., R. Koski, R. Bouse, and J. Delaney. (1983). An estimate of hydrothermal fluid residence times and vent growth rates based on the $^{210}\text{Pb}/\text{Pb}$ ratios of a sulphide sample dredged from the Juan de Fuca Ridge. EOS, Trans. Amer. Geophys. Union. 64, 723.

Kadko, D., and J. E. Lupton. (1984). Radon-222 and temperature measurements on the Endeavour Ridge. EOS, Trans. Amer. Geophys. Union. 65, 974.

McDuff, R. E., J. E. Lupton, D. Kadko, and M. D. Lilley. (1984). Chemistry of hydrothermal fluids, Endeavour Ridge, Northeast Pacific. EOS, Trans. Amer. Geophys. Union. 65, 975.

The Merge Group (Multidisciplinary Endeavour Ridge GeoExpedition). (1984). Regional setting and local character of a hydrothermal field/sulfide deposit on the Endeavour Segment

Peter, J. M., W. C. Shanks, D. Kadko, and S. D. Scott. (1986). Hydrothermal vent deposits from the Southern Trough of Guaymas Basin, Gulf of California: a fluid inclusion, stable and radiogenic isotope study. Geoexpo. (Canada).

Kadko, D., J. E. Lupton, R. Collier, M. Lilley, and H. Pak. (1986). Endeavour ridge hydrothermal plume study. EOS, Trans. Amer. Geophys. Union 67, 1027.

Murray, D., D. Kadko and N. Pisias. (1986). Temporal variations in sedimentation at MANOP Site S; Origin of subsurface manganese-rich layers. EOS 67, 1045.

Kadko, D. and R. Kovar. (1988). Radon-Chlorophyll tracer of subducted layers within filaments of the N. California Coastal Transition Zone. EOS, Trans. Amer. Geophys. Union 69, 1260.

Kadko, D. (1990) In-situ gamma spectrometry of a warm vent fluid emanating from the North Cleft Area of the Southern Juan de Fuca Ridge. EOS, Trans. Amer. Geophys. Union, 71, 1619.

Washburn, L., B. H. Jones, D. C. Kadko, P. M. Kosro, T. Cowles, T. Hayward, T. P. Stanton, and S. Ramp. (1990) Water mass subduction and the transport of phytoplankton in a coastal upwelling system. EOS, Trans. Amer. Geophys. Union, 71, 1361.

Kadko, D., R. Feely and G. Massoth. (1991) Scavenging of ^{234}Th and PO_4 removal from the hydrothermal effluent plume over the N. Cleft Segment of the Juan de Fuca Ridge. EOS, Trans. Amer. Geophys. Union 72, 235.

Kadko, D., D. Olsen and T. Dillon. (1992) Be-7 as a Tracer of Surface Water Subduction and Mixed Layer History. EOS, Trans. Amer. Geophys. Union 72, 235.

Koski, R. A., R.W. Embley, I.R. Jonasson, V. K. Smith and D. Kadko. (1993) Space-time relationships of hydrothermal sulfide-sulfate-silica deposits at the Northern Cleft Segment, Juan de Fuca Ridge. The Geol. Soc. America, 25, 64.

Kadko, D. (1994) Time-series gamma spectrometry of diffuse flow from the North Cleft Segment of the Juan de Fuca Ridge. EOS, Trans. Amer. Geophys. Union 75, 307.

Van Dover, C.L., M. Poltz, J. Robinson, C. Cavanaugh, D. Kadko and P. Hickey (1997). Predatory anemones at TAG. BRIDGE newsletter 12:33-34.

Kadko D., M.K. Tivey, A.M. Bradley, J. Sarrazin, D. Butterfield, A. Schultz, C.G. Wheat (2000) Tidal Variability in Temperature, Flow-rate, and Chemistry of Diffusely Venting Fluids in the Main Endeavour Vent Field. EOS, Trans. Amer. Geophys. Union 81, 641.

Bradley, A., M.K. Tivey, S. Liberatore, D. Kadko, D. Scheirer, A. Schultz, D. Butterfield, C.G. Wheat, J. Sarrazin. (2001) Periodic and Aperiodic Variability of Temperature, Chemistry and Flow Rate at Areas of Diffuse Venting, Main Endeavour Field. EOS, Trans. Amer. Geophys. Union 82, F614.

Butterfield D.A., K. K. Roe, D. Kadko and M.K. Tivey (2001) Tidal Variability in Diffuse Flow Vents in the Main Endeavour Field. EOS, Trans. Amer. Geophys. Union 82, F614.

Smith C.R., A.R. Baco-Taylor, A.G. Glover, D. Kadko and D. Schuller (2002) Faunal succession on replicate deep-sea whale falls: time scales and vent-seep relationships, EOS, Trans. Amer. Geophys. Union 83, 356.

Kadko D. (2004) The use of $^{210}\text{Pb}/\text{Pb}$ as a Tracer of Chemosynthetic and Photosynthetic Organic Carbon in Hydrothermal Vent Particles. Amer. Geophys. Union 85.

Cowen, J P, Baker, E T., Dziak, R P., Lilley, M M., Kadko, D., Resing, J., Garfield, T., S.J. Giovannoni (2004). Time-Critical Studies: Rapid response to Transient Dynamic Mid-Ocean Ridge Events. Amer. Geophys. Union 85

Cowen, J P. Thomson, R E., Kadko, D C., Wakeham, S G., Bertram, M A., P. Lam., B.B. Popp (2004) Biogeochemical Processes in Mid-Ocean Ridge Hydrothermal Plumes. Eos Trans. Amer. Geophy. Union 85.

Kadko D.C., K. Gronvold, K. Agustsson, J. Hovgaard (2005) Radon anomaly - crustal strain relationships at the Selfoss geothermal area, Iceland. Eos Trans. Amer. Geophy. Union 86 (52), Fall Meet. Suppl., Abstract T23B-0557.

Farmer, C.T , J.T. Mathis, D.A. Hansell, D.C. Kadko, N.R. Bates, (2006) Eddy Transport of Carbon in the Western Arctic Ocean and the Biogeochemical Preconditioning Necessary for Shelf-Basin Exchange. Ocean Sci. Meet. Suppl., Abstract OS32D-03.

Kadko D., J.T. Mathis, R. Pickart, T. Weingartner (2006) Age Characteristics of a Shelf-Break Eddy in the Western Arctic and Implications for Shelf-Basin Exchange. Ocean Sci. Meet. Suppl., Abstract OS42N-03.

Muenchow, A., R. Pickart, T. Weingartner, R.A. Woodgate and D. Kadko (2006) Arctic Boundary Currents Over the Chukchi and Beaufort Slope Seas: Observational Snapshots, Transports, Scales, and Spatial Variability From ADCP Surveys. Ocean Sci. Meet. Suppl., Abstract OS33N-03.

Kadko D. and Aagaard K. (2006) Tracer Sampling from the SCICEX USS L. *Mendel Rivers* Arctic Cruise in 2000: Evidence of Eddy Features Eos Trans. Amer. Geophy. Union 87 (52), Fall Meet. Suppl., Abstract OS53D-04.

Kadko, D. and R. Johnson (2008) Insights into 18 degree mode water formation from measurements of ^7Be at the Bermuda Time-Series station. Ocean Sci. Meet. Suppl., Abstract.

Kadko D. and W. Johns (2010). Inferring Equatorial Upwelling Rates Using a Novel Tracer Approach. Ocean Sci. Meet. Suppl., Abstract

Venti A., D. Kadko, A. Anderson, C. Langdon and N. Bates (2011) A Multi Tracer Model Approach To Estimate Reef Water Residence Times. Ocean Sci. Meet. Suppl., Abstract

Haskell W.Z. II, D. Kadko, W.M. Berelson, D.E. Hammond, A.N. Knapp, D.G. Capone, (2012) Upwelling velocities and eddy diffusivity from ^7Be measurements used to compare vertical nutrient fluxes to export POC flux in the ETSP, Ocean Sci. Meeting, Salt Lake City, Abstract

Landing, W. M., Kadko, D., Kilgore, B. Galfond, B. and N. Krishnamurthy (2012) A novel tracer technique to quantify the atmospheric flux of trace elements to the oceans. Ocean Sci. Meeting, Salt Lake City, Abstract.

Erhardt A.M., A. Paytan, C. Reimers, D. C. Kadko (2013) Records of trace metals in sediments from the Oregon shelf and slope: Investigating the occurrence of hypoxia in the past hundreds to thousands of years. Eos Trans. Amer. Geophy. Union, Fall Meet. Abstract. PP43D-08.

Galfond, B., D. Kadko, S. R. Shelly; and W.M. Landing (2014) A novel method of determining atmospheric deposition of trace elements to the ocean/ice system of the Arctic. Ocean Sci. Meeting, Honolulu.

Kadko D. (2014) Upwelling Rates and Vertical Diffusivities Determined During the 2013 US GEOTRACES Eastern Tropical Pacific Zonal Transect: Results from ⁷Be Analysis. Amer. Geophys. Union, Fall Meet. Abstract (INVITED) OS22B-07.

Landing W., R. Shelley, D. Kadko (2014) Recent Rainfall and Aerosol Chemistry From Bermuda. Amer. Geophys. Union, Fall Meet. Abstract OS23D-1245

Muehllehner, N., Langdon, C., Venti, A. and Kadko, D. (2016) Dynamics of carbonate chemistry, production and calcification of the florida reef tract (2009-2010): evidence that heterotrophy is driving seasonal dissolution. 13th International Coral Reef Symposium, Honolulu.

Landing W., D. Kadko, R. Shelley, and B. Galfond (2016) Quantifying the Fluxes of Atmospherically Derived Trace Elements in the Arctic Ocean/Ice System using ⁷Be. Oceans Sciences, New Orleans, Abstract CT14A-0123.

Swift J., D. Kadko, W. Smethie, S. Becker, A. Barna, J. Cummiskey and J. Gum (2016) The Arctic Ocean Then and Now: Preliminary Hydrographic Data from the 2015 US GEOTRACES Arctic Expedition. Oceans Sciences, New Orleans, Abstract B54B-0404.

Kadko, D. C. (2017) US GEOTRACES Arctic section: determining the pathways, fate, and flux of atmospherically derived trace elements in the ocean/ice system. Oceans Sciences, Honolulu, (Abstract ID: 28357)

Buck, C., Landing, W., Aguilar-Islas, A., Marsay, C., and D. Kadko (2017) Aerosol deposition and fractional solubility of trace elements in the remote ocean. Goldschmidt Conference, Paris.

PROFESSIONAL

PROFESSIONAL AND HONORARY ORGANIZATIONS:

American Society of Limnology and Oceanography
American Geophysical Union
Sigma Xi

HONORS, AWARDS and APPOINTMENTS:

NSF Summer Research Grant, Brooklyn College	1973
Chemistry Department Honors Award, Brooklyn College	1973
NSF Doctoral Fellowship	1975-78
National Research Council Fellowship	1981-83
Fulbright Fellowship, University of Cambridge, UK	1996
Member, RIDGE Steering Committee	1998-2001
U.S. Representative to InterRidge	1998-2001

ARCUS Member Representative	2009-2014
Chair, US Arctic GEOTRACES	2010-
UNOLS representative (FIU)	2016-
FIU Community Award	2016

OTHER PROFESSIONAL ACTIVITIES:

Selected Workshop Participation:

RIDGE/NOAA Workshop on the global impact of hydrothermal venting, Boulder, CO (CONVENOR)	1994
InterRidge Meso-scale Workshop, (invited) Cambridge, UK	1995
InterRidge FARA Workshop, Reykjavik, Iceland	1996
Arctic System Science (ARCSS) all-investigator workshop (Snowbird, Utah)	1996
Workshop on the study of Arctic change (Seattle, WA)	1997
RIDGE/NOAA Workshop on the effect of seafloor hydrothermalism on biological productivity (CONVENOR)	1998
RIDGE 2000 Conference (Newport, OR)	1999
Arctic SHEBA/FIRE Workshop (Boulder, CO)	2000
RIDGE Exploratory Studies (Nashville, TN)	2000
Shelf-Basin Interaction (SBI), Albuquerque, NM	2001
RIDGE 2000 Community Meeting (Boulder, CO)	2003
RIDGE: Biogeography and Biodiversity Workshop, Southampton, UK	2003
RIDGE: Endeavour Ridge ISS Workshop (Seattle)	2006
Chapman Conference on the Ocean Biological Pump (UK)	2009
RIDGE 2K community meeting, Portland, OR	2010
US Arctic GEOTRACES (convenor), Wash. DC	2010
GEOTRACES Pacific Workshop, San Diego, CA.	2011
US Arctic GEOTRACES-Implementation (convenor), Wash. DC	2012
US Arctic GEOTRACES-Expedition planning meeting (convenor), Miami, FL.	2015
US Arctic GEOTRACES-data synthesis meeting (convenor), Miami, FL	2017
US Pacific GEOTRACES-Expedition planning meeting Norfolk, Va.	2018
MOSIAC-Expedition planning meeting, Potsdam, Germany	2018

REVIEWER:

1. Approximately 10 National Science Foundation reviews per year.
2. NOAA Seagrant reviewer.
3. NURP reviewer

4. NERC (National Environmental Research Council reviewer
(United Kingdom)

5. JOI-USSAC leg 139 review panel (1991)

6. Netherlands Organization for Scientific Research (NWO)

7. Reviewed articles for the following Journals:

Applied Geochemistry	Continental Shelf Research
Bulletin of the American Meteorological Society	Limnology and Oceanography
Chemical Geology	Marine Chemistry
Deep Sea Research	Marine geotechnology
Earth and Planetary Science Letters	Paleoceanography
Geochemistry, Geophysics, Geosystems (G ³)	Quaternary Geochronology
Geochimica et Cosmochimica Acta	Science
Geologische Rundschau	Water Resources Research
Geophysical Research Letters	
Global Biogeochemical Cycles	
Journal of Canadian Mineralogy	
Journal of Environmental Radioactivity	
Journal of Geophysical Research	
Limnology and Oceanography (methods)	
Journal of Radioactivity	
Journal of Radioanalytical and Nuclear Chemistry	
Journal of Atmospheric Chemistry	

8. NURP (National Undersea Research Program) panelist; Nov. 1994

9. CAREERS panelist (NSF – 1998)

10. NSF-OCE panelist (2006)

FIELD EXPERIENCE:

Experimental Lakes Area, Kenora, Ontario (3 months)	1973
R/V CONRAD, New York Bight (2 weeks)	1975
R/V CONRAD, New York Bight (2 weeks)	1976
R/V MELVILLE, E. Equatorial Pacific (6 weeks)	1977
R/V KNORR, E. Equatorial Pacific (4 weeks)	1979
R/V MELVILLE, E. Equatorial Pacific (4 weeks)	1981
R/V ATLANTIC-II/ALVIN, Juan de Fuca Ridge (3 wks)	1984
R/V SURVEYOR, Gorda Ridge (3 wks)	1985
R/V WECOMA, Gorda Ridge, Co-chief scientist (1 wk)	1985
R/V POLARSTERN, Antarctic (4 wks)	1985
R/V DISCOVERER, Gorda Ridge (2 wks)	1986
R/V THOMPSON, Endeavour Ridge, Co-chief scientist (3 wks)	1986
R/V Pt SUR, N. California Coast (2 wks)	1987
R/V ATLANTIS-II/ALVIN, Juan de Fuca Ridge (3 wks)	1987
R/V MELVILLE, Endeavour Ridge (2 wks)	1988
R/V WASHINGTON, N. California Coast (4 wks)	1988
R/V ATLANTIS-II/ALVIN, Juan de Fuca Ridge (3 wks)	1990
R/V OCEANUS, N. E. Atlantic (4 wks)	1991

R/V OCEANUS, N. E. Atlantic (3wks)	1992
R/V ATLANTIS-II/ALVIN, Juan de Fuca Ridge (1 wk)	
Chief Scientist	1994
R/V ATLANTIS-II/ALVIN, Mid-Atlantic Ridge (3 wks)	
Chief Scientist	1995
R/V ATLANTIS-II/ALVIN, Juan de Fuca Ridge (3 wks)	1995
R/V KOK-PISCES, LOIHI Seamount (1 week)	1997
SHEBA Field station, Arctic Ocean (2 months)	1997
SHEBA Field station, Arctic Ocean (2 months)	1998
R/V Atlantis/ALVIN, Juan de Fuca Ridge (5 weeks)	2000
USCG HEALY, Arctic (6 weeks)	2002
ICEX (ice camp), Beaufort Sea (2 weeks)	2003
USCG HEALY, Beaufort Sea, Arctic (4 weeks)	2004
R/V Atlantic Explorer, subtropical Atlantic (3 weeks)	2007
Yellowstone National Park, Norris Basin	2007
Yellowstone National Park, Norris Basin	2008
R/V Atlantic Explorer, subtropical Atlantic (2 weeks)	2008
USCGC HEALY, Arctic, Chief Scientist (9 weeks)	2015

TEACHING

Thesis and dissertation advising:

1. Co-advisor, David W. Murray, Ph.D.(1987), Spatial and Temporal Variations in Sediment Accumulation in the Central Tropical Pacific, 1987, Oregon State University
2. Advisor, Mark Stephens -Ph.D. (1996), University of Miami, A Study of Several Aspects of the Marine Carbon Cycle
3. Advisor, Sandra Dittmer, Summer 1992 Undergraduate Fellowship, University of Miami
4. PhD committee member: Kitack Lee (RSMAS/MAC)
5. PhD committee member: Wensheng Yao (RSMAS/MAC)
6. PhD committee member: William T. Hiscock (RSMAS/MAC)
7. PhD committee member: Jeremy Mathis (RSMAS/MAC)
8. Advisor, Dan Schuller, MS. (2003), University of Miami, Radiochemical Dating of Deep-Sea Whale Falls
9. Advisor, Willie Haskell Univ. Miami senior undergraduate thesis- 2009
10. PhD committee member: Alyson Venti PhD student (RSMAS/MAC)
11. PhD committee member: Robert Letscher (RSMAS/MAC)
12. Mentor, Post-doc Hilary Emerson 2016 - (FIU)
13. Mentor, Post-doc Vasileios Anagnostopoulos 2016 - (FIU)

Courses taught: Graduate (UM)

Marine and Atmospheric Chemistry, 610 - Analytical Methods in Marine and Atmospheric Chemistry

Marine and Atmospheric Chemistry, 615 - Tracers of Oceanographic Processes

Marine and Atmospheric Chemistry, 605 (team taught) - Principles of Chemical Oceanography
Carbon and Climate Change (team taught)

Polar Oceanography (team taught)

Undergraduate (UM)

Introduction to Oceanography, MSC 111

Introduction to Oceanography Labs

Introduction to Oceanography, MSC 101 (non-majors)

SERVICE

University of Miami:

1. Undergraduate Advisor (RSMAS/MAC) 1991-1995
2. Faculty Search Committee (RSMAS/MAC, 1991, 1995, 2000 (chair); RSMAS/MGG, 1993)
3. Chair, Academic Committee (RSMAS/MAC) 1991-1995
4. Radiation control committee (2000-2014)
5. RSMAS School Council (2002-2007; 2010-2013)
6. RSMAS Strategic Planning Group (SPG) (2005-2006)
7. Rosensteil Award Search Chair (2004)
8. University Promotion & Tenure Committee (2004, 2007)

FUNDED RESEARCH PROJECTS (LAST 5 YEARS)

See listing: <https://arc.fiu.edu/staff/david-c-kadko/>