BIOGRAPHICAL SKETCH

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Professional Preparation:

University of Southampton	Chemistry	B.Sc. (Honours) 1972
University of Southampton	Oceanography	M.Sc. 1974
University of Southampton	Oceanography	Ph.D. 1978

Appointments:

Emeritus Professor, University of Hawaii, 2019

Professor and Chair, Dept. of Oceanography, Univ. of Hawaii at Manoa, 2001-2003

Professor Dept. of Oceanography, Univ. of Hawaii at Manoa, 1996-2018

Associate Professor, Dept. of Oceanography, Univ. of Hawaii at Manoa, 1989-96

Principal Research Scientist, Dept of Earth and Planetary Sciences, MIT, 1985-1989

Research Associate, Dept of Earth and Planetary Sciences, MIT, 1981-1985

Post doctoral associate, Dept of Earth and Planetary Sciences, MIT, 1978-1980

Publications:

Publications in refereed journals:

1978

Measures, C.I. and J.D. Burton, Behaviour and speciation of dissolved selenium in estuarine waters, Nature 273, 293-295, 1978.

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Edmond, J.M., C. Measures, R.E. McDuff, L.H. Chan, R. Collier, B. Grant, L.I. Gordon and J.B. Corliss, Ridgecrest hydrothermal activity and the balances of the major and minor elements in the ocean: the Galapagos Data, Earth Planet. Sci. Letters, 46, 1-18, 1979.

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Von Damm, K.L., J.M. Edmond, C.I. Measures, B. Grant, Chemistry of submarine hydrothermal solutions at Guaymas Basin, Gulf of California, Geochim. et Cosmochim. Acta, 49, 2221-2237, 1985.

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1999

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Grand, Maxime M., Christopher I. Measures, Mariko Hatta, William T. Hiscock, William M. Landing, Peter L. Morton, Clifton S. Buck, Pamela M. Barret and Joseph A. Resing. Dissolved Fe and Al in the upper 1000m of the eastern Indian Ocean: high-resolution data from the Antarctic margin to the Bay of Bengal, Global Biogeochemical Cycles, 10.1002/2014GB004920, 2015.

Grand, Maxime M., Christopher I. Measures, Mariko Hatta, William T. Hiscock, Clifton S. Buck, William M. Landing, Dust deposition in the eastern Indian Ocean: the ocean perspective from Antarctica to the Bay of Bengal, Global Biogeochemcial Cycles, 10.1002/2014GB004898, 2015.

COCA Working Group. The Collaborative on Oceanography and Chemical Analysis (COCA) and suggestions for future instrumental analysis methods in chemical oceanography. Submitted to Marine Chemistry, June, 2014. Measures was organiser of the workshop and is corresponding author on this multi-author report. I am not sure that this was actually refereed.

Smith, D.K, J.Alberts, A. DeSilva and C. Measures. A University-Government partnership for oceanographic research, EOS, 96, doi:10.1029/2015/EO032569, 2015.

Mawji, E., Schlitzer, R. and 133 others, The GEOTRACES Intermediate Data Product 2014 Marine Chemistry doi.org/10.1016/ j.marchem.2015.04.005

Kustka, A.B, J.T. Kohut, A.E. White, P.J. Lam, A. Milligan, M.S. Dinniman, S. Mack, E. Hunter, M.R. Hiscock, W.O. Smith, C.I. Measures. The roles of MCDW and deep water iron supply in sustaining a recurrent phytoplankton bloom on central Pennell Bank (Ross Sea). Deep-Sea Research I 105 (2015) 171–185.

Grand M.M., C.I. Measures, M. Hatta, P.L. Morton, P Barrett, A Milne, W.M. Landing and J.A. Resing. The impact of circulation and dust deposition in controlling the distributions of dissolved Fe and Al in the south Indian subtropical gyre. Marine Chemistry 176 (2015) 110–125.

2016

Grand , Maxime, M. Petr Chocholous, Jarda Ruzicka , Petr Solich and Christopher I. Measures Determination of trace zinc in seawater by coupling solid phase extraction and fluorescence detection in the Lab-On-Valve, Analytica Chimica Acta, 2016, 923, 45-54.

Hatta, Mariko, C. I. Measures, P. J. Lam, D. C. Ohnemus, Maureen E. Auro, M. M. Grand, K. E. Selph, The relative roles of Modified Circumpolar Deep Water and sediment resuspension in maintaining the phytoplankton blooms above Pennell and Mawson Bank, Ross Sea, Journal of Marine Science http://dx.doi.org/10.1016/j.jmarsys.2016.07.009.

Kohut, Josh T., Adam B. Kustka, Michael Hiscock, Phoebe Lam, Chris Measures, Allen Milligan, Angelicque White, Filipa Carvalho, Mariko Hatta, Bethan M. Jones, Daniel C. Ohnemus, John M. Swartz. Mesoscale variability of the summer bloom over the Northern Ross Sea Shelf: A Tale of two banks. In press, Journal of Marine Science http://dx.doi.org/10.1016/j.jmarsys.2016.06.009.

2017

Anderson, R., Cheng, H., Edwards, R., Fleisher, M., Hayes, C., Huang, K., Kadko, D., Lam, P., Landing, W., Lao, Y., Lu, Y., Measures, C., Moran, S. B., Morton, P., Ohnemus, D., Shelley, R. How well can we quantify dust deposition to the ocean. *Phil. Trans. R. Soc. A* **374**: 20150285. http://dx.doi.org/10.1098/rsta.2015.0285

German, C.R., K.A. Casciotti, J-C. Dutay, L.E. Heimbürger, W.J.Jenkins, C.I.Measures, R.A.Mills, H.Obata, R.Schlitzer, A.Tagliabue, D.R.Turner, H.Whitby. Hydrothermal Impacts on Trace Element and Isotope Ocean Biogeochemistry. *Phil. Trans. R. Soc. A* **374**: 20160035. http://dx.doi.org/10.1098/rsta.2016.0035 .

Hatta, M, C. I. Measures, J. Ruzicka Programmable Flow Injection. Principle, methodology and application for trace analysis of iron in a sea water matrix, Talanta, 178, 698-703, 2017.

2018

Schlitzer, R. et al., and 282 others, The GEOTRACES Intermediate Data Product 2017, Chemical Geology, 493, 210-223, 2017.

P.M.Barrett,[ab]J.A.Resing, [b]M. M.Grand, [c1]C.I.Measures, and [c]W.M.Landing[d] Trace element composition of suspended particulate matter along three meridional CLIVAR sections in the Indian and Southern Oceans: Impact of scavenging on Al distributions, Chemical Geology, 502,15-28, 2018.

2019

Jiang, M., Measures, C.I., Barbeau, K.A., Charette, M.A., Gille, C.S., Hatta, M., Kahru, M., Mitchell, B.G., Naveira Garabato, A.C., Reiss, C., Selph, K., Zhou, M. (2019) Fe sources and transport from the Antarctic Peninsula shelf to the southern Scotia Sea. Deep-Sea Research Part I. 150.

Ruzicka, J., Marshall, G.D., Measures, C.I., Hatta, M. (2019) Flow injection programmed to function in batch mode is used to determine molar absorptivity and to investigate the phosphomolybdenum blue method. Talanta 201. 519-526. doi: 10.1016/j.talanta.2019.04.015

Hatta, M, C. I. Measures, J. Ruzicka, Determination of traces of phosphate in sea water automated by T programmable flow injection: Surfactant enhancement of the phosphomolybdenum blue response, Talanta, 191,333-341, 2019. https://doi.org/10.1016/j.talanta.2018.08.045

Drazen, J.C., Smith, C.R., Gjerde, K., Au, W., Black, J., Carter, G., Clark, M., Durden, J.M., Dutrieux,P., Goetze, E., Haddock, S., Hatta, M., Hauton, C., Hill, P., Koslow, J., Leitner, A.B., Measures, C., Pacini, A., Parrish, F., Peacock, T., Perelman, J., Sutton, T., Taymans, C., Tunnicliffe, V., Watling, L., Yamamoto, H., Young, E., Ziegler., A.Z. (2019). Report of the workshop Evaluating the nature of midwater mining plumes and their potential effects on midwater ecosystems. Research Ideas and Outcomes 5: doi: 10.3897/rio.5.e33527.

2020

Charette, M.A., Kipp, L.E., Jensen, L. T., Dabrowski, J. S., Whitmore, L.M., Fitzsimmons, J., Williford, T., Ulfsbo, A., Jones, E., Bundy, R.M., Vivancos, S. M., Pahnke, K., John, S.G., Ziang, Y., Hatta, M., Petrova, M.V., Heimbürger‐Boavida, L-E., Bauch, D., Newton, R., Pasqualini, A., Agather, A.M., Amon, R.M.W., Anderson, R.F., Andersson, P.S., Benner, R., Bowman, K.L., Edwards, R.L., Gdaniec, S., Gerringa, L.J.A., González, A.G., Granskog, M., Haley, B., Hammerschmidt, C.R., Hansell, D.A, Henderson, P.B., Kadko, D.C., Kaiser, K., Laan, P., Lam, P.J., Lamborg, C.H., Levier, M., Li, X., Margolin, A.R., Measures, C.I., Middag, R., Millero, F.J., Moore, W.S., Paffrath, R., Planquette, H., Rabe, B., Reader, H., Rember, R., Rijkenberg, M.J.A., Roy‐Barman, M., van der Loeff, M.R., Saito, M., Schauer, U., Schlosser, P., Sherrell, R.M., Shiller, A.M., Slagter, H.,Sonke, J.E., Stedmon, C., Woosley, R. J., Valk, O., van Ooijen, J., Zhang, R. (2020) The Transpolar Drift as a Source of Riverine and Shelf‐Derived Trace Elements to the Central Arctic Ocean. JGR. Ocean. 125. e2019JC015920, doi: 10.1029/2019JC015920.

Hatta, M., Ruzicka, J., Measures, C.I., The performance of a new linear long light path flow cell is compared with a liquid core waveguide and the linear cell is used for spectrophotometric determination of nitrite in sea water at nanomolar concentrations, Talanta, **219**,121240, november 2020. doi.org/10.1016/j.talanta.2020.121240

Laramie T Jensen; Peter L Morton, PhD; Benjamin S Twining, PhD; Maija I Heller, PhD; Mariko Hatta, PhD; Christopher I Measures, PhD; Seth G John, PhD; Ruifeng Zhang, PhD; Paulina Pinedo- Gonzalez, PhD; Robert M Sherrell, PhD; Jessica Nicole Fitzsimmons A comparison of marine Fe and Mn cycling: U.S. GEOTRACES GN01 Western Arctic case study Geochim Cosmochim Acta.

2021

Mariko Hatta, Jaromir (Jarda) Ruzicka, Christopher I. Measures, Madeline Davis. Programmable flow injection in batch mode: Determination of nutrients in sea water by using a single, salinity independent calibration line, obtained with standards prepared in distilled water. Talanta https://doi.org/10.1016/j.talanta.2021.122354

Measures C.I. and M. Hatta, On using Si to unravel potential sources of dissolved Al to the deep Arctic. Journal of Geophysical Reasearch 10.1029/2021JC017399.

2022

M. Hatta, J, Ruzicka, C. Measures and M. Davis. Autocalibration using a single standard solution prepared in deionized water by flow programming is applied to the determination of phosphate in sea waters of different salinities. Talanta 253 (2023) 124041.

2024

M.Hatta, J.Ruzicka, C.Measures, M.Davis, Autocalibration based on dilution of a single concentrated standard is used for the determination of silicate in sea water by the modified molybdenum blue method. Talanta, 276, (2024),126183. https://doi.org/10.1016/j.talanta.2024.126183

In Press

Submitted

In progress

C. Measures, M. Hatta and M Grand.
Mineral dust deposition to the surface waters of the global ocean as recorded by the chemical imprint of dissolved aluminium from the CLIVAR cruises. To be submitted to Global Biogeochemical Cycles.

Invited Review Paper

Measures, C.I. and J.J. Wrench, Selenium in the Marine Environment (1983) prepared as a result of a request from the ICES Marine Chemistry Working Group.

Non reviewed publication:

Measures, C.I., Students find science smooth sailing, Malamalama, Magazine of the University of Hawaii system, Feb, 2004

Field Experience

June 1974, RRS Discovery, Barry - Freetown (4 weeks), Hydrographic sampling of North East Atlantic, molybdenum analyses.

November 1975, RRS Discovery, Barry - Tenerife (2 weeks), hydrographic sampling of North East Atlantic, selenium analyses.

November 1976, RRS Discovery, Barry - Tenerife (4 weeks), hydrographic sampling of North East Atlantic, selenium analyses using shipboard gas chromatography.

October 1977, RRS Discovery, Gibraltar - Barry (4 weeks), hydrographic sampling of Mediterranean plume, selenium analyses using shipboard gas chromatography.

March 1979, Diving Scientist, Research Submersible ALVIN, Galapagos Spreading Center, four dives, two as chief diver.

November 1979, Diving Scientist, Research submersible ALVIN, East Pacific Rise 21 N hydrothermal area, one dive as chief diver.

November 1981, Diving Scientist, Research submersible ALVIN, East Pacific Rise 21 N hydrothermal area, two dives, one dive as chief diver.

November 1983, R.V. Endeavor, Rhode Island - Panama (2 weeks) hydrographic sampling, shipboard gas chromatography determinations of beryllium, aluminium and selenium.

May 1984, Diving Scientist, Research submersible ALVIN, East Pacific Rise 13 N hydrothermal area, three dives, one as chief diver.

August 1984, R.V. Endeavor, Rhode Island-Bermuda (2 weeks) hydrographic sampling, shipboard gas chromatography determinations of aluminum, selenium, and beryllium.

May 1985, R.V. Thompson, Midway - Nagasaki (5 weeks) hydrographic sampling, shipboard gas chromatography determinations of selenium, beryllium and chromium.

August 1985, Diving Scientist, Research submersible ALVIN, Guaymas Basin (3 weeks) hydrothermal area, one dive as chief diver.

May 1986, R.V.Knorr, Woods Hole (4 weeks) Western Boundary Experiment. Hydrographic sampling, shipboard gas chromatography.

October 1986, USNS Lynch, Rota (1 week) hydrographic sampling of the Alboran Sea and the Gulf of Cadiz, shipboard gas chromatography.

March 1987, R.V.Endeavor, Rhode Island-Maine (2 weeks), hydrographic sampling of the shelf and Sargasso waters, shipboard gas chromatography.

January 1988, R.V. Knorr, Rio de Janeiro- Abidjan SAVE Leg 3 (6.5 weeks) South Atlantic hydrographic sampling and shipboard gas chromatography.

March 1988, R.V. Knorr, Cadiz-Izmir (2 weeks), Mediterranean hydrographic sampling and shipboard gas chromatography.

June 1988, F.S. Polarstern, Reykjavik-Tromsoe (4 weeks), Greenland Sea project in ice census, hydrographic and ice floe sampling, shipboard gas chromatography.

May 1989, F.S. Polarstern, Tromsoe-Tromsoe (3 weeks), Greenland Sea project in ice census, hydrographic and ice floe sampling, shipboard gas chromatography.

March 1990, F.S Meteor, Capetown-Funchal (5 weeks), South Atlantic hydrographic sampling and shipboard gas chromatography.

June 1991, R. V. Vershagin, Siberia, USSR (2 weeks), Lake Baikal Expedition to investigate the formation of deep water and the distribution of trace elements, shipboard gas chromatography.

June 1992, R.V. Moana Wave, Hawaii Ocean Time Series, 5 days, shipboard iron determinations.

October 1992, R.V. Moana Wave, Hawaii Ocean Time Series, 5 days, shipboard aluminium determinations.

May 1993, R.V. Moana Wave, Hawaii Ocean Time Series, 5 days, shipboard aluminium determinations.

August 1993, CSS Hudson, Intergovernmental Oceanographic Commission expedition to characterise the trace element composition of the overflow waters of the North Atlantic, 30 days, cruise planning and execution, on board determination of iron and aluminium.

February 1994, R.V. Moana Wave, Hawaii Ocean Time Series, 5 days, shipboard aluminium determinations.

July -September 1994, CCGS Louis S. St-Laurent, First trans-arctic expedition, Nome Alaska-Halifax Nova Scotia, on board determination of dissolved iron and aluminium. Collection of snow samples from ice floes.

November 1995, R.V. Moana Wave, Hawaii Ocean Time Series, 5 days, towed surface sampler, shipboard aluminium and iron determinations.

Jan-Feb 1995 R.V. T.G.Thompson, JGOFS process cruise #1, Indian Ocean, 28 days, on board determination of iron, aluminium, towed surface sampling.

May -June 1996 RV Knorr, Intergovernmental Oceanographic Commission expedition to characterise the trace element composition of the South West Atlantic, on board determination of iron, aluminium, towed surface sampling. Cruise planning and executrion, on board hydrography.

August, 1997 CCGS Louis S. St. Laurent, Joint Ocean Ice Studies, conduct a modern hydrographic tracer and current profiling study of the Canadian Archipeligo outflow. On board dissolved Al determinations.

September, 1997 R.V.Revelle, installation and testing underway sampling system for trace elements, Tropical North Pacific.

November 1997-Jan 1998 RV Revelle, US Southern Ocean JGOFS Process study 1. Onboard determination of Fe and Al, South Pacific Polar Frontal region.

February 1998- March 1998 RV Revelle, US Southern Ocean JGOFS Process study 2. Onboard determination of Fe and Al, South Pacific Polar Frontal region.

May, 20002 RV Melville. Intergovernmental Oceanographic Commission cruise to the western Pacific. Goals to characterise surface water trace elements distributions in the region of the HNLC region of the NW Pacific and relate them to atmospheric dust deposition maps of the region.

June 2003-Aug 2003 RV R Brown, Atlantic Ocean CLIVAR A16N. On board determinations of Fe and Al transect from Iceland to Brazil.

October 8th 2003. RV Kilo Moana, Honolulu. Faculty advisor for 24hr student cruise demonstrating oceanographic sampling methods etc. to Global Environmental Science undergraduate degree students

February 12th 2004-March 23rd 2004 RV Gould, Punta Arenas. Drake Passage On board determination of dissolved Al, Fe and Mn to determine effect of shelf waters in adding Fe to Antarctic circumpolar waters.

June15 th 2004 - July 28 th 2004 RV Melville, Yokohama, Japan - Honolulu at 30N. CLIVAR P2. On board determinations of Fe and Al.

October 14th 2004 to November 8th2004, RV Melville, Honolulu-San Diego, SAFe intercalibration cruise

December 3rd 2004-Jan 2nd, 2005, RV Revelle, San Diego-Papeete, Tahiti, Equatorial Biocomplexity cruise

Jan 9, 2006-Feb 20th, 2005 RV Revelle, Papeete, Tahiti-Wellington, New Zealand, CLIVAR, Repeat Hydrography P16S cruise

August31, 2005-October2nd2005 RV Revelle, Honolulu-San Diego Equatorial Biocomplexity cruise.

February13th 2006, March3rd 2006, RV Thompson, Papeete, Tahiti-Honolulu Hawaii, CLIVAR, Repeat Hydrography P16N leg 1.

July 3rd-August 15th, 2006. RV Palmer, Punta Arenas-Punta Arenas, collaborative research, Drake Passage, Antarctica.

Feb 4th -March 18th, 2007 RV Revelle, Dunedin, New Zealand-Freemantle, Australia, CLIVAR Repeat Hydrography, I8S.

Feb 4th -March 17th, 2008 RV Revelle, Durban, South Africa-Cape Town, South Africa CLIVAR Repeat Hydrography, I6S.

March 20-May 15, 2009, RV Revelle, Cape Town, South Africa-Fremantle, Australia, CLIVAR Repeat Hydrography, I5.

November 21, 2009-Jan 2nd 2010, RV Melville, Brisbane, Australia - Papeete, Tahiti, CLIVAR Repeat Hydrography P6

October, 2010 RV Knorr, Lisbon, Portugal - Mindelo, Cape Verde Islands, GEOTRACES N Atlantic Section.

January 19, 2010-Feb15, 2011 McMurdo Antarctica-McMurdo, Antarctica. Ross Sea process study.

Feb 20, 2011- April 25, 2011, McMurdo Antarctica-Punta Arenas, Chile. CLIVAR Repeat Hydrography, S4P

Nov 5, 2011-Dec 11, 2011, RV Knorr, Woods Hole-Cape Verde Islands, US GEOTRACES N Atlantic section completion.

Dec 23, 2013-Feb 5, 2014, Recife, Brazil-Punta Arenas, Chile, CLIVAR Repeat Hydrography, A16S

August 9-Oct 12, 2015 US GEOTRACES Arctic Cruise, Dutch Harbor-Dutch Harbor.

April 23-May 3, 2023, EV Nautilus, Honolulu-Honolulu, Hadal sampler testing.

September 22-25, 2023, RV Kilo Moana, Honolulu-Honolulu, Hadal Sampler testing.

November 14-17, 2023, RV Kilo Moana, Honolulu-Honolulu, Hadal Sampler testing.

RESEARCH INTERESTS

Development and implementation of novel analytical chemistry techniques for the underway determination of trace elements and nutrients on board ship using: gas chromatography, flow injection analysis and development of new programmable flow injection methods for use at sea. Use of these and other techniques to develop large-scale surface water trace element distributions to identify and quantify dust deposition to the surface oceans and its biogeochemical consequences. Use of trace elements to identify and trace biogeochemical and physical pathways in the oceans. Determination of the chemical abundance of key trace elements in other natural materials e.g. rivers, rain, hydrothermal fluids and the aqueous digests of rocks etc., to develop a holisitc understanding of global geochemical cycles. Development of a Hadal profiler capable of reaching the bottom of the oceans trenches and collecting water samples within the trenches to constrain our understanding of their ventilation mechansims

Service activities

University

Chair of the Manoa Faculty Senate's Committee on Administration and Budget September 2017-retirement
Senator, Manoa Faculty Senate May 2017-2108
Member, All Campus Council of Faculty Senate Chairs, August 2016-2017.
Chair, SOEST Faculty Senate, July 2016-December 2018.
Member TPRC Dec 2015-Feb 2016
Co-chair, University of Hawaii Ethics Committee March 2014-2023
Chair, University of Hawaii Ethics Committee June 2010-March 2014
Member Department Personnel committee AY 2009
Member Department Curriculum committee Fall 2008
Member University Ethics committee 2009-2024
Recipient Oceanography Department's Excellence in undergraduate teaching award, June, 2007
Chair, Special University TPRC November, 2006
Member of the Council on program review ad hoc sub committee (November, 2006)
Member of the Council on program review (August 2006)
Chair COPR review team Department of Civil Engineering, Fall 2003
Member University Workplace Safety Committee 8/01 – 5/03
Chair Faculty grievance committee (FACAF) Fall 02
Member faculty advisory group on University accreditation 8/02-03/03
Member working group UH Manoa strategic plan 2002
Chair merit pay recommendations committee for Oceanography Spring 02
Chair Department of Oceanography 7/01-6/03
Chair sub committee task force on program review reform (Sept 2002)
Member of the Council on program review (August 2000-May 2003)
Member Oceanography Department Personnel Committee (August 2000-left when elected Dept Chair)
Member of the University Task Force on enrollment (August 1999-March 2000)
Member of the University Budget and Planning committee (July 1999- May 2000)
Member of the Faculty Senate Executive committee (June 1999- May 2000)
Secretary to the Faculty Senate (June 1999- May 2000)
Faculty senate sub-committee on tuition reimbursement (Oct 98-May 2000)
Faculty Senate liaison to CAB (August 1999-May 2000)
Faculty Senate Committee on Administration and Budget (CAB) (August 98-May 2000)
Faculty Senate (August 98-May 2000)
Member Oceanography Department Personnel Committee (August 1998-1999)

Community

Science Judge Pacific Symposium for Science and sustainability Jan, 2016-19
Outreach lecture Waldorf School Jan 11, 2016
Outreach lecture Mid Pac 20 Nov, 2015.
Science Judge Pacific Symposium for Science and sustainability 12/08
Board member, Hawaii Academy of Sciences 2008-10
Science Fair Judge, April, 2007, April 2010

Science Judge Pacific Symposium for Science and sustainability 12/06
Guest Speaker Pacific Symposium for Science and Sustainability, 12/ 06
Science Fair judge April 2004
Mentor for High School science project participant Dec-Jan 03/04
Science Judge NOSB Hawaii regional competition 02/03
Science Judge Pacific Symposium for Science and sustainability 02/03
Reviewer High School science projects for P3 01/03
Science Judge Pacific Symposium for Science and sustainability 02/02
Reviewer High School science projects for P3 01/02
Science Fair judge April 2000
Reviewer of project reports of the finalists for the 1999 High School science projects.
Mentor for High School science project participant Jan/Feb 96

National and International

Chair UNOLS Oct 2014-Dec, 2016; Council member and Past Chair UNOLS Dec 2016-2018
Invited speaker, Gordon Research Conference, Maine, August, 2013
Chair-elect UNOLS October, 2012-14
Member external advisory committee Xiamen University New Research Vessel XNV project 2012-2013
Member US GEOTRACES Scientific Steering Committee 2012- July, 2017
Reviewer National Academy of Sciences report "Science at Sea"
Member of the external advisory committee of Korea Institute of Ocean Science and Technology (KIOST-formerly KORDI) 2010-present.
External reviewer Korean Ocean Research and Development Institute, October, 2009
Invited speaker Korean Ocean Research and Development Institute, May 2009.
Member UNOLS Data Management Best Practices Subcommittee, August, 2007
Invited speaker, Gordon Research Conference, Tilton NH, August, 2007
Organiser, GEOTRACES Pacific Basin Planning Workshop, Honolulu, HI June 26-29, 2007
Co-Chair Data Management Sub Committee International GEOTRACES Science Steering Committee December 2006-2014)
Member of the International Science Steering Committee of GEOTRACES September 2006-November 2009)
Invited Speaker, Istituto Scienze Marina, Bologna, Italy, 25 May, 2006
Invited Speaker, Consiglio Nazionale delle Ricerche, Bologna, Italy, April, 28, 2006
Invited Speaker, Istituto Scienze Marina, Bologna, Italy,25 January, 2006
Invited Speaker Oxford University, UK, October, 31st, 2005
Invited Speaker, University of East Anglia, UK October 24th, 2005
Co-Chair Data Management sub committee GEOTRACES planning group April 2004-January 2005)and co-convenor of the data management workshop, Liverpool, UK, November, 2005.
Invited speaker , GEOTRACES session, TOS meeting Paris, June 2005
Associate member of the SCOR working group to write the GEOTRACES Science Plan 2003-2006
Invited participant (associate member) SCOR GEOTRACES Working Group Oxford, UK June 2004
Invited speaker US GEOTRACES planning workshop, LDEO, May 22-25 2004.
Invited speaker Caltech seminar series April 14th, 2004.
Member of the Polar Research Vessel Science Steering Committee (design phase) December 2003-present.
Member of the Arctic Research Vessel Oversight Committee December 2003- present
Invited speaker GEOSECS II international conference, Toulouse, France, to launch new geochemical oceanographic initiative.
Member of NSF Chemical Oceanography panel 11/02.
Co-author of report "Marine Science in the Arctic: A Strategy" Prepared for the Office of Polar Programs of the NSF, March 1999.
Member of NSF panel for shipboard technical support Jan 2000.
Co-author of the UNOLS FIC Biennial Review of sea going oceanographic facilities.
Member of the UNOLS Fleet Improvement Sub-committee, September 1998-2004.

Funded research grants 2009-present

National Science Foundation.
Proposal Title: Collaborative Research: Modified Circumpolar Deep Water intrusions as an iron source to the summer Ross Sea ecosystem
$ 377,636 Funded P.I. C.I.Measures Period 6/01/09-5/31/13

National Science Foundation.
Proposal Title: Collaborative Research: GEOTRACES N Atlantic Section, shipboard and shorebased determination of key trace elements.
$200,286 Funded PI C. I Measures co PI J. Wu Period: 04/01/10-03/31/13

National Science Foundation.
Proposal Title: Logistical support for the continuation of the US GEOTRACES N Atlantic Basin section (shipboard trace elements). $36,248 Funded PI C. I Measures Period 06/16/2011-04/12/2011

National Science Foundation.
Proposal Title: Physical Oceanography Dissertation Symposium VI and VII
$276,040 Funded PI A. Nye co PIs K Selph, C.I. Measures
Period 09/17/2009 -09/16/2012

National Science Foundation.
Proposal Title: Dissertations in Chemical Oceanography XXII and XXIII
$280,257 Funded PI A. Nye co PIs K Selph, C.I. Measures
Period 01/15/2010-12/31/2013

National Science Foundation.
Proposal Title: Development of sequential injection analysis (SIA) techniques for trace element determinations in oceanography
$296,379 Funded PI C.I. Measures co PI J Ruzicka
Period 03/05/2009-03/04/2012

National Science Foundation.
Proposal Title: Collaborative Research: Global Ocean Survey of Dissolved and Iron and Aluminum and Aerosol Iron and Aluminum Solubility Supporting the CLIVAR/Repeat Hydrography Project (2010-2013)
$509,235 Funded PI C.I. Measures Period 01/01/10-12/31/13

National Science Foundation.
Proposal Title: Automated instrumentation for chemical oceanography based on sequential injection lab-on-valve technology
$408,583 Funded PI C.I. Measures co PI J Ruzicka Period 07/01/12-06/30/15

National Science Foundation.
Proposal Title: Collaborative on Oceanographic Chemical Analysis (COCA)
$49,965 Funded PI C.I. Measures co PI J Ruzicka Period 07/01/12-06/30/13

National Science Foundation.
Proposal Title: Dissertations in Chemical Oceanography XXIV and XXV
$279,184 Funded PI A. Nye co PIs K Selph, C.I. Measures Period 01/01/14-12/31/16

National Science Foundation.
Proposal Title: Physical Oceanography Dissertation Symposium VIII and VII
$279,184 Funded PI A. Nye co PIs K Selph, C.I. Measures Period 01/01/14-12/31/16

National Science Foundation.
Proposal Title: GEOTRACES Arctic Section: Shipboard determination of key trace elements
$366,783 Funded PI C.I. Measures co PI M. Hatta Period 01/01/15-12/31/17

National Science Foundation.
Automated instrumentation for chemical oceanography based on sequential injection lab-on-valve technology
$534,389 Funded
Period 08/01/16-07/31/19
PI C.I. Measures co PI M. Hatta, J Ruzicka

W.M. Keck Foundation
Hadal Water Column Profiler
Period 7/1/17-6/30/20
$1,200,000 Funded
PI G Carter, co PIs J. Drazen, B. Howe, C.I. Measures.

National Science Foundation.
Project/Proposal Title:
US GEOTRACES PMT: Shipboard determination of key trace elements
Period 11/01/17-10/31/20
$438,766 Funded PI M. Hatta co PI C.I. Measures

National Science Foundation.
Proposal Title: Physical Oceanography Dissertation Symposium VIII and VII
$ 320,750 Funded PI K. Selph, co PI C.I. Measures Period 09/01/17-08/31/20

National Science Foundation.
Proposal Title: Dissertations in Chemical Oceanography XXIV and XXV
$320,750 Funded PI K. Selph, co PI C.I. Measures Period 09/01/17-08/31/20

National Science Foundation,
Collaborative Research (UH is lead Institution): Developing Automated Nutrient and Trace Metal Methodology using Programmable Flow Injection.
$ 523,836. 2019-2022
Hatta PI, Measures, Ruzicka co-PIs.

National Science Foundation,
Collaborative Research: Exploring the Kermadec Trench — Residence time, spatial gradients, and insights into ventilation.
2023/11/01 - 2026/10/31
UH portion $1,183,856
Total: $2,354,441
Carter, PI, Hatta and Measures co PIs