

Angel Ruacho

Geosciences of the Earth and Oceans, Scripps Institution of Oceanography;
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Education

- 2014 Master of Science: Earth Sciences, University of California, San Diego
2011 Bachelor of Science (Cum Laude): Earth and Environmental Science, Minor: Global Sustainability, University of California, Irvine

Grants, Fellowships, and Honors

- 2013 National Science Foundation Graduate Research Fellowship
2013 Ford Pre-Doctoral Fellowship Alternate
2012 Eugene Cota-Robles Fellowship
2012 Ford Pre-Doctoral Fellowship Honorable Mention
2012 Undergraduate Research/Departmental Service Award, UCI Earth System Science
2012 Phi Beta Kappa, UCI
2010 UCI Undergraduate Research Opportunities Program, Research Grant
2007 UCI Chancellor's Excellence Scholarship

Research Experience

- 2012-Present Graduate Student Researcher, Marine Chemistry,
 Scripps Institution of Oceanography, (Adviser: Kathy Barbeau)
2010-2011 Undergraduate Research Assistant, Biogeochemical modeling,
 University of California, Irvine (Adviser: Francois Primeau)
2011 NSF-REU Undergraduate Researcher, Bigelow Laboratory for Ocean Science
 (Advisers: Benjamin Twining, Jochen Neuster)
2009 Undergraduate Lab Assistant, Earth System Science Accelerator Mass Spectrometer Lab,
 University of California, Irvine

Field Experience

- 2018 February R/V Sally Ride; Benthic Boundary Layer III, Student Cruise (Chief Scientist)
2016 April R/V Sikuliaq; P1604: El Niño Rapid Response California Current Ecosystem Long Term Ecological Research Cruise, CCE-LTER
2015 July R/V Oceanus; Oc1507b: California Current Ecosystem Long Term Ecological Research Cruise, CCE-LTER, Student Cruise (Chief Scientist)
2014 August R/V Melville; P1408: California Current Ecosystem Long Term Ecological Research Cruise, CCE-LTER
2012 August R/V Melville; P1208: California Current Ecosystem Long Term Ecological Research Cruise, CCE-LTER
2012 February R/V Roger Revelle; RR1202: Great Belt II Calcite Cruise, Southern Ocean

Publications

Boiteau, R.M., Till, C.P., **Ruacho, A.**, Bundy, R.M., Hawco, N.J., McKenna, A.M., Barbeau, K.A., Bruland, K.W., Saito, M.A. and Repeta, D.J., 2016. Structural characterization of natural nickel and copper binding ligands along the US GEOTRACES Eastern Pacific Zonal Transect. *Frontiers in Marine Science*, 3, p.243.

Stukel, M.R., Aluwihare, L.I., Barbeau, K.A., Chekalyuk, A.M., Goericke, R., Miller, A.J., Ohman, M.D., **Ruacho, A.**, Song, H., Stephens, B.M. and Landry, M.R., 2017. Mesoscale ocean fronts enhance carbon export due to gravitational sinking and subduction. *Proceedings of the National Academy of Sciences*, 114(6), pp.1252-1257.

Presentations

“Photochemical Degradation of Copper Ligands in the California Current”, Association for the Science of Limnology and Oceanography Ocean Sciences Meeting, Portland, OR, February 12, 2018

“Anthropogenic Copper and Copper-Binding Ligands in San Diego Bay”, Association for the Science of Limnology and Oceanography Aquatic Sciences Meeting, Honolulu, HI, March 2, 2017

“Copper Speciation Results From the U.S. GEOTRACES Eastern Tropical South Pacific Cruise”, Association for the Science of Limnology and Oceanography Ocean Sciences Meeting, New Orleans, LA, February 23, 2016 (poster)

“US GEOTRACES Eastern Tropical Pacific Zonal Transect: Copper Speciation Eastern Section”, US GEOTRACES Pacific cruise (GP16) data workshop, Santa Catalina Island, CA, November 10, 2015

“Copper speciation in the U.S. GEOTRACES Equatorial Pacific Zonal Transect: Initial results and tests”, Scientific Committee on Oceanic Research (SCOR) Working Group 139 Symposium, Sibenik, Croatia, April 10, 2015

“Gradients in strong and weak organic copper binding ligands in the eastern tropical South Pacific”, American Geophysical Union, San Francisco, CA, December 16, 2014 (Poster)

“Trends in metal limitation of phytoplankton and coccolithophores along the “Great Calcite Belt” in the Southern Ocean”, Association for the Science of Limnology and Oceanography Aquatic Sciences Meeting, New Orleans, LA, February 19, 2013 (Poster)

“Iron Binding Ligand Production through Copepod Grazing”, Bigelow Laboratory for Ocean Sciences, REU Symposium, West Boothbay, ME, August 2, 2011

“Controls on the Attenuation of Particulate Organic Carbon”, Undergraduate Research Opportunities Program Symposium, Irvine, CA, May 14, 2011

“Controls on the remineralization depth profile of particulate organic carbon in the ocean”, American Society of Limnology and Oceanography Aquatic Sciences Meeting, San Juan, PR, February 15, 2011 (Poster)

Mentoring, Teaching, and Outreach

2018 TA Aqueous Chemistry (Spring quarter)

2015 Mentee: Raul G. Martinez; CCE REU

2012-2015 Fallbrook Elementary School District UCSD Pen Pal Program

2010-2011 Math Tutor, Godinez Fundamental High School, Santa Ana, CA

Memberships

2010-Present Association for the Science of Limnology and Oceanography, ASLO