

## **Zunli Lu**

Address: 310 Heroy Geology Lab, Syracuse University, Syracuse, NY, 13244

Office: (315) 443-0281

Email: [zunlilu@syr.edu](mailto:zunlilu@syr.edu)

SU webpage: <http://thecollege.syr.edu/people/faculty/pages/ear/Lu-Zunli.html>

Google Scholar: <https://goo.gl/w323im>

## **EDUCATION AND EMPLOYMENT**

- 2017-            Department of Earth Sciences, Syracuse University  
Associate Professor
- 2011-2017    Department of Earth Sciences, Syracuse University  
Assistant Professor
- 2008-2011    Department of Earth Sciences, University of Oxford  
Post-doctoral Research Associate  
“Ikaite as a paleo-environmental proxy” Advisor: Ros Rickaby
- 2005-2008    Department of Earth and Environmental Sciences, University of Rochester  
Ph.D.            “Halogen and I-129 Systematics in Gas Hydrate Fields: Implications for the  
Transport of Iodine and Methane in Active Margins” Advisor: Udo Fehn
- 2003-2005    Department of Earth and Environmental Sciences, University of Rochester  
M.S.            Geological Sciences
- 1998-2002    Department of Earth Sciences, Nanjing University  
B.S.            Geochemistry

## **FUNDING**

- “Acquisition of a Multi-Sensor Core Logger for Syracuse University” 2019-2021, NSF EAR \$291,825 (Melissa Chipman, Tripti Bhattacharya, Christopher Junium, Zunli Lu [co-PI], Christopher Scholz)
- “The fate and impact of halogens in dynamic water environment” 2018-2019, CUSE Grant \$29,940 (Zunli Lu [PI], co-PI Kristina Gutchess, Christa Kelleher, Teng Zeng, Li Jin)
- “Collaborative Research: Refining foraminiferal I/Ca as a paleoceanographic oxygenation proxy for the glacial Atlantic Ocean” 2017-2020, NSF OCE \$423,739 (Zunli Lu [PI] \$300,538; Andy Ridgwell UC-Riverside \$63,938; Ellen Thomas Yale \$59,263)
- “Seasonality, Summer Cooling, and Calibrating the Approach of the Icehouse in Late Eocene Antarctica” 2016-2018, NSF PLR \$312,182 (Linda Ivany Syracuse University, Scott Samson, Zunli Lu [co-PI], Christopher Junium)
- “Collaborative Research: Iodine-Calcium Ratios in Modern Carbonate Sediments: Developing a Novel Proxy for Evolving Surface Oxygenation in Precambrian Oceans” 2014-2016, NSF EAR \$319,989 (Lu [PI] \$139,989; Tim Lyons UC-Riverside \$180,000)
- “Collaborative Research: Consequences of sub-lethal hypoxia exposure for teleosts tracked with biogeochemical markers: a trans-basin comparison” 2014-2017, NSF OCE \$588,748 (Ben Walther TAMU \$257,960; Karin Limburg SUNY ESF \$283,564; Lu [PI] \$47,224)

- “Collaborative Research: Iodine in foraminifera as a proxy for ocean deoxygenation during the Paleocene- Eocene Thermal Maximum” 2012-2016, NSF OCE \$399,479 (Lu [PI] \$270,454; Ellen Thomas Yale University \$150,929)
- “Early Career: Acquisition of an Isotopic Liquid-Water Analyzer for Hydrology and Earth Science Research and Education at Syracuse University” 2012-2013, NSF EAR \$88,098 (Laura Lautz Syracuse University, Zunli Lu [co-PI], Gregory Hoke)
- “RAPID: Developing sensitive tests for detecting water chemistry changes associated with shale bed methane production in the Appalachian Basin” 2013-2015, NSF EAR \$95,574 (Laura Lautz, Syracuse University, Zunli Lu [co-PI], Donald Siegel, Scott Samson, Gregory Hoke)

**PUBLICATIONS (\*Student authors; † corresponding author):**

50. †**Lu, Z.**, \*Lu, W., Rickaby, R.E.M., and Thomas, E., 2020, “Earth history of oxygen and the iprOxy”, (Elements in Geochemical Tracers in Earth System Science). Cambridge: Cambridge University Press.
49. \*He, R., \*Lu, W., Junium., C.J., Ver Straeten, C.A., †**Lu, Z.**, 2020, “Paleo-redox context of the Mid-Devonian Appalachian Basin and its relevance to biocrises”. *Geochimica et Cosmochimica Acta*. *In press*.
48. \*Lu, W., Rickaby, R.E.M., Hoogakker, B.A.A., Rathburn, A.E., Burkett, A.M., Dickson, A.J., Martínez-Méndez, G., Hillenbrand, C.D., Zhou, X., Thomas, E., and †**Lu, Z.**, 2020, “I/Ca in epifaunal benthic foraminifera: a semi-quantitative proxy for bottom water oxygen in a multi-proxy compilation for glacial ocean deoxygenation”. *Earth and Planetary Science Letters*, v. 533, 116055.
47. \*Lu, W., Dickson, A.J., Thomas, E., Rickaby, R.E.M., Chapman, P., †**Lu, Z.**, 2020, “Refining the planktic foraminiferal I/Ca proxy: results from the Southeast Atlantic Ocean”. *Geochimica et Cosmochimica Acta*. *In press*.
46. Liu, J., Luo, G., †**Lu, Z.**, \*Lu, W., Qie, W., Zhang, F., Wang, X., Xie, S., 2019, “Intensified ocean deoxygenation during the end Devonian mass extinction”. *Geochemistry, Geophysics, Geosystems*. 20. <https://doi.org/10.1029/2019GC008614>
45. Hoogakker, B.A.A., †**Lu, Z.**, Umling, N., Jones, L., \*Zhou, X., Rickaby, R.E.M., Thunell, B., Cartapanis, O., Galbraith, E., 2018, “Glacial expansion of oxygen-depleted seawater in the eastern tropical Pacific”. *Nature*, 562, 410–413.
44. \*Lu, W., Ridgwell, A., Thomas, E., Hardisty, D. S., Luo, G., Algeo, T. J., Saltzman, M. R., Gill, B. C., Shen, Y., Ling, H.-F., Edwards, C. T., Whalen, M. T., \*Zhou, X., Gutchess, K. M., Jin, L., Rickaby, R. E. M., Jenkyns, H. C., Lyons, T. W., Lenton, T. M., Kump, L. R., and †**Lu, Z.**, 2018, “Late inception of a resiliently oxygenated upper ocean”. *Science*, v. 361, no. 6398, p. 174.
43. \*Gutchess, K.M., Jin, L., Ledesma, J., Crossman, J., Kelleher, C., Lautz, L.K., †**Lu, Z.**, 2017, “Long-term climatic and anthropogenic impacts on stream water salinity in New York State: INCA simulations offer cautious optimism”. *Environmental Science & Technology*, DOI: 10.1021/acs.est.7b04385
42. \*Lu, W., Zhao, W., Balsam, W., Lu, H., Liu, P., **Lu, Z.**, & Ji, J., 2017. “Iron mineralogy and

- speciation in clay-sized fractions of Chinese desert sediments”. *Journal of Geophysical Research: Atmospheres*, 122.
41. Z. Levy, C. T. Mills, **Z. Lu**, M. B. Goldhaber, D. O. Rosenberry, D. M. Mushet, L. K. Lautz, \*X. Zhou, and D. I. Siegel., 2018, “Using halogens (Cl, Br, I) to understand the hydrogeochemical evolution of drought-derived saline porewater beneath a prairie wetland”. *Chemical Geology* 476, 191-207.
  40. Edwards, C., Fike, D.A., Saltzman, M.R., \*Lu, W., and †**Lu, Z.**, 2018, “Evidence for local and global redox conditions at an Early Ordovician (Tremadocian) mass extinction”. *Earth and Planetary Science Letters* 481, 125-135.
  39. \*Lu, W., Wörndle, S., Halverson, G.P., \*Zhou, X., Bekker, A., Rainbird, R.H., Hardisty, D.S., Lyons, T.W., and †**Lu, Z.**, 2017, “Iodine proxy evidence for increased ocean oxygenation during the Bitter Springs Anomaly”. *Geochemical Perspectives Letters*
  38. \*Zhou, X., Jenkyns, H. C., \*Lu, W., Hardisty, D. S., Owens, J. D., Lyons, T. W., and †**Lu, Z.**, 2017, “Organically bound iodine as a bottom-water redox proxy: preliminary validation and application”. *Chemical Geology*, 457, 95-106.
  37. Hardisty, D.S., **Lu, Z.**, Bekker, A., Diamond, C.W., Gill, B.C., Jiang, G., Kah, L.C., Knoll, A.H., Loyd, S.J., Osburn, M.R., Planavsky, N.J., Wang, C., \*Zhou, X., Lyons, T.W., 2017 Perspectives on Proterozoic surface ocean redox from iodine contents in ancient and recent carbonate. *Earth and Planetary Science Letters* 463, 159-170.
  36. Owens, J.D., Lyons, T.W., Hardisty, D.S., Lowery, C., **Lu, Z.**, Lee, B., and Jenkyns H.C., 2017. “Patterns of local and global redox variability during the Cenomanian–Turonian Boundary Event (OAE 2) recorded in carbonates and shales from central Italy”. *Sedimentology*. doi:10.1111/sed.12352.
  35. \*Zhou, X., Thomas, E., Winguth, A., Ridgwell, A., Scher, H., Rickaby, REM, and †**Lu, Z.**, 2016. “Expanded oxygen minimum zones during the late Paleocene - early Eocene: hints from multi-proxy comparison and ocean modeling”. *Paleoceanography*, 31, doi:10.1002/2016PA003020.
  34. \*Gutchess, K.M., Jin, L., Lautz, L.K., Shaw, S.B., \*Zhou, X., †**Lu, Z.**, 2016, “Chloride sources in urban and rural headwater catchments, central New York”. *Science of the Total Environment*, 565, 462–472.
  33. †**Lu, Z.**, Hoogakker, B.A.A., Hillenbrand C.D., \*Zhou, X., Thomas, E., \*Gutchess, K., \*Lu, W., Jones, L., Rickaby, R.E.M., 2016, “Oxygen depletion recorded in upper waters of the glacial Southern Ocean”. *Nature Communications*, 7:11146 doi: 10.1038/ncomms11146.
  32. Christian, K.M., Lautz, L.K., Hoke, G.D., Siegel, D.I., **Lu, Z.**, Kessler, J., 2015 “Methane occurrence is associated with sodium-rich valley waters in domestic wells overlying the Marcellus Shale in New York State”. *Water Resources Research*, 52, 206–226, doi:10.1002/2015WR017805.
  31. Jin, L., Edmunds, M.W., **Lu, Z.**, Ma, J., 2015 “Geochemistry of sediment moisture in the Badain Jaran desert: Insights into palaeo-environmental changes and water rock interaction”. *Applied Geochemistry*, 63, 235-247.

30. \*Zhou, X., Jenkyns, H.C., Owens, J.D., Junium, C.K., Zheng, X., Sageman, B.B., Hardisty, D.S., Lyons, T.W., Ridgwell, A., and †**Lu, Z.**, 2015, “The I/Ca proxy and upper ocean oxygenation dynamics across the Cenomanian–Turonian OAE 2”. *Paleoceanography*, 30, 510–526. doi:10.1002/2014PA002741. Cover story for that issue.
29. \*Zhou, X., **Lu, Z.**, Rickaby, R.E.M., Domack, E., and Wellner, J., 2015, “Ikaite abundance controlled by porewater phosphorus level: implications for extensive glendonite deposits”. *Journal of Geology*, Vol. 123, No. 3, pp. 269-281
28. †**Lu, Z.**, \*Hummel, S.T., Lautz, L.K., Hoke, G.D., \*Zhou, X., Leone, J., and Siegel, D.I., 2015, “Iodine as a sensitive tracer for detecting influence of organic-rich shale in shallow groundwater”. *Applied Geochemistry*, Vol. 60, pp. 29–36.
27. \*Zhou, X., Thomas, E., Rickaby, R.E.M., Winguth, A.M.E., and †**Lu, Z.**, 2014, “I/Ca evidence for upper ocean deoxygenation during the Paleocene - Eocene Thermal Maximum (PETM)”. *Paleoceanography*, DOI: 10.1002/2014PA002702.
26. Lautz, L.K., Hoke, G.D., **Lu, Z.**, Siegel, D.I., Christian, K., Kessler, J.D., and Teale, N.G., 2014, “Using Discriminant Analysis to Determine Sources of Salinity in Shallow Groundwater Prior to Hydraulic Fracturing”. *Environmental Science & Technology*, 48 (16), 9061-9069.
25. Hardisty, D.S., **Lu, Z.**, Planavsky, N.J., Bekker, A., Philippot, P., \*Zhou, X. and Lyons T.W., 2014, “An iodine record of Paleoproterozoic surface ocean oxygenation”. *Geology*, G35439. 1.
24. Limburg, K.E., Walther, B.D., **Lu, Z.**, Jackman, G., Mohan, J., Weber, P.K., Schmitt, A.K., 2015, “In search of the dead zone: use of otoliths for tracking fish exposure to hypoxia”. *Journal of Marine Systems*, 141, 167-178.
23. †**Lu, Z.**, 2013, Comment on “Iodine-129 and Iodine-127 Speciation in Groundwater at the Hanford Site, U.S.: Iodate Incorporation into Calcite”. *Environmental Science & Technology*, 47 (22), pp.13203–13204. DOI: 10.1021/es404049s
22. Jin, L., Whitehead, P.G., Futter, M.N. and **Lu, Z.**, 2012, Modeling the impacts of climate change on flow and nitrate of the River Thames: Assessing potential adaptation strategies. *Hydrology Research*, vol. 43, pp.902-916. doi: 10.2166/nh.2011.080
21. Jin, L., Siegel, D.I., Lautz, L.K., and **Lu, Z.**, 2012, Identifying streamflow sources during spring snowmelt using water chemistry and isotopic composition in semi-arid mountain streams. *Journal of Hydrology*, vol. 470–471, pp. 289–301
20. †**Lu, Z.**, Rickaby, R.E.M., Kennedy H., Kennedy, P., Shaw S., Lennie, A., Pancost, R.D., Wellner, J., and Anderson, J.B., 2011, An ikaite record of late Holocene climate at the Antarctic Peninsula. *Earth and Planetary Science Letters*, vol.325-326, pp. 108-115, doi:10.1016/j.epsl.2012.01.036
19. Küpper, F. C., Feiters, M. C., Olofsson, B., Kaiho, T., Yanagida, S., Zimmermann, M. B., Carpenter, L. J., Luther, G. W., **Lu, Z.**, Jonsson, M. and Kloo, L., 2011, Commemorating Two Centuries of Iodine Research: An Interdisciplinary Overview of Current Research. *Angewandte Chemie International Edition*, 50: 11598–11620.

doi: 10.1002/anie.201100028

18. †**Lu, Z.**, Tomaru, H., and Fehn, U., 2011, Comparison of iodine dates from mud volcanoes and gas hydrate occurrences: relevance for the movement of fluids and methane in active margins. *American Journal of Science*. Vol. 311, (632–650), DOI 10.2475/07.2011.03
17. †**Lu, Z.**, Jenkyns, H.C., and Rickaby, R.E.M., 2010, Iodine to calcium ratios in marine carbonate as a paleo-redox proxy during oceanic anoxic events. *Geology*, 38(12), 1107–1110.
16. †**Lu, Z.**, Rickaby, R.E.M., Wellner, J., Georg, B., Charnley, N., Anderson, J.B. and Hensen C., 2010. Pore fluid modeling approach to identify recent meltwater signals on the west Antarctic Peninsula. *Geochemistry, Geophysics, Geosystems*, 11, Q06017, Doi 10.1029/2009gc002949.
15. Scholz, F., Hensen, C., **Lu, Z.**, and Fehn, U., 2010. Controls on the I-129/I ratio of deep-seated marine interstitial fluids: 'Old' organic versus fissiogenic 129-iodine. *Earth and Planetary Science Letters*, 294(1-2), 27-36.
14. †**Lu, Z.**, Fehn U., Zhao X., Kieser W.E. and Tomaru H., 2010, Comparison of three chemical extraction methods for I-129 determinations: *Nuclear Instruments and Methods in Physics Research B*, 268, 952–955.
13. Tomaru, H., Fehn, U., **Lu, Z.**, Takeuchi, R., Inagaki, F., Imachi, H., Kotani, R., Matsumoto R., and Aoike, R., 2009, Dating of Dissolved Iodine in Pore Waters from the Gas Hydrate Occurrence Offshore Shimokita Peninsula, Japan: 129I Results from the D/V Chikyū Shakedown Cruise. *Resource Geology*, 59(4), 359-373.
12. Tomaru, H., **Lu, Z.**, Fehn, U., and Muramatsu Y., 2009, Origin of hydrocarbons in the Green Tuff region of Japan: <sup>129</sup>I results from oil field brines and hot springs in the Akita and Niigata Basins : *Chemical Geology*, v. 264, p. 221-231.
11. †**Lu, Z.**, Hensen, C., Fehn, U., and Wallmann, K., 2008, Halogen and <sup>129</sup>I systematics in gas hydrate fields at the northern Cascadia margin (IODP Expedition 311): Insights from numerical modeling: *Geochem. Geophys. Geosyst.*, 9, Q10006, doi:10.1029/2008GC002156.
10. †**Lu, Z.**, Tomaru, H., and Fehn, U., 2008, Iodine ages of pore waters at Hydrate Ridge (ODP Leg 204), Cascadia Margin: implications for sources of methane in gas hydrates: *Earth and Planetary Science Letters*, v. 267, p. 654-665.
9. †**Lu, Z.**, Hensen, C., Fehn, U., and Wallmann, K., 2007, Old iodine in fluids venting along the Central American convergent margin: *Geophysical Research Letters* 34, L22604, doi: 22610.21029/22007GL031864.
8. †**Lu, Z.**, Fehn, U., Tomaru, H., Elmore, D., and Ma, X., 2007, Reliability of <sup>129</sup>I/I ratios produced from small sample masses: *Nuclear Instruments and Methods in Physics Research B*, v. 259, p. 359-364.
7. Tomaru, H., **Lu, Z.**, Fehn, U., Muramatsu, Y., and Matsumoto, R., 2007 Age variation of pore water iodine in the eastern Nankai Trough, Japan: evidence for different methane sources in a large gas hydrate field: *Geology*, v.35, p.1015-1018.
6. Tomaru, H., **Lu, Z.**, Snyder, G.T., Fehn, U., Hiruta, A., and Matsumoto, R., 2007, Origin

- and age of pore waters in an actively venting gas hydrate field near Sado Island, Japan Sea: interpretation of halogen and  $^{129}\text{I}$  distributions: *Chemical Geology*, v. 236, p. 350-366.
5. Tomaru, H., Fehn, U., **Lu, Z.L.**, and Matsumoto, R., 2007, Halogen systematics in the Mallik 5L-38 gas hydrate production research well, Northwest Territories, Canada: Implications for the origin of gas hydrates under terrestrial permafrost conditions: *Applied Geochemistry*, v. 22, p. 656-675.
  4. Tomaru, H., Ohsawa, S., Amita, K., **Lu, Z.L.**, and Fehn, U., 2007, Influence of subduction zone settings on the origin of forearc fluids: Halogen concentrations and I- $^{129}\text{I}$  ratios in waters from Kyushu, Japan: *Applied Geochemistry*, v. 22, p. 676-691.
  3. Fehn, U., **Lu, Z.**, and Tomaru, H., 2006, Data Report:  $^{129}\text{I}$ /I ratios and halogen concentrations in pore water of Hydrate Ridge and their relevance for the origin of gas hydrates: A progress report: *Proceedings of the Ocean Drilling Program, Scientific Results*, v. 204.
  2. **Lu, Z.**, Ling, H.F., Zhou, F., Jiang, S., Chen, X., and Zhou, H., 2005, Variation of the Fe/Mn ratio of ferromanganese crusts from the Central North Pacific: implication for paleoclimate changes: *Progress in Natural Science*, v. 15, p. 530-537.
  1. Ling, H.F., Jiang, S.Y., Frank, M., Zhou, H.Y., Zhou, F., **Lu, Z.L.**, Chen, X.M., Jiang, Y.H., and Ge, C.D., 2005, Differing controls over the Cenozoic Pb and Nd isotope evolution of deepwater in the central North Pacific Ocean: *Earth and Planetary Science Letters*, v. 232, p. 345-361.

## INVITED TALKS

- 2021 Winter: Keynote, Fifth Xiamen Symposium on Marine Environmental Sciences, Xiamen, China
- 2020 Summer: Keynote, Fifth International Conference of Geobiology in 2020, Wuhan, China.
- 2020 Summer: Keynote, Geochemistry of the Earth's Surface, GES12 Conference (Zürich, Switzerland), "Earth history of oxygen and the iProxy"
- 2019 Fall: University of Rochester "Earth history of oxygen and the iProxy"
- 2018 Fall: GSA annual meeting "Developing iodine proxy for paleoceanographic reconstructions of redox conditions"
- 2018 Fall: Keynote, Ocean Deoxygenation Conference (Kiel, Germany), "Looking back into the future with a geochemical oxygenation proxy (I/Ca)"
- 2017 Fall: Texas A&M "Earth history of oxygen and the iProxy"
- 2017 Spring: Rutgers University "I/Ca as an oxygenation proxy: co-evolution of life and planet"
- 2016 Summer: Tongji University "I/Ca as an oxygenation proxy: Precambrian to Pleistocene"
- 2016 Summer: Xiamen University "I/Ca as an oxygenation proxy: co-evolution of life and planet"
- 2016 Summer: University of Science and Technology of China "I/Ca as an oxygenation proxy: co-evolution of life and planet"
- 2016 Summer: China University of Geosciences "I/Ca as an oxygenation proxy: Precambrian to Pleistocene"

2016 Spring: Princeton University “I/Ca as an oxygenation proxy: Precambrian to Pleistocene”  
2015 Fall: AGU “A Phanerozoic I/Ca compilation: potential links to ocean oxygenation, carbon cycle and bio-diversification”  
2015 Fall: Columbia University “I/Ca as an oxygenation proxy: Precambrian to Pleistocene”  
2014 Spring: SUNY Binghamton “The tale of the O<sub>2</sub>: the voyage with the purple eye”  
2014 Spring: Nanjing University “The tale of the O<sub>2</sub>: the voyage with the purple eye”  
2013 Fall: AGU “I/Ca in foraminiferal shells as a paleoceanographic proxy”  
2013 Spring: University of Rochester “Potential of ikaite as a paleo-environmental proxy: from Holocene ice-sheet stability to Mesozoic phosphorous cycling”  
2012 Spring: Yale University “Potential of ikaite as a paleo-environmental proxy: from Holocene ice-sheet stability to Mesozoic phosphorous cycling”  
2012 Spring: University at Buffalo “Potential of ikaite as a paleo-environmental proxy: from Holocene ice-sheet stability to Mesozoic phosphorous cycling”  
2011 Spring: Northwestern University “I/Ca ratios in marine carbonate as a paleo-redox proxy during oceanic anoxic events”  
2011 Spring: UC Riverside “I/Ca ratios in marine carbonate as a paleo-redox proxy during oceanic anoxic events”  
2010 Fall: IFM-GEOMAR, Kiel, Germany “I/Ca ratios in marine carbonate as a paleo-redox proxy during oceanic anoxic events”  
2010 Fall: Scottish Association for Marine Science, Oban, UK “Iodine as a natural tracer for the migration of subsurface fluid flow and methane”  
2007 Spring: State key Laboratory of loess and Quaternary Geology, Xian, China. “I-129 investigations in active continental margins”

## TEACHING

EAR 117 Oceanography: 2019-, yearly, ~270 students each year  
CAS 101 First-year Forum: 2018, 16 students  
EAR 111 Climate Change: 2011-2019, yearly, ~170-250 students each year  
EAR 205 Water and the Environment: 2014-2015, yearly, ~60 students each year  
EAR 419/619 Aqueous Geochemistry: 2011-2015, biannually, ~5 students each year  
EAR 400/600 Chemical Oceanography: 2015, 6 students

## SERVICE

**Professional:** Associate editor of Marine and Petroleum Geology; GSA Young Scientist Award (Donath Medal) Committee; Session conveners for AGU Fall Meeting and Goldschmidt conferences; Reviewer for European Research Council; Panelist and reviewer for National Science Foundation (Marine Geology and Geophysics; Sedimentary Geology and Paleobiology; Geobiology and Low-Temperature Geochemistry; EAR Postdoctoral Fellowship Program).

**Journal reviewer:** Science Advances; Nature Geoscience; Geology; Earth and Planetary Science Letters; Geochimica et Cosmochimica Acta; Paleoceanography and Paleoclimatology;

Chemical Geology; G-cubed; Palaeogeography, Palaeoclimatology, Palaeoecology; Precambrian Research; Biogeosciences; Marine Chemistry; Scientific Reports; Marine and Petroleum Geology; Environmental Science & Technology; Water Resources Research; Science of the Total Environment; Applied Geochemistry; Ground Water; Journal of Contaminant Hydrology; Water Research; Quaternary International; PLOS ONE; The Cryosphere; American Mineralogist; Interface Focus

**University:** Syracuse University Senate; Promotion and Tenure Committee at the College of Arts and Sciences; Curriculum Committee at the College of Arts and Sciences; Slepecky Undergraduate Research Awards Reviewing Committee; Faculty Advisor for Campus as Laboratory; Faculty Hiring Search Committee for other departments; SU Water Initiative Advisory Board; Chairing Ph.D. defense in other departments(e.g. History; Electrical Engineering)

**Department:** Chairing Search Committee for Earth Sciences department Chair; Director of Graduate Studies; Colloquium director; Graduate Advisory Committee; Curriculum Committee; Faculty Hiring Search Committee; Space Committee; Analytical Facilities Committee; Thesis committees for 10 graduate students

## **GRADUATE STUDENTS**

\*Female or minority

2018-            PhD Ruliang He  
2015-            PhD Wanyi Lu\* (Chancellor's Citation for Excellence in Student Research, Woods Hole Postdoc Fellow)  
2016-2018    MS Shannon Garvin\* (US Geological Survey)  
2013-2018    PhD Kristina Gutches\* (All-University Doctoral Prize, Postdoc at Yale University)  
2011-2016    PhD Xiaoli Zhou\* (All-University Doctoral Prize, Postdoc at Rutgers University)  
2011-2013    MS Sunshyne Hummel\*

## **HORNORS**

2018            Elston Award, Department of Earth Sciences, Syracuse University  
2017            Excellence in Graduate Education Award, Syracuse University  
2017            Syracuse Center of Excellence Faculty Fellow  
2008-2009    British Council, Research Exchange Fund  
2007            MARGINS Student Prize for outstanding presentation, AGU  
2003-2005    Sproull Fellowship, University of Rochester  
2002            Thesis with High Distinction, Nanjing University  
1998-2002    Renmin Scholarship, Nanjing University