

Lauren Pincus

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EDUCATION

Yale University, School of Forestry and Environmental Studies New Haven, CT

Doctoral Candidate, expected graduation 2020

- Adviser: Dr. Julie Zimmerman
- Committee Members: Dr. Menachem Elimelech, Dr. Paul Anastas, Dr. Desirée Plata
- Focus: Green Chemistry and Engineering
- Dissertation topic: Towards sustainable water treatment: developing selective and multifunctional adsorbents for inorganic contaminants using nano-enabled biomaterials

Middlebury College

Middlebury, VT

Bachelor of Arts, Chemistry and Geology, May 2014, Adviser: Dr. Peter Ryan

- GPA: 3.61, Magna Cum Laude, Departmental Honors in Geology, College Scholar
- Senior Thesis: Variations in Cation Exchange Capacity of Soils Along a Tropical Landscape
- Senior Independent Research: Influence of Montmorillonite Weathering on its Suitability as a Substrate for HDTMA Organic Modification and Contaminant Remediation

University of Canterbury

Christchurch, NZ

- Research program focused on the geology of New Zealand, winter and spring 2013
- GPA: 3.78
- Independent Research: Geochemical Analysis of Lava Flows Within Stony Bay, Banks Peninsula, NZ

Publications

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- **L. N. Pincus**, F. Melnikov, J. S. Yamani, J.B. Zimmerman, Multifunctional Photoactive and Selective Adsorbent for Arsenite and Arsenate: Evaluation of Nano Titanium Dioxide-Enabled Chitosan Cross-Linked with Copper, *J. Hazard. Materials.*, 358. (2018) 145-154. doi: 10.1016/j.jhazmat.2018.06.033.
 - H. C. Erythropel, J. B. Zimmerman, T.M. de Winter, L. Petitjean, F. Melnikov, C. Ho Lam, A. W. Lounsbury, K. E. Mellor, N. Z. Janković, Q. Tu, **L. N. Pincus**, M. M. Falinski, W. Shi, P. Coish, D. L. Plata, P. T. Anastas, The Green ChemisTREE: 20 years after taking root with the 12 principles, *Green Chem.* (2018). 1929-1961. doi:10.1039/C8GC00482J.
 - **L.N. Pincus**, P.C. Ryan, F.J. Huertas, G.E. Alvarado, The influence of soil age and regional climate on clay mineralogy and cation exchange capacity of moist tropical soils: A case study from Late Quaternary chronosequences in Costa Rica, *Geoderma*. 308 (2017) 130–148. doi:10.1016/j.geoderma.2017.08.033.
 - P.C. Ryan, F.J. Huertas, F. Hobbs, **L.N. Pincus**, Kaolinite and halloysite derived from sequential transformation of pedogenic smectite and kaolinite-smectite in a 120 ka tropical soil chronosequence, *Clays Clay Miner.* (2016). doi:http://dx.doi.org/10.1346/CCMN.2016.064030.

Abstracts and Conference Presentations

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- **Pincus, L.N.**, Melnikov, F., Lounsbury, A.W., Zimmerman, J.B. Towards a Mechanistic Understanding of the Selective Adsorption of Arsenic Over Competing Phosphate by

Nano-enabled, Transition Metal Cross-linked Chitosan, 256th ACS National Meeting, Boston, MA

- **Pincus, L.N.**, Yamani, J., Zimmerman, J.B., 2017, Towards Multifunctionality in water treatment: Developing Photoactive Selective Adsorbents for Inorganic Contaminants Using Nano-enabled Biomaterials, 253rd ACS National Meeting, San Francisco, CA (**Awarded the ACS ENVR Certificate of Merit for Outstanding Oral Presentation**)
- **Pincus, L.N.**, Yamani, J., Zimmerman, J.B., 2016, Towards Sustainable Water Treatment: Developing Selective Adsorbents for Inorganic Contaminants Using Nano-enabled Biomaterials, ACS Green Chemistry and Green Engineering Conference, Portland, OR (**Awarded Best Poster Presentation**)
- Ryan, P.C., **Pincus, L.N.**, Huertas, F.J., 2014, Cation Exchange Capacity of Tropical Soil Clays as a Function of Time and Precipitation, Geologic Society of America Abstracts with Programs. Vol. 46, No. 6, p. 150
- **Pincus, L.N.**, 2014, Variation in Cation Exchange Capacity Across a Humid Tropical Landscape, Pacific Coast, Costa Rica, Middlebury College Spring Symposium
- Dellinger, E., Stoll, C., **Pincus, L.N.**, 2014, Organic Modification of Clay for Environmental Water Remediation, Middlebury College Spring Symposium
- Ryan, P.C., **Pincus, L.N.**, Falcones K., 2013, Mineralogical and Geochemical Evolution of Tropical Soils in a Coastal Terrace Sequence, Geologic Society of America Abstracts with Programs. Vol. 45, No. 7, p.586
- **Pincus, L.N.**, Ryan, P.C., 2012, Phosphorus Abundance and Reactivity in Champlain Valley Sediments: Implications for Nutrient Transport to Lake Champlain, Middlebury College Summer Research Symposium

AWARDS

- National Science Foundation Graduate Research Fellowship (GRFP) Honorable Mention, 2016
- Nathan Hale Associates Fellowship for academic achievement and potential, Yale Graduate School Alumni Fund, 2018
- Outstanding Oral Presentation, ACS Environmental Chemistry Division Certificate of Merit, 2017
- ACS Green Chemistry Institute CIBA Travel Award, 2016
- Best Poster Presentation, ACS Green Chemistry and Green Engineering Conference, 2016
- Yale Institute for Biospheric Science Fellowship, 2015, 2017
- Dartmouth Graduate School McCulloch Graduate Fellowship in Environmental Change, 2015
- Middlebury College Geology Department Baldwin Cooney Scholarship, 2012
- Middlebury College Gretchen A. Reilly '60 Environmental Studies Endowment, 2012

TEACHING, MENTORING, and OUTREACH

- Teaching Assistant, Green Engineering and Sustainable Design, Spring 2019
- Teaching Assistant, Coastal Environments in a Changing World, Fall 2018
- Teaching Assistant, The Science of Water, Spring 2018
- Women in Science at Yale Mentor, 2017-present
- Undergraduate Lab Mentor, Yale College, 2017-present

- Outreach Coordinator, Student Leadership Council, NSF Nanosystems Engineering Research Center for Nanotechnology-Enabled Water Treatment (NSF ERC NEWT), 2017- present
- Co-chair of Organizing Committee, Yale School of Forestry and Environmental Studies Research Conference, April 2017
- Teaching Assistant, Green Engineering and Sustainable Design, Spring 2017
- Admissions Interviewer Middlebury College, 2015- present
- Undergraduate Lab Mentor, Dartmouth College Earth Science Department, 2014
- Undergraduate Lab Mentor, Middlebury College Geology Department, 2013

RELEVANT WORK EXPERIENCE

Dartmouth College Toxic Metals Superfund Research Program

Hanover, NH

Research Assistant (2014-2015)

- Investigated Mercury Fate and Transport at a Superfund Site in Berlin, New Hampshire