



Cin-Ty A. Lee

GRFP Recipient: 1996

Undergraduate Institution:
B.A. 1996, University of
California, Berkeley

Graduate Institution:
Ph.D. 2001, Harvard University

Graduate Field of Study:
Geochemistry

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Current Position:
Professor, Department of
Earth Science, Rice University

RESEARCH INTERESTS //

Cin-Ty A. Lee is a petrologist focused on understanding the origin and evolution of continents, the chemistry and physics of magma differentiation, the origin of ore deposits, and long-term climate change. Lee uses geochemical analyses, field observations and mathematical modeling to explore these problems.

A PERSONAL ANECDOTE OF THE BENEFIT FROM THE GRF PROGRAM //

“I wrote my NSF graduate fellowship proposal during the fall of my undergraduate senior year. At the time, I was set on studying earthquake physics and faulting mechanics. Of course, I didn’t really know very much and, in retrospect, it was probably a naïve, and dare I say, reckless proposal. I am so grateful that I was given the award, but even more grateful that I was allowed to hold on to the award even after I realized how stupid my original proposal was. I eventually found my true calling and that was to be a petrologist. The strength of the NSF graduate fellowship was that the panel and the reviewers seemed to embrace the idea of taking a chance on students that can generate scientific ideas. Ideas may be wrong, but without funding, there’s no way to correct, and without the ability to make one’s own mistakes and then correct them, science cannot move forward. I hope the philosophy of the GRFP today still gives the creation of ideas top priority.”

A FOND MEMORY FROM MY EXPERIENCE AS A FELLOW //

“The fondest memory of my GRFP experience was the freedom that came with it. I could change my mind about my research directions. I could pursue what

I really wanted to. I switched to petrology after having sent in all my graduate school applications with the intention of being an earthquake seismologist. The graduate fellowship award came in just in the nick of time, knowing that without it I might not have had a chance to go where I wanted. So my fondest memory is changing my mind about what I wanted to do and then being grateful that I got to work with my adviser, Roberta Rudnick, on deep lithosphere dynamics.”

BROADER IMPACT OF MY WORK ON SOCIETY //

“My contribution to society is primarily as an educator. I try to use the Earth and environmental sciences as a vehicle for teaching our new generation of students, from fourth grade to the Ph.D. level, how to think critically and quantitatively in an uncertain world. I try to teach chemistry, physics and math through geology, exposing students to the fantastic and majestic wonders of our natural world, especially those things we can see and touch like rocks, mountains, rivers, plants and birds. My research interests are deeply intertwined with my desire to educate. During my early days, I spent most of my time investigating more academic problems that might satisfy one’s curiosity on how the Earth formed and evolved. More recently, I have found myself focusing on understanding and appreciating the origin and quality of the natural resources that are necessary for our modern society.”

AWARDS/ HONORS //

- Fellow, Geological Society of America (2010)
- Young scientist award (Donath Medal), Geological Society of America (2009)
- Clarke Medal, Geochemical Society (2009)
- Hisashi Kuno Award, American Geophysical Union – VSP (volcanology, geochemistry or petrology) section (2008)
- David and Lucile Packard Fellow (2005)

POSITION PROFILE //

- 2012-present - Agassiz lecturer, Harvard University
- 2012 - Miller visiting professor, University of California, Berkeley
- 2011-present - Professor, Rice University
- 2011 - Mutch lecturer, Brown University
- 2011 - Visiting professor, School of Ocean and Environmental Sciences, University of Tokyo
- 2008-11 - Associate professor, Rice University
- 2002-08 - Assistant professor, Rice University
- 2002 - Visiting professor, Academia Sinica, Taiwan
- 2001-02 - Postdoctoral fellow, Geological and Planetary Sciences, California Institute of Technology

