

Miloš Ivo Atz

CONTACT INFORMATION	Department of Nuclear Engineering 4116 Etcheverry Hall, MC 1730 University of California, Berkeley Berkeley, CA, 94720-1730	mobile: (860) 918-6759 e-mail: milos.atz@berkeley.edu website: https://milosatz.github.io
PH.D.	University of California, Berkeley , NUCLEAR ENGINEERING Advisor: Professor Massimiliano Fratoni GPA: 3.802	Aug 2014 – May 2019
M.S.	University of California, Berkeley , NUCLEAR ENGINEERING Thesis: <i>Effect of initial enrichment and discharge burnup on the minimum critical mass of far-field depositions of fissile material from LWR spent fuel</i> Advisor: Professor Joonhong Ahn	Aug 2014 – May 2016
B.S.	University of Connecticut , CHEMICAL ENGINEERING Thesis: <i>Mechanism of insulin aggregation: Applied to Alzheimers disease</i> Advisor: Professor Mu-Ping Nieh GPA: 3.79; <i>magna cum laude</i>	Aug 2010 – May 2014
RESEARCH EXPERIENCE	University of California, Berkeley , Berkeley, CA <i>Graduate Research Assistant, Nuclear Waste Management Group</i> Developing analysis tools to study the nuclear fuel cycle and waste management by leveraging the data produced in the DOE Fuel Cycle Evaluation and Screening study. University of Connecticut , Storrs, CT <i>Undergraduate Research Assistant</i> Studied the reversibility of insulin protein dimerization to understand potential pathways for reversing the onset of Alzheimer's disease. Idaho National Laboratory , Idaho Falls, ID <i>SULI Research Intern, Energy Resource Recovery and Sustainability Department</i> Developed thermal models to understand corn stover biofuel feedstock degradation and the distribution of heat in cold crucible induction melters for application in nuclear waste disposal. UTC Power , South Windsor, CT <i>Cell Stack Research Intern</i> Studied subscale fuel cells to assess feasibility of replace the purge gas with a cheaper alternative. Performed thermal conductivity tests on fuel cell components to correct model correlations.	Aug 2014 – present Sep 2012 – May 2014 Jun – Aug 2013 Jun – Aug 2012
HONORS AND AWARDS	National Science Foundation Graduate Research Fellowship First place, Nuclear Innovation Bootcamp UC Berkeley Nuclear Engineering Thomas Pigford Award Nuclear Regulatory Commission Graduate Fellowship United Technologies Corporation Engineering Scholarship Honorable Mention (x2), Idaho National Laboratory Intern Poster Competition University of Connecticut Academic Excellence Scholarship	2015 – present Summer 2016 Spring 2016 Spring 2015 2013 – 2014 Summer 2013 2010 – 2014

- RESEARCH
PUBLICATIONS
- [1] **M. Atz**, A. Salazar, F. Hirano, M. Fratoni, J. Ahn. "Assessment of the potential for criticality in the far-field of a used nuclear fuel repository". **Annals of Nuclear Energy** 124, pp 28-38, February 2019. [doi](#).
 - [2] **M. Atz**, M. Fratoni. "Impact of partitioning and transmutation on the back-end of the fuel cycle". **Proceedings of the OECD 15th International Exchange Meeting on Partitioning and Transmutation**, Manchester, UK, October 2018.
 - [3] A. Salazar, **M. Atz**, X. Liu, M. Fratoni. "The Criticality Safety Studies of Joonhong Ahn". **Transactions of the American Nuclear Society**, Vol. 116, San Francisco, CA, June 11-15, 2017.
 - [4] **M. Atz**, X. Liu, M. Fratoni, J. Ahn. "Material composition effects on far-field deposition minimum critical mass". **American Nuclear Society International High-Level Radioactive Waste Management Conference**, Charlotte, NC, April 9-13, 2017.
 - [5] **M. Atz**, X. Liu, M. Fratoni, J. Ahn. "Evaluation of minimum critical mass to inform performance requirement of partitioning and transmutation to eliminate criticality risk in a geologic repository". **Proceedings of the OECD 14th International Exchange Meeting on Partitioning and Transmutation**, San Diego, CA, October 2016. pp. 354-364. [URL](#)
- TECHNICAL
REPORTS
- [6] A. Salazar, **M. Atz**, M. Fratoni. "Criticality Safety for Geological Disposal of Used Nuclear Fuel". Summary Report for the FY2016 for JAEA-UCBNE Collaboration (Area 2) UCB-NE-5157 (2017).
 - [7] X. Liu, A. Salazar, **M. Atz**, M. Fratoni, J. Ahn. "Preliminary Criticality Safety Assessment for Direct Disposal of Spent Nuclear Fuels". Summary Report for the FY2015 for JAEA-UCBNE Collaboration (Area 2) UCB-NE-5153 (2016).
 - [8] X. Liu, A. Salazar, **M. Atz**, M. Fratoni, J. Ahn. "Criticality Safety for Geological disposal of Fukushima Damaged Fuels". Summary Report for the FY2015 for JAEA-UCBNE Collaboration (Area 1) UCB-NE-5152 (2016).
 - [9] J. Ahn, X. Liu, **M. Atz**. "Preliminary Criticality Safety Assessment for Direct Disposal of Spent Nuclear Fuels". Summary Report for the FY2015 for JAEA-UCBNE Collaboration (Area 2) UCB-NE-5148 (2015).
- THESES
- [10] **M. Atz**. "Effect of initial enrichment and discharge burnup on the minimum critical mass of far-field depositions of fissile material from LWR spent fuel". Masters Report (Plan II) UCB-NE-5155 (2016)
 - [11] **M. Atz**, M. Li, G. Belfort, M.P. Nieh. "Mechanism of insulin aggregation: Applied to Alzheimers disease". University of Connecticut Honors Scholar Thesis, Paper 378, Chemical Engineering (2014). [URL](#)
- POSTER
PRESENTATIONS
- [12] **M. Atz**, X. Liu, M. Fratoni, J. Ahn. "Evaluation of minimum critical mass to inform performance requirement of partitioning and transmutation to eliminate criticality risk in a geologic repository". **OECD 14th International Exchange Meeting on Partitioning and Transmutation**, San Diego, CA, October 2016.
 - [13] **M. Atz**, M.P. Nieh, M. Li. "Understanding the early stage of insulin aggregation; applied to Alzheimers disease". **American Institute of Chemical Engineers Regional Student Conference** (2014).
 - [14] **M. Atz**, M.P. Nieh, M. Li. "Insulin as a Model System for Beta-Amyloid Protein Aggregation Reversibility". **American Institute of Chemical Engineers National Student Conference** (2013).
 - [15] **M. Atz**, M. Plummer, I. Bonner, W. Smith. "Mathematical Simulation of Biodegradation in Corn Stover". Idaho National Laboratory Intern Poster Competition (2013).
- OTHER
WRITING
- [16] **M. Atz**. "Understanding the Nuances of Nuclear Waste". Medium, Berkeley Nuclear Engineering (2017). [URL](#)
 - [17] **M. Atz**. "Pioneering the future of nuclear energy innovation". Berkeley Energy & Resources Collaboration (2016). [URL](#)

TEACHING
EXPERIENCE

University of California, Berkeley

DEPT. OF NUCLEAR ENGINEERING

Teaching Assistant, *NE124, Radioactive Waste Management*

Teaching Assistant, *NE290E, Environmental Aspects of Nuclear Engineering*

Spring 2016

Fall 2015

University of California, Berkeley, DEPT. OF NUCLEAR ENGINEERING Apr 24 & 26, 2018

NE100, Introduction to Nuclear Engineering

Nuclear fuel cycle mass balances, radiation dose conversions

University of California, Berkeley, DEPT. OF NUCLEAR ENGINEERING

Apr 14, 2017

NE124, Radioactive Waste Management

Criticality Safety Studies at UC Berkeley

VOLUNTEERING
AND SERVICE

Workshop Leader, [Earth Action Initiative](#)

UC Berkeley Nuclear Engineering Colloquia Review Committee

Nuclear Innovation Bootcamp Planning Committee

Summer Session Volunteer, The Painted Turtle

Executive Committee, Nuclear Environmental Outreach Group

Vice President, UConn Engineering Ambassadors

Member, UConn Engineering Ambassadors

UConn Engineering Dean Search Committee

Representative, UConn Chemical Engineering ABET Review

Student Interviewer, UConn Chemical Engineering Faculty Search

Submitted [testimony](#) in support of CT Senate Bill no. 840

Spring 2018

Fall 2017 - Spring 2018

Spring 2017 - present

Summer 2017, 2018

Fall 2016 - Fall 2017

Fall 2013 - Spring 2014

Fall 2012 Spring 2014

Fall 2013

Fall 2013

Spring 2013

Spring 2013