

Melissa N. Thone

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Education

- ▲ University of California, Irvine, Irvine, CA Chemical and Biochemical Engineering PhD, May 2021
 - ▲ Rochester Institute of Technology, Rochester, NY Chemical Engineering, Communications BS,C, May 2014
- GPA: 3.9/4.0**

Research Experience

University of California, Irvine, CA

- ▲ June 2015- August 2015
Competitive Edge Summer Research Program, rotation in the BioTherapeutics Engineering Laboratory- Investigated the potential of extracellular vesicles as nanotheranostic platforms for cancer treatment.

Rochester Institute of Technology, Rochester, NY

- ▲ April 2011- January 2014
Undergraduate Research Assistant, NanoPower Research Labs – Initially worked to optimize electrodes to further the development of lithium ion batteries. Presented results in Undergraduate Research Symposium and in published paper. Later in my career, growth of vertically aligned carbon nanotubes was investigated.
- ▲ September 2012- December 2012
Undergraduate Independent Study, Microscale Bioseparations Research- Using the technique of insulating dielectrophoresis (iDEP) to separate cells for the “lab-on-a-chip” concept.
- ▲ December 2009- May 2010
Undergraduate Research Assistant, Chemical Research- Focused on synthesis of various polyimides. Specifically, solution-imidized, UV-Curable NLO-pendent model compounds to be used in aerospace applications at NASA.

Northrop Grumman Corporation, Baltimore, MD

- ▲ May 2012- August 2012
Research Assistant, Advanced Technologies Laboratory- Worked mainly in FABs using self-assembled monolayers (SAMs) for dielectric research for field effect transistors.

Teaching Experience

Rochester Institute of Technology, Rochester, NY

- ▲ December 2013- May 2014
Teacher's Assistant (TA) for Mass Transfer and Math Recitation courses- Holding office hours for students, grading homework assignments, attending exams, and assisting the students and professor.

Leadership Experience

- ▲ September 2013- May 2014
Project Manager- Senior Design I and Senior Design II. Responsibilities included assigning roles to group members, making final decisions to move forward, keeping the group organized and on track, and leading presentations.

Relevant Skills

- ▲ Cell culture, DLS, TEM, NMR, IR, Fluorescence Spectroscopy, Atomic Absorption Spectroscopy, UV-Vis, SEM, Raman Spectroscopy, AFM, Chemical Vapor Deposition Reactors, COMSOL Multiphysics, Separations using Insulating Dielectrophoresis, Microsoft Office.

Publications

- 1) Roberta A. DiLeo, Matthew J. Ganter, **Melissa N. Thone**, Michael W. Forney, Jason Staub, Reginald E. Rogers, Brian J. Landi "Balanced Approach to Safety of High Capacity Silicon-Germanium-Carbon Nanotube Free-Standing Lithium Ion Battery Anodes." *Nano Energy, Volume 2, Issue 2, March 2013, pages 268-275.*

Oral Presentations

- Melissa N. Thone**, Dominique A. Ingato, Julius Edson, Young J. Kwon. "Extracellular Vesicles as Nanotheranostic Platforms for Cancer." In the *Competitive Edge Summer Research Program Symposium*, Irvine, CA, August 13, 2015.
- Roberta A DiLeo, Melissa N. Thone**, Michael Forney, Matthew J. Ganter, Jason Staub, Reginald E. Rogers, Brian J. Landi. "3-D Nanostructured Si-Ge-Single Wall Carbon Nanotube Free-Standing Anodes for High Energy Density Lithium Ion Batteries." In the *European Materials Research Society Spring Meeting*, Strasbourg, France, May 14-18, **2012**.
- Roberta A. DiLeo, Melissa N. Thone**, Michael Forney, Matthew J. Ganter, Jason Staub, Reginald E. Rogers, Brian J. Landi. "3-D Nanostructured Si-Ge-Single Wall Carbon Nanotube Free-Standing Anodes for High Energy Density Lithium Ion Batteries." In the *221st Electrochemical Society Spring Meeting*, May 6 - 10, **2012**, Seattle, WA, #1123.
- Roberta A. DiLeo, Melissa N. Thone**, Michael Forney, Matthew J. Ganter, Jason Staub, Reginald E. Rogers, Brian J. Landi. "3-D Nanostructured Si-Ge-Single Wall Carbon Nanotube Free-standing Anodes for High Energy Density Lithium Ion Batteries." In the *Materials Research Society Spring Meeting*, San Francisco, CA, **2012**, O11.8.
- Roberta A. DiLeo, Sarah Frisco, Melissa N. Thone**, Matthew J. Ganter, Reginald E. Rogers, Cress, C.D., Raffaele, R., Brian J. Landi. "High Energy and High Power Density Semiconductor-Carbon Nanotube Anodes for Lithium Ion Batteries." In the *Rochester Institute of Technology Graduate Research Symposium*, Rochester, NY, **2011**.
- Roberta A. DiLeo, Melissa N. Thone**, Matthew J. Ganter, Jason Staub, Reginald E. Rogers, Raffaele, R.P., Brian J. Landi. "Hybrid Free-Standing Germanium Nanoparticle-Single Wall Carbon Nanotube Anodes for Lithium Ion Batteries." In the *Materials Research Society Fall Meeting*, Boston, MA, **2011**; BB6.3.
- Melissa N. Thone**, Roberta A. DiLeo, Brian J. Landi. "Free-Standing Germanium Nanoparticle Single Wall Carbon Nanotube Lithium Ion Battery Electrodes." In the *20th annual RIT Summer Symposium for Undergraduate Research & Innovation*, Rochester, NY, August 12, **2011**.

Poster Presentations

- Melissa N. Thone**, "Process Development and Scale-Up of an HSP90 Inhibitor" at the *RIT Process Chemistry Final Review*, Rochester, NY, May, **2013**.
- Roberta A. DiLeo, Melissa N. Thone**, Matthew J. Ganter, Jason Staub, Reginald E. Rogers, Raffaele, R.P., Brian J. Landi. "Hybrid Free-Standing Germanium Nanoparticle-Single Wall Carbon Nanotube Anodes for Lithium Ion Batteries." at the *1st NY-BEST Regional Technology Conference*, Rochester, NY, November, **2011**.

Honors, Fellowships and Awards

- University of California, Irvine Provost Fellowship, May 2015
- University of California, Irvine Diversity Recruitment Fellowship, May 2015
- Graduated Summa Cum Laude, May 2014
- Outstanding Undergraduate Scholar Award, April 2014
- RIT Undergraduate Summer Research and Innovation Program Fellowship, Summer 2011
- Emerson Scholarship Endowment, September 2009 - May 2014

Professional Memberships

- American Institute of Chemical Engineers (AIChE)
- National Society of Collegiate Scholars (NSCS)

Activities

Current

- ▲ Engineers Without Borders Chapter at University of California, Irvine
- ▲ Diverse Educational Community and Doctoral Experience (DECADE) at University of California, Irvine

Previous

- ▲ Volunteer work at Memorial Sloan Kettering Cancer Center in Urgent Care
- ▲ Volunteer work at the ASPCA Behavioral Rehabilitation Center