

KRISTINE LOH

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EDUCATION

University of Minnesota – Twin Cities

Doctor of Philosophy, Chemical Engineering
College of Science and Engineering Fellow

Minneapolis, MN

Anticipated Graduation: June 2025

Drexel University, Pennoni Honors Program, Summa Cum Laude

Accelerated Master of Science in Materials Science and Engineering
Thesis Title: Optimization of Photodetection Analysis of MXene Thin Films
Bachelor of Science in Chemical Engineering
Certificate in Technical Communication and Publishing

Philadelphia, PA

Graduated June 2020

Cumulative GPA: 3.96

RESEARCH EXPERIENCE

Nanomaterials for Energy Applications and Technology (NEAT) Lab

Undergraduate Research Assistant
Students Tackling Advanced Research (STAR) Scholar
Advisor: Dr. Jason B. Baxter

Philadelphia, PA

April 2017 to June 2020

June to August 2016

- Investigate mechanisms of MXene film optoelectronic behavior in response to various stimuli through photoconductivity measurements
- Led research efforts on using Ti-doped hematite thin films synthesized using Successive Ionic Layer Adsorption and Reaction (SILAR) as an enhanced photoelectrochemical water splitter
- Analyzed SbSI microrods as novel pathways for electron transport using UV-Vis, SEM, EDS, and XRD
- Synthesized CuSbS₂ thin films using chemical bath deposition

Johnson & Johnson Consumer, Inc.

R&D Analytical Chemistry Co-op
Advisor: Dr. Michael Breslav

Fort Washington, PA

September 2017 to March 2018

- Developed and executed active pharmaceutical ingredient (API) extraction tests for HPLC analysis
- Designed and conducted heat and humidity stress experiment to determine long-term stress effects on API degradation products

MANUFACTURING EXPERIENCE

Crazy Aaron's Enterprises

Materials & Process Engineer Co-op

Norristown, PA

April 2019 to September 2019

- Tripled production of new product line and served as subject matter expert on business merger
- Authored company-wide lean documentation to reduce defects and to highlight safety precautions
- Developed 4 new inventory items to increase process efficiency, saving over \$30,000 annually
- Researched and developed customizable room-temperature vulcanizing silicone for mass production
- Trained and supervised 6 operators on new techniques, products, and process improvements

Noramco, Inc.

Process Engineering Co-op

Wilmington, DE

September 2016 to August 2017

- Created 5 startup and preconditioning procedures to improve process efficiency and prevent salt formation
- Contributed to 2 new API product introductions by interfacing with operators and developing technical documentation
- Updated and refined batch records for process improvement savings of up to \$200,000 per campaign
- Analyzed lab testing data, equipment trends and charts, batch yield efficiency, and SAP reports for both narcotic yield investigations and process validation reports

SKILLS

Laboratory: HPLC, SILAR, PEC Testing, UV-Vis, Sonicator, Micropipette, Glove Box, Fume Hood, Centrifuge

Software: Minitab, SAP, Trackwise, Empower, Origin 8, AutoCAD, Fusion 360, MATLAB, Microsoft Office

Foreign language: Conversational Mandarin Chinese, Limited Working Proficiency Spanish, Basic German

KRISTINE LOH

HONORS AND AWARDS

2020 Drexel University Undergraduate Commencement Speaker	June 2020
Dean's List (All Terms), Drexel University	September 2015 to June 2020
Sharbaugh Fellowship at Carnegie Mellon University. Declined Offer.	February 2020
NC State University Graduate Merit Award. Declined Offer.	February 2020
2020 Drexel University CoE Outstanding Undergraduate Student Award	January 2020
2019 CBE Undergraduate Student Achievement Award	November 2019
2019 CBE Undergraduate Student Service Award	November 2019
Society of Women Engineers Guiding Star Award (1 of 7 nationally)	February 2019
Supernova Undergraduate Research Fellow, Drexel University	September 2017
Society of Women Engineers Future Leader (SWEFL) (1 of 31 internationally)	June 2017
Kappa Theta Epsilon, Co-op Honor Society, Drexel University	June 2017
Frances Velay Fellow (1 of 8 students), Drexel University	June 2016
Certificate of Merit, Career Management and Professional Development, Drexel University	March 2016
National Achievement Full Tuition Scholarship	September 2015 to June 2020

PROFESSIONAL AFFILIATIONS AND LEADERSHIP POSITIONS

Society of Women Engineers (SWE)

Societal

Community Lead for Asian Connections Affinity Group	February 2020 to Present
SWENext Newsletter Reporter	February 2020 to Present

Drexel University

Membership Director	January 2019 to December 2019
President	January 2018 to December 2018
Outreach Director	December 2015 to December 2017

Society of Asian Scientists and Engineers (SASE)

Drexel Chapter Events Coordinator	June 2018 to June 2019
PR Committee Researcher	July 2016 to June 2018

PROFESSIONAL AND VOLUNTEER SERVICE

Pink Space Theory

STEM Webinar Moderator and Grant Writer	June 2020 to Present
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American Institute of Chemical Engineers

Minority Affairs Communications Committee Member	April 2020 to Present
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CovEducation

AP Calculus and AP English Tutor	March 2020 to Present
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College of Engineering, Drexel University

Chair of Joint One-Time Undergraduate Faculty Evaluation Committee	September 2019 to January 2020
Recruitment and Outreach Assistant	June 2018 to June 2020