**Sarah Kromer**

Raleigh, NC 27610 | skromer@ncsu.edu

**Education:**

**North Carolina State University** Raleigh, North Carolina

Ph.D. Chemistry Expected May 2026

Principal Investigator: Felix N. Castellano

**Binghamton University, State University of New York** Binghamton, New York

Bachelor of Science in Chemistry Spring 2021

Minors in Economics and Binghamton Scholars Program

Major GPA: 3.97/4.00, Cumulative GPA: 3.98/4.00

Honors: Dean’s List Fall 2017-Spring 2021; 2020 ACS Undergraduate Award in Inorganic Chemistry

**Research:**

**Graduate Researcher** Raleigh, North Carolina

Advisor: Dr. Felix Castellano Spring 2021-Present

* Acquired skills in the spectroscopic measurement techniques of nanosecond and ultrafast transient absorption
* Enhanced capabilities in organic and inorganic synthesis through production of platinum-based complexes

**Undergraduate Researcher** Binghamton, New York

Advisor: Dr. John Swierk August 2018-May 2021

* Initiated project synthesizing tricarbadecaboranyl transition metal complexes for study in photophysics
* Developed proficiency in air-free techniques, small molecule characterization, spectroscopy, and electrochemistry
* Analyze and communicate collected data at group and subgroup meetings

**Freshman Research Immersion Program** Binghamton, New York

Advisor: Dr. Susan Flynn August 2017-December 2018

* Worked with a team to conduct research on scientific literature in the field of Biomedical Chemistry
* Acquired basic skills and knowledge to work in a research laboratory

**Poster Presentations:**

* “The Effectiveness of Fibric Acids Drugs in Reducing the Risk of Cardiovascular Disease for Type 2 Diabetes Patients” **Sarah Kromer**, Deepa Mistry, Karen Nganjiyineza, Daniel Powell, Peter Prisinzano. Binghamton University, Student Research Symposium, Innovative Technologies Complex (November 2017) Binghamton, NY
* “EAAT2 and EAAT3 Response to the β-Lactam Antibiotics: Ceftriaxone and Amoxicillin” Nicholas Catalano, Christopher Coble, Megan Fey, Nicole Kopetz, **Sarah Kromer,** Devin Pang, Daniel Powell, Hunter Shaw. Binghamton University, Student Research Symposium, Innovative Technologies Complex (November 2018) Binghamton, NY
* “Photophysics of Tricarbadecaboranyl Metal Complexes” **Sarah Kromer**, John Swierk. ACS 2020 Spring National Meeting (March 2020) Philadelphia, Pa. (Cancelled due to Covid-19)

**Work Experience:**

**Teaching Assistant – General Chemistry and General Chemistry Lab** Raleigh, North Carolina

North Carolina State University Fall 2021

* Supervised and instructed three laboratory sections of 20 students
* Monitored laboratory safety and correct operation of instrumentation of undergraduate chemistry students
* Hosted weekly office hour section to bridge the gap between instructor and student by answering course related questions

**Teaching Assistant – Intermediate Inorganic Chemistry** Binghamton, New York

Binghamton University Fall 2019, 2020

* Develop course policy and material with fellow teaching assistants and course instructor
* Held weekly office hours and discussion sections of 10-15 students to review assigned activities and homework
* Developed strong communication skills through reviewing course material with undergraduate students

**Agricultural Researcher** Germansville, Pennsylvania

Crop Management Strategies, Inc. Summer 2018, 2019

* Supervised a team of six researchers to hand pollinate corn for a series of GMO field corn gene expression studies
* Analyzed and reported health and growth progression of field corn for more accurate pollination results
* Aided in both sample and data collection for field research studies following EPA administration guidelines

**Technical Skills:**

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| Synthesis: | Organic and inorganic syntheses, air-free techniques including Schlenk and glovebox |
| Spectroscopy: | UV-Vis absorption, steady-state and time-resolved photoluminescence, nanosecond and ultrafast absorption, NMR, HPLC |
| Software: | Microsoft Office, LoggerPro, R, Origin, ChemDraw, Surface Xplorer, MNova |
| Safety: | Class 3b and 4 laser training |