The Department of Chemistry at the University of South Dakota (USD) is pleased to invite you to apply for our Research Experiences for Undergraduates (REU) program sponsored by the National Science Foundation. Students with experience in Fluorine Chemistry are poised to make significant tools contributions in the fields of health, energy and security that advance our quality of life.

Student participants will spend ten weeks during the summer (beginning May 25, 2021) conducting research in the laboratories of USD chemistry faculty mentors at the Vermillion, SD campus. Student participants will receive a $5000 competitive stipend and an additional living allowance. Support to conduct and present research results at regional or national scientific meetings is also available.

Andrew Sykes (Director) 605-677-5487; asykes@usd.edu

Research projects available to REU participants are listed below; additional information can be found on the USD Department of Chemistry’s main webpage (http://www.usd.edu/arts-and-sciences/chemistry).

- Activation of C-F bonds on L-M-Z complexes with low-valent metals - James Hoefelmeyer
- Plasmonic nanomaterials for the detection of fluorinated agrochemicals - Chaoyang Jiang
- Computation of the catalytic addition of arylboronic acids to trifluoromethyl ketones – Pere Miro
- Tuning weak non-covalent intermolecular interactions to design new materials - Haoran Sun
- Fluorinated anthraquinone-based sensors for the detection of heavy metals - Andrew Sykes
- Computational Fluorine Chemistry - Bess Vlaisavljevich
- Catalytic fluorination mediated by biomimetic supercontainers - Rick Wang
- Nanomaterials for Bioanalysis and Bioimaging - Steven Wu