
EDUCATION

(08/08 – 12/13)

Geochemistry PhD, GPA 3.89

:

“Geochemistry and Mineralogy of the Three Crow Roll-front Uranium Deposit Alteration Halo, Nebraska, USA”

Identifying the processes occurring within a uranium roll-front and the results of the study

:

“Developing Dye Sensitized Solar Cells Incorporating ZnS Nanoparticles”
Determining suitability of various zinc nanoparticle materials for use in solar cells

EMPLOYMENT

(8/14 – present)

Teaching in several areas of chemistry at South Dakota State University and Lake Area Technical Institute:
Prepare lecture materials including notes, examples, quizzes, homework, and exams
Prepare laboratory materials and guide students through practical laboratory exercises
Collaboration with other instructors of General Inorganic and General Organic and Biochemistry courses in evaluating course materials and peer observation
Involvement in departmental meetings, governance, and committees

(11/13, 4/14 – 8/14)

Scored standardized test questions for middle and high school
Scored middle school mathematics and science and high school English and science
Brief experience managing scoring team

(06/09 – 08/13)

PhD thesis research with Dr. Thomas Monecke and Dr. Richard Wendlandt covered several areas:
Characterization of geologic materials using optical and cathodoluminescence microscopy, Qemscan, SEM, LA-ICP-MS, TEM and XRD
Interpretation of data and generation of geochemical and mineralogical gradients relevant to exploration for roll-front uranium deposits
Written and oral communication with sponsor company and professional societies

(08/08 – 05/09)

Taught general chemistry laboratory
Guided 75 students per semester through practical laboratory exercises
Prepared short lectures on laboratory topics, graded labs, and provided one-on-one help outside of scheduled laboratory time

– submitted, in review