Mark Wesley Young

University of Colorado, Boulder | Chemical and Biological Engineering Department
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Education

University of Colorado, Boulder August 2018 – Present
Ph.D. student in Chemical and Biological Engineering Boulder, CO
Advisor: Kristi S. Anseth
Overall GPA 3.91/4.00

Montana State University May 2018
Bachelor of Science in Chemical Engineering Bozeman, MT
Overall GPA 3.97/4.00

Research Experience

Graduate Research Assistant August 2018-Present
University of Colorado, Boulder Boulder, CO
Dr. Kristi S. Anseth

- Current project is focused on developing methods for culturing gastrointestinal and pancreatic cancer tumor organoids in photo-tunable hydrogel systems to serve as a drug screening platform.

Undergraduate Research Assistant May 2016 – July 2018
Montana State University Bozeman, MT
Dr. Joseph Seymour, Dr. Sarah Codd, and Dr. Jennifer Brown

- Studied polymer solutions and the rheological effects of varying solvents on properties of viscosity, storage and loss moduli, and the polymer overlap and entanglement concentrations. This research has resulted in a publication in preparation.
- Studied the properties of brine saturated porous media with PGSE NMR to measure properties of diffusion, tortuosity, pore surface area to volume ratio, and liquid water content in freezing porous media. The systems studied mimic regolith-ice systems found on Mars and results will aid in improving current climate history models.
- Experience using: TA AR-G2 rheometer, Bruker AVANCE250 NMR spectrometer. Data analysis completed in: Prospa, MATLAB, Python, and Microsoft Excel.

Research Chemist- Intern May 2017 – August 2017
Bend Research, a Division of Capsugel Bend, OR
Dr. Jon Cape - Principal Scientist

- Worked in the multiparticulate group of the research and development team to study, tune, and optimize the release of caffeine from different multiparticulate formulations.
- Studied the rheological, mechanical, and release properties of polymer capsules manufactured through different gelation mechanisms.
- Experience using: Scanning electron microscope, Polarized light microscope, TA Discovery HR-2 rheometer, PION dissolution bath, KF titrator, and UV-Vis spectrometer.

Teaching Experience

Teaching Assistant Fall 2018
University of Colorado, Boulder Boulder, CO
General Chemistry for Engineers

- Taught weekly recitations for two class sections and held weekly office hours to aid in students learning the course material.

Achievements/Awards

University of Colorado-Boulder

- NSF GRFP recipient, 2018
- Deans Outstanding Merit Fellowship, 2018

Montana State University

- President's Honor List: Spring and Fall semester 2015, Spring semester 2016, Spring semester 2017
- Dean's List: Fall semester 2014, Fall semester 2016
- Trey James Memorial Scholarship, 2017
- Victor R Thayer Memorial Scholarship, 2016
- EW Mares Scholarship, 2015
- Wilhelm Wurst Engineering Scholarship, 2015