

Amanda Kretsch

amandarkretsch@my.unt.edu

Education

University of North Texas - Denton, TX

Ph.D. in Analytical Chemistry

1/15-Present

University of North Texas - Denton, TX

Bachelor of Science, Chemistry

Minor, Biology

1/11-12/14

Research Experience

University of North Texas Chemistry Department – Denton, TX

5/13-Present

Advisor: Guido Verbeck

Illicit drug synthesis and analysis using a permeability assay and mass spectrometry

One cell nanomanipulation and chemical analysis

Miniature mass spectrometry fabrication and analysis

Teaching Experience

University of North Texas

Teaching Assistant, General Chemistry

Spring 2015, Summer 2016

Teaching Assistant, Organic Chemistry

Fall 2015, Fall 2016

Teaching Assistant, Forensic Chemistry

Spring 2016

Skills and Techniques

- ◆ Electrospray ionization mass spectrometry
- ◆ Scanning electron microscopy
- ◆ Nanomanipulation
- ◆ Matrix assisted laser desorption ionization mass spectrometry
- ◆ Cell culture and maintenance
- ◆ Mass spectrometer development

Papers

- ◆ "Parallel artificial membrane permeability assay for blood-brain permeability determination of illicit drugs and synthetic analogues" Kristina Clemons, Amanda Kretsch, Guido Verbeck
- ◆ "Rapid experimental and computational determination of phenethylamine drug analogue lipophilicity" Ethan M. McBride, Amanda Kretsch, Luis K. Garibay, Katie Brigance, Benji Frey, Brandon Buss, Guido F. Verbeck