Senior Thesis 2022

ST. CLOUD STATE
UNIVERSITY
DEPARTMENT OF CHEMISTRY
& BIOCHEMISTRY

Friday, April 22, 2022
4:30 p.m.
WSB-119, 122, 124 & 125

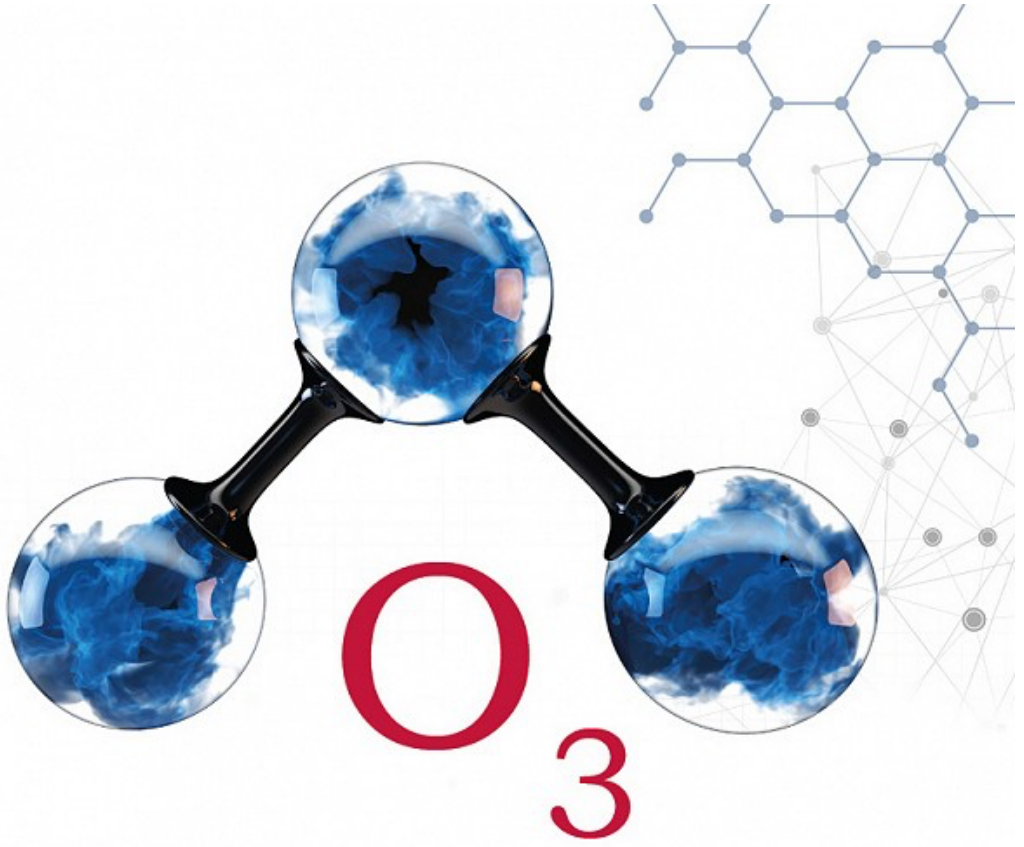
5:00 - 5:25 p.m.

WSB-122

Advisor:
Dr. Dvorak

Dicke Boucka Boucka

Stratospheric and Tropospheric Ozone and their Consequences on Human and Environmental Health



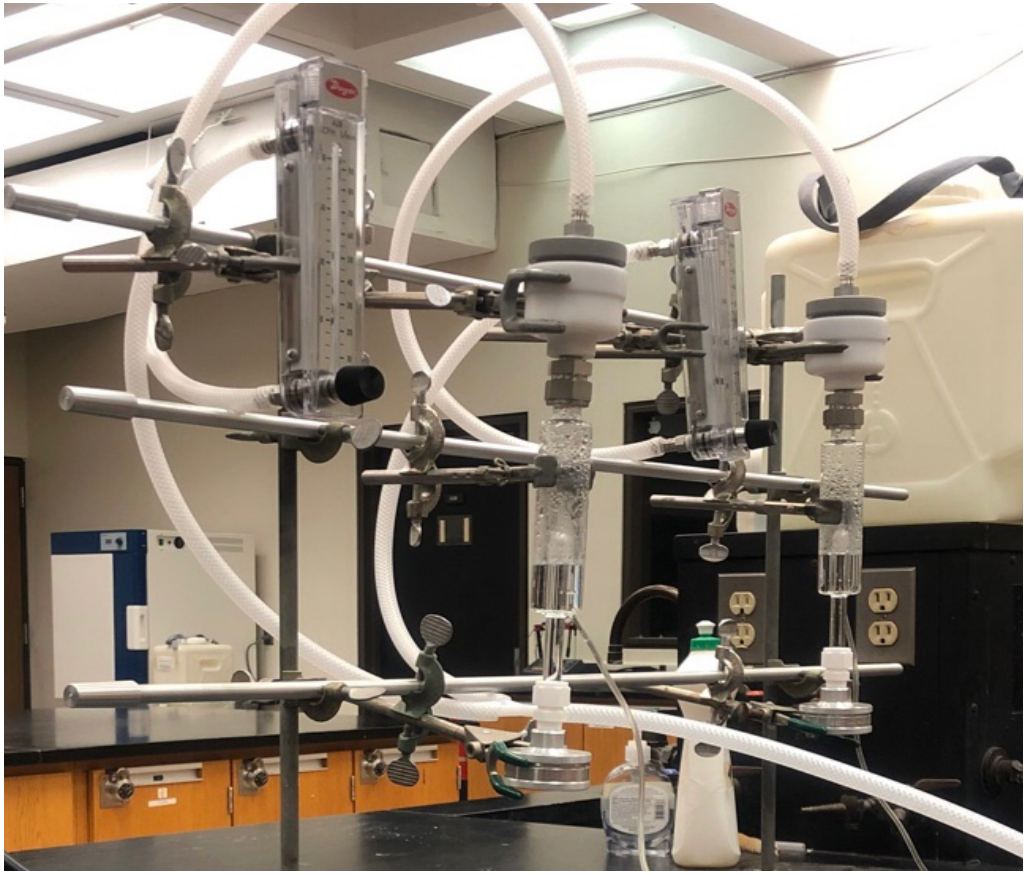
5:00 - 5:25 p.m.

WSB-119

Advisor:
Dr. Kirkland

Kiwoon Kim

Indoor Air Quality: a Sampling Method and Impacts on Human Health



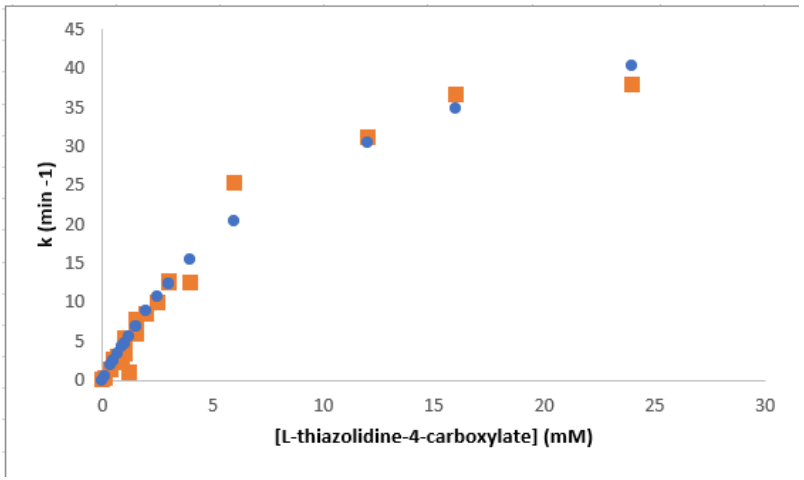
4:30 - 4:55 p.m.

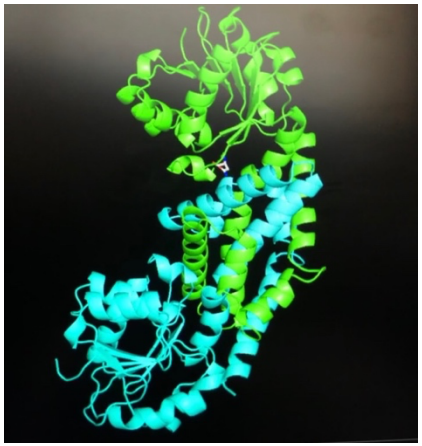
WSB-122

Advisor:
Dr. Bruender

Wengelawit Molla

The Investigation on the Effect of Asn123Gly Mutation in the Enzyme Pyrroline-5-Carboxylate Reductase





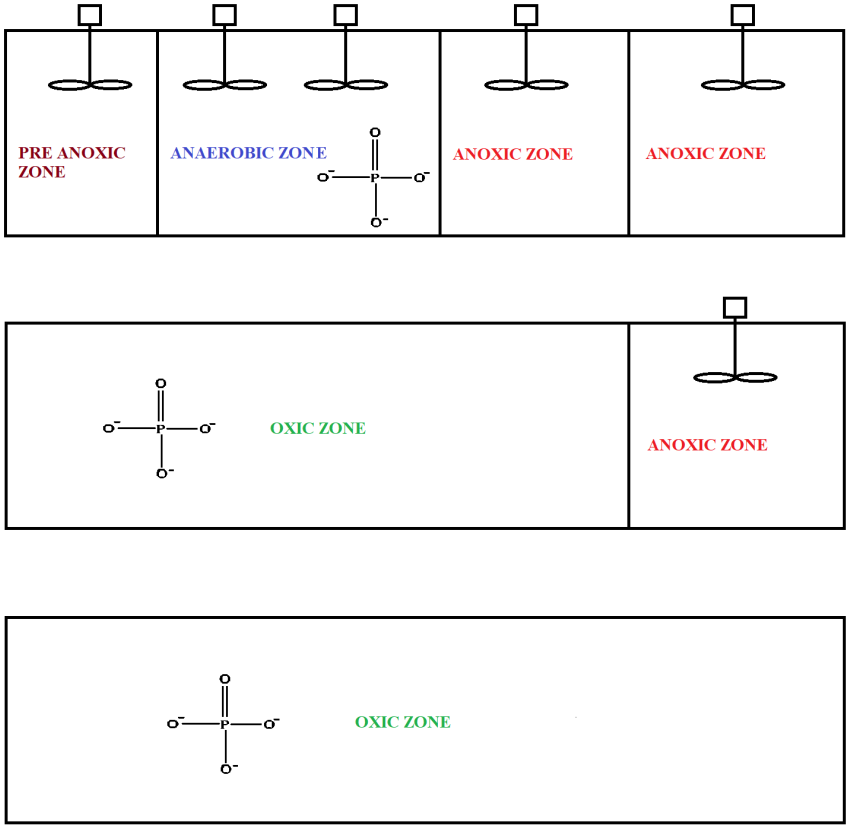
4:30 - 4:55 p.m.

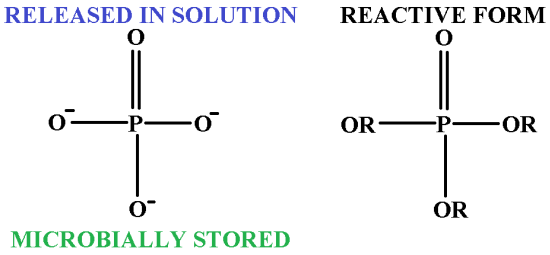
WSB-125

Advisor:
Dr. Kirkland

Brooke Paulson

Optimization of the Procedure for Chemical Analysis of Total Phosphorus Content in Wastewater Effluent





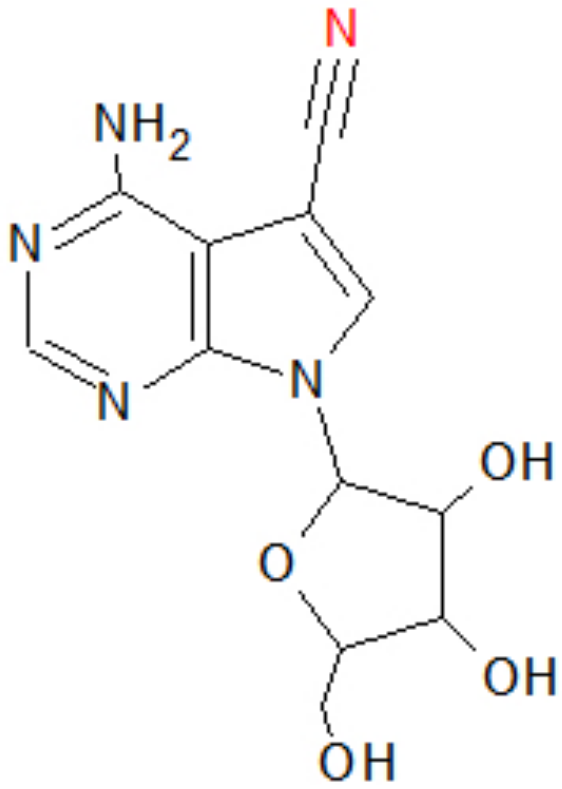
4:30 - 4:55 p.m.

WSB-124

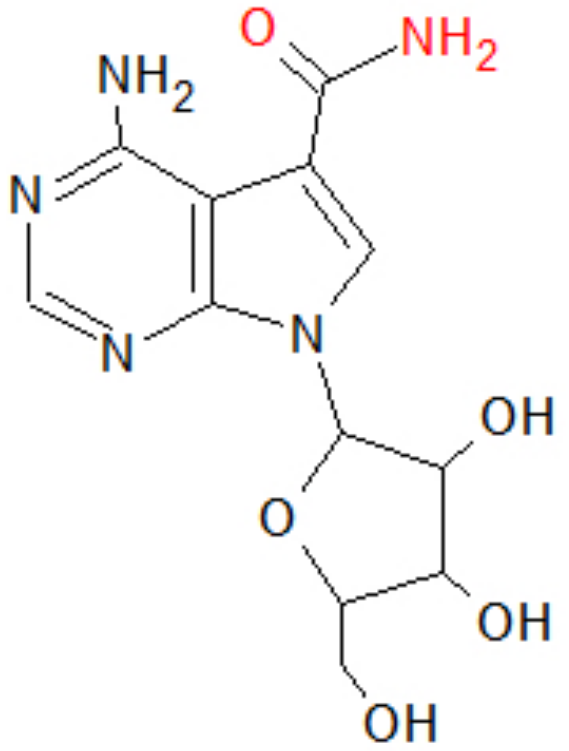
Advisor:
Dr. Bruender

Annisa Rumahorbo

Steady-State Kinetic Analysis of Putative Adenylosuccinate lyase (Toy F) in Toyocamycin Production



Toyocamycin



Sangivamycin

4:30 - 4:55 p.m.

WSB-119

Advisor:
Dr. Bruender

Ian Todd

Enzyme Kinetics of Pyrroline-5-Carboxylate Reductase Mutant S177A in *Sinorhizobium Meliloti*

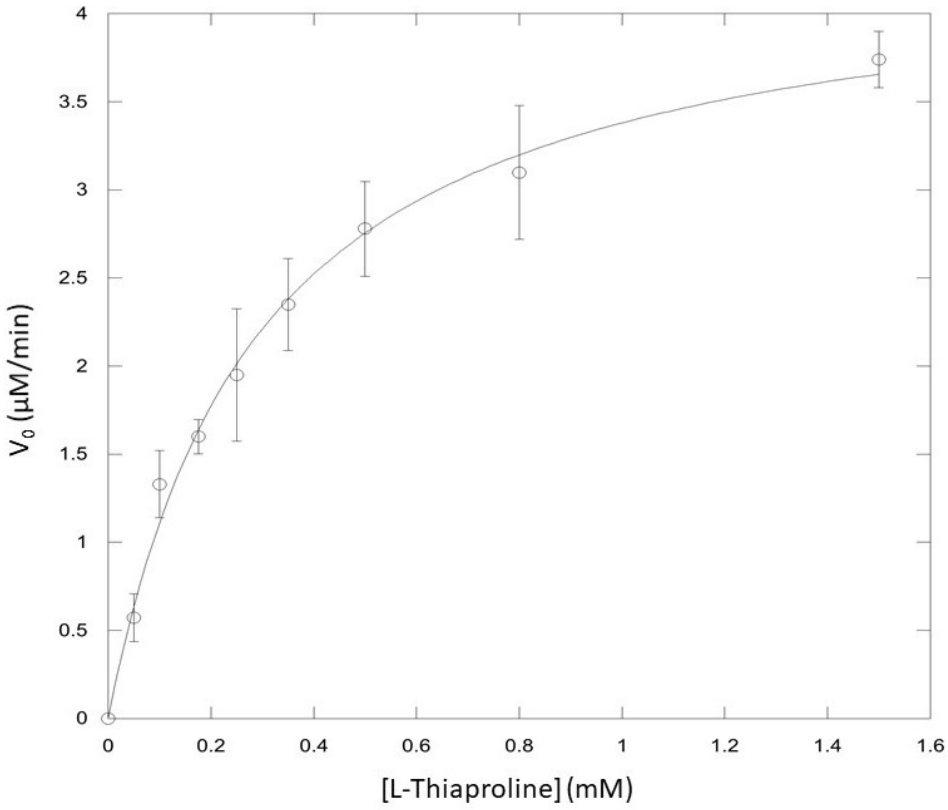


Figure N. Michalis-Menton plot of initial velocity as a function of substrate,L-thiaproline, concentration. Enzyme kinetic trials held a constant concentration of HEPES buffer at 50 mM, coenzyme NAD^+ at 4mM, and mutant S177A PC5R enzyme at 0.100 mM.

Emma Wermager

A Study and Analysis of Free Ammonia, Organic Molecules, and Potassium Permanganate at the St. Cloud Water Treatment Facility

5:00 - 5:25 p.m.

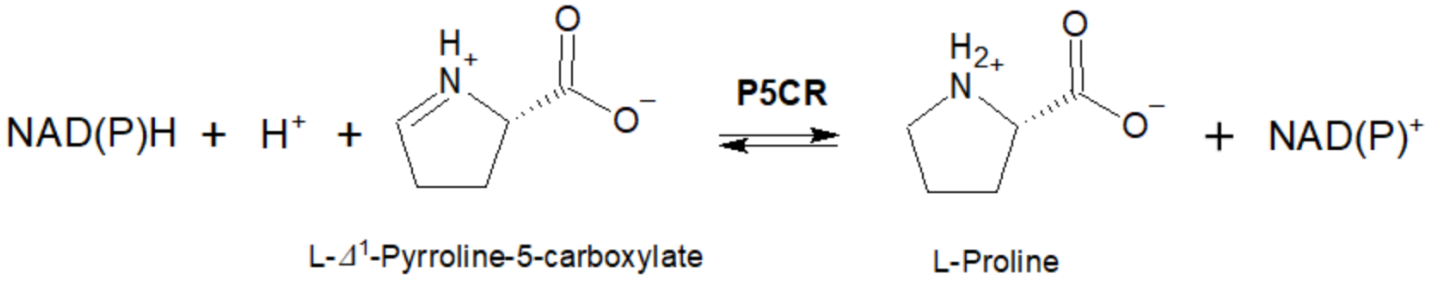
WSB-124

Advisor:
Dr. Petitto

Houa Yang

Investigation on the Function of Pyrroline-5-Carboxylate Reductase Using Serine177 to Aspartate

5:00 - 5:25 p.m.

WSB-125

Advisor:
Dr. Bruender