



JAMES MADISON
UNIVERSITY®



CHEMISTRY SEMINAR

Friday, March 22
3:30 pm, King 159

Dr. Kaitlyn Crawford

University of Central Florida
Materials Science and Engineering

Push-pull Chromophores with a Twist

This seminar introduces research activities in the Crawford Lab as a segue to dial in on a discussion about push-pull chromophores toward non-linear electro-optics applications. Dr. Crawford's lab focuses on developing stimuli-responsive materials for human sustainability; from synthesizing new monomers from renewable resources to designing flexible electronics, piezoelectrics, hydrogels, and electro-optic (EO) materials. In the latter case, push-pull chromophores exhibit useful EO properties with the potential to significantly improve non-linear EO applications ranging from telecommunications to quantum informatics. Compounds with large hyperpolarizability values (β) that are stable and have easily modifiable functional groups are needed to advance organic-based EO systems. This seminar focuses on describing the experimental and theoretical methods we use to investigate the design, synthesis, and potential applications of a new class of push-pull, twist chromophores with xanthene bridges toward non-linear EO applications. A "twist" in the seminar topic includes a concluding discussion about managing health and well-being in STEM and tools for successful work-life balance.

Meet the Speaker
Seminar

2:00 pm, PCB 3144
3:30 pm, King 159