

FALL 2021  
CHEMISTRY  
SEMINAR SERIES



DR. JOSEPH  
BADILLO

Department of Chemistry  
and Biochemistry

Seton Hall University

HOST:  
DR. LALANCETTE

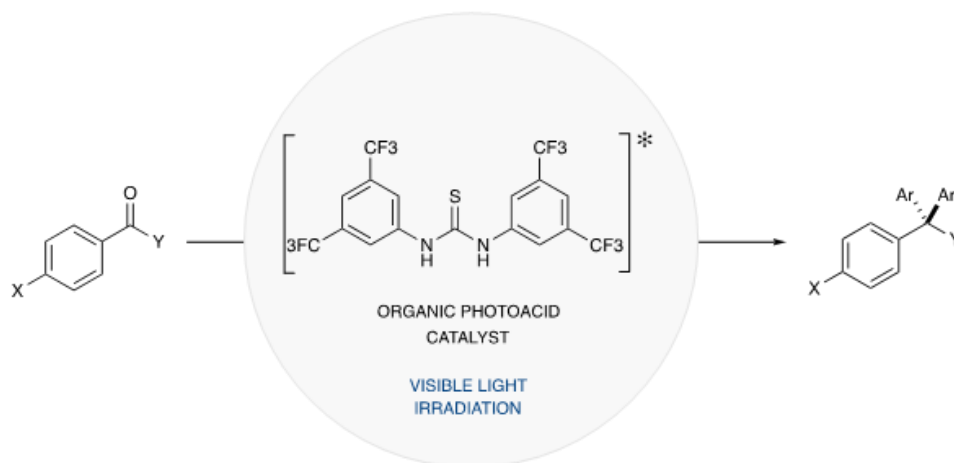
ALL THOSE  
INTERESTED ARE  
WELCOME TO  
ATTEND

# “Photoacid Catalyzed Functionalization of Carbonyls”

Friday, October 15, 2021, 11:30 AM

Life Science Center II, Room 130

**Abstract:** Photoacid-catalysis has recently emerged as a useful strategy for organic synthesis using visible light as a mild way to modulate chemical reactivity. Photoacids are bench stable weak acids in the absence of light irradiation and only upon irradiation become strongly acidic and thus catalytically active. This presentation will discuss the development of photoacid catalyzed processes for the functionalization of carbonyl compounds.



**Biographical sketch:** Joseph J. Badillo received his B.S. in Chemistry from California State University, Long Beach in 2008. He earned his Ph.D. from the University of California, Davis in 2014, working in the area of asymmetric catalysis with Professor Annaliese Franz. After which he worked with Professor David MacMillan at Princeton University as an NIH postdoctoral fellow. Joe joined the faculty at Seton Hall University in the fall of 2017. His research interests include the development of new catalytic methodologies and the synthesis of natural products.

Research in the Badillo lab is centered around the development of new catalytic reaction platforms for organic synthesis. We are interested in the use of visible light to modulate the reactivity and selectivity of organic reactions. In addition, we study systems which exploit the reactivity of cationic and anionic catalysts. Our lab is also interested in applying contemporary catalysis, such as photoredox catalysis, to the synthesis of biologically relevant small molecules and natural products. Through collaborations, we investigate the biological activity of compounds synthesized in our lab.

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