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Department of Chemistry

Seminar

4 p.m. Monday, September 30, 2013 • 331 Smith Hall



Assistant Professor

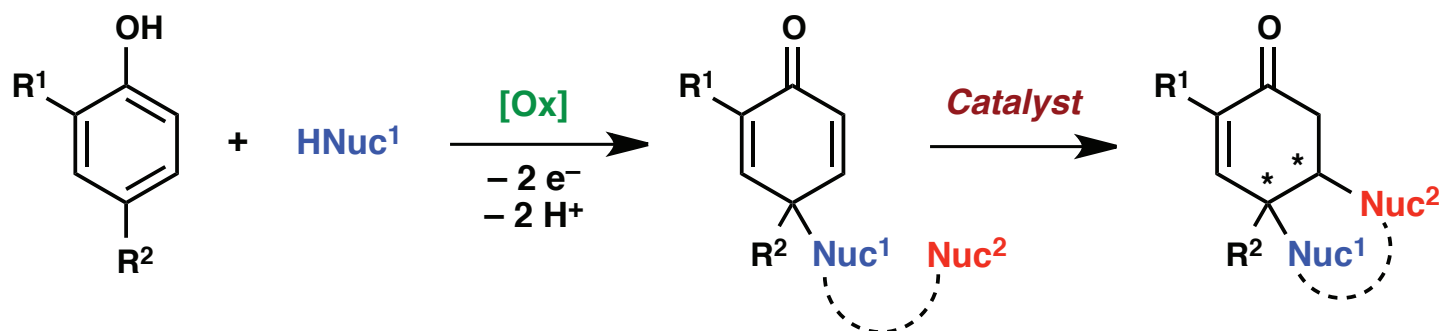
Andrew Harned

Department of Chemistry
University of Minnesota

Cyclohexadienones as a Challenging Platform for Reaction Discovery and Development

Research focuses on methodology based total synthesis.
Website: <http://www.chem.umn.edu/groups/harned/>

Abstract



The cyclohexadienone framework is both a challenging platform for developing new synthetic methods and a useful building block for natural product synthesis and drug discovery efforts. The generation of chiral 2,5-cyclohexadienones (e.g., R¹≠H) via enantioselective dearomatization of substituted phenols continues to be a challenge for the synthetic community and a general solution has yet to be realized. An alternative approach to the general problem of conducting stereoselective synthesis with cyclohexadienones is to carry out symmetry-breaking reactions on easily synthesized, achiral substrates (e.g., R¹=H). This will not only set the configuration of the fully substituted carbon atom, but under most circumstances will also result in the formation of a second contiguous stereocenter (possibly more). Our efforts on both of these fronts will be presented along with our earlier efforts aimed at using these products in natural product synthesis.

Refreshments will be served prior to the seminar.