

## THE PADWA LECTURE

# Twists and turns along the path of reactivity-driven methodology development

Presented by Hosea Nelson, UCLA



**Abstract:** Carbocations are important reactive intermediates that are invoked in many chemical transformations. These species are usually of the tricoordinated variety. Conversely, dicoordinated carbenium ions are rarely invoked as intermediates in practical chemical processes due to their high energy and energetically challenging formation. In this talk I will discuss our recent efforts to utilize phenyl and vinyl carbocations in C–H functionalization reactions. We will describe how these high-energy dicoordinated carbocations can be generated under

mild conditions and utilized in the selective C–C bond forming reactions of simple hydrocarbons. Moreover, we will discuss our efforts to understand the mechanism of these reactions through computational chemistry, kinetics, electron microscopy, and isotopic labeling studies.

**Hosted by Tom Rovis**

Thursday, October 1, 2020 at 4:30pm EDT

[Register here for zoom link](#)

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