

# O-I-M Seminar Series

Organic/Inorganic/Materials • <https://chemistry.uoregon.edu/>



**Hosea Nelson**

Caltech

**May 12, 2023 • 3 pm**

**110 Willamette Hall**

Hosted by ADSE



Twists and turns in science and life. Chemical reactions, electron diffraction, the path from community college to the academy

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. In the second half of the talk we will discuss our efforts to bring electron microscopy to organic chemistry through the use of MicroED and other CryoEM modalities.



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