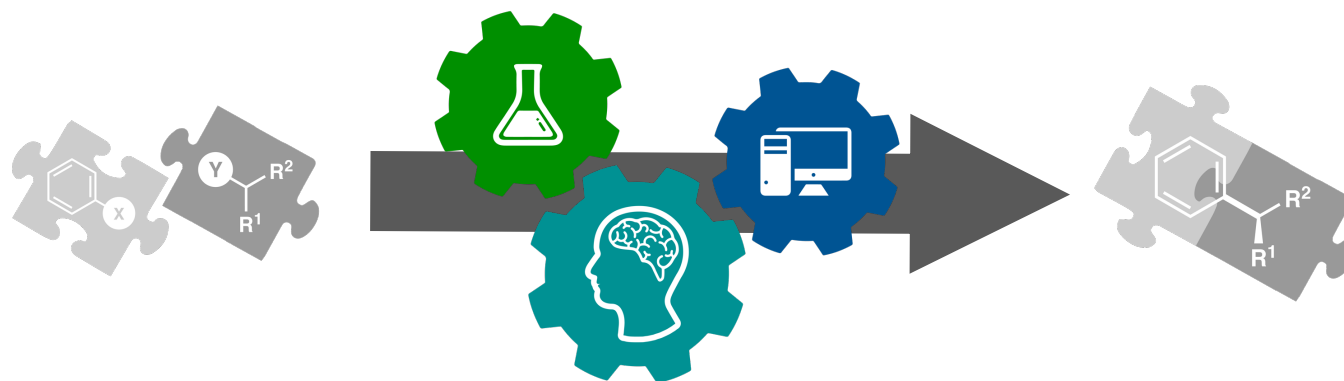
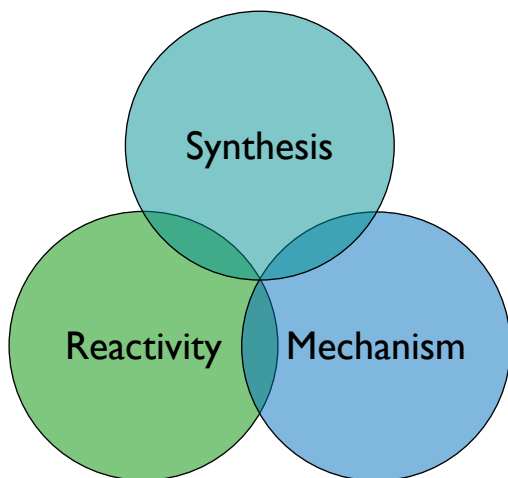


Building Chiral Molecules with Cross-Coupling Catalysts



Our group focus is on developing metal-catalyzed cross-coupling reactions that use earth-abundant metal catalysts. We aim to apply these reactions in small molecule synthesis and use data science tools to understand key structural and electronic parameters that influence reaction outcomes.

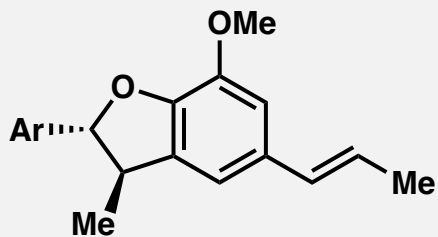
Laboratory Research Focus



Our group will use data science to guide the development of asymmetric Fe-catalyzed reactions that allow for late-stage diversification of small molecule natural products.

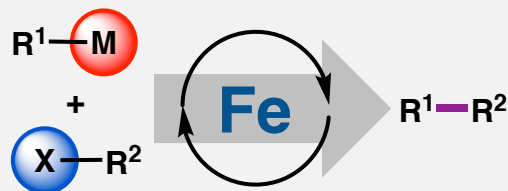
Negishi Arylations of α -Oxy Redox Active Esters for the Synthesis of Maceneolignan A

Synthesis

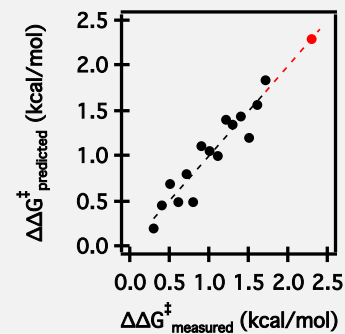


Ar = 3,4,5-trimethoxyphenyl
(+)-maceneolignan A

Reactivity

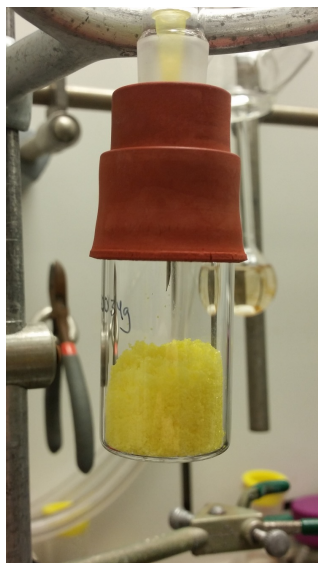


Mechanism



Graduate School

Yellow organic compound:



Purple nickel compound:

