Ruthenium-Catalyzed Z-Selective Cross-Metathesis of Allylic Alcohols

Significance: The authors describe a ruthenium complex catalyzed Z-selective cross-metathesis to afford (Z)-allylic alcohols. The reaction conditions are very mild and a wide range of functional groups (for example, aldehydes, carboxylic acids, phenols, and enol ethers) is tolerated.

Comment: Using a ruthenium–disulfide complex, highly valuable (Z)-alkenes are obtained from easily available alkenes and (Z)-allylic alcohols. Theoretical studies provide a better understanding of this catalyst design.