

ESCHENMOSE-CLAISEN REARRANGEMENT



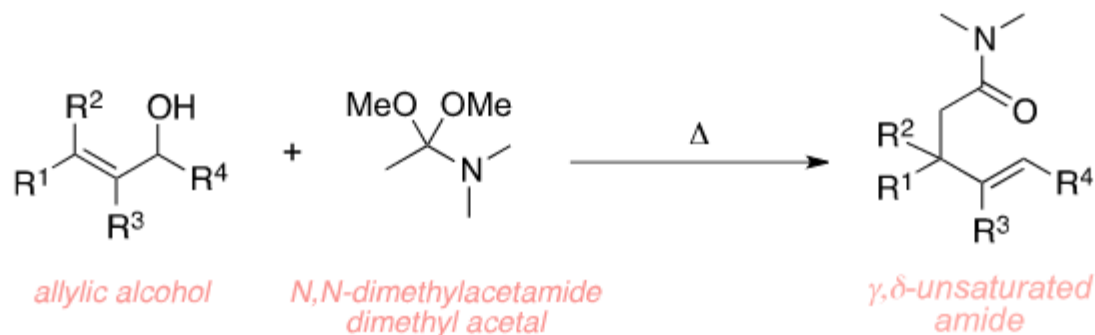
王志强

2015.3

ESCHENMOSER-CLAISEN REARRANGEMENT

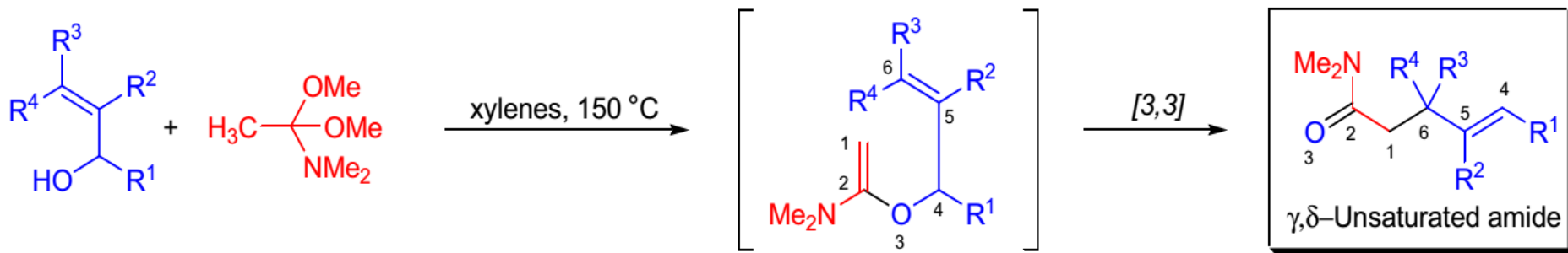
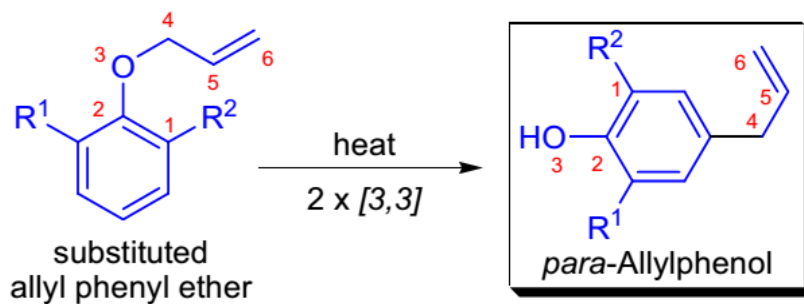
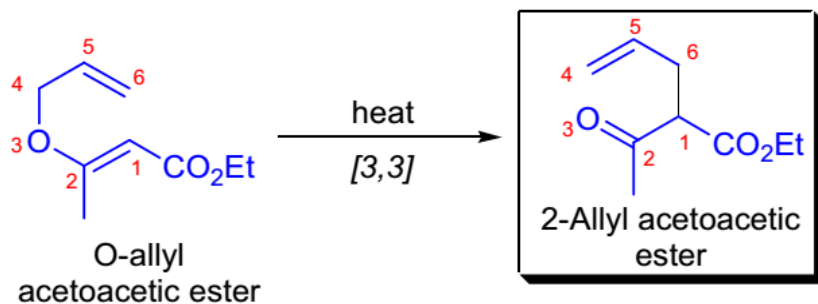
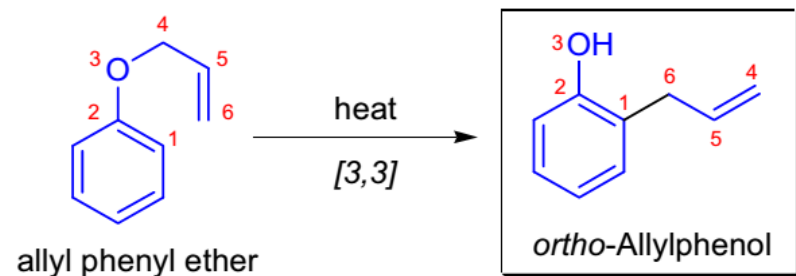
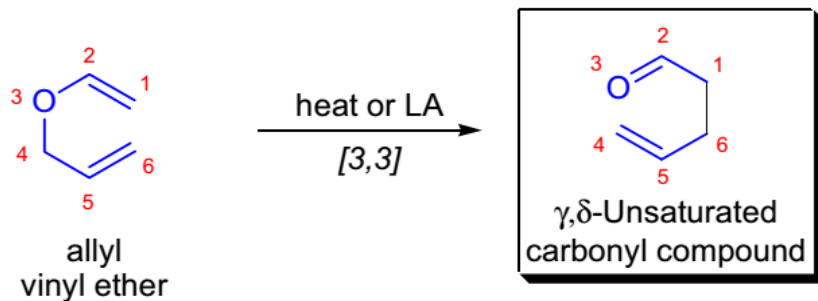
Eschenmoser-Claisen rearrangement

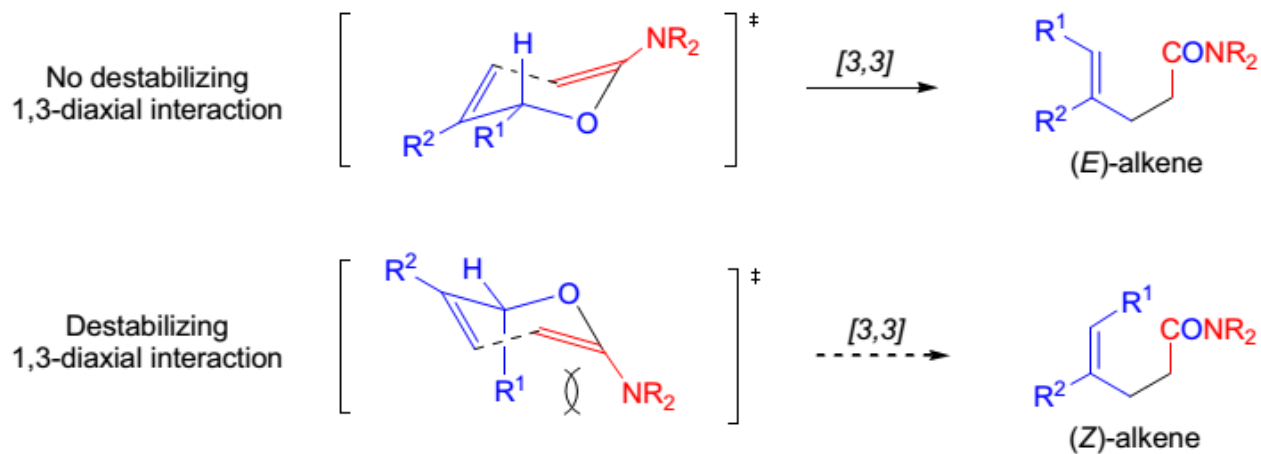
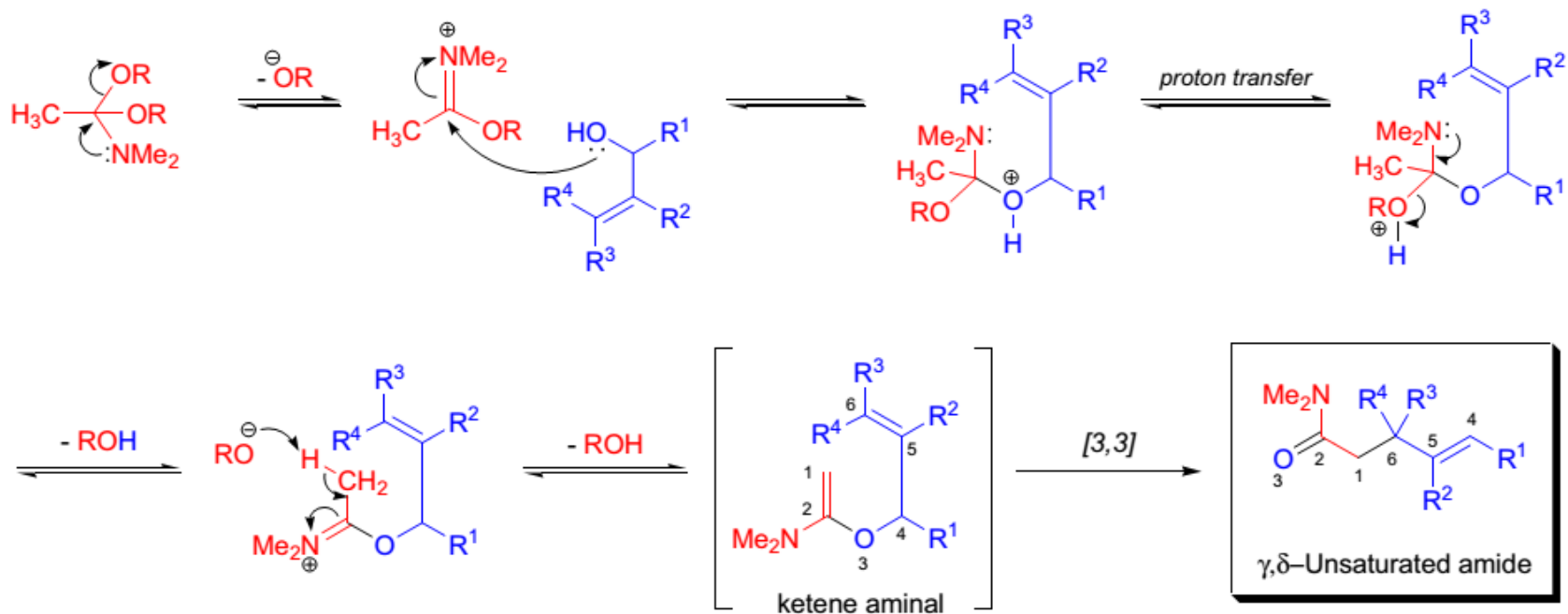
Also known as: *Meerwein–Eschenmoser–Claisen rearrangement*

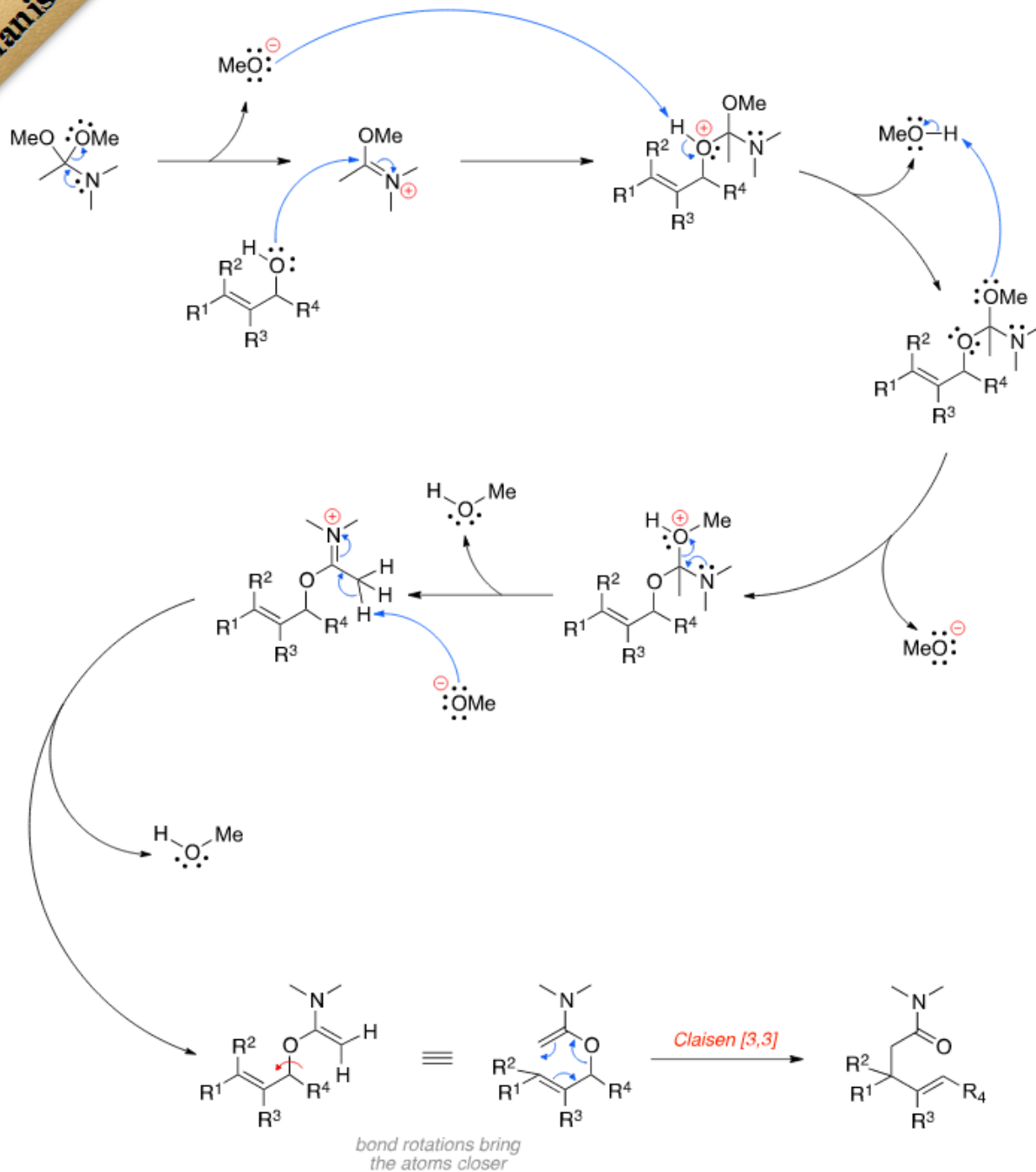


The Eschenmoser-Claisen rearrangement is an organic reaction where an allylic alcohol is heated with N,N-dimethylacetamide dimethyl acetal to produce a γ,δ -unsaturated amide. The reaction begins with the release of a methoxide group from the amide starting material to produce an iminium cation which is then attacked by the alcohol. Proton transfer steps then follow which place the proton on the remaining methoxide group which is then released as a molecule of methanol and another iminium cation is formed. Deprotonation with methoxide produces a 1,5 diene intermediate which undergoes a Claisen sigmatropic rearrangement to provide the final γ,δ -unsaturated amide product.^[1]

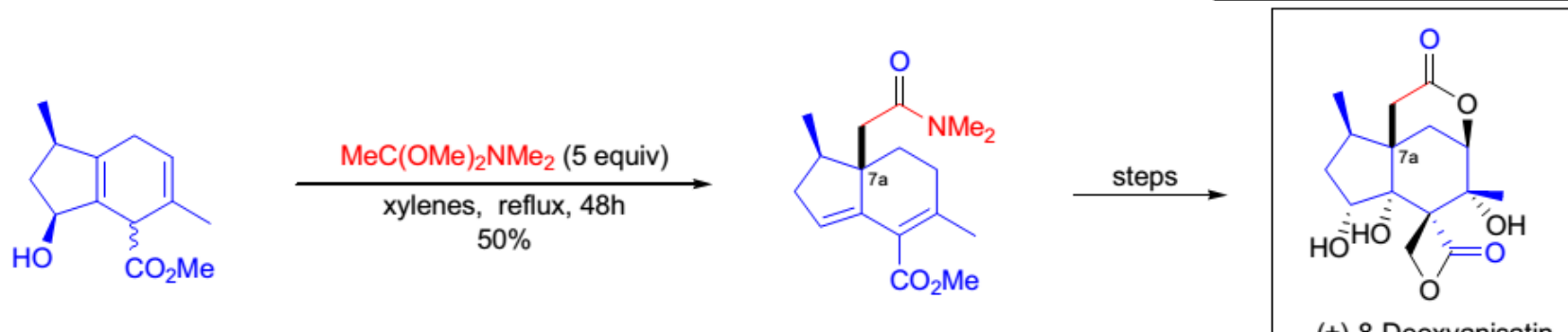
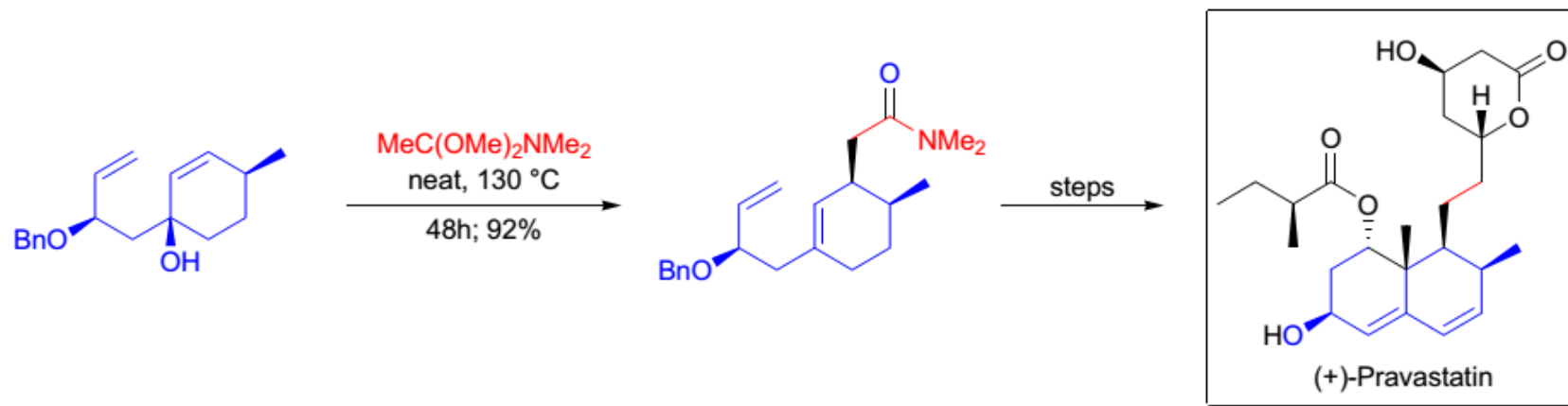
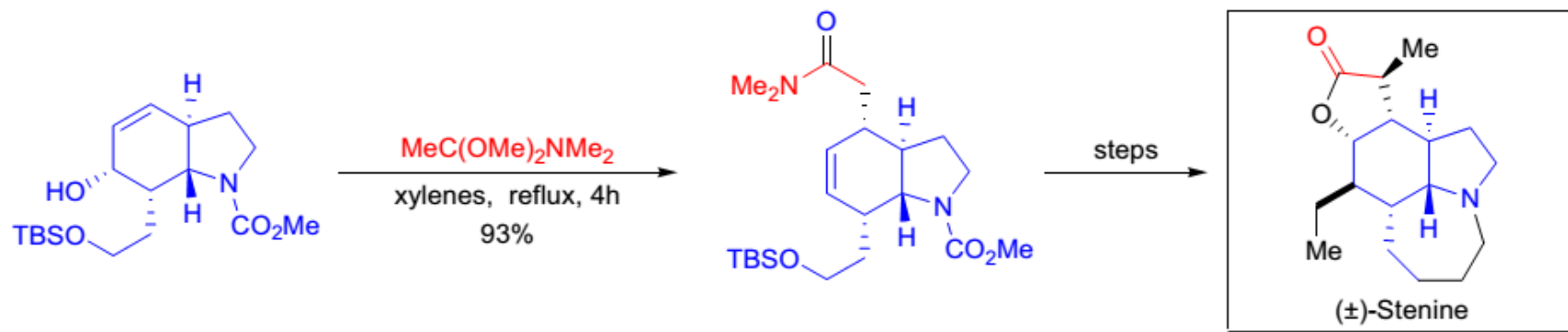
CLAISEN REARRANGEMENT







Synthetic Applications:





◆ **Thank you**