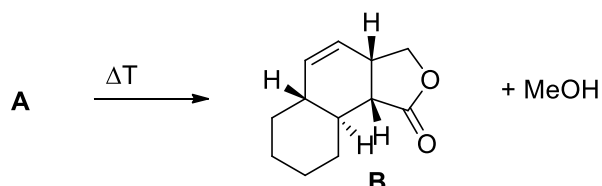
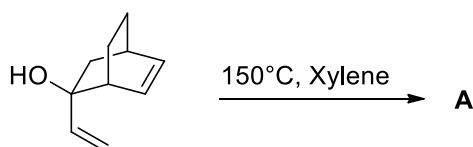


1. The shown molecule **B** is formed from **A** by just heating it in an inert solvent. What is the structure of **A**? Indicate as well why you are selecting a specific stereochemistry.



2. What is the structure of product **A** and what is the name of the reaction?



3. In nature, the essential aromatic amino acids phenylalanine and tyrosine are biosynthesized by the so-called chorismate/prephenate pathway. The enzyme chorismate mutase catalyzes a Claisen rearrangement. Give the structure of prephenate? Draw as well the transition-state of the reaction.

