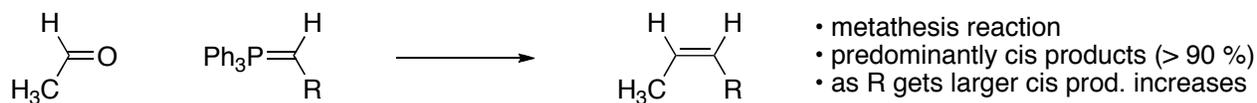


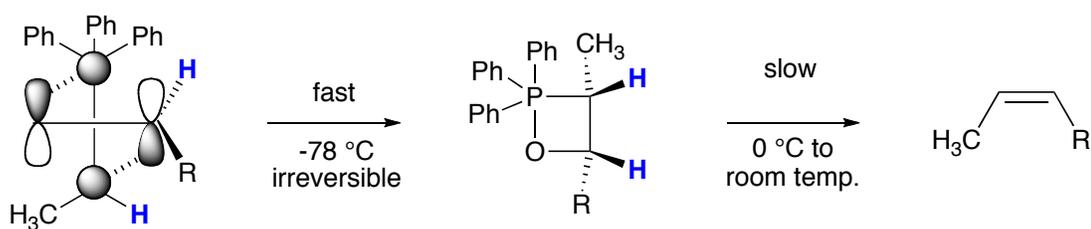
The Wittig Reaction: Mechanism and stereochemistry



currently accepted mechanism :

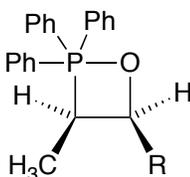
$\pi^2\text{a} + \pi^2\text{s}$ cycloaddition
antarafacial suprafacial

J. Am. Chem. Soc. **1973**, *95*, 5778.



cis-oxaphosphetane

LOWEST ENERGY TS
orientation is so that R and CH_3 are as far apart as possible



Alternative 2 + 2 transition states

