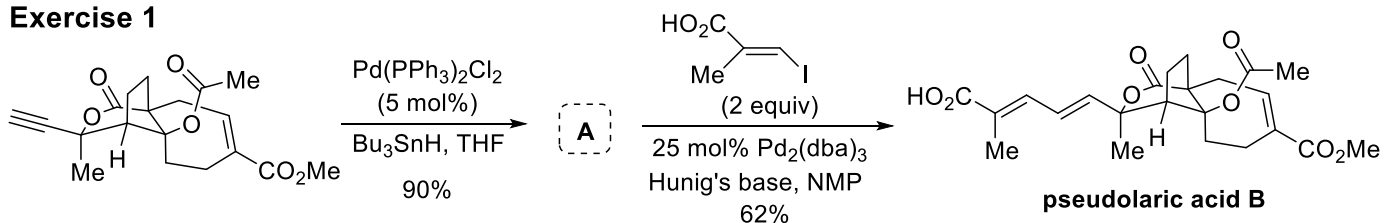


SR-2025 - Ex-Session 4: Transition-metal catalysis in organic synthesis

Exercise 1

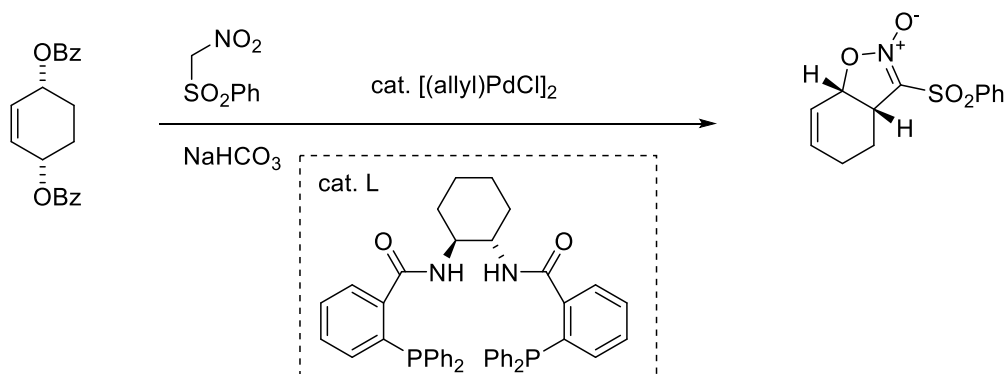


What is the structure of **A**?

Propose a detailed mechanism for each step.

What is the name of the second reaction?

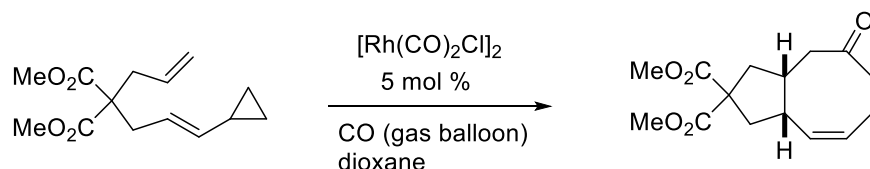
Exercise 2



Propose a detailed mechanism for this cyclization reaction, comprising two consecutive individual steps, which also explains the observed relative stereochemistry.

What is the name for this type of reaction?

Exercise 3



Propose a mechanism for this reaction, showing the major intermediates and elemental steps.