

TODAY'S TOPICS

- General information
- Key historical developments
- Mechanisms
- Asymmetric catalysis

PROBLEMS OF THE DAY

- #1** Wilkinson's catalyst was the first homogeneous catalyst that offered comparable catalytic performance to heterogeneous catalysis.
- (A) **Draw the structure of Wilkinson's catalyst and propose two synthetic routes from Rh^I or Rh^{III} progenitors.**

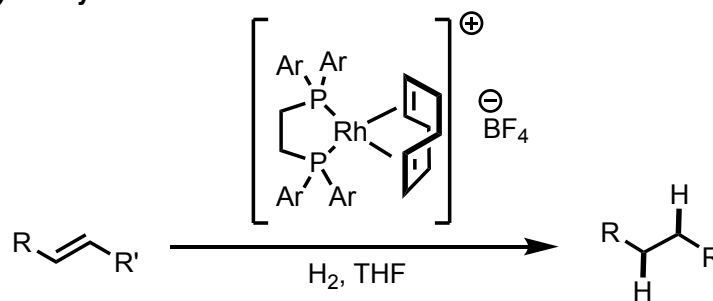
- (B) **Rationalize why the iridium-based analog of Wilkinson's catalyst far less active as a hydrogenation catalyst.**

CHEMIST OF THE DAY



name?
institution
known for?

- #2** The Schrock–Osborn catalyst shown below is highly active for the hydrogenation of olefins. **Propose the active (on-cycle) catalyst in the transformation.**

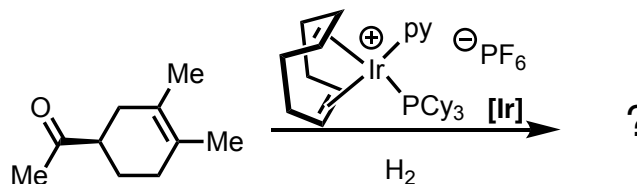


QUOTE OF THE DAY

"I was taught that the way of progress was neither swift nor easy."

- Marie Curie

- #3** Consider the following iridium-catalyzed hydrogenation reactions. **Predict the major product and propose an intermediate to rationalize your choice.**



READING

Hartwig: Ch. 15
Crabtree: Ch. 9.2–9.3