**Enantioselective Simmons–Smith Cyclopropanation: The Charette Modification**

**Significance:** In the paper, Charette and Juteau described a route towards enantioenriched cyclopropanes using a chiral amphoteric bifunctional ligand. This was the first report that enabled efficient chiral cyclopropane synthesis without reliance on covalently bonded chiral auxiliaries.

**Comment:** This modification tolerates various functional groups and is highly enantioselective. The chiral ligand could also be recovered through an aqueous extraction at the end of the reaction.


**Demonstrated examples:**

- **Ph**
  - >98% yield
  - 93% ee
- **n-Pr**
  - 80% yield
  - 93% ee
- **Et**
  - 85% yield
  - 94% ee
- **TBDPSO**
  - 90% yield
  - 93% ee
- **OH**
  - 80% yield
  - 91% ee

**Postulated mechanism:**

[Diagram showing the mechanism of the reaction]