Asymmetric Decarboxylative Allylic Alkylation of Acyclic Enol Carbonates

**Significance:** The authors present the first enantioselective palladium-catalyzed decarboxylative allylic alkylation of fully substituted non-cyclic enol carbonates. The reaction delivers the linear $\alpha$-quaternary ketones in excellent yields. The phosphinooxazolidine ligand controls the stereoselectivity of the reaction regardless of the $Z$/$E$ geometry of the enolate starting material.

**Comment:** This work outlines a general method to access linear $\alpha$-quaternary ketones with high enantioselectivity. A dynamic kinetic resolution of the two $Z$/$E$ geometries of the enolate starting material is postulated under optimal reaction conditions, which comprise the use of an electron-deficient phosphinooxazolidine ligand.

**Selected examples:**

- 97% yield, 91% ee
- 99% yield, 76% ee
- 90% yield, 66% ee
- 97% yield, 91% ee
- 99% yield, 92% ee
- 99% yield, 90% ee
- 99% yield, 92% ee
- 99% yield, 92% ee
- 99% yield, 70% ee
- 99% yield, 90% ee
- 99% yield, 90% ee

**Category:** Metal-Catalyzed Asymmetric Synthesis and Stereoselective Reactions

**Key words:** palladium catalysis, decarboxylative allylic alkylation, enol carbonates