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Synthesis of Carboxylic Acids by Palladium-Catalyzed Hydroxycarbonylation
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Category
Metals in Synthesis

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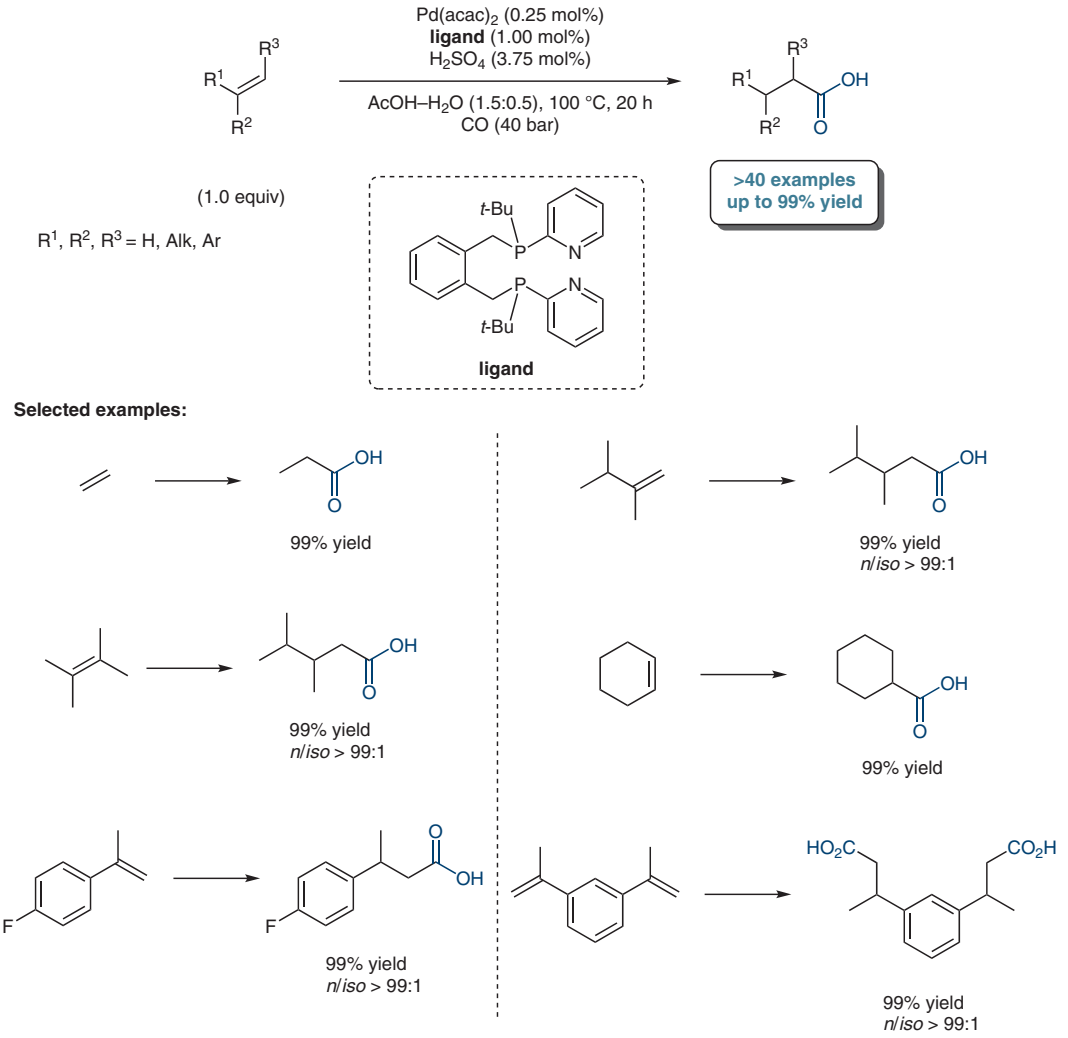
Synfact of the Month

Palladium-Catalyzed Synthesis of Carboxylic Acids



Significance: The authors report a very general and high yielding palladium-catalyzed synthesis of carboxylic acids, starting from alkenes. The method is performed in aqueous environment and uses only 0.25 mol% of $Pd(acac)_2$. High pressured carbon monoxide is used as 'CO' source, ensuring a good atom economy.

Comment: Various substituted alkenes (over 40 examples) have been successfully transformed into their corresponding carboxylic acids. The method provides the product in high *n*/*iso* ratio and can tolerate highly reactive functional groups, such as ketones or phosphates.

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