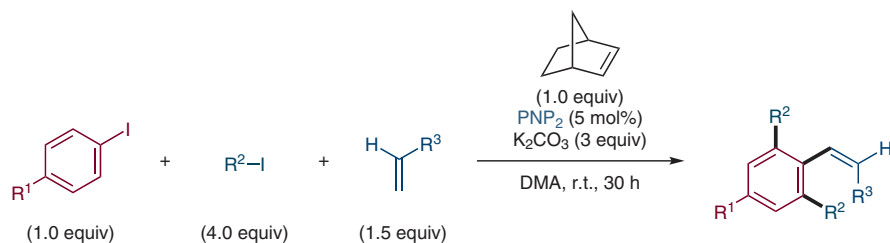


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A Complex Catalytic Cycle Leading to a Regioselective Synthesis of *o,o'*-Disubstituted Vinylarenes

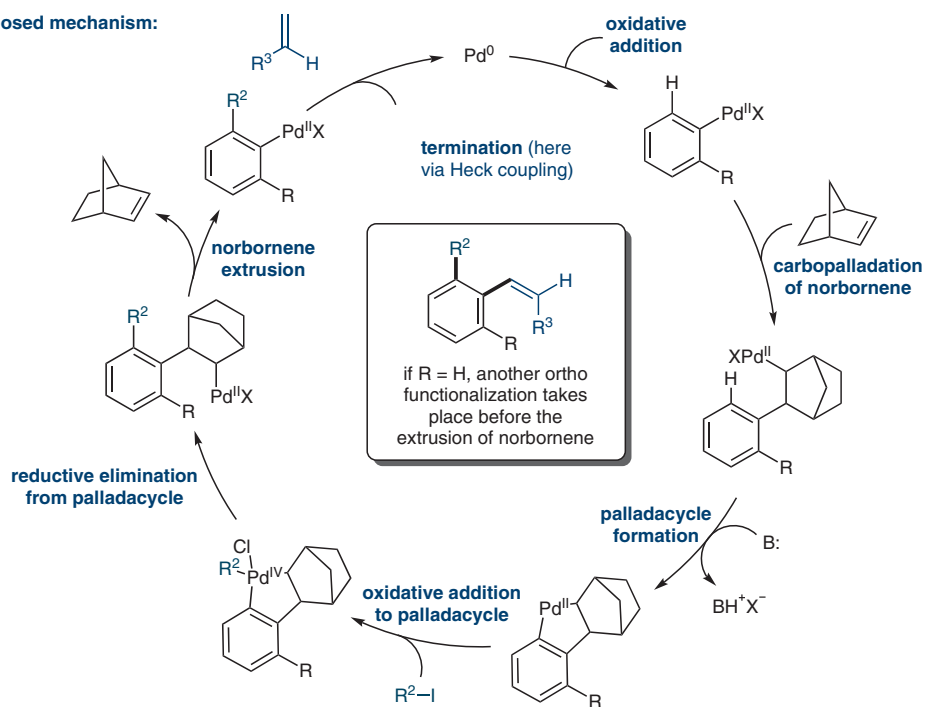
*Angew. Chem., Int. Ed. Engl.* **1997**, *36*, 119–122.

## Catellani Reaction: Synthesis of *o,o'*-Disubstituted Vinylarenes

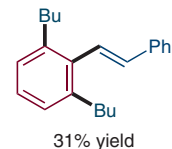
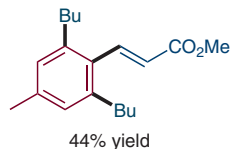
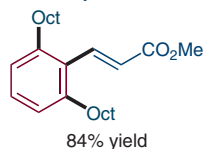


$R^1 = \text{H, Me, CO}_2\text{Me}$ ;  $R^2 = \text{Alk}$ ;  $R^3 = \text{CO}_2\text{Me, Ph, } n\text{-Hex}$   
 PNP<sub>2</sub> = *cis,exo*-2-phenylnorbornylpalladium chloride dimer

Proposed mechanism:



Selected examples:



**Significance:** Catellani and co-workers reported a highly regioselective multiple functionalization of iodoarenes via a complex palladium-catalyzed cycle.

**Comment:** The proposed mechanism proceeds through a palladacycle, which is formed from the iodoarene, norbornene, and the palladium catalyst.