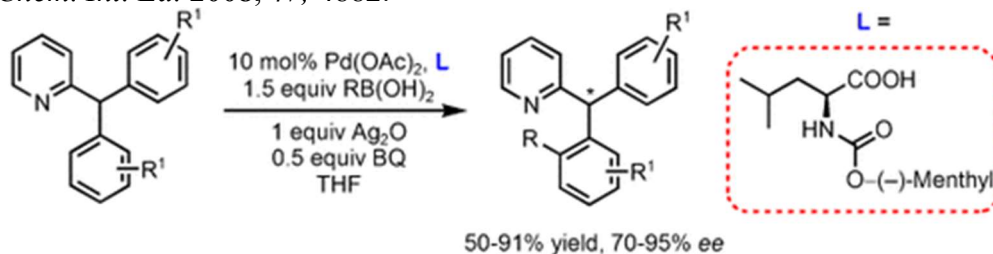
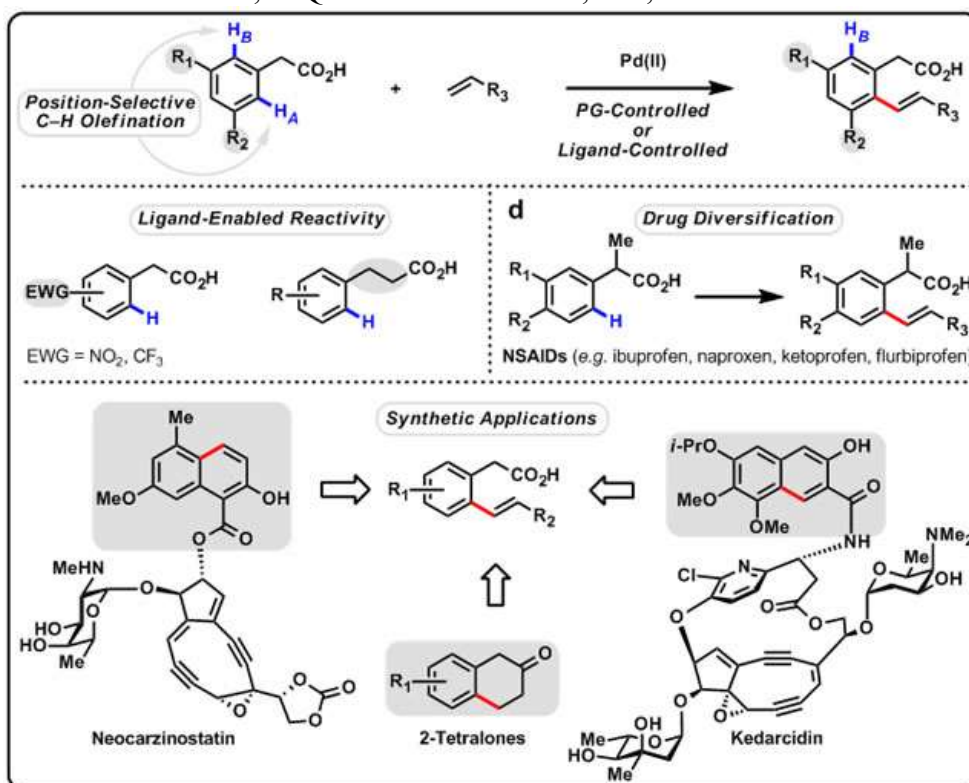


Yu Group

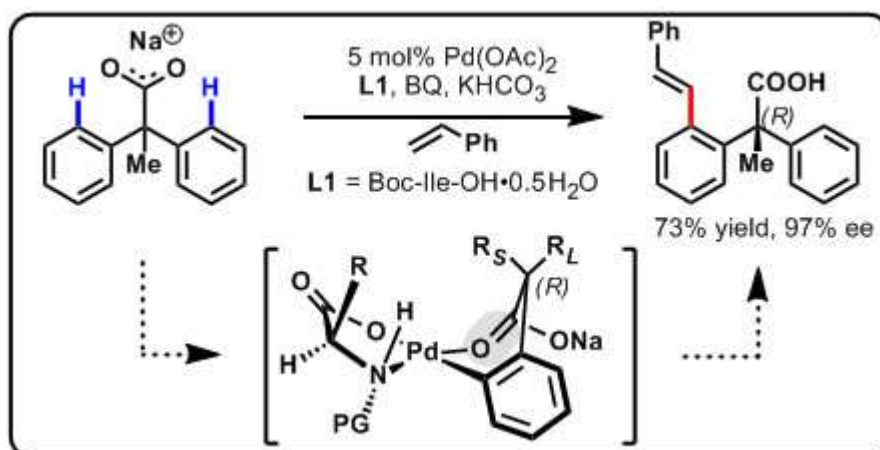
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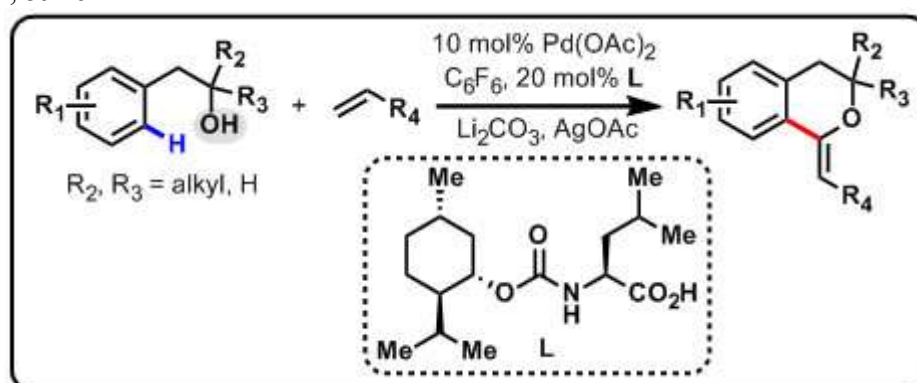
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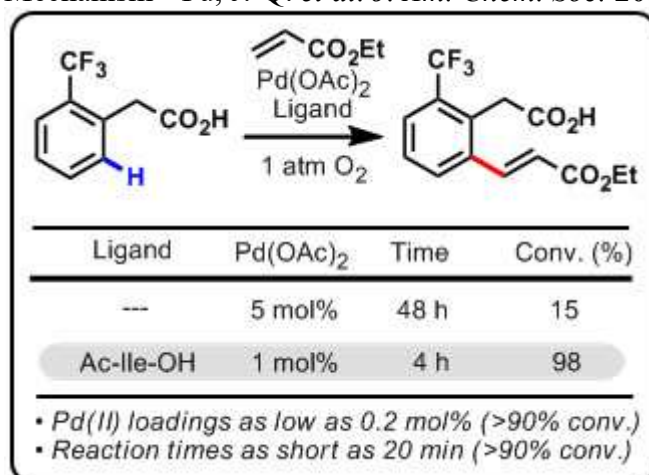
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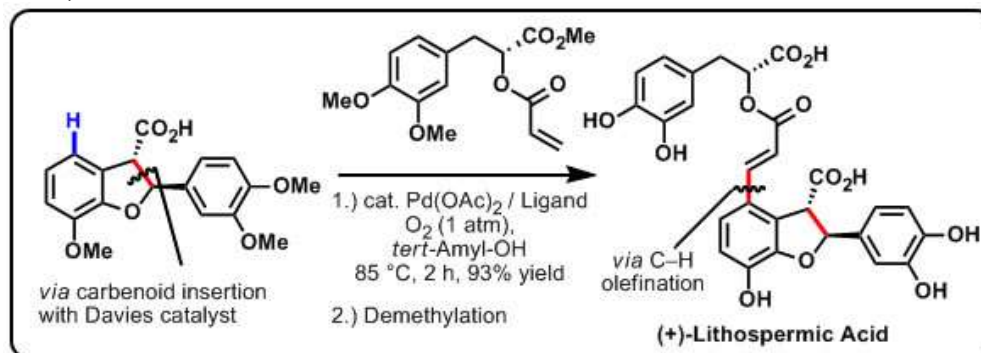


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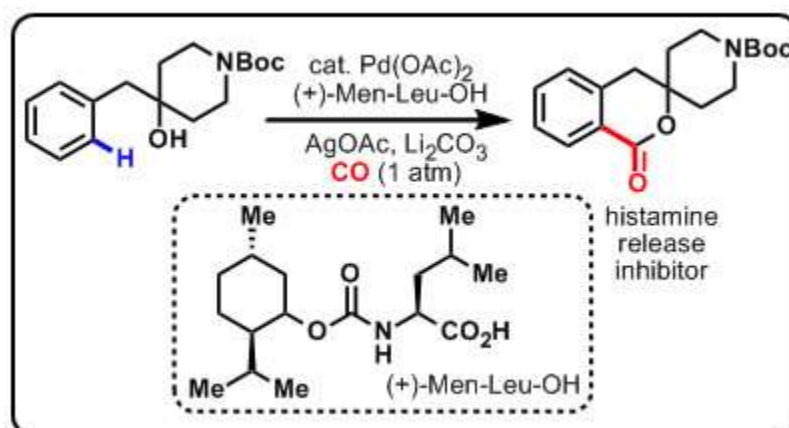


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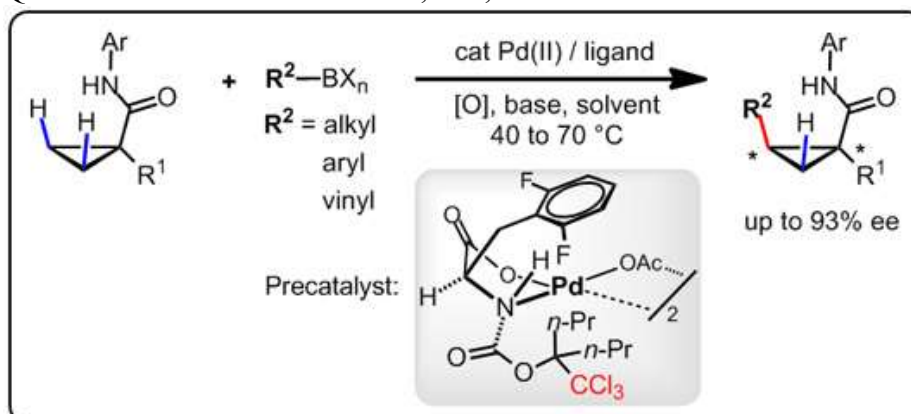
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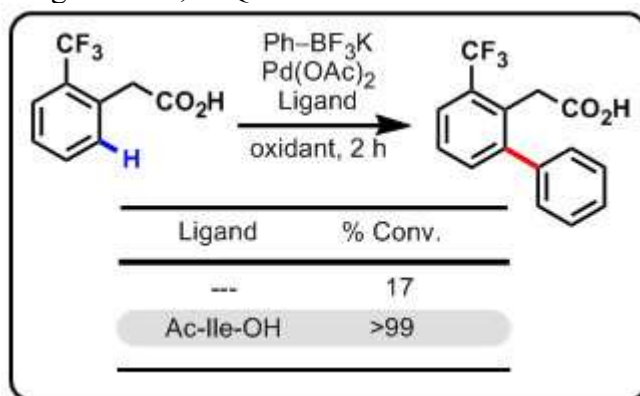
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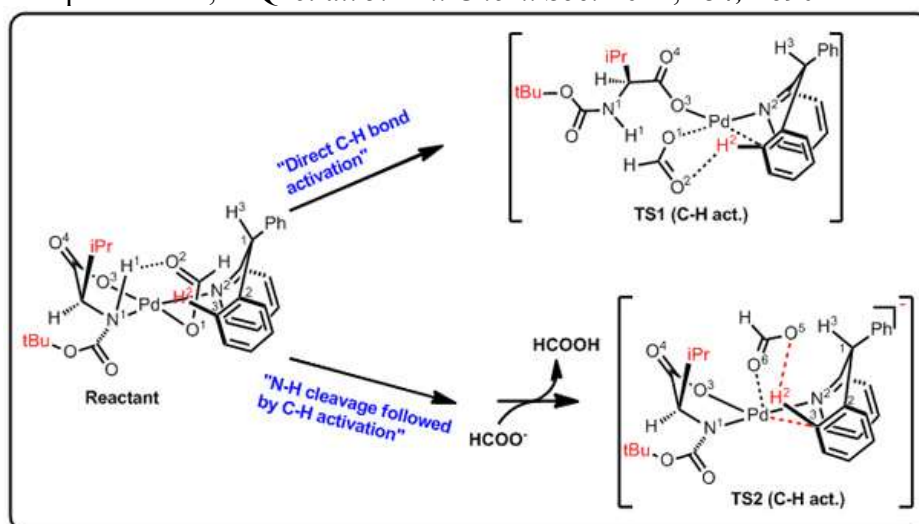
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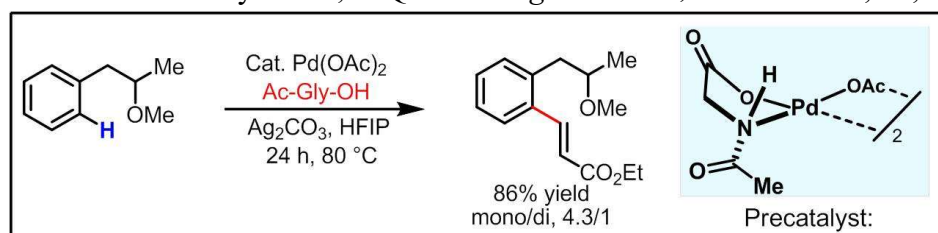
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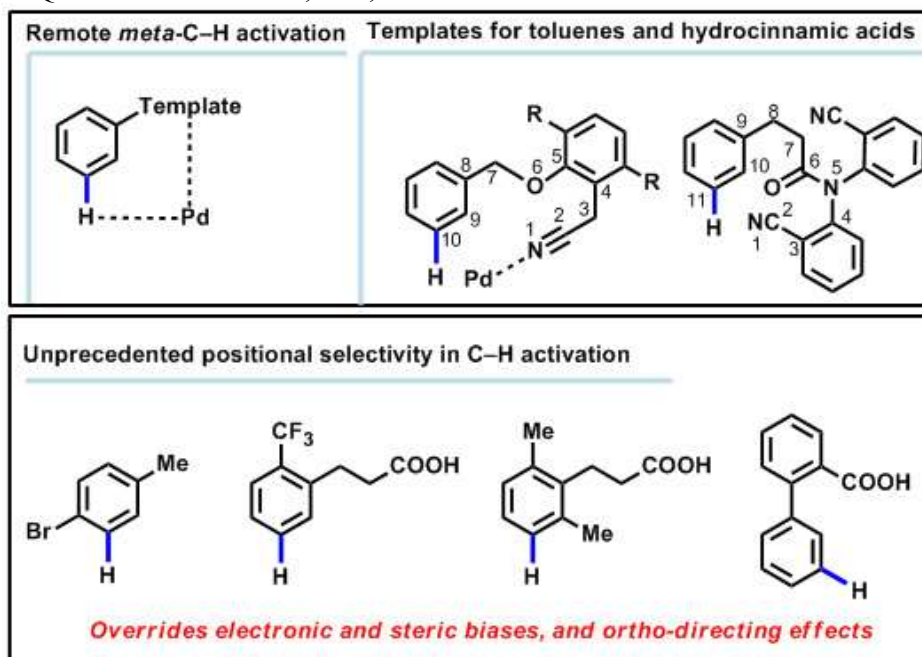
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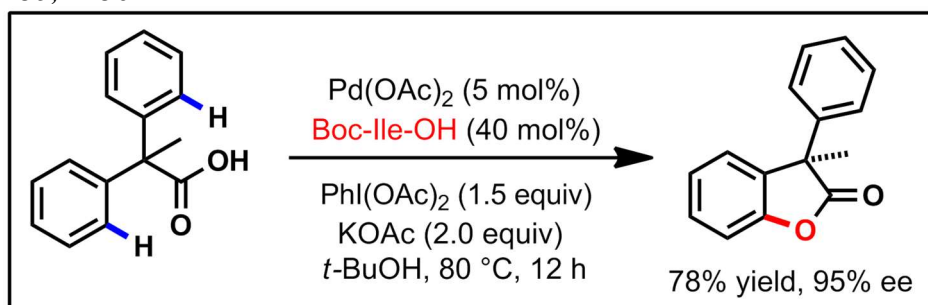
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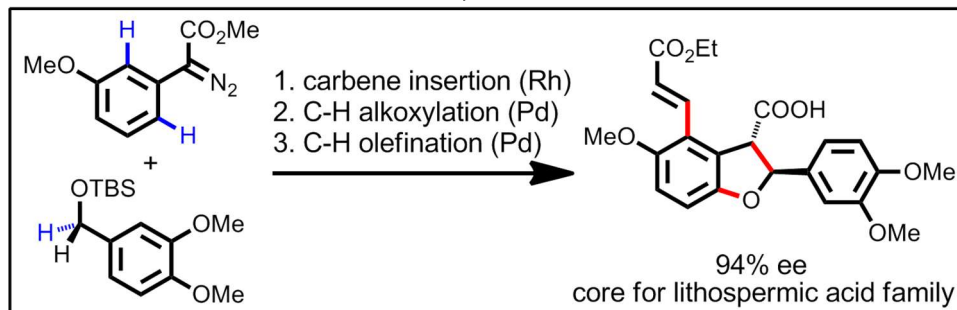
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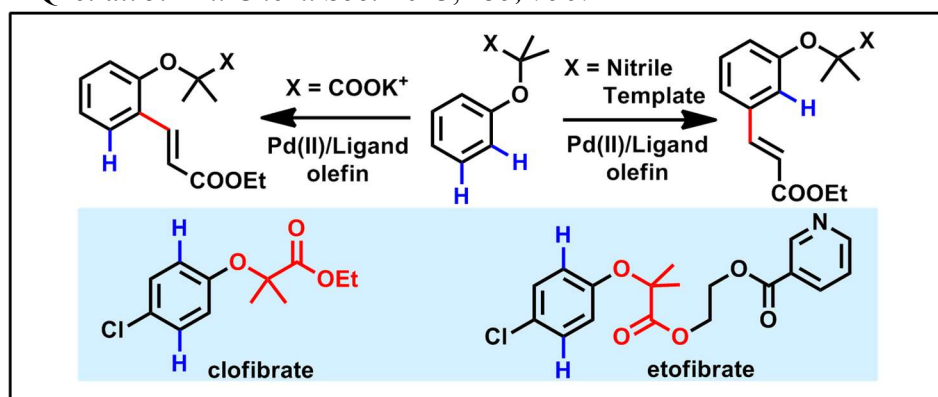
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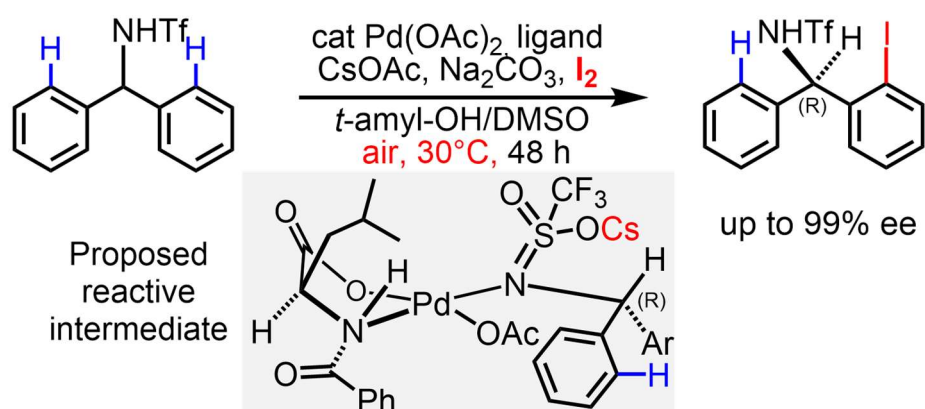
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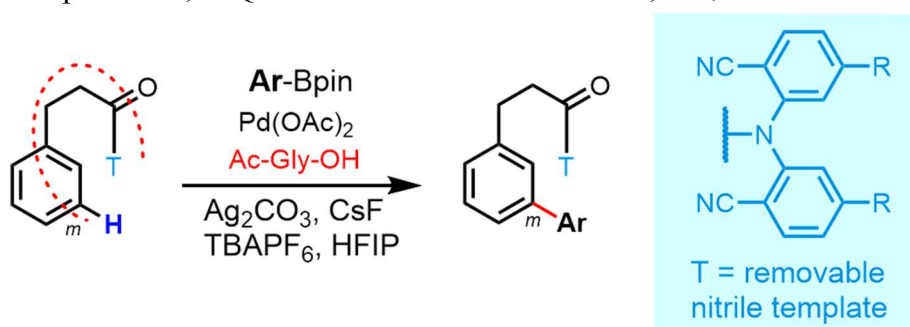
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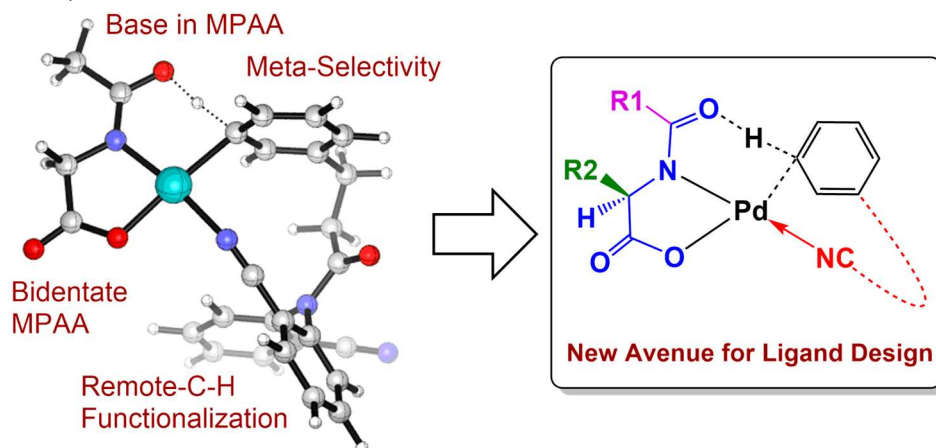


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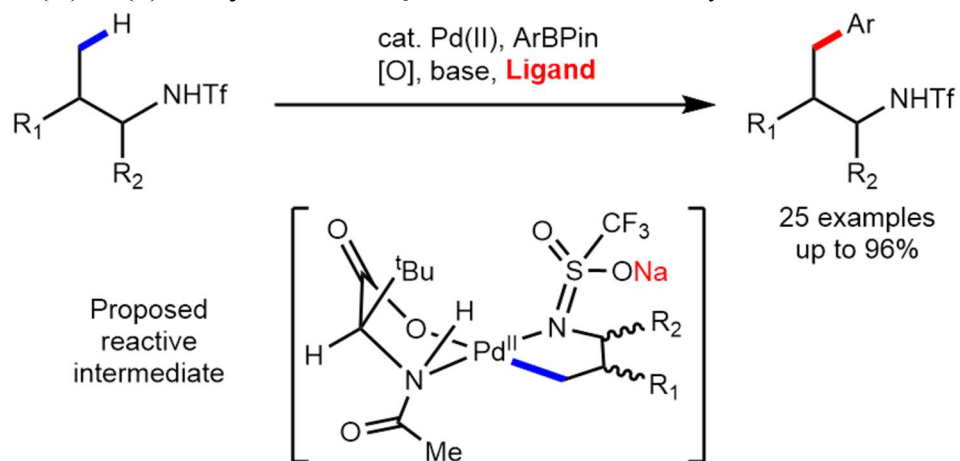


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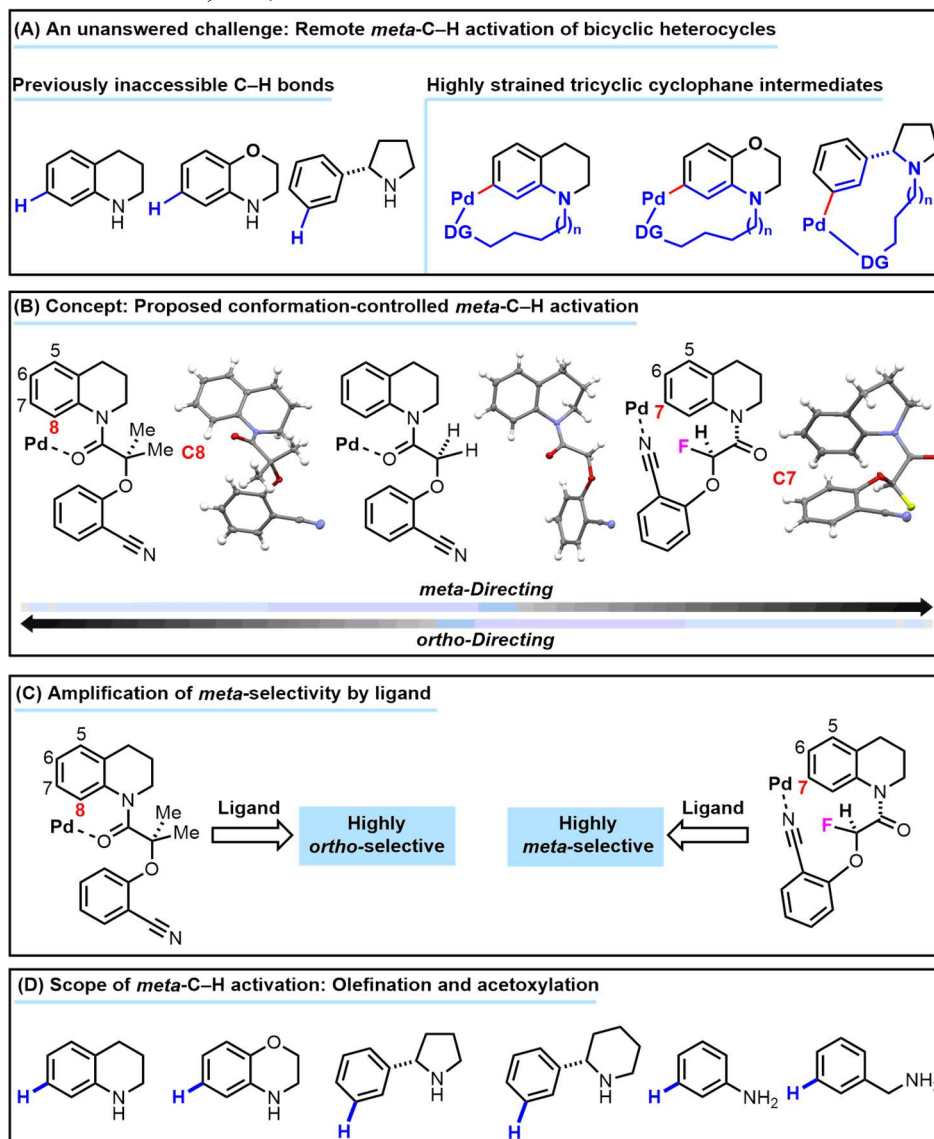
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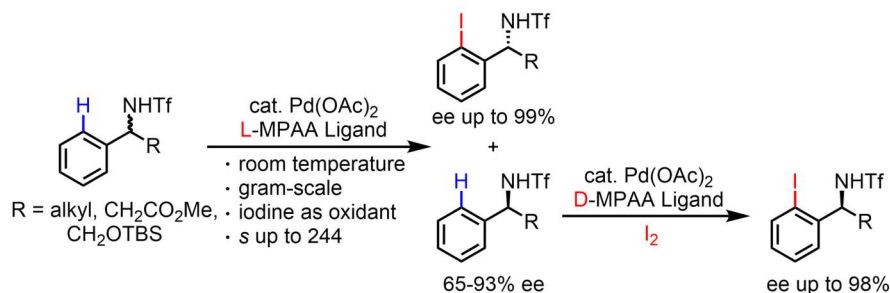


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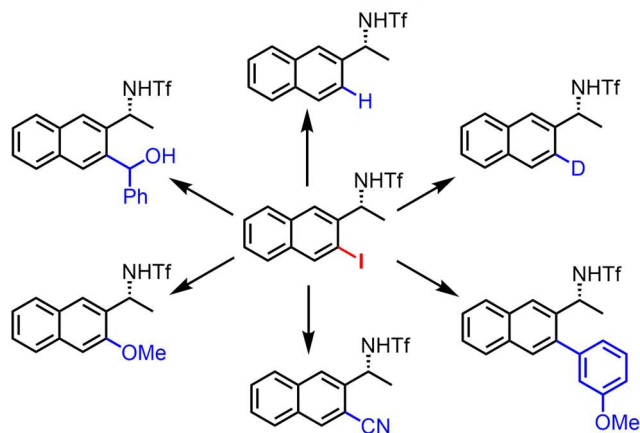


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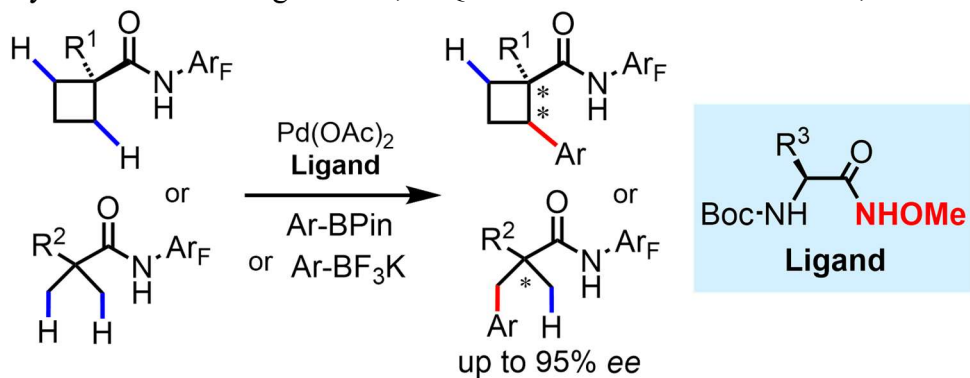
Enantioselective C–H functionalization via kinetic resolution



Product diversification

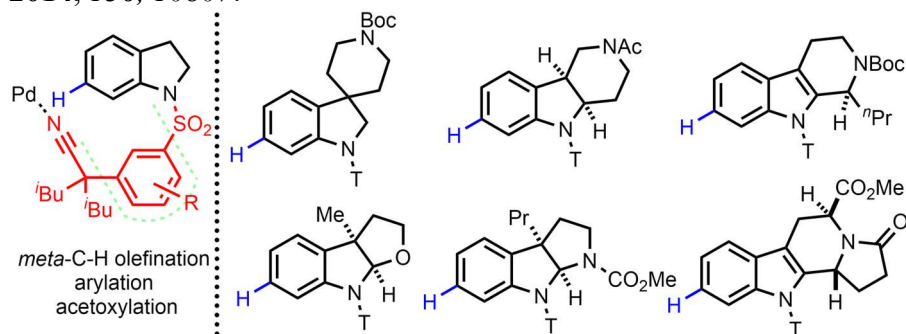


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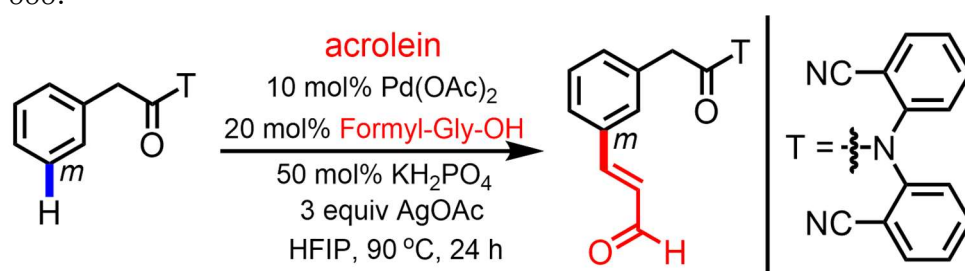


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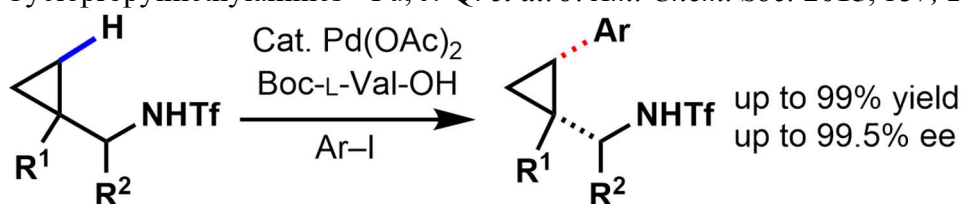
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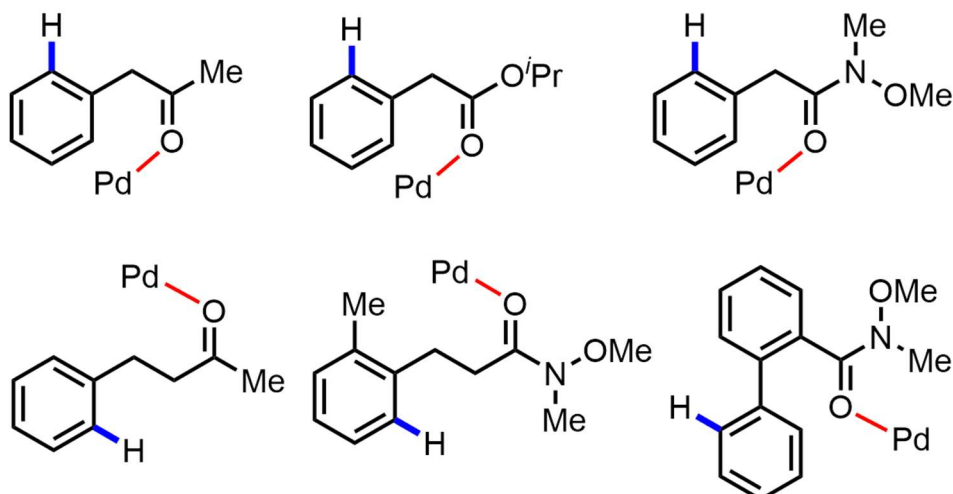
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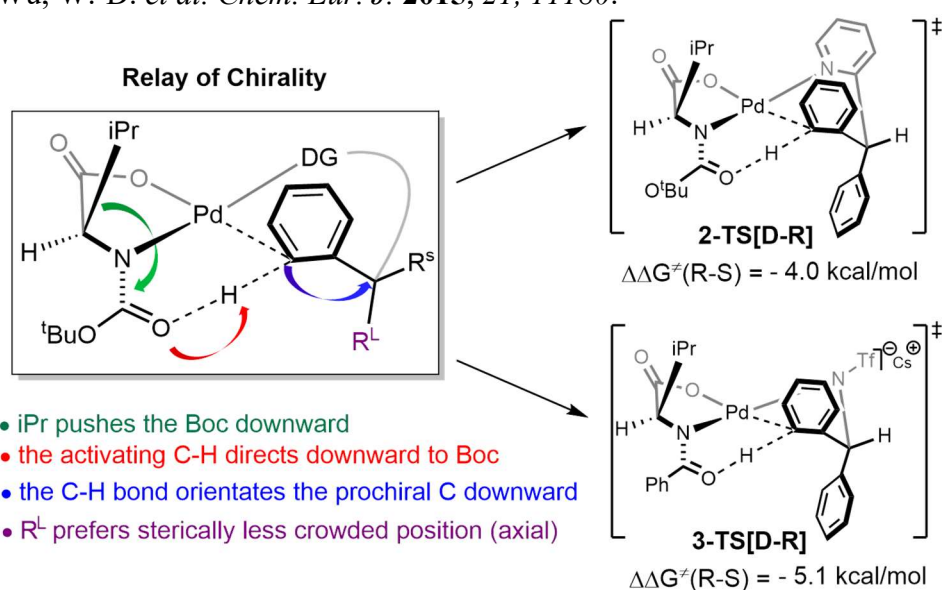
First example of enantioselective
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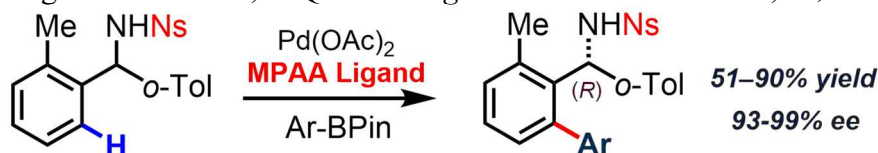
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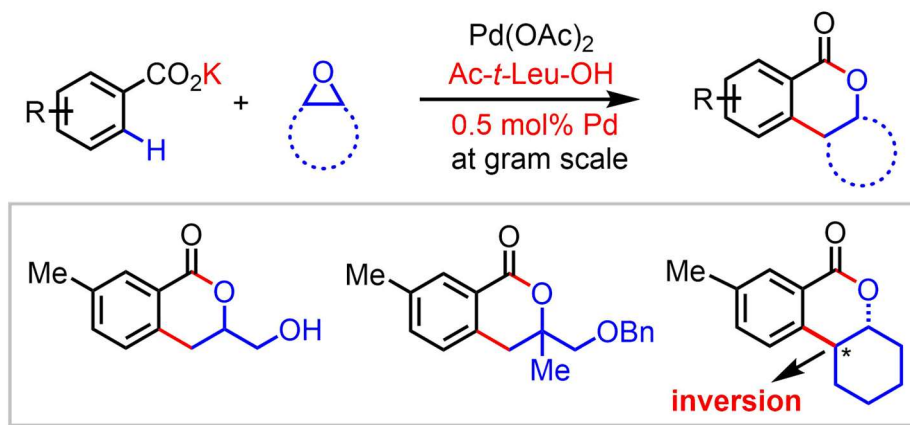


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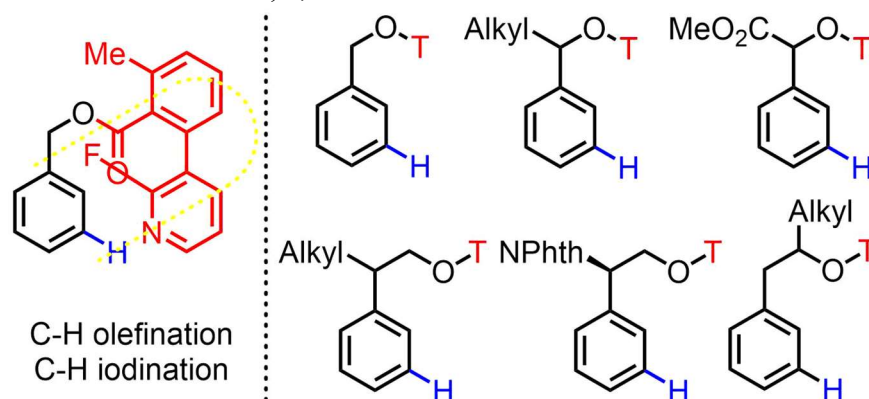


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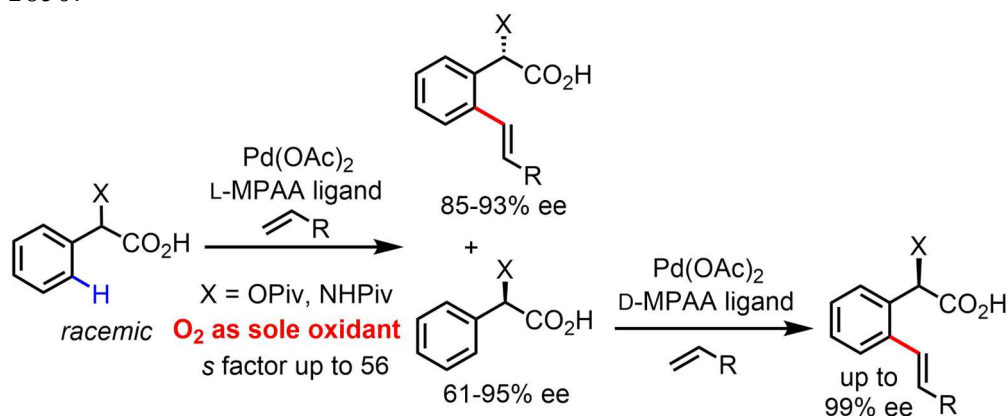
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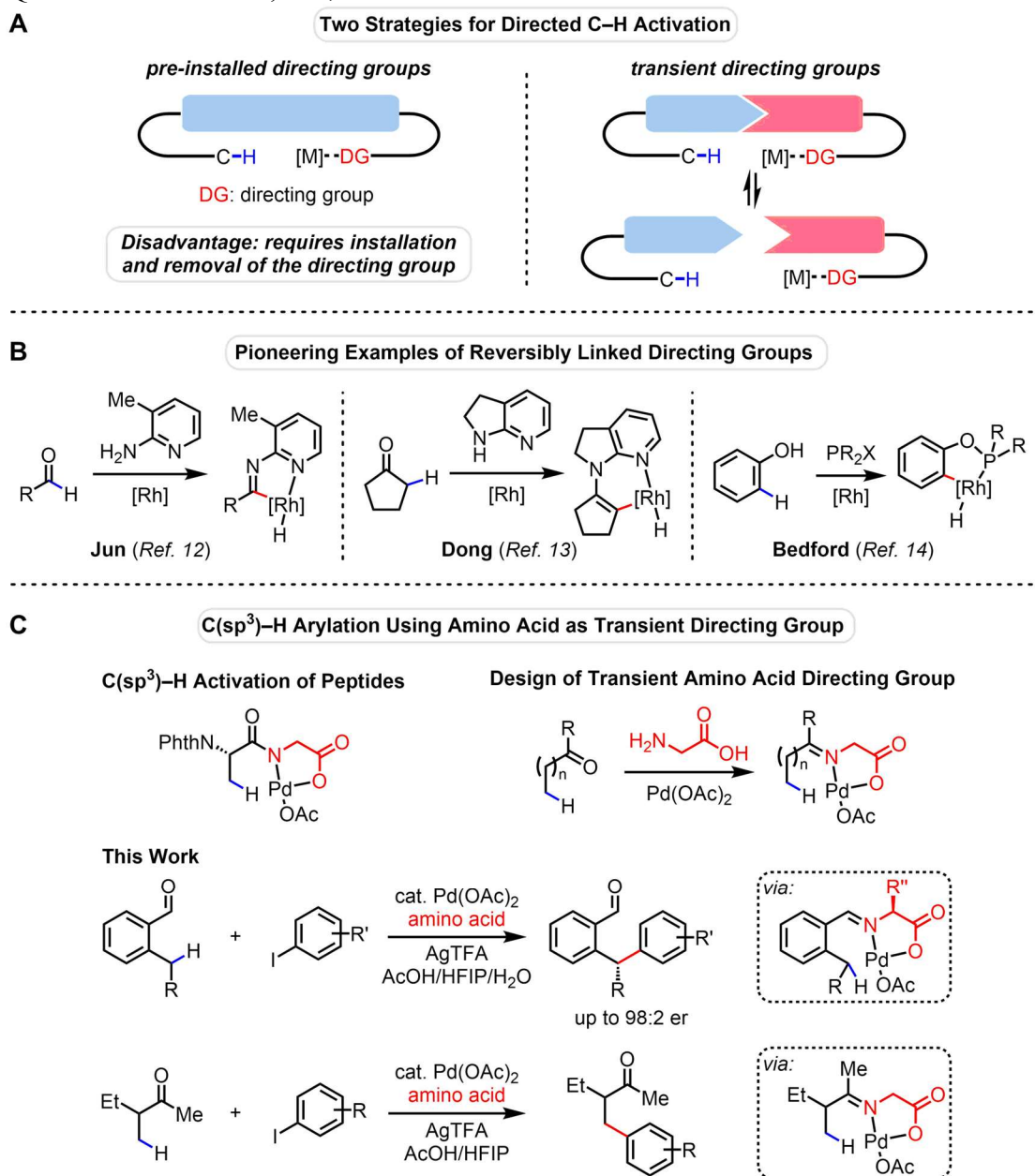
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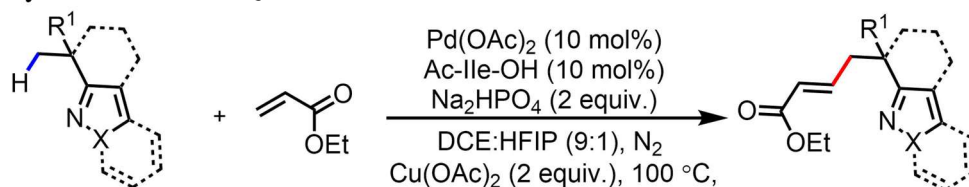
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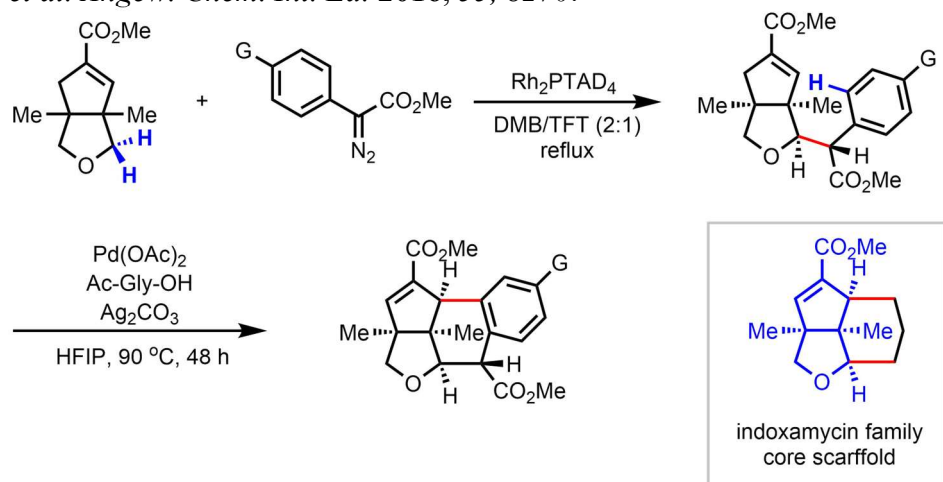


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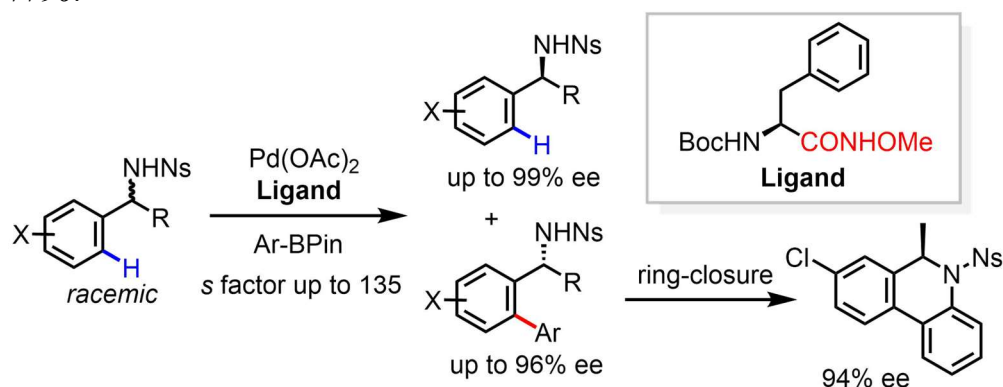


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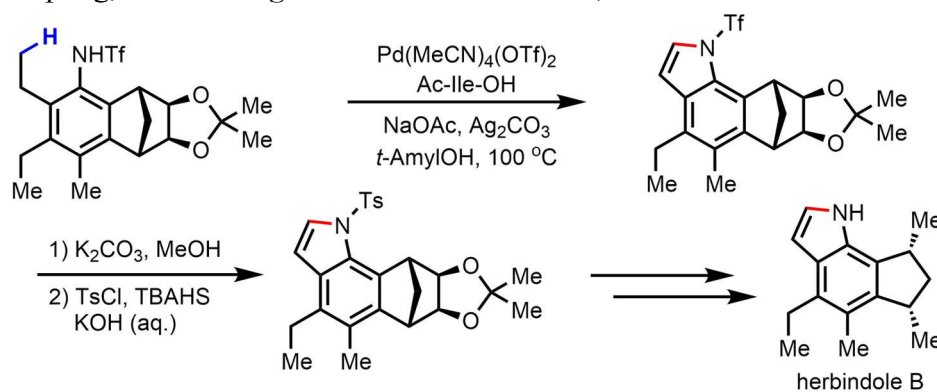
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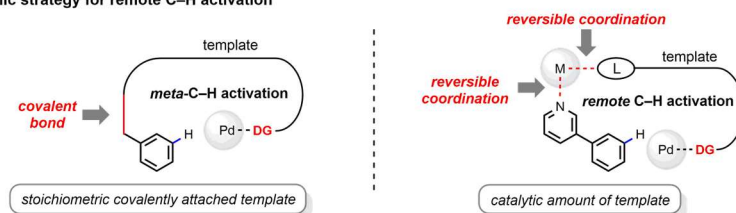


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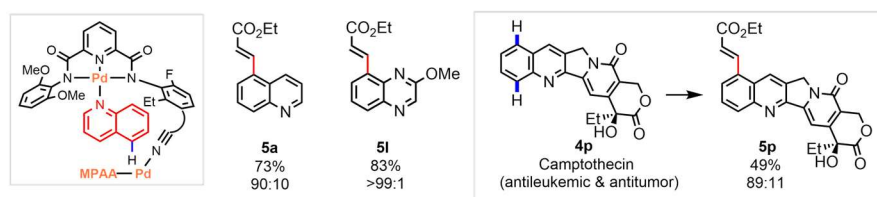


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A bimetallic strategy for remote C–H activation

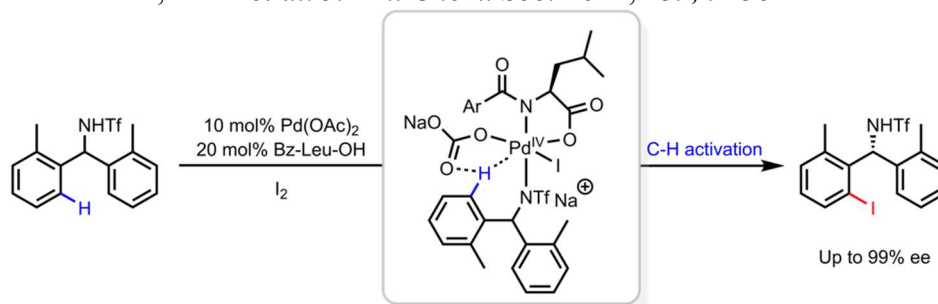


Substrate anchoring is crucial for site selectivity in enzyme catalysis: don't let go!



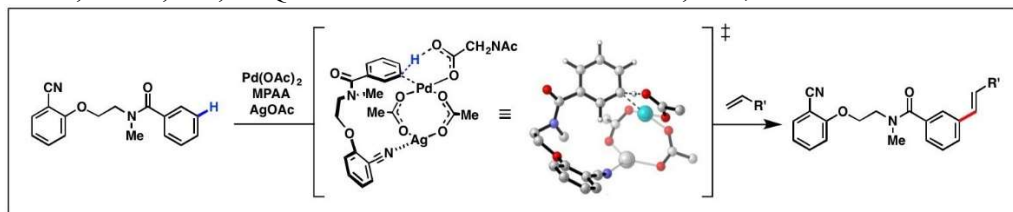
"it is a long shot from behind the goal."

40. "A Role for Pd(IV) in Catalytic Enantioselective C–H Functionalization with Monoprotected Amino Acid Ligands under Mild Conditions" Yu, J.-Q.; Blackmond, D. G. *et al. J. Am. Chem. Soc.* **2017**, 139, 9238.



Supported by kinetic and mechanistic studies

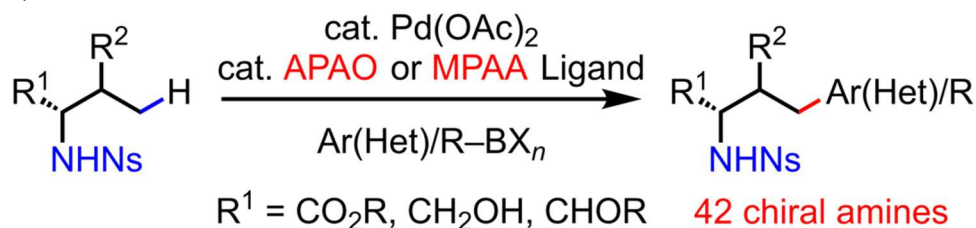
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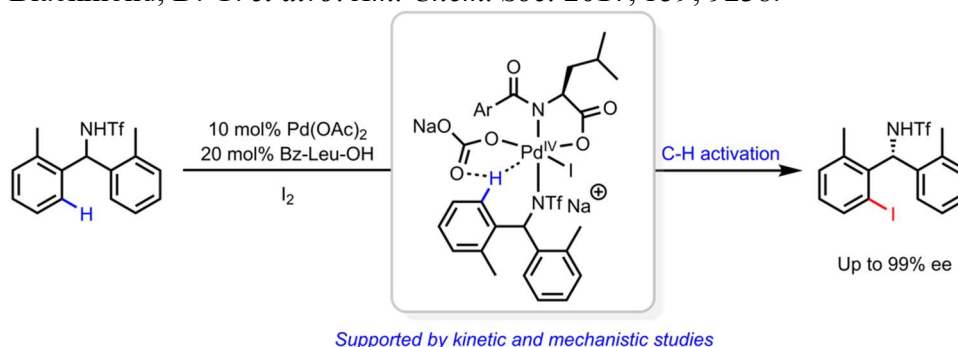
7, 7777.



- A common protecting group as directing group
- First example of C(sp³)-H cross-coupling of amines with alkylboron reagents

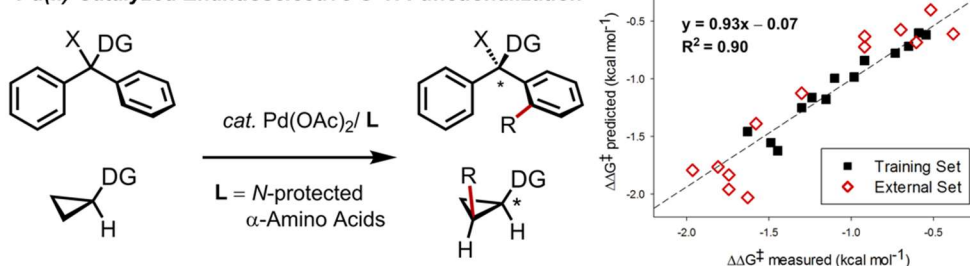
44. "Dynamic Ligand Exchange as a Mechanistic Probe in Pd-Catalyzed Enantioselective C-H Functionalization Reactions Using Monoprotected Amino Acid Ligands" Yu, J.-Q.; Blackmond, D. G. *et al. J. Am. Chem. Soc.* **2017**, *139*, 18500.

45. "A Role for Pd(IV) in Catalytic Enantioselective C-H Functionalization with Monoprotected Amino Acid Ligands under Mild Conditions" Yu, J.-Q.; Blackmond, D. G. *et al. J. Am. Chem. Soc.* **2017**, *139*, 9238.

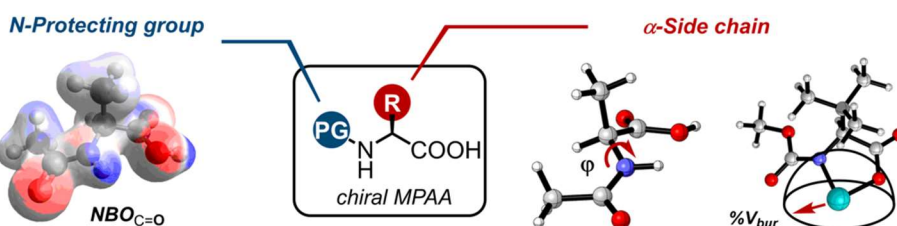


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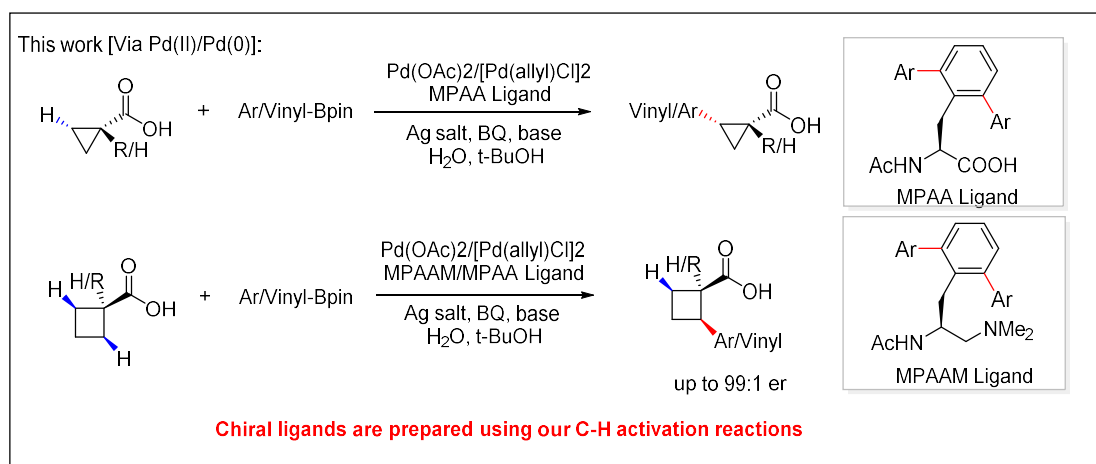
Pd(II)-Catalyzed Enantioselective C-H Functionalization



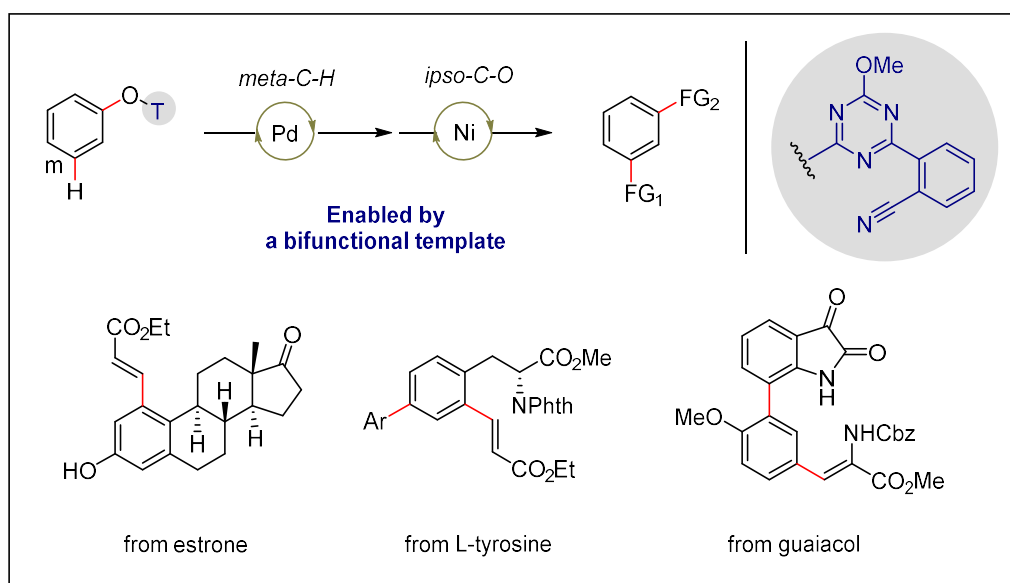
multivariate analysis unravels the structural effects on the enantioselectivity



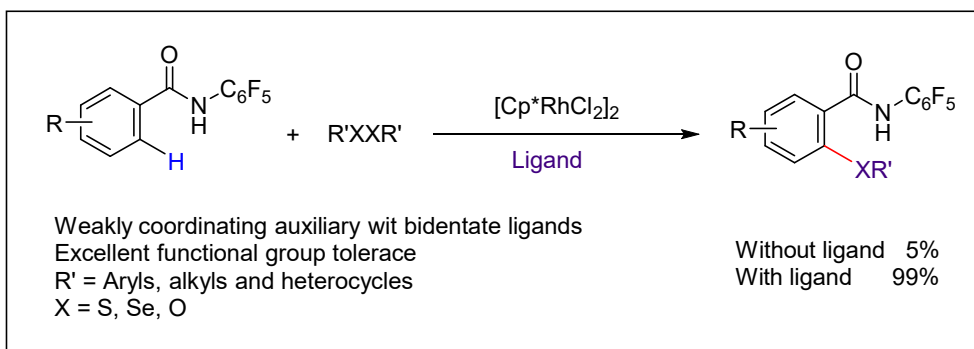
47. “Pd(II)-Catalyzed Enantioselective C(sp³)-H Activation/Cross-Coupling Reactions of Free Carboxylic Acids.” Yu, J.-Q. *et al. Angew. Chem. Int. Ed.* **2019**, *58*, 2134.



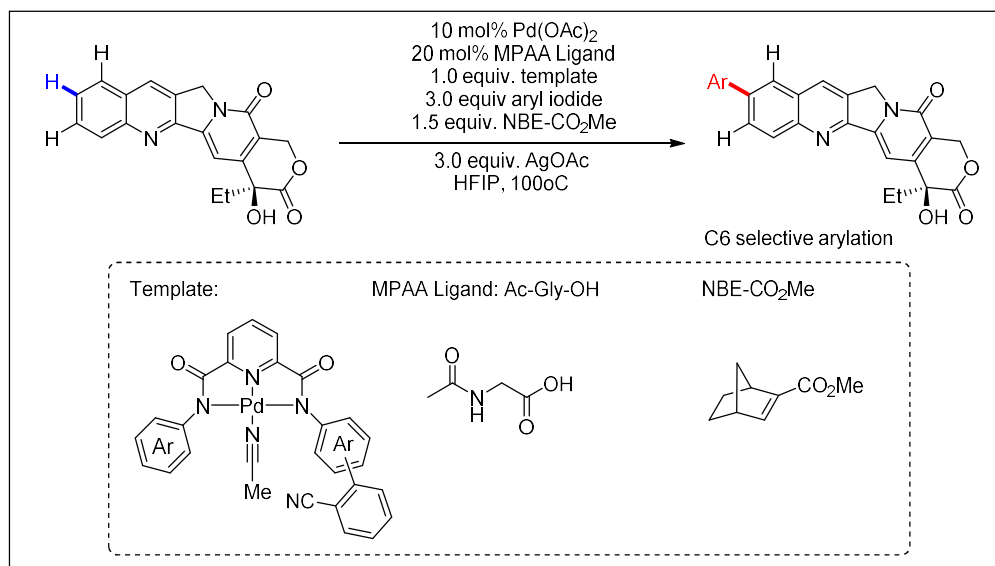
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 Xie, S.; Jin, Z.; Yu, J.-Q. *et al. J. Am. Chem. Soc.* **2019**, *141*, 1903.



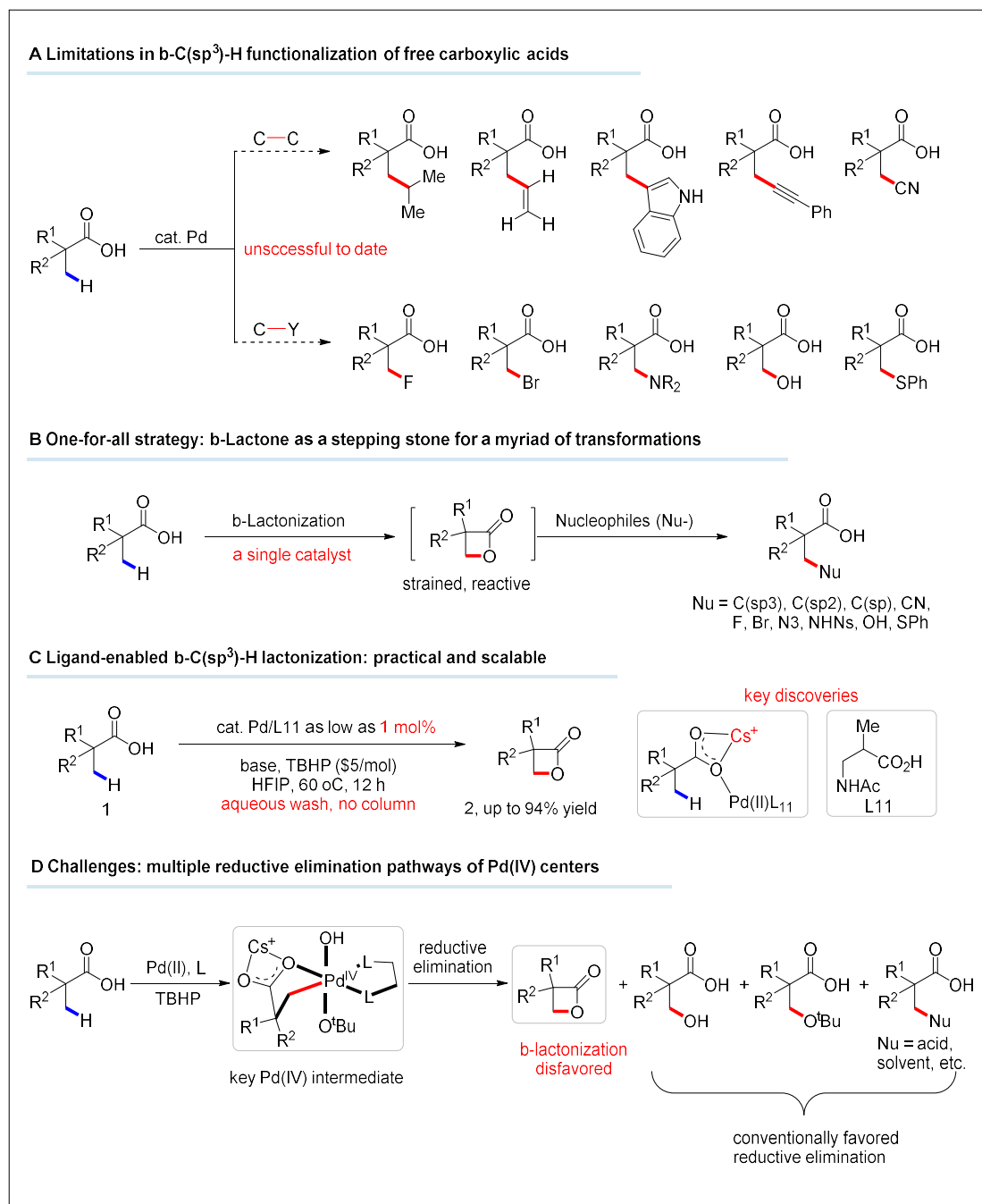
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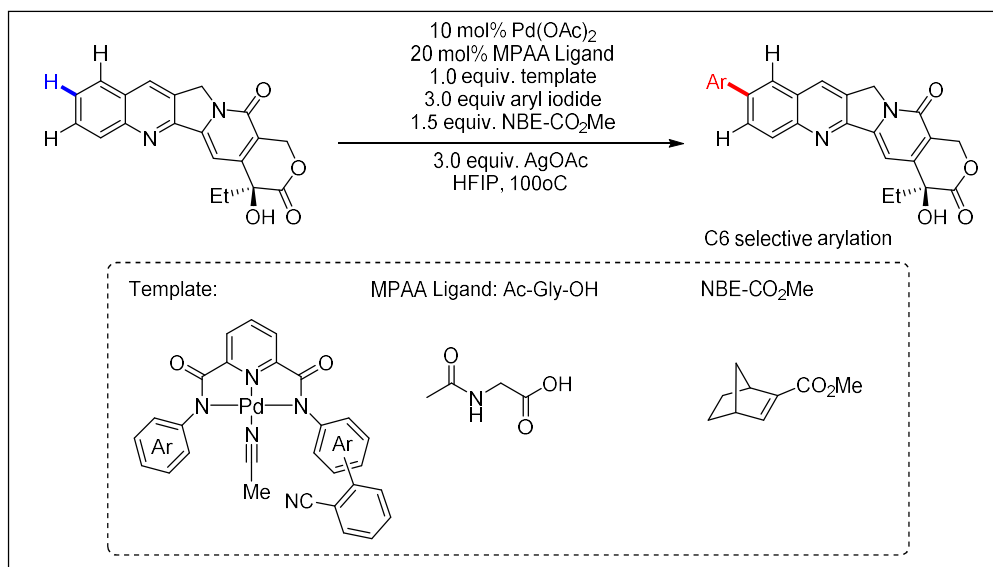
50. "Differentiation and functionalization of remote C-H bonds in adjacent positions"
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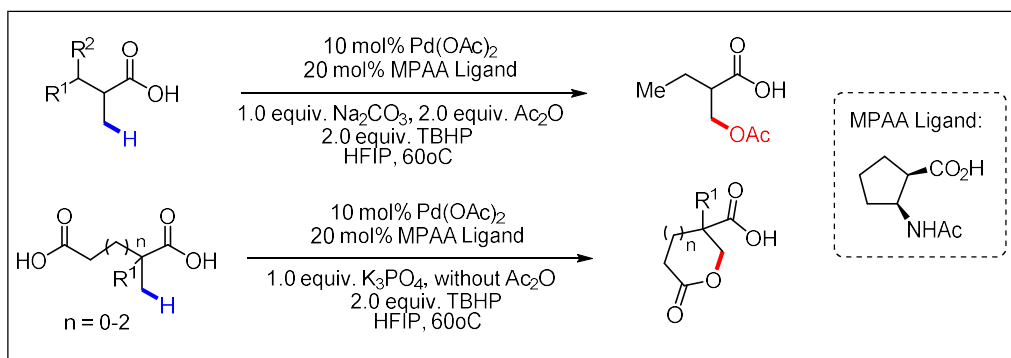
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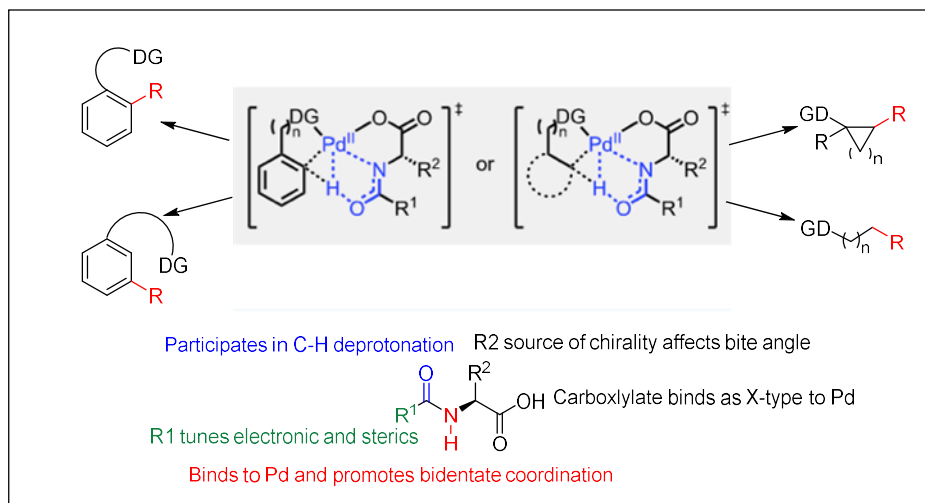
52. "Differentiation and functionalization of remote C-H bonds in adjacent positions"
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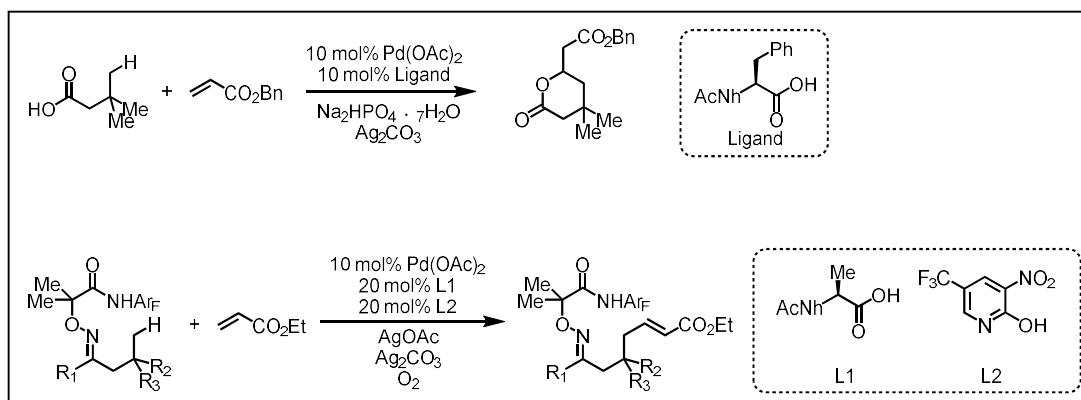
53. "Ligand-Enabled Monoselective β -C(sp³)-H Acyloxylation of Free Carboxylic Acids Using a Practical Oxidant" Yu, J.-Q. et al. *J. Am. Chem. Soc.* **2020**, *142*, 6769.



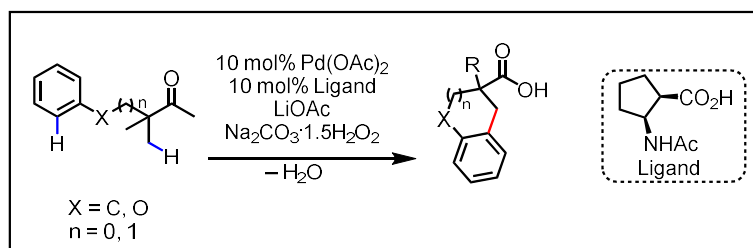
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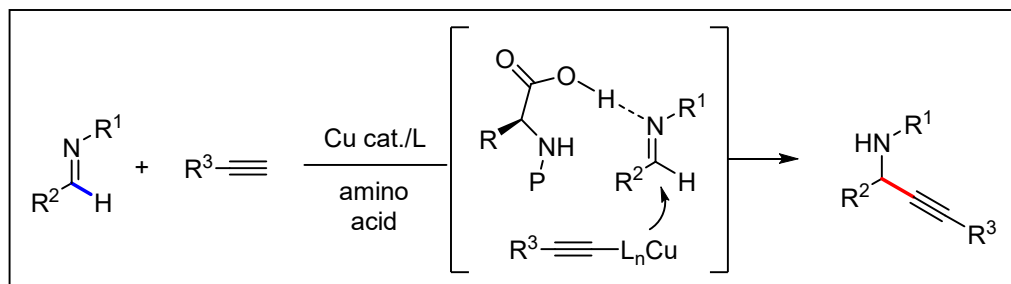


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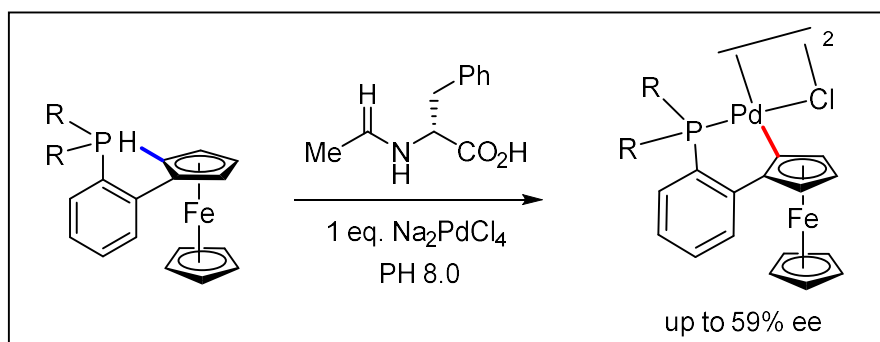


Other Groups

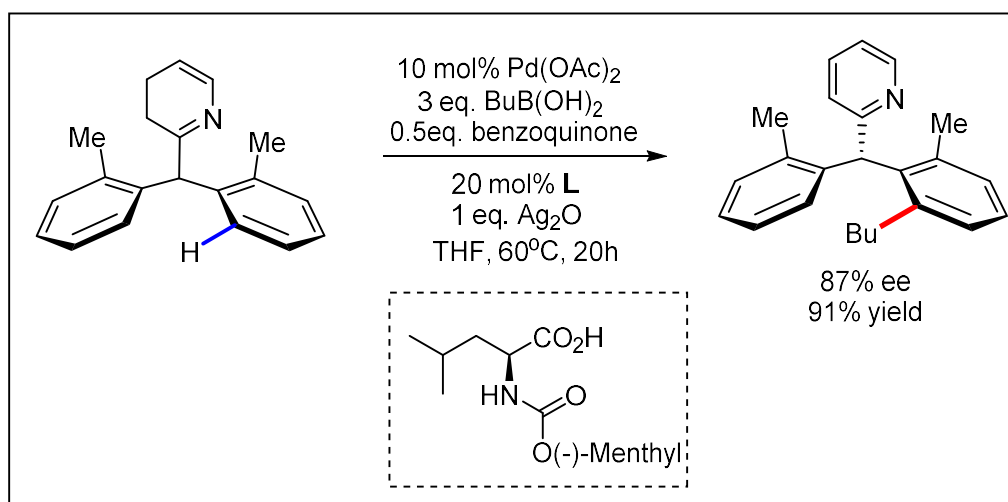
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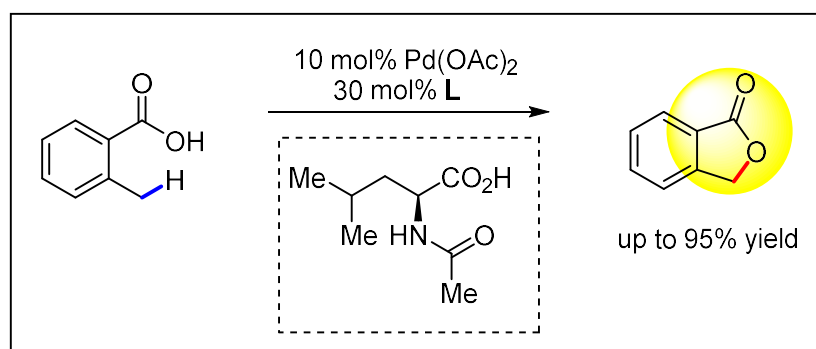
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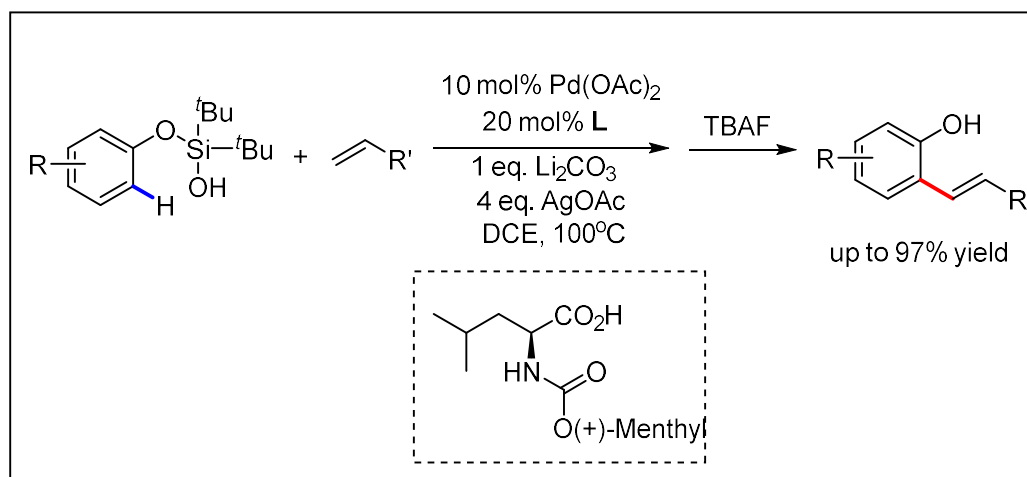
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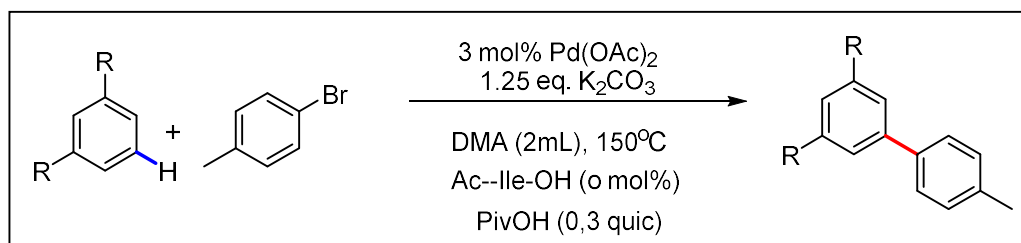
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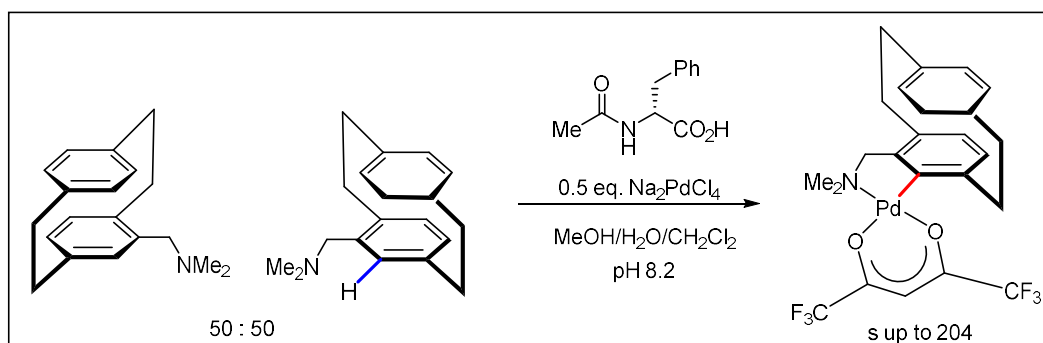
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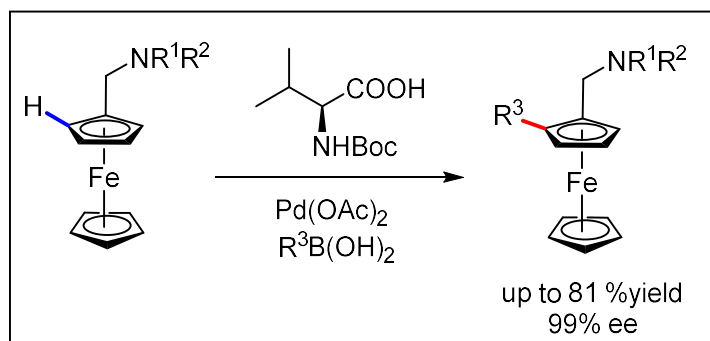
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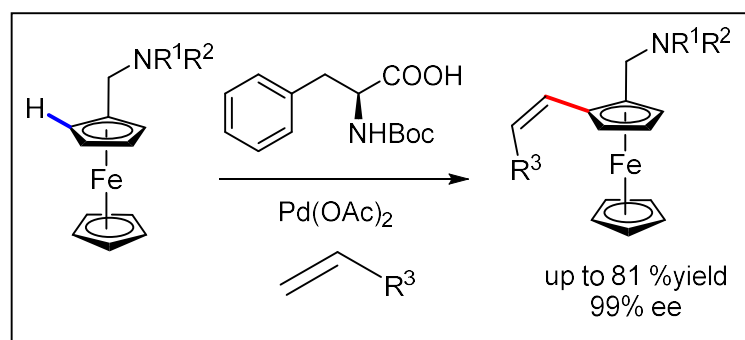
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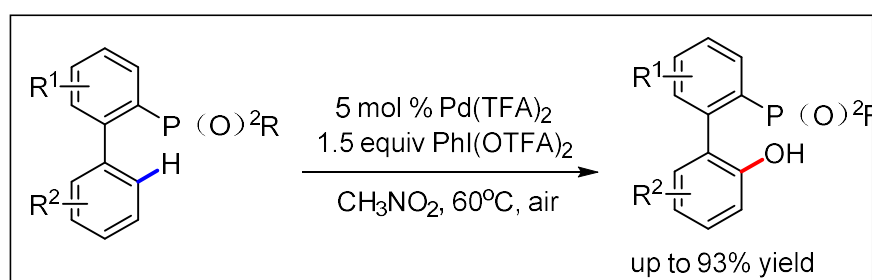
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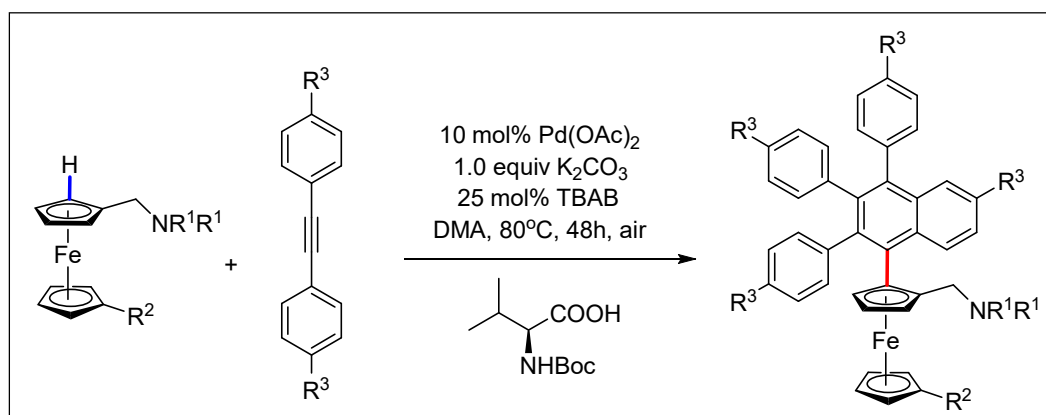
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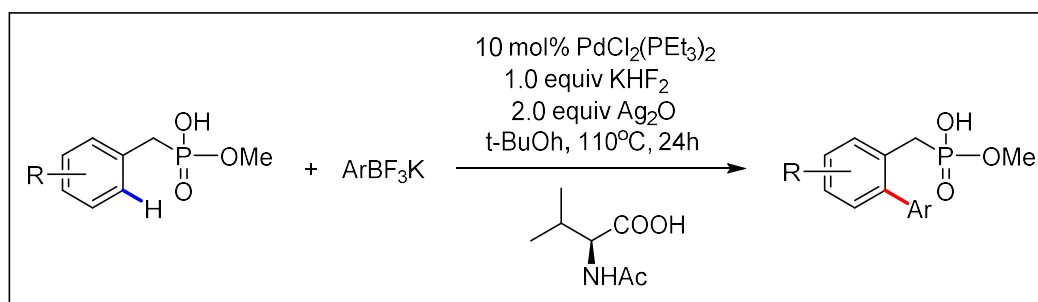


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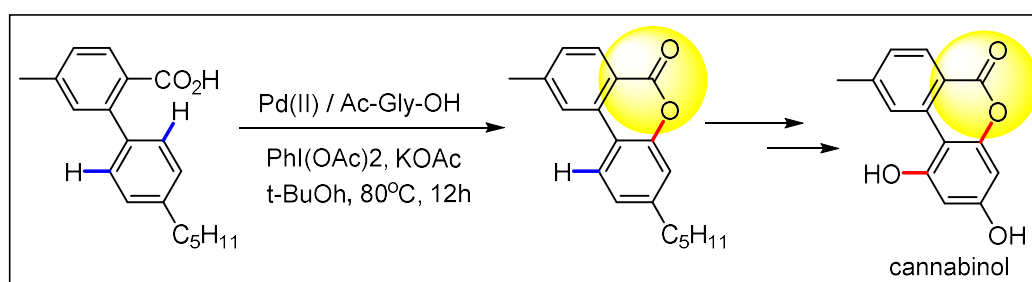
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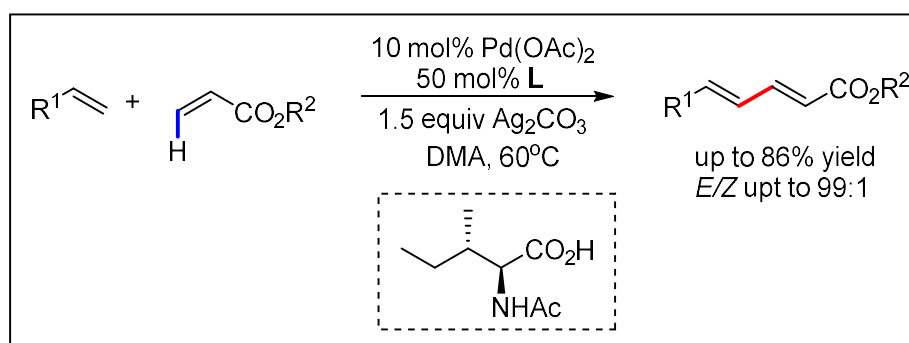
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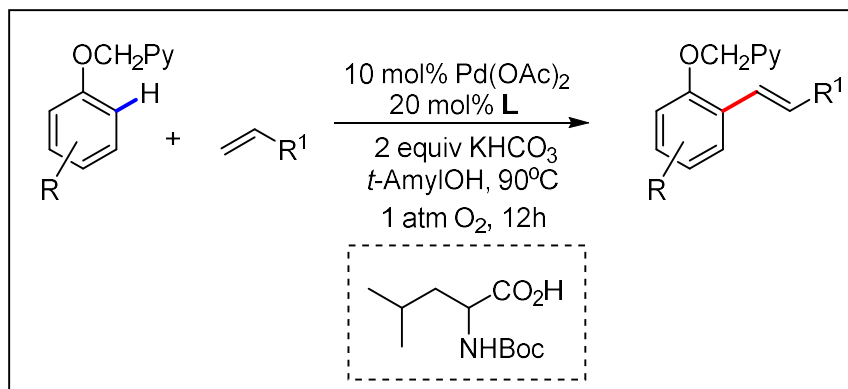
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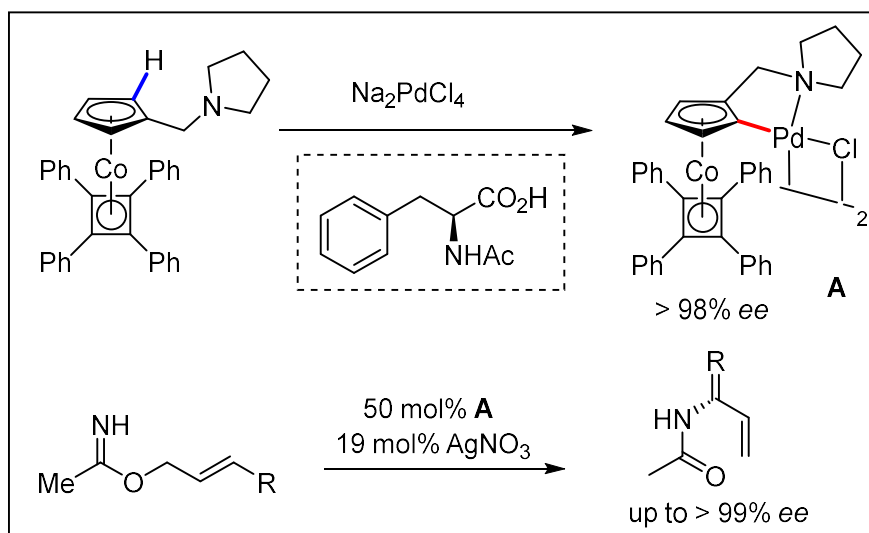


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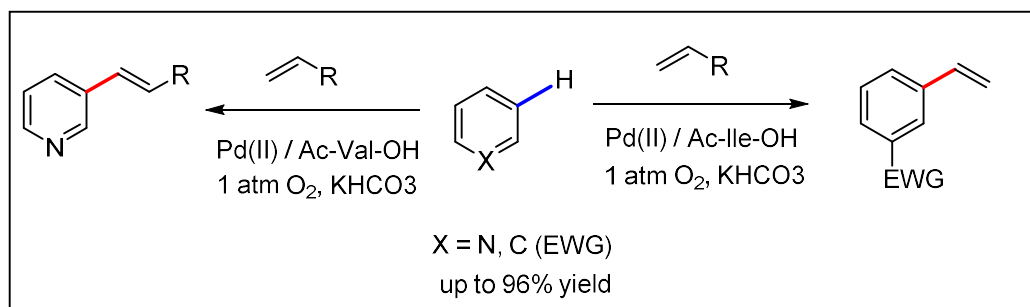
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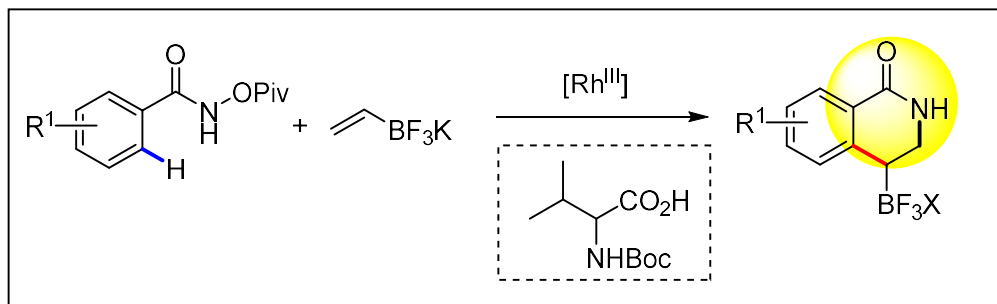
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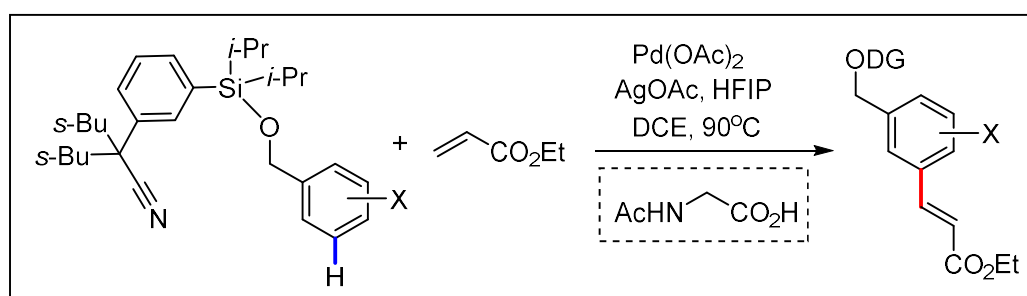
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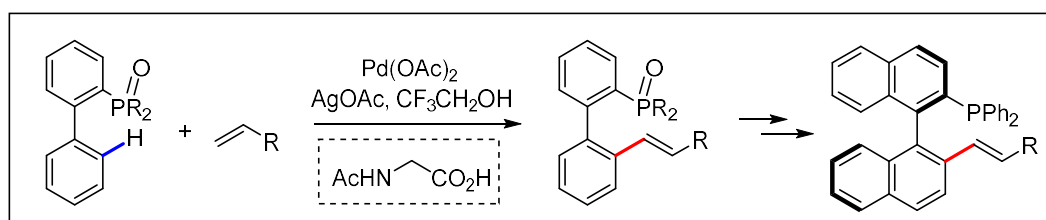
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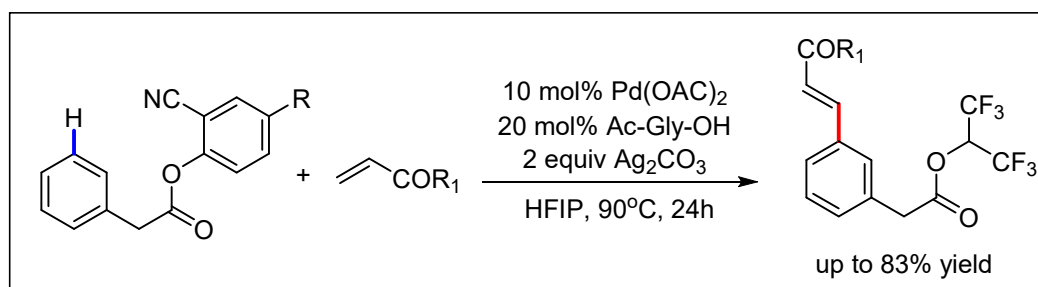
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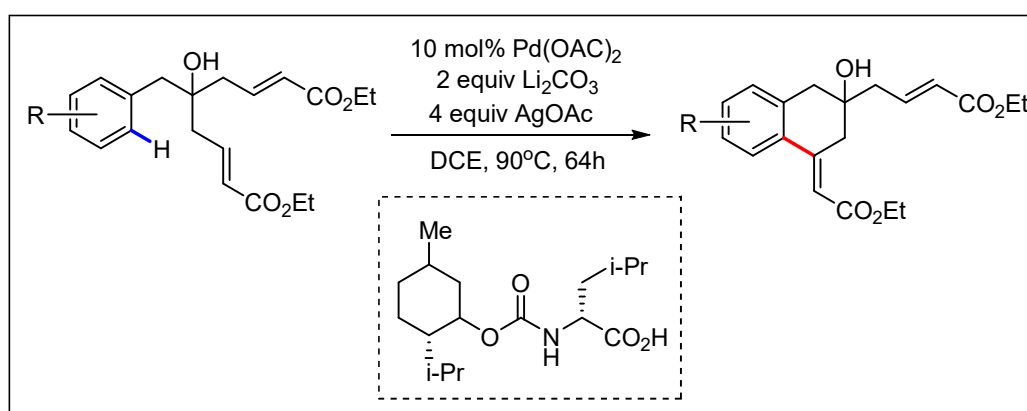


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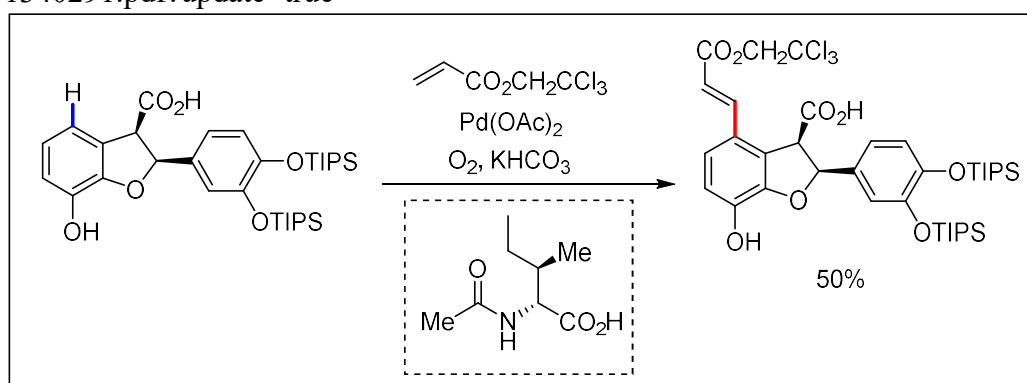
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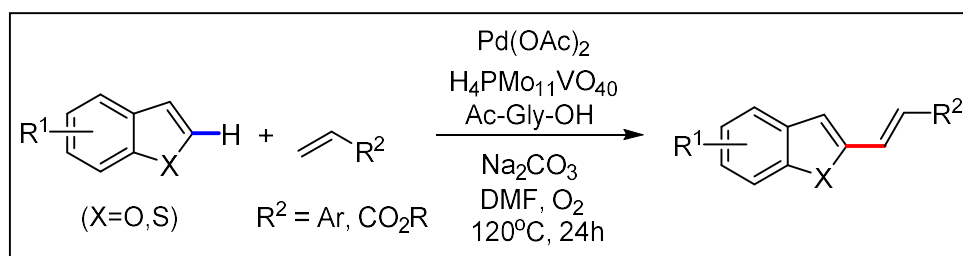
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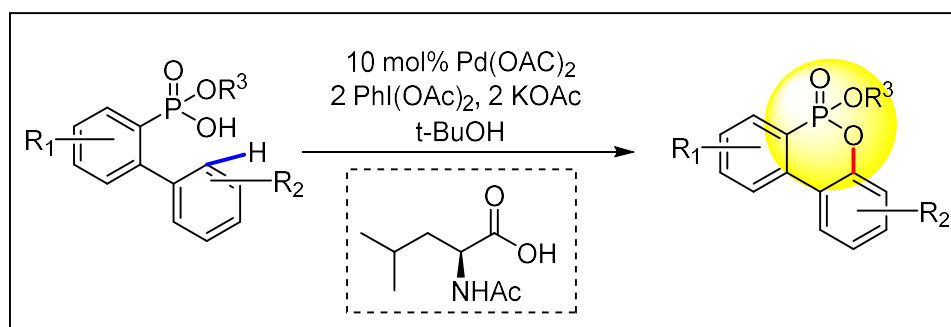
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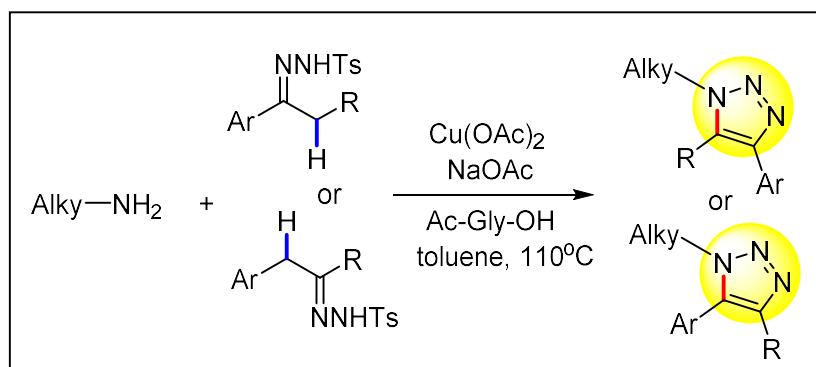
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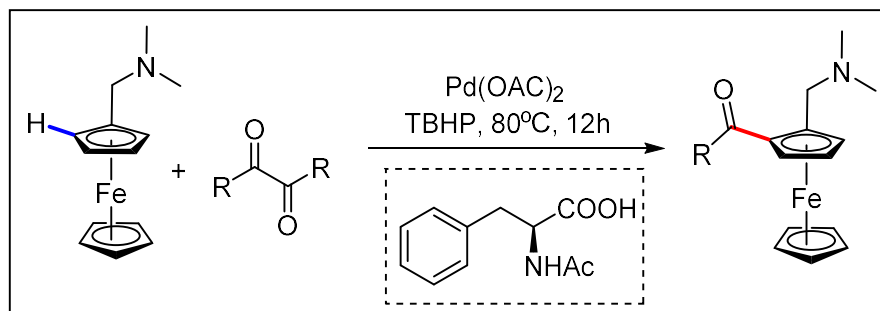
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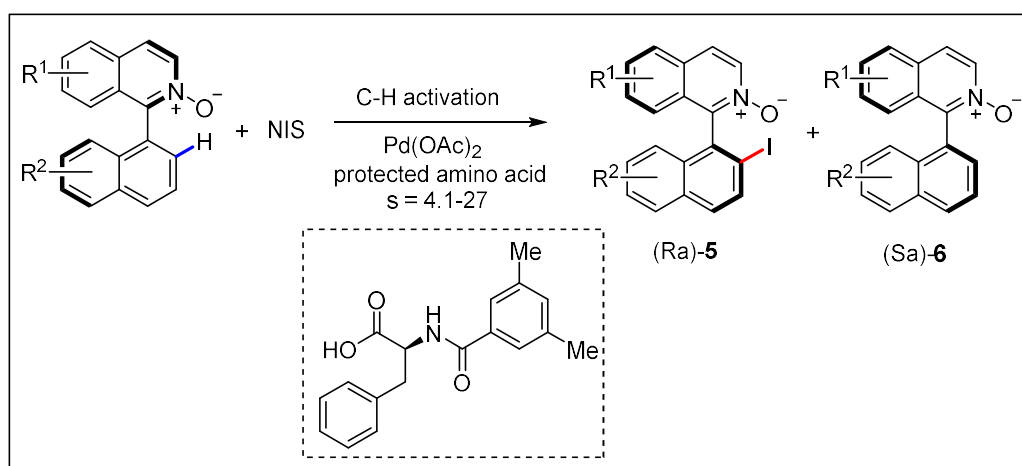


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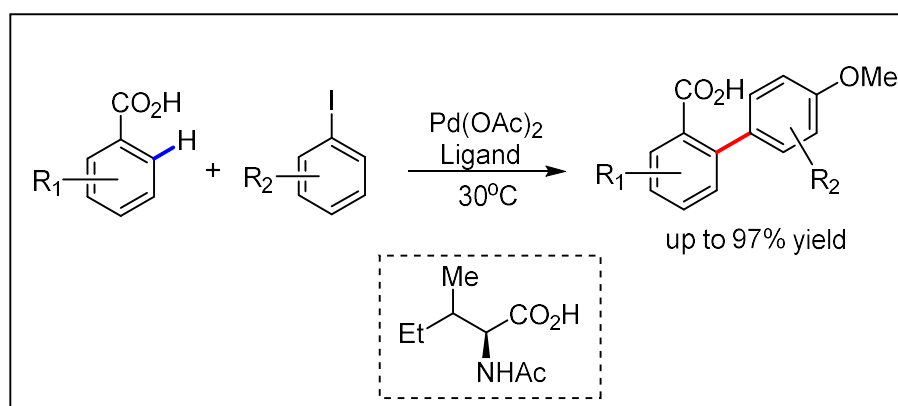
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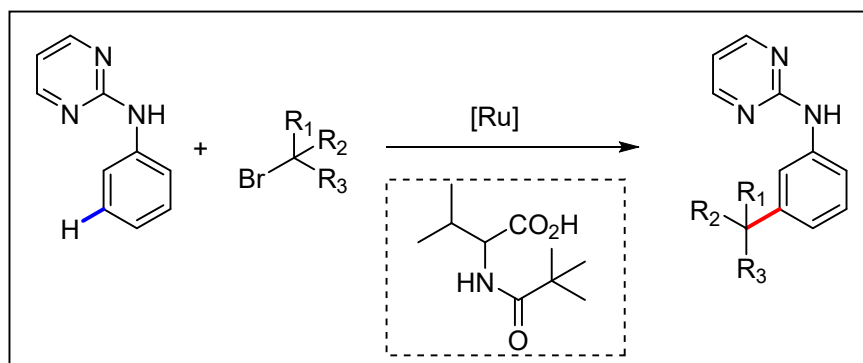
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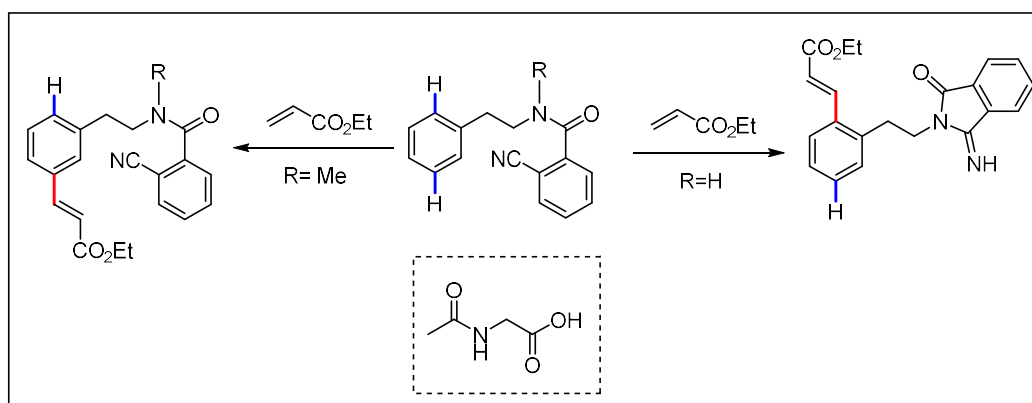
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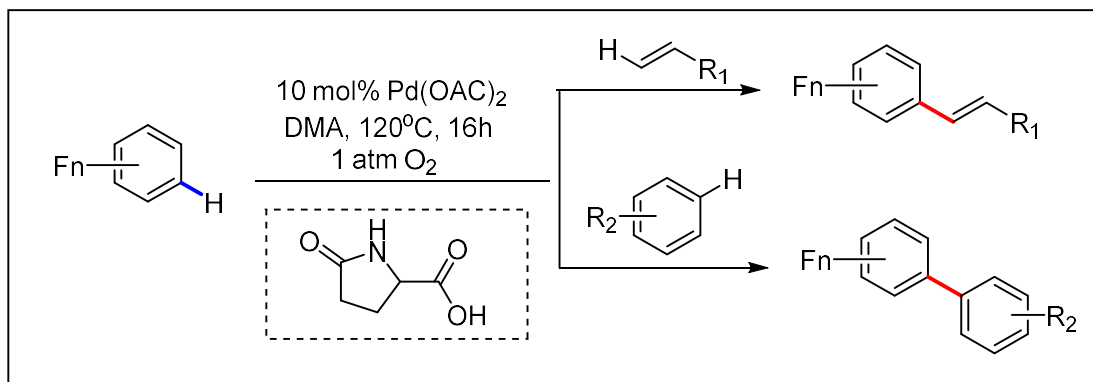
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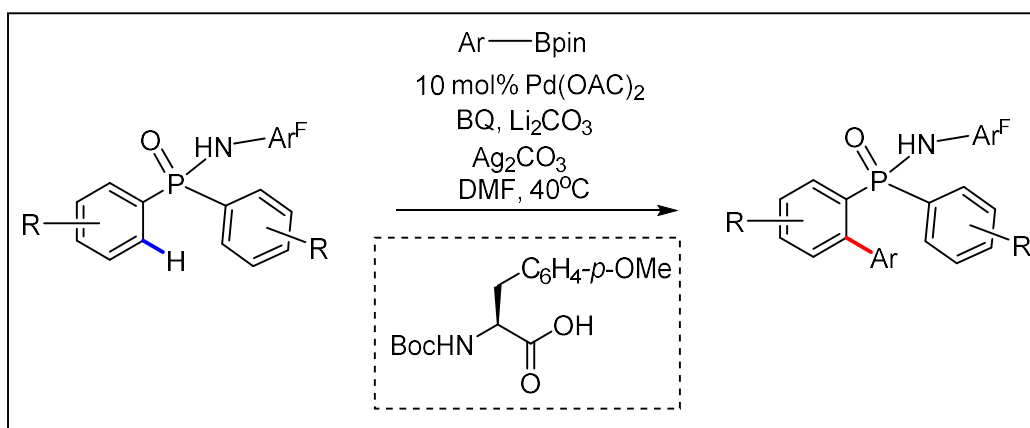
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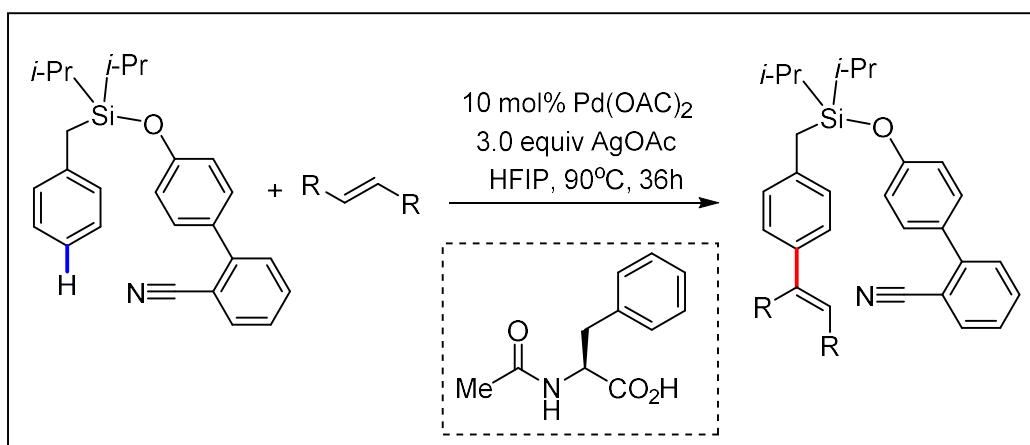
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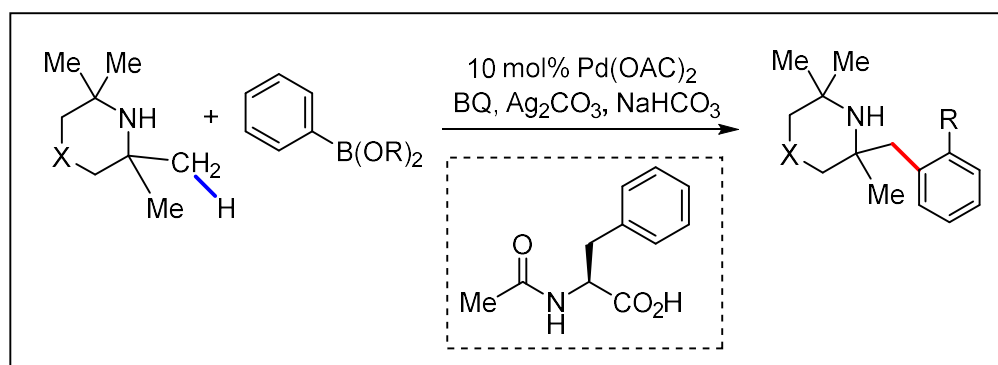
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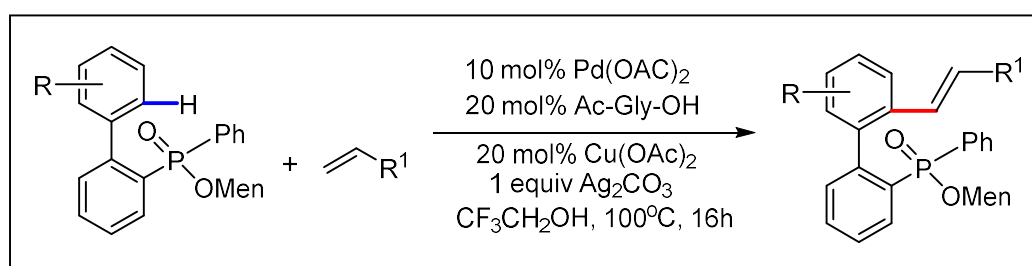
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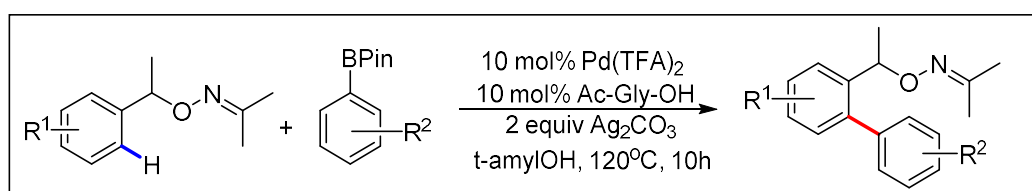
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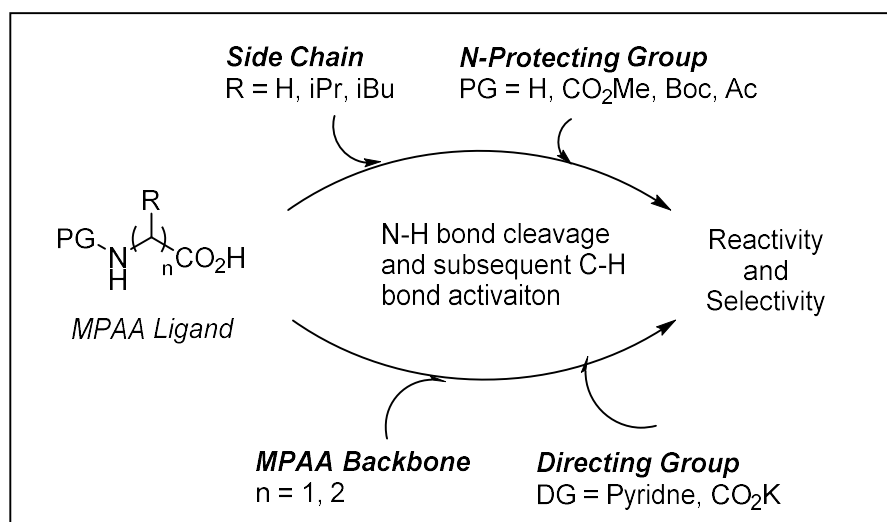
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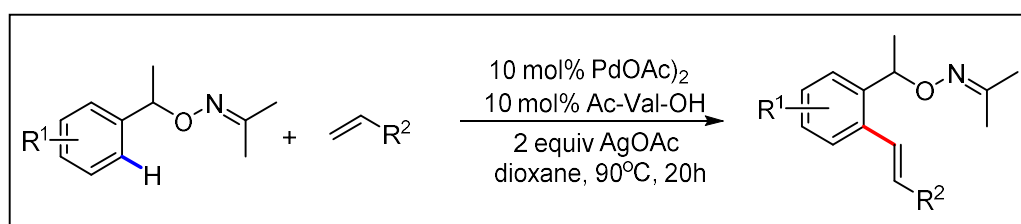
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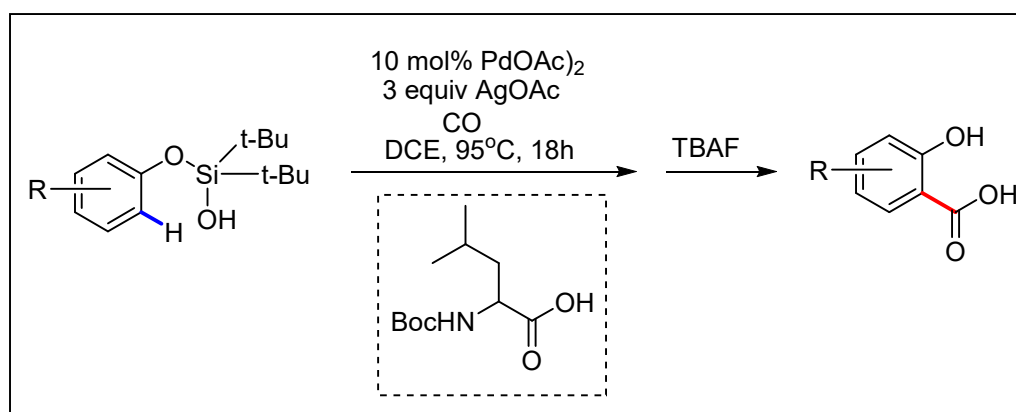
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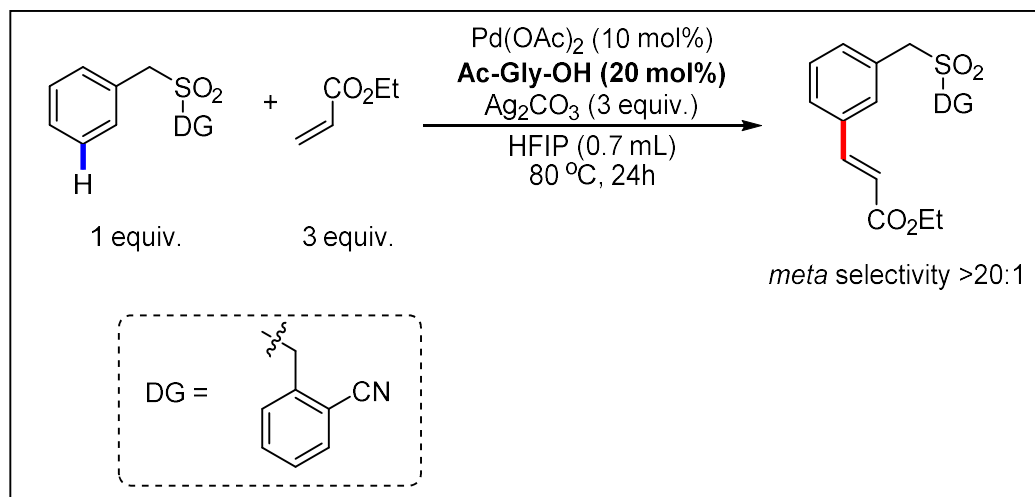
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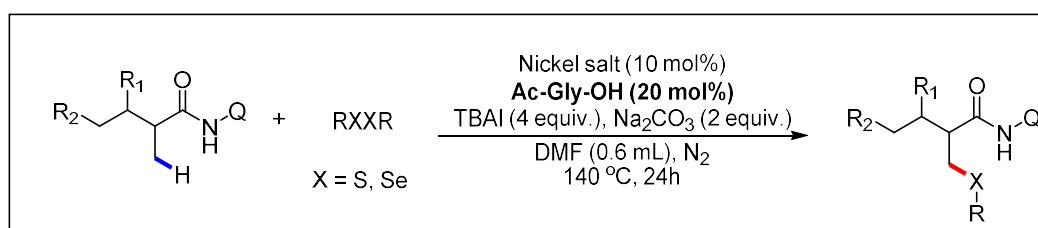
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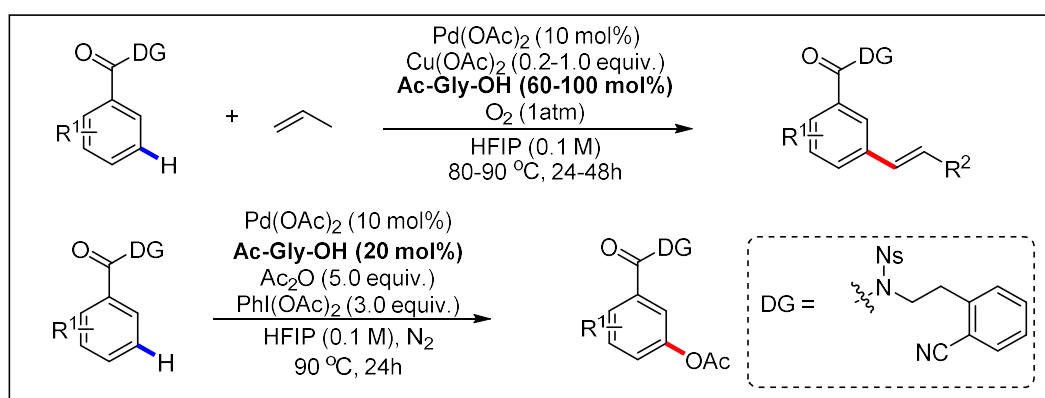
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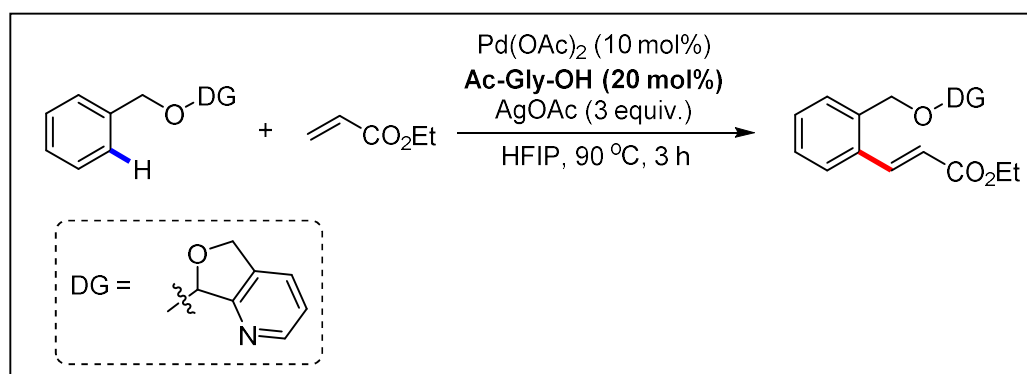
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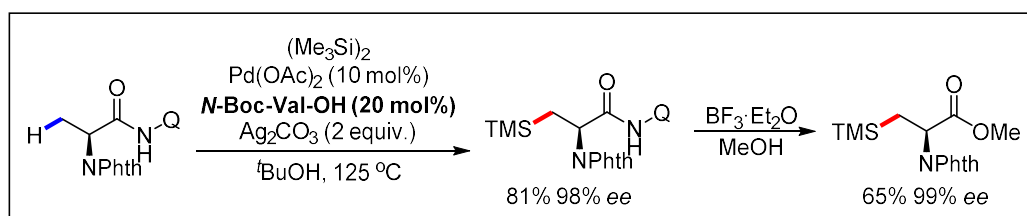
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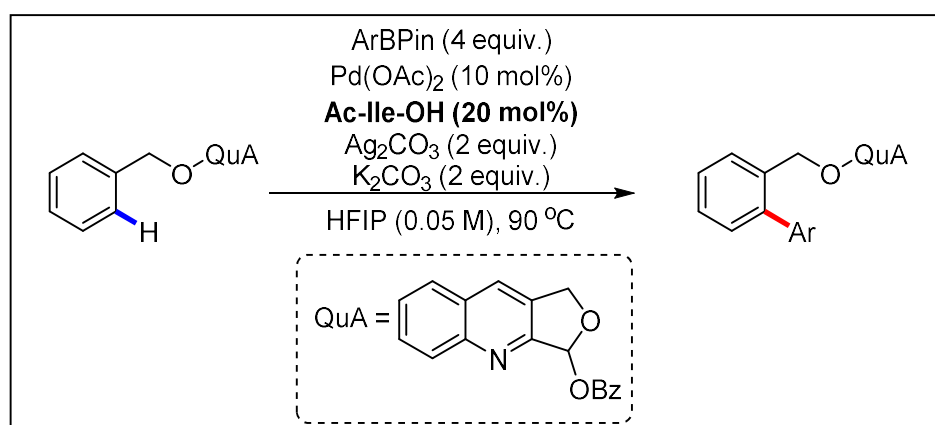
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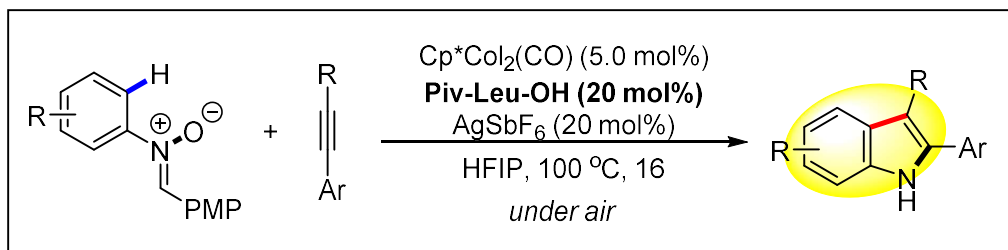
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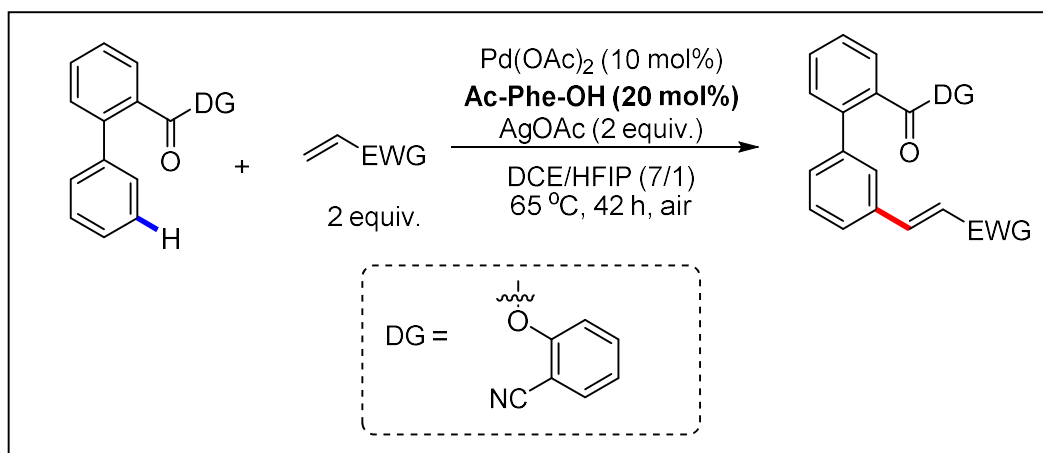
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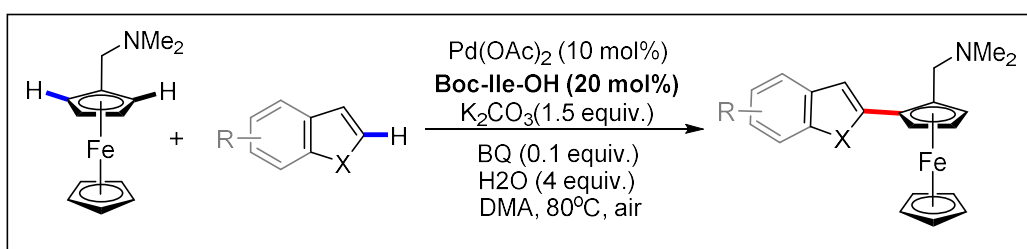
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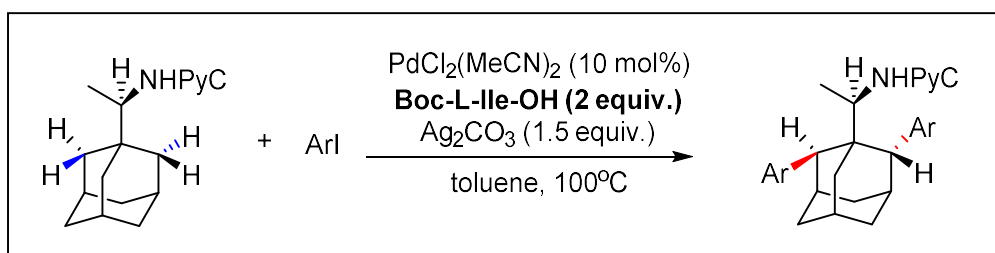
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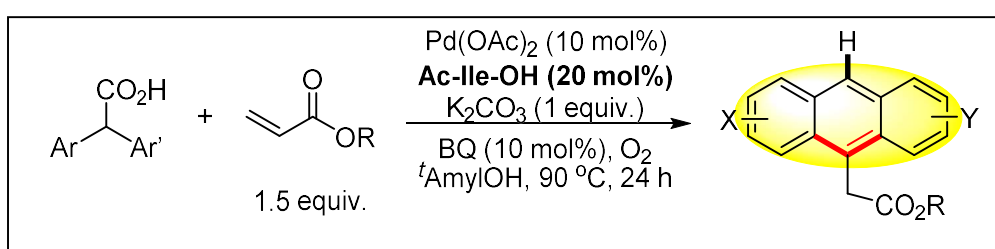
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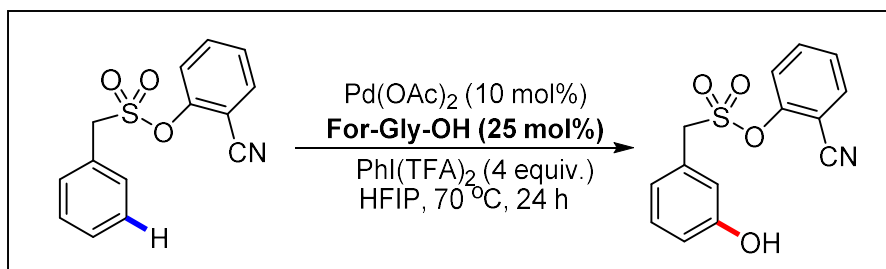
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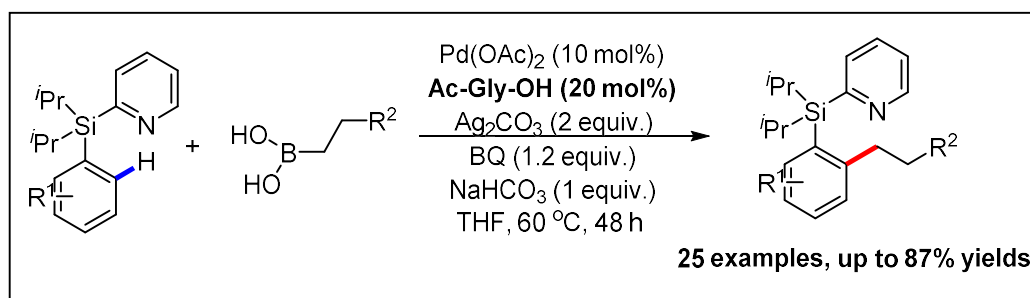
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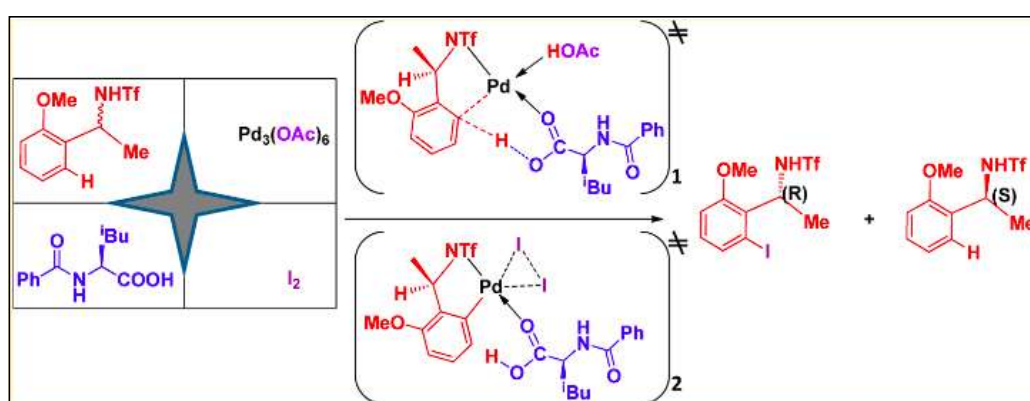


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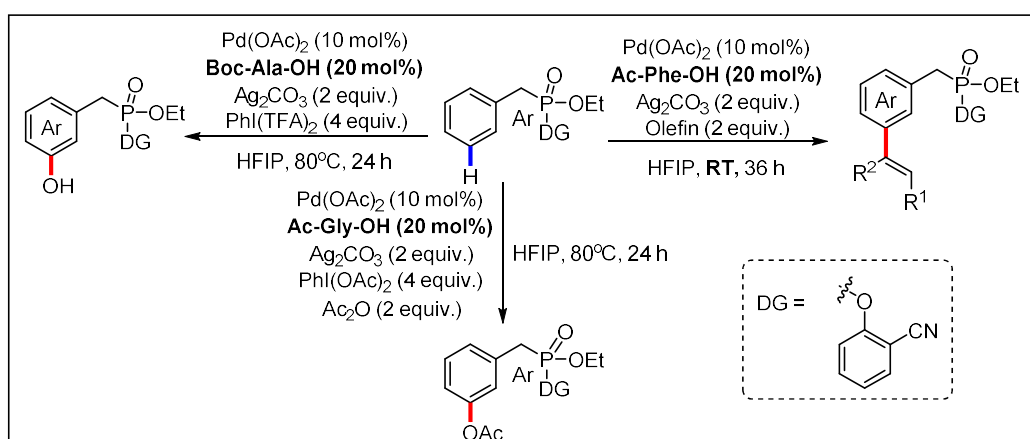
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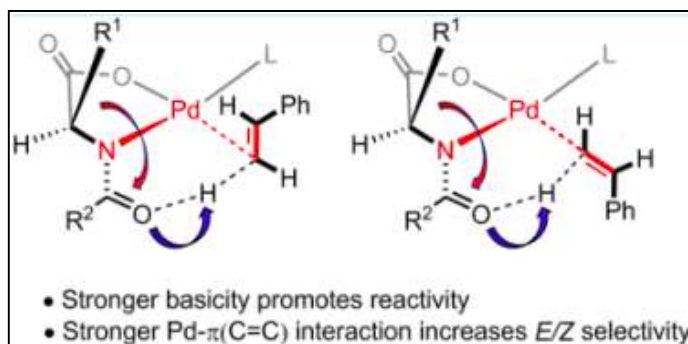
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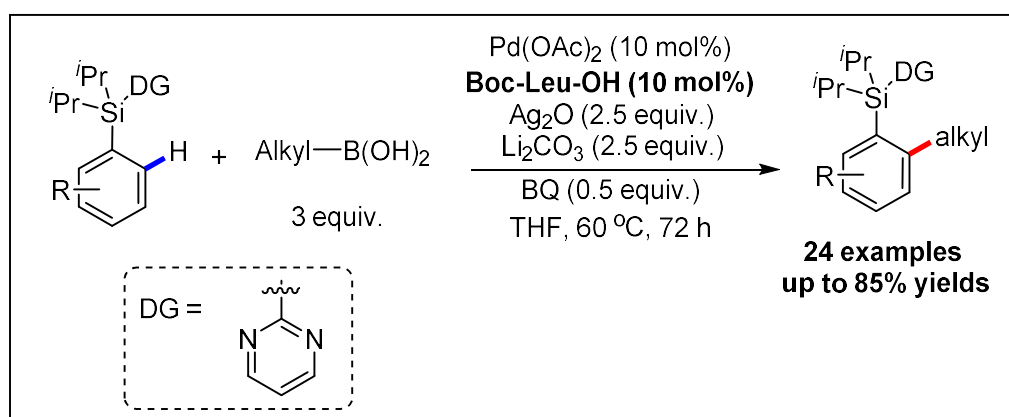
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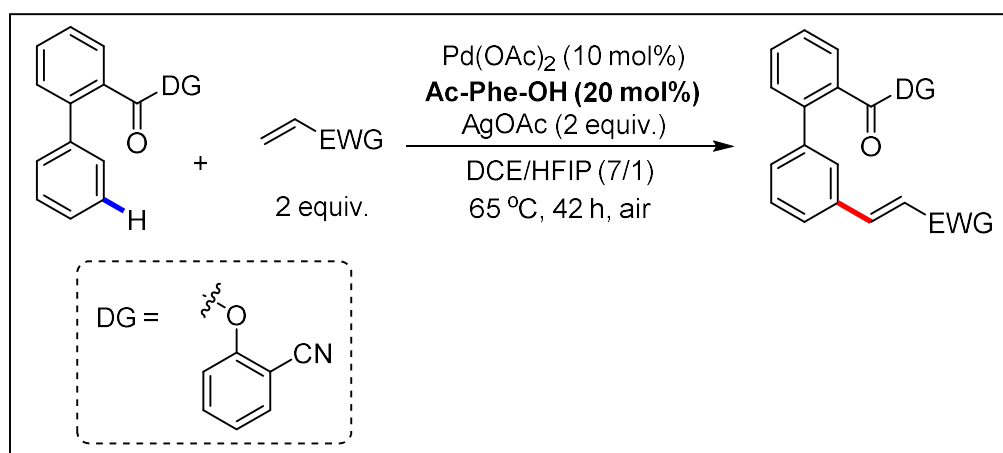
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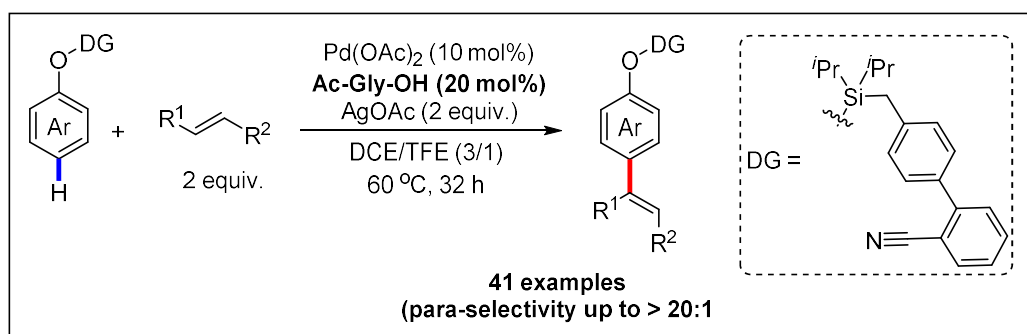


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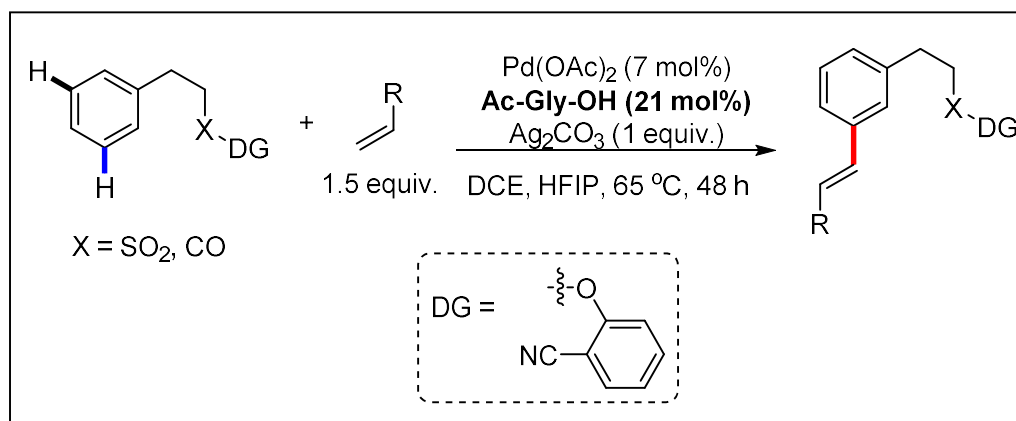
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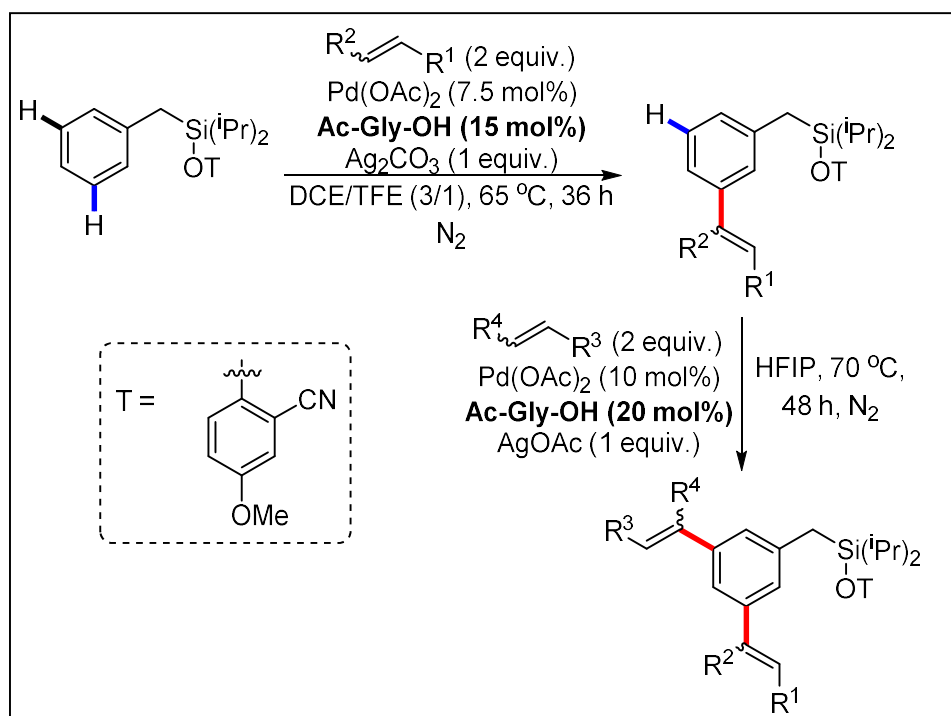
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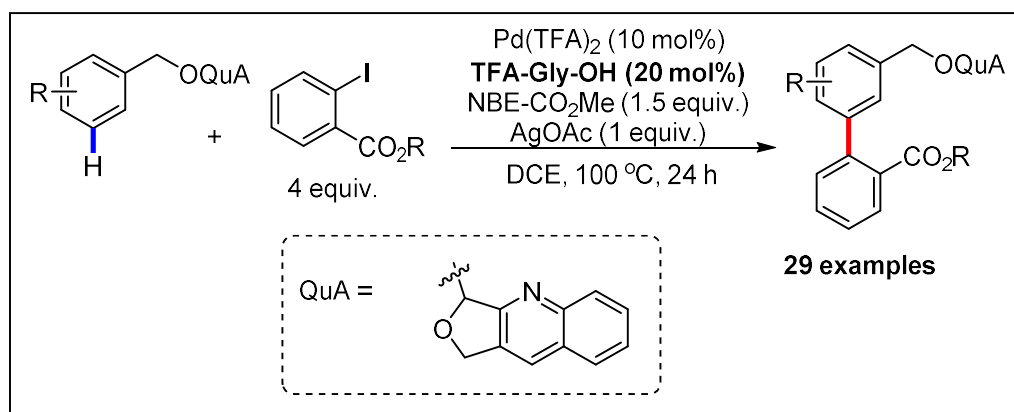


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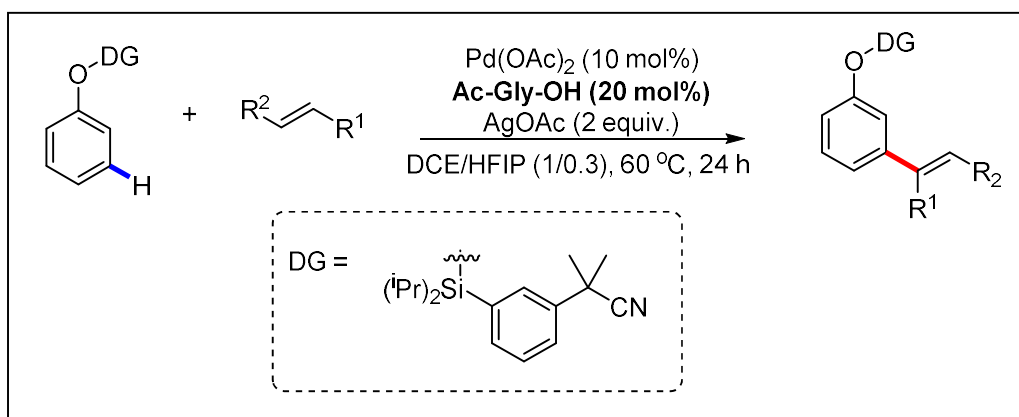
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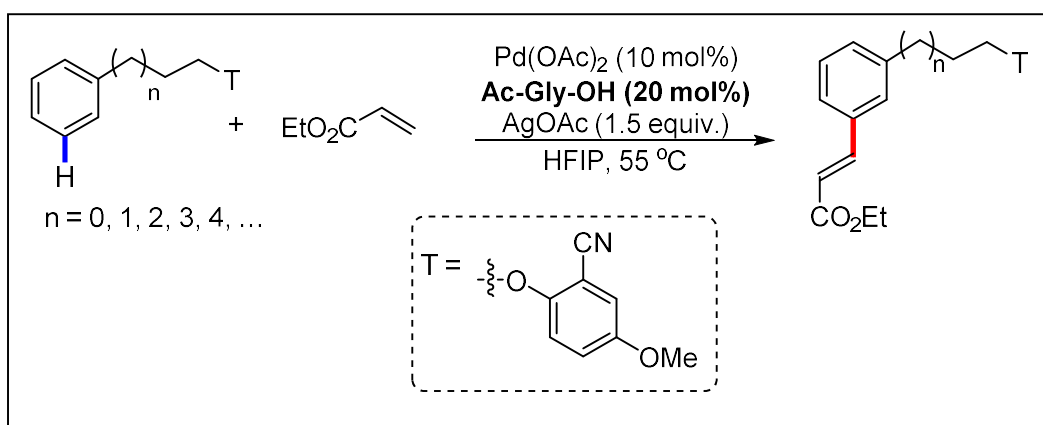
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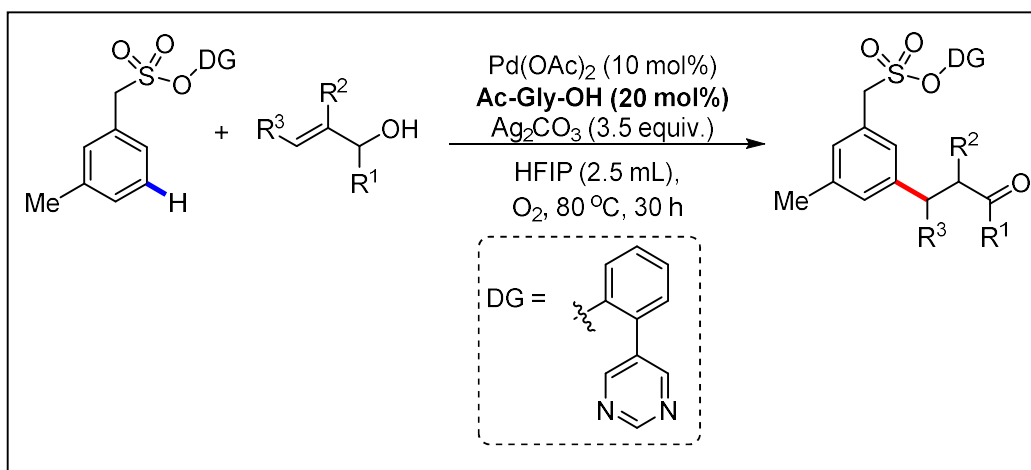
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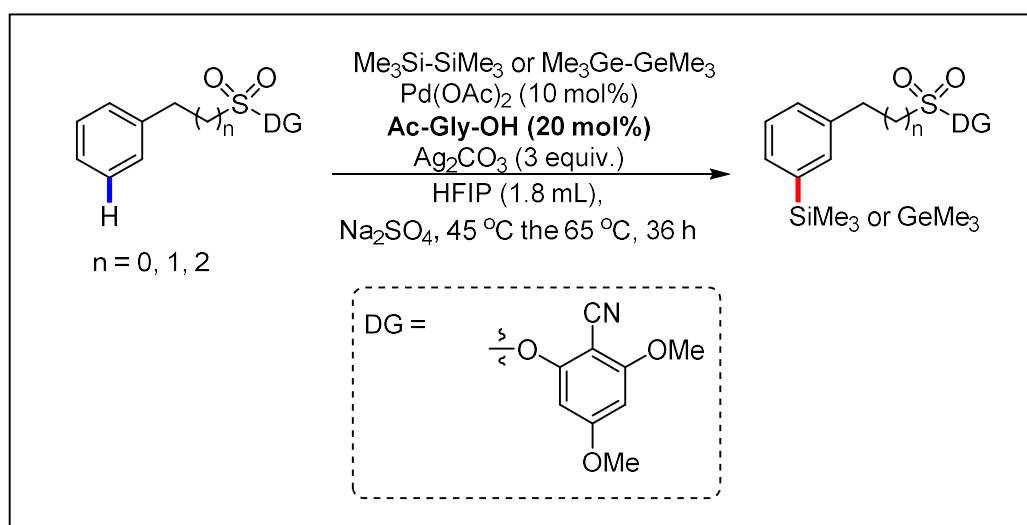


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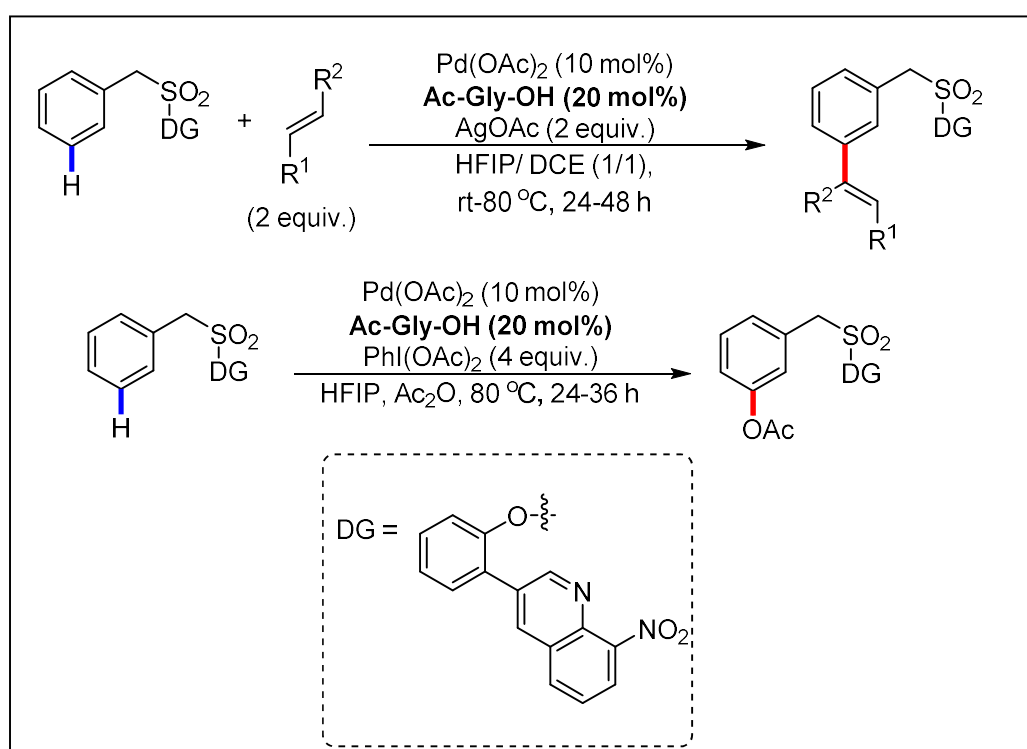
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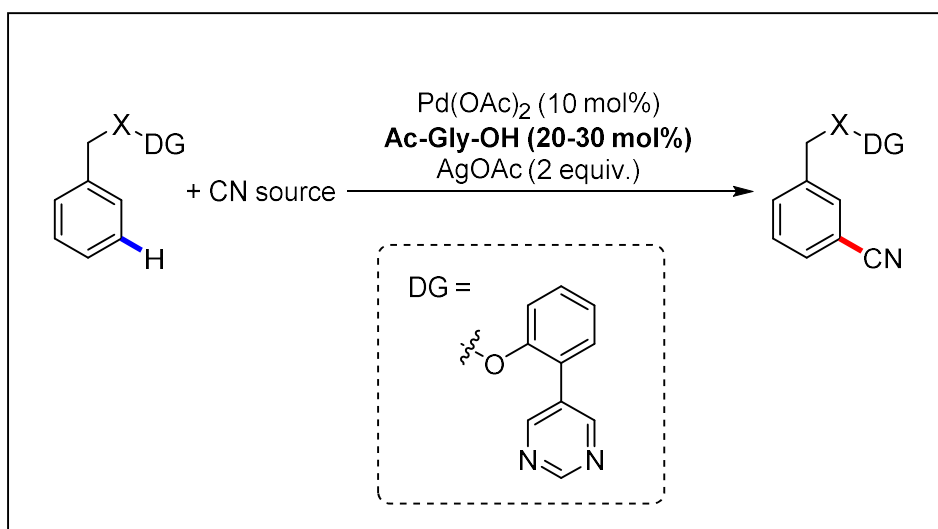
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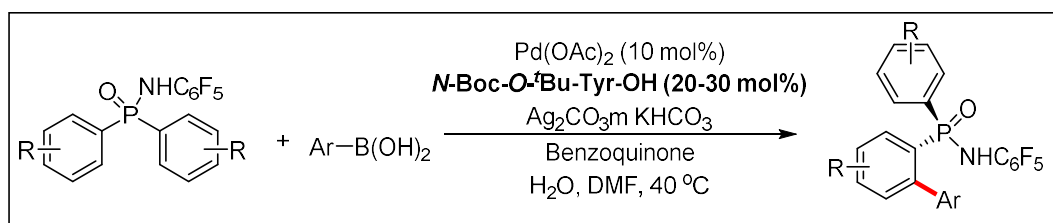
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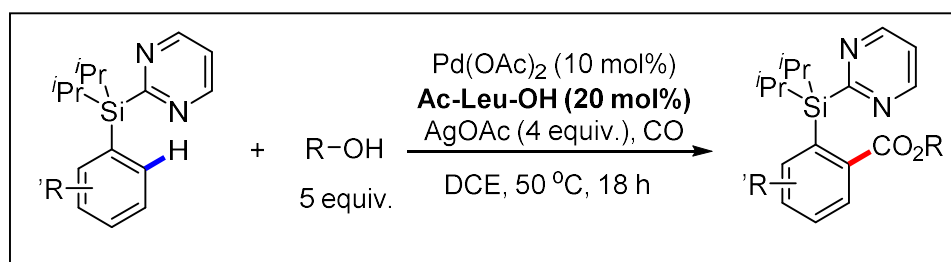
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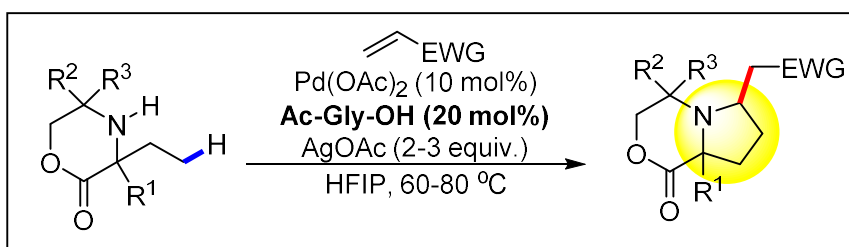
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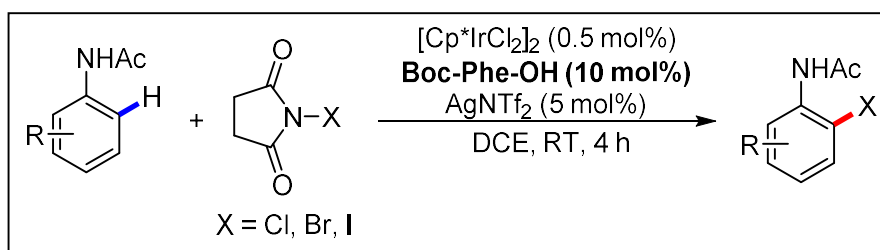
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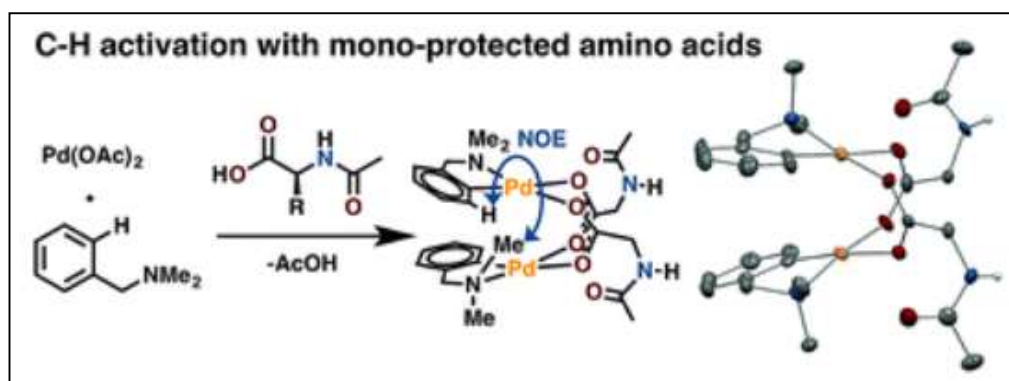
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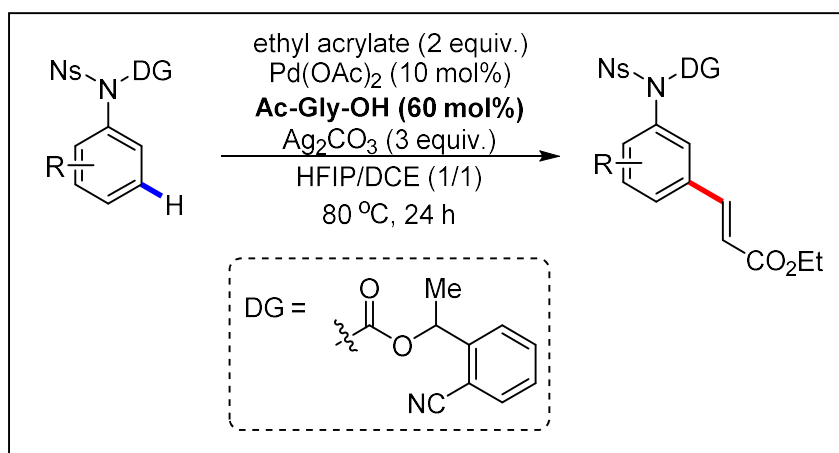
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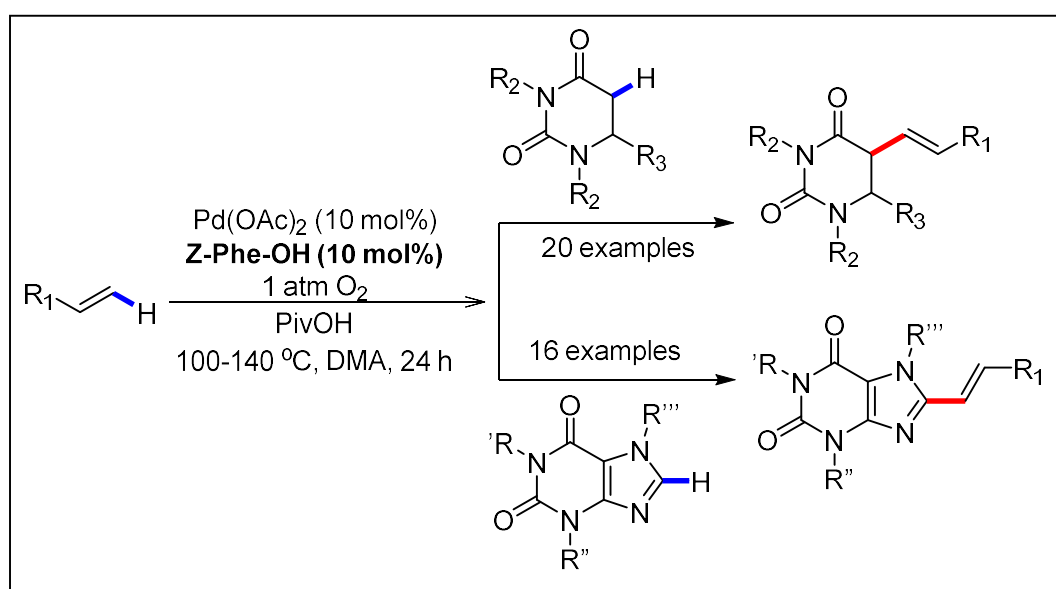
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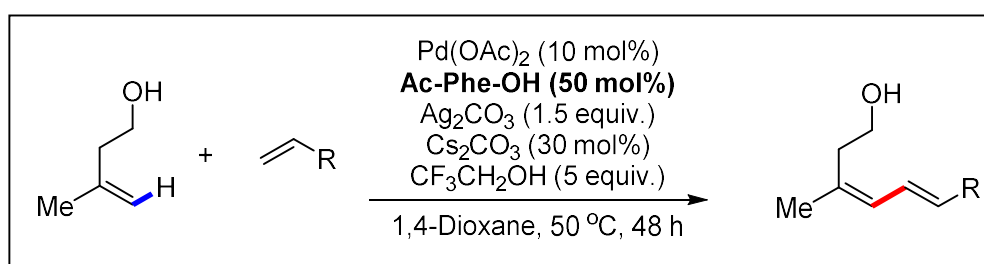
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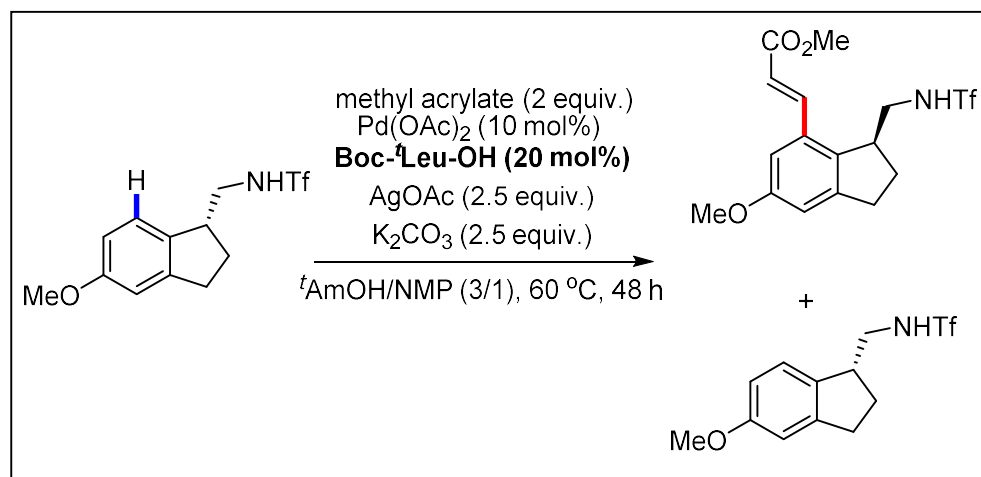
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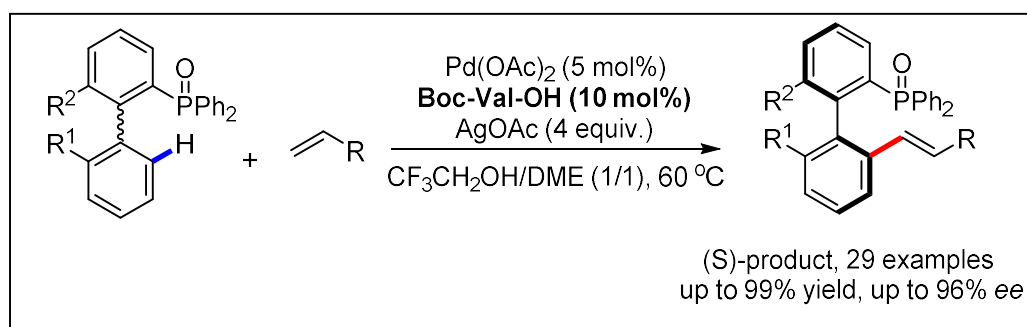
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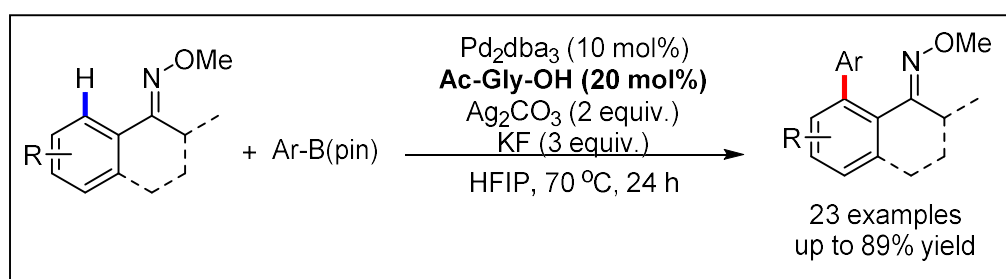
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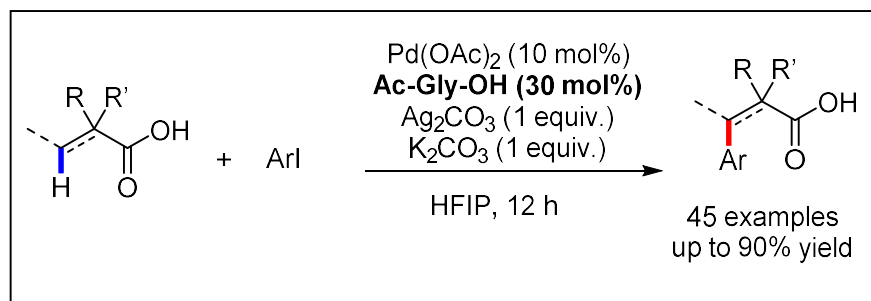
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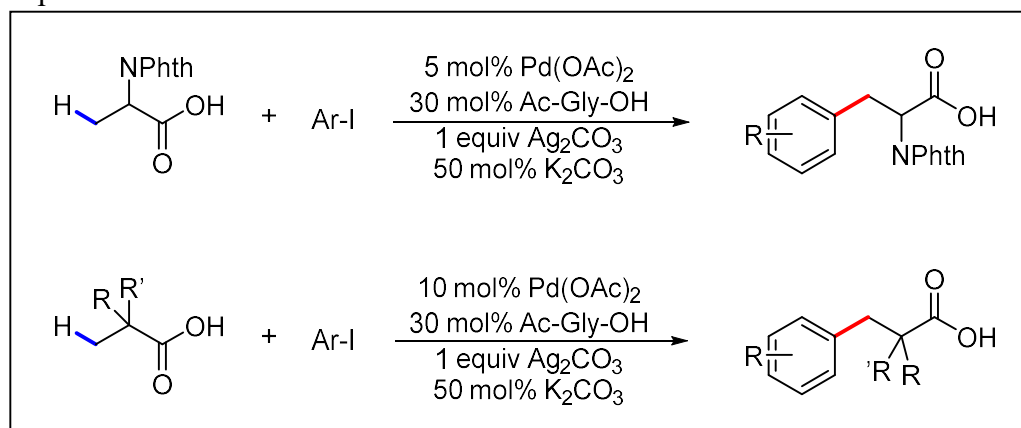
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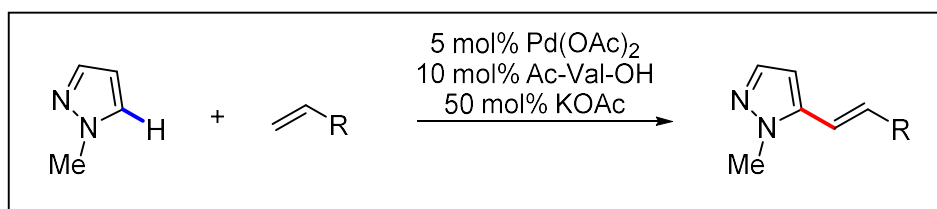
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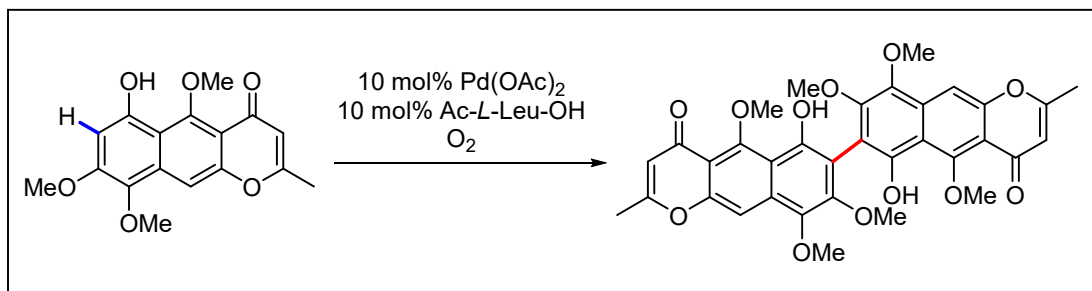
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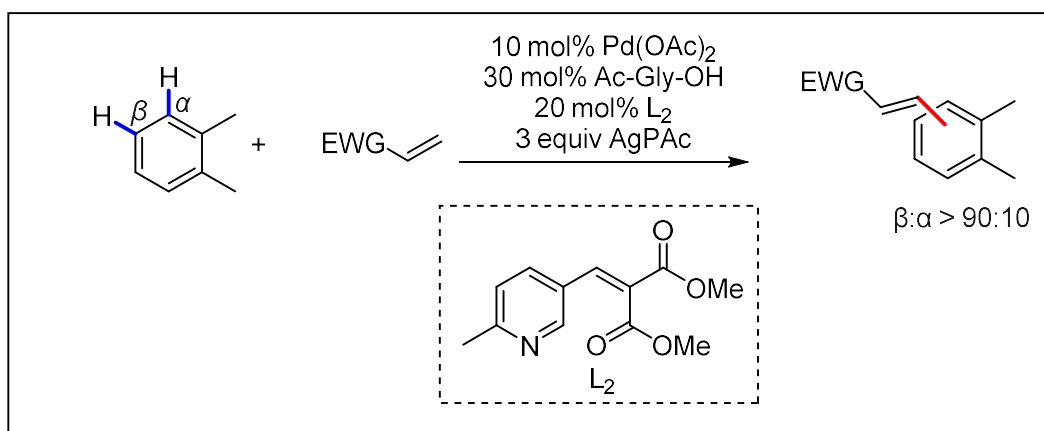
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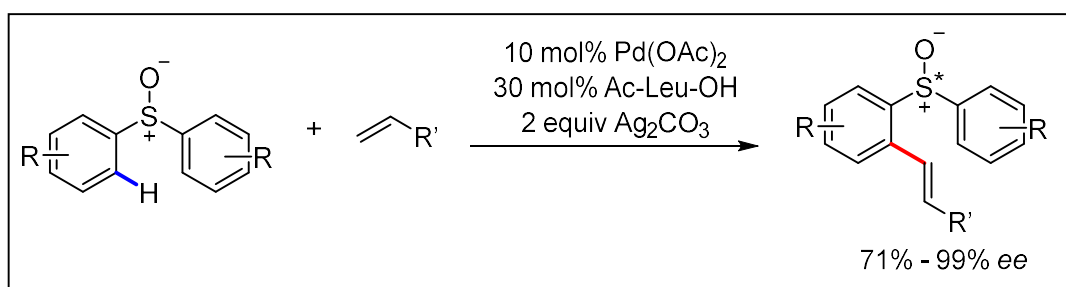
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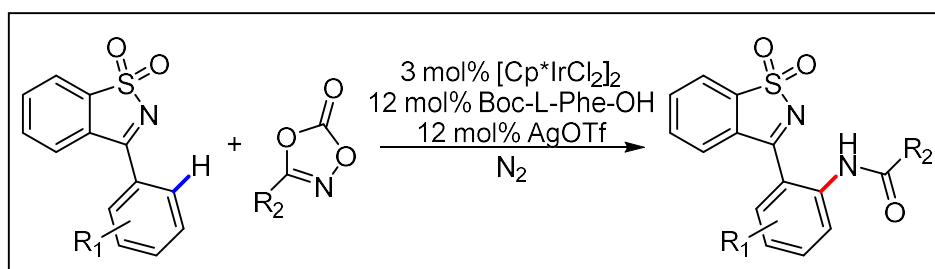
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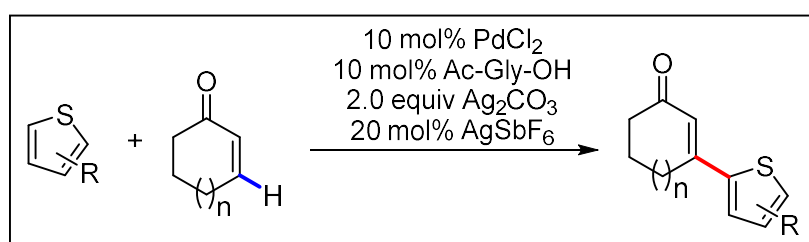


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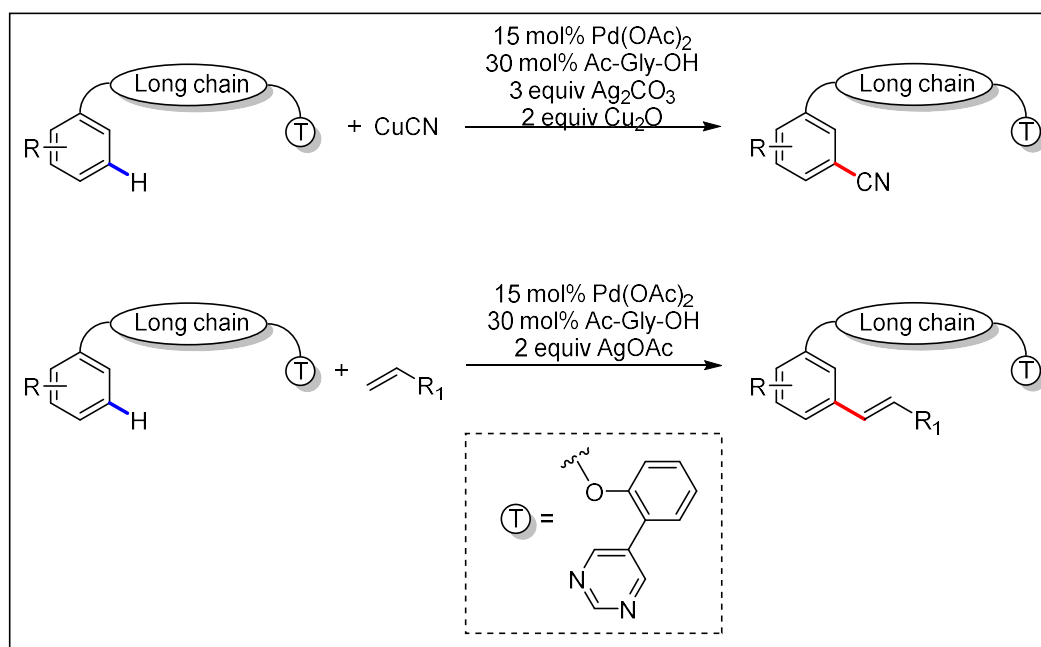
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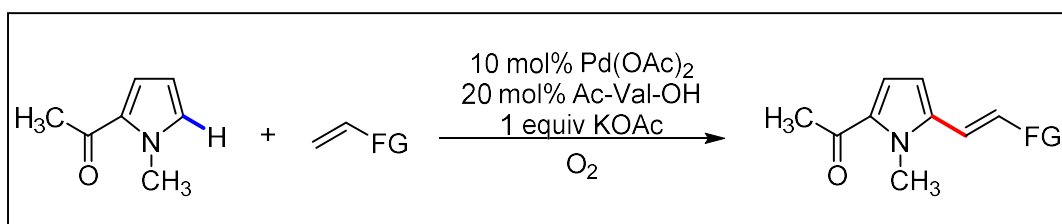
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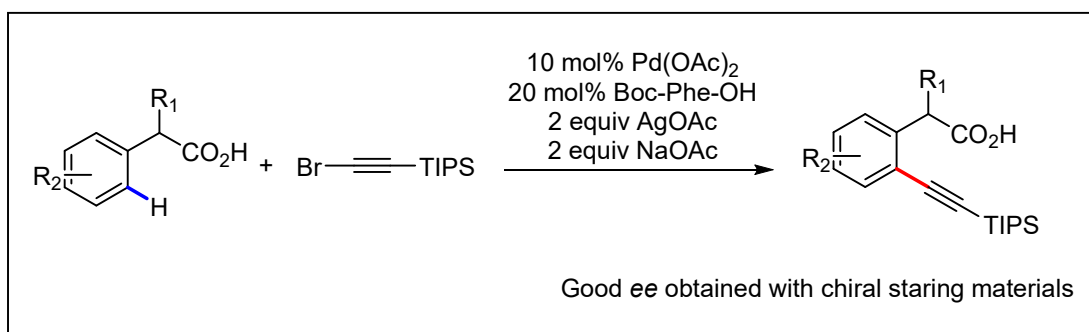


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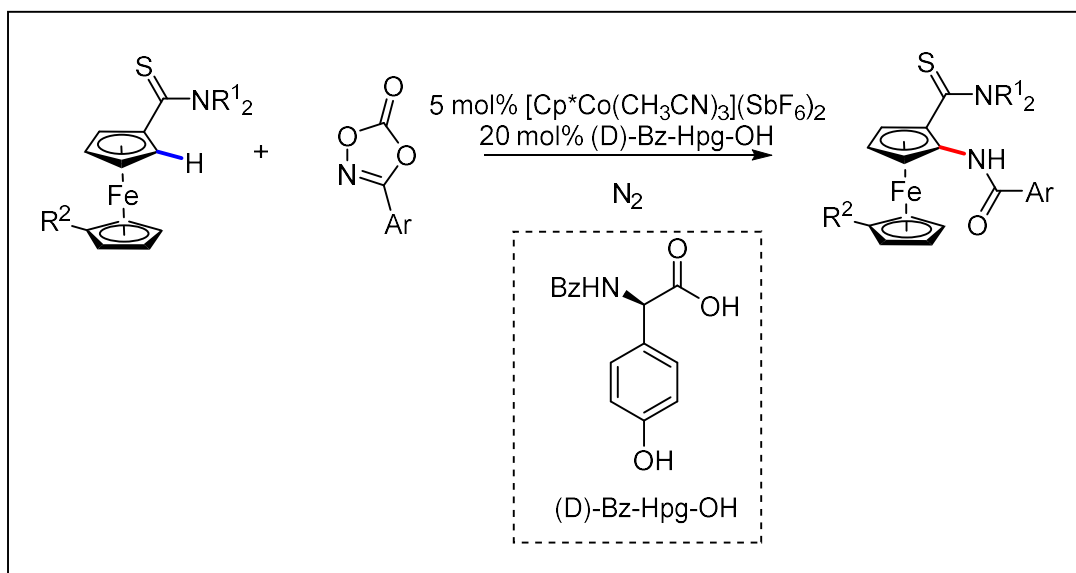
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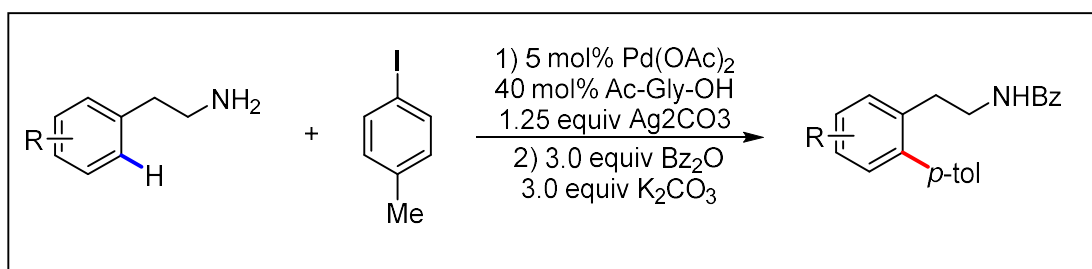
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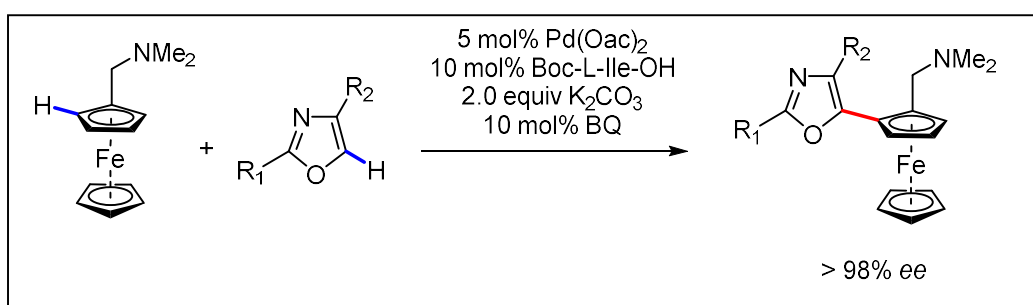


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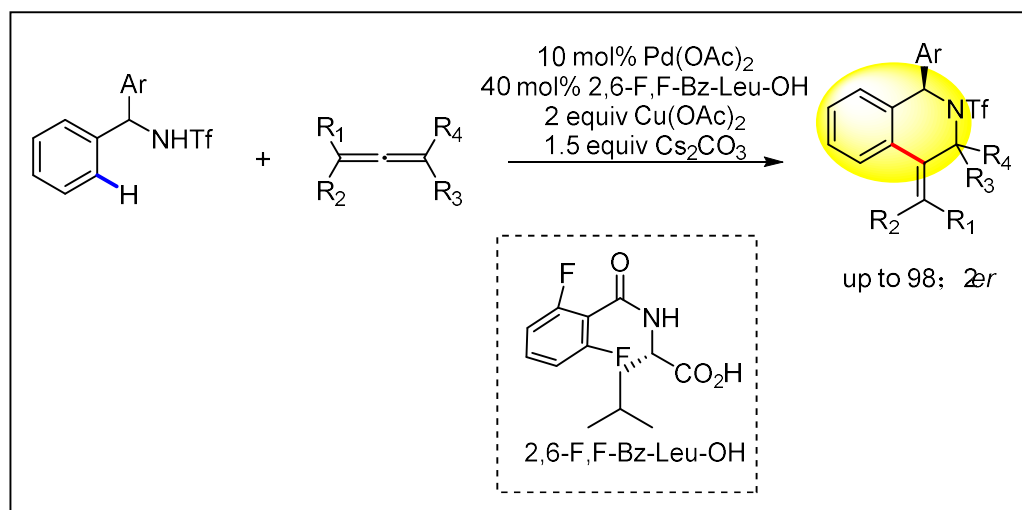
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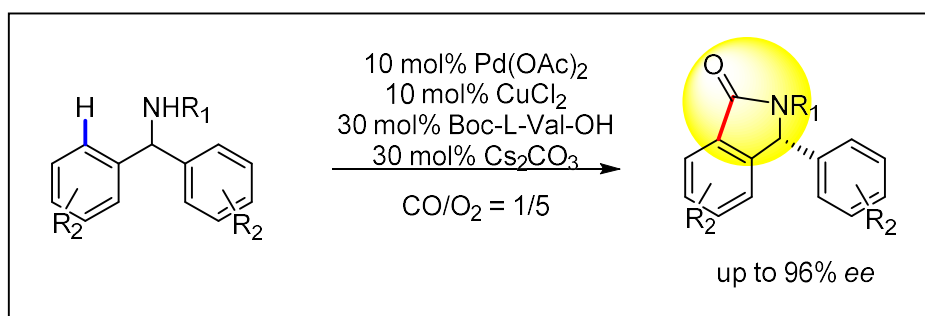
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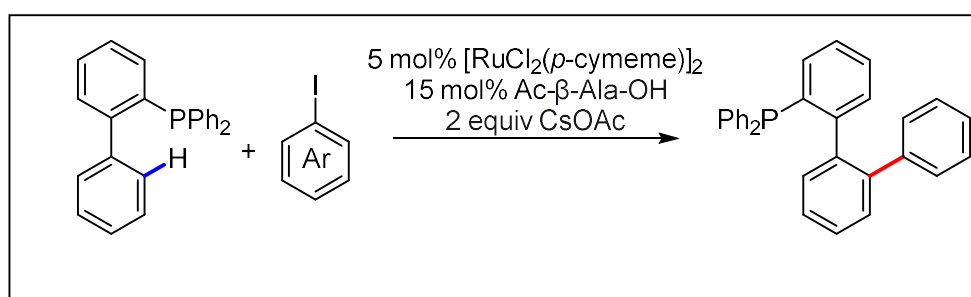


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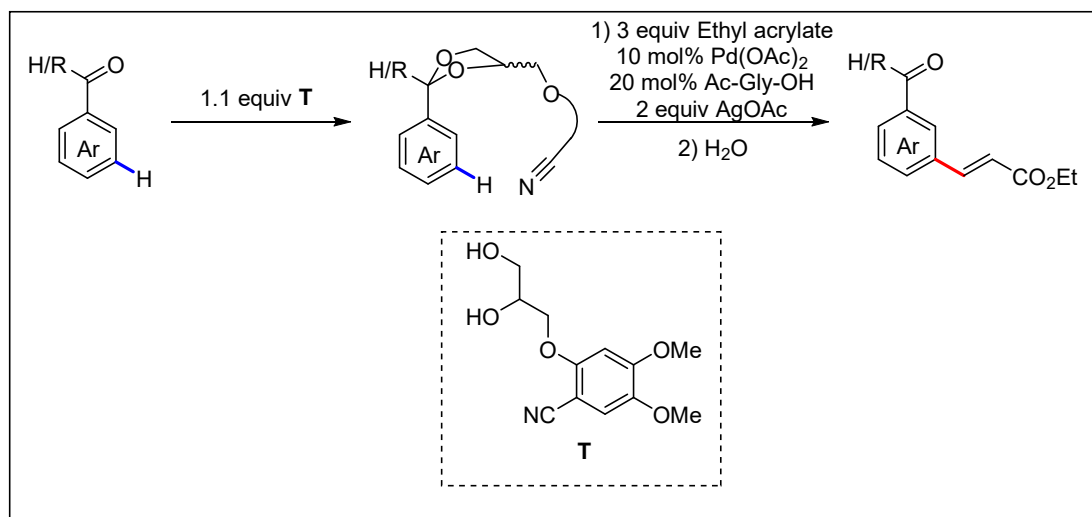
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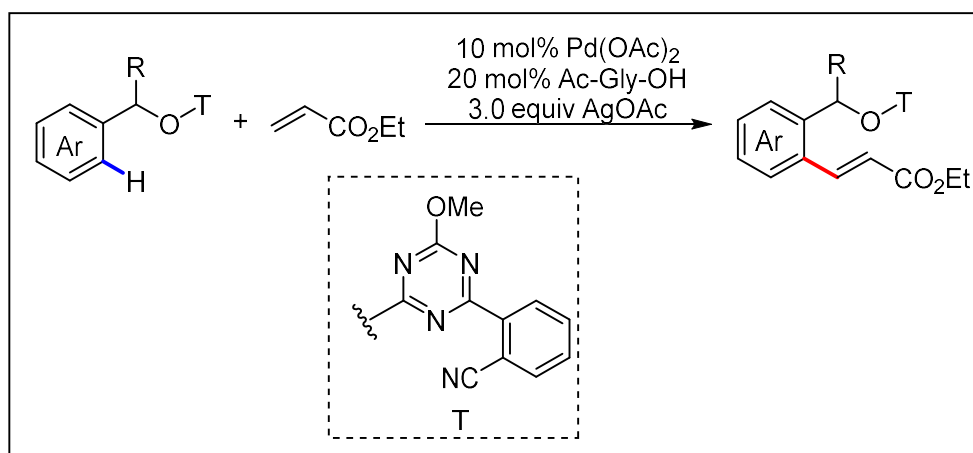
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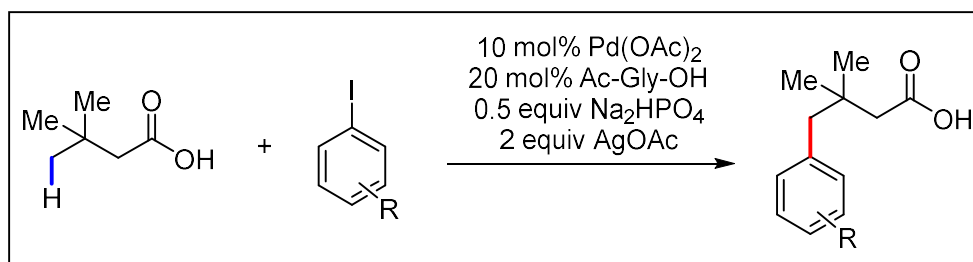
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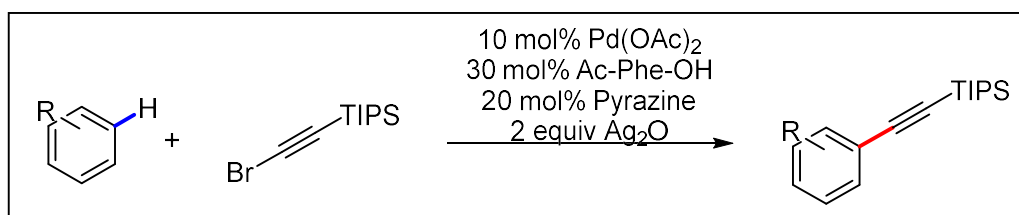
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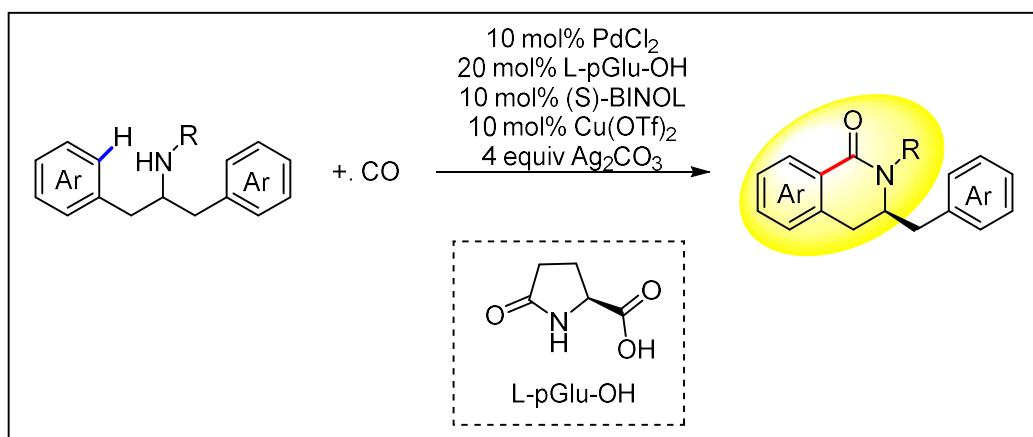
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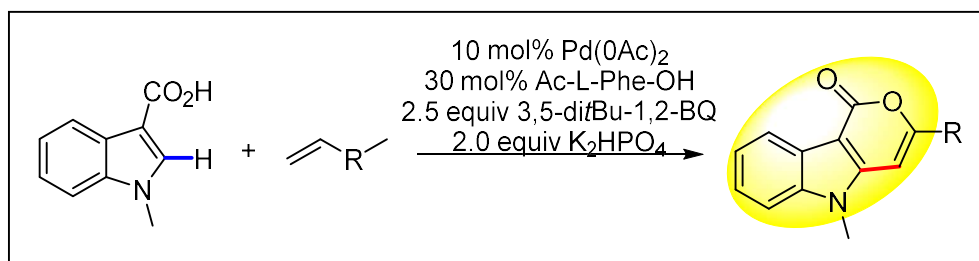
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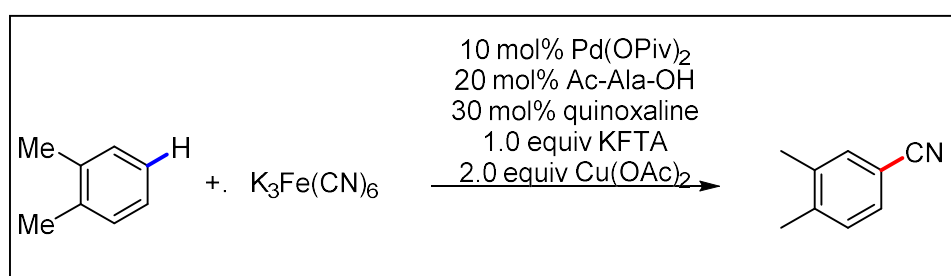
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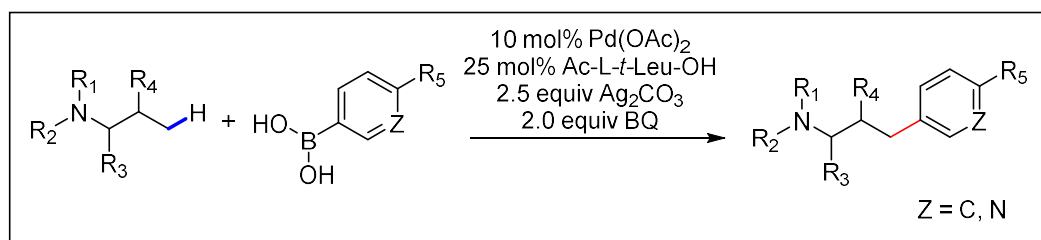
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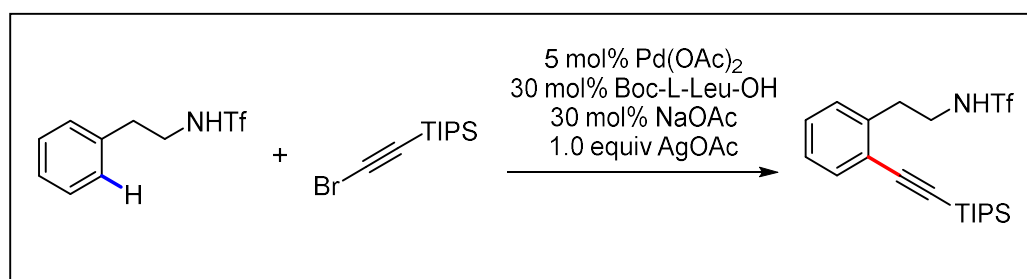


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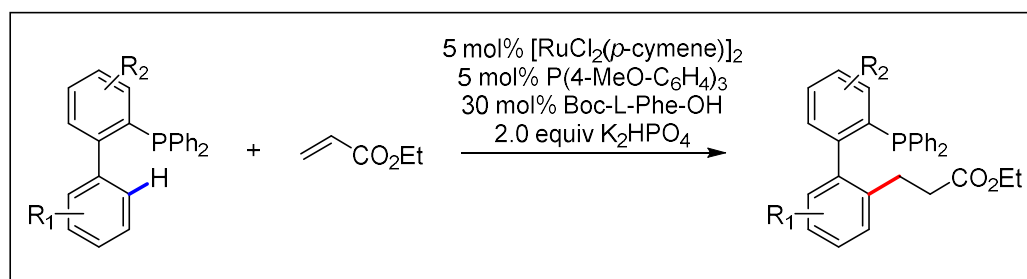
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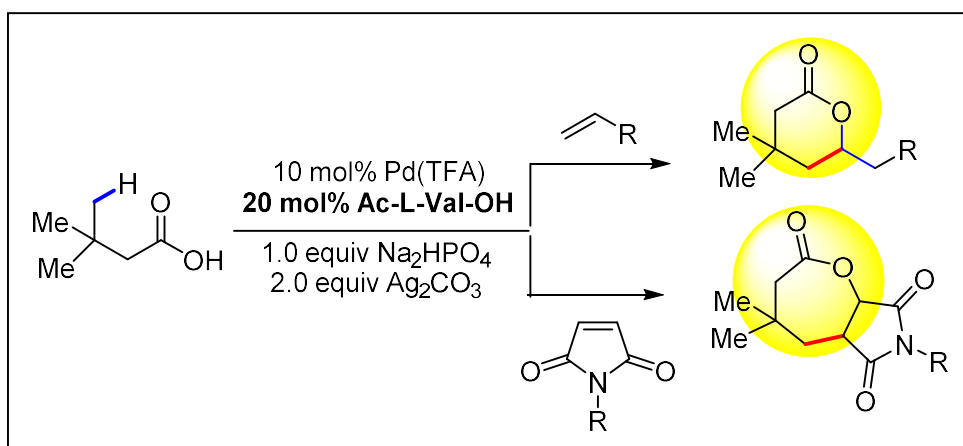
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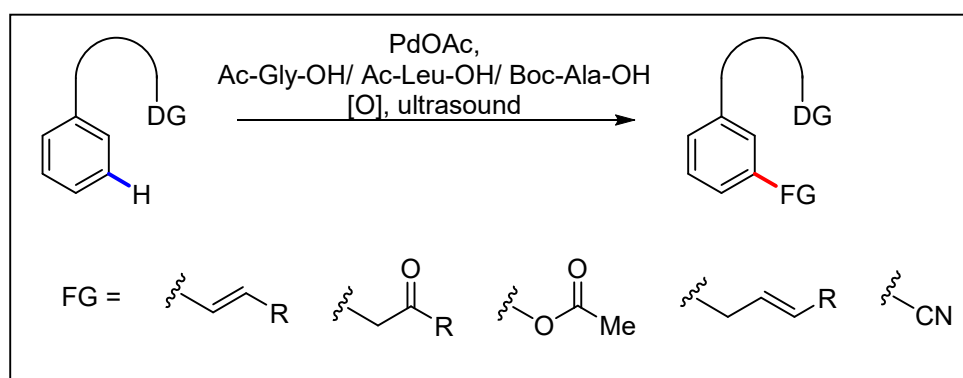


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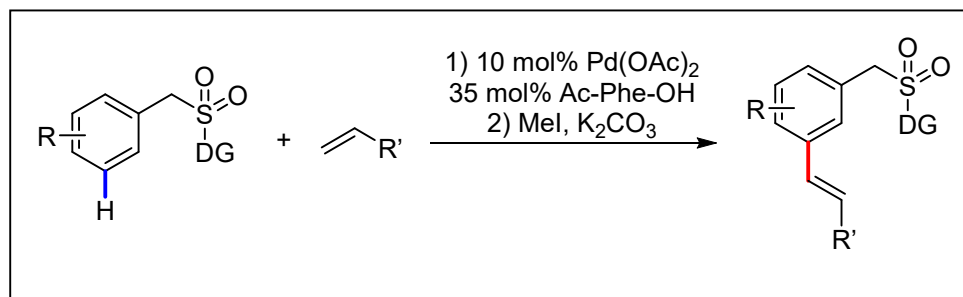
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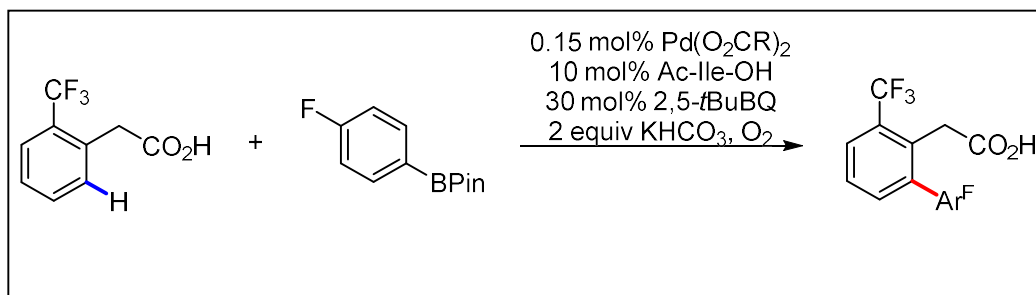
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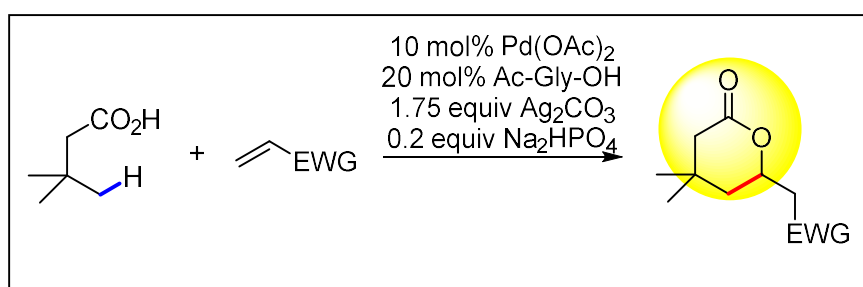
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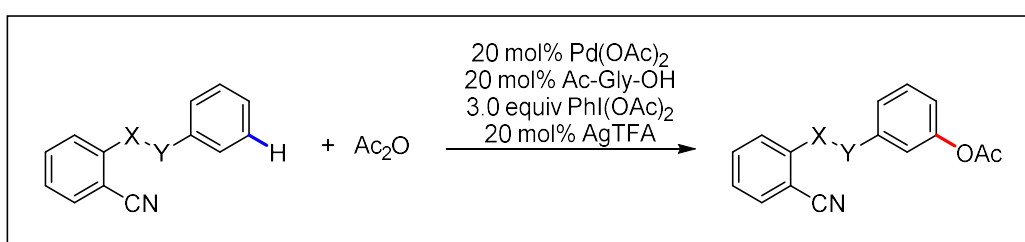
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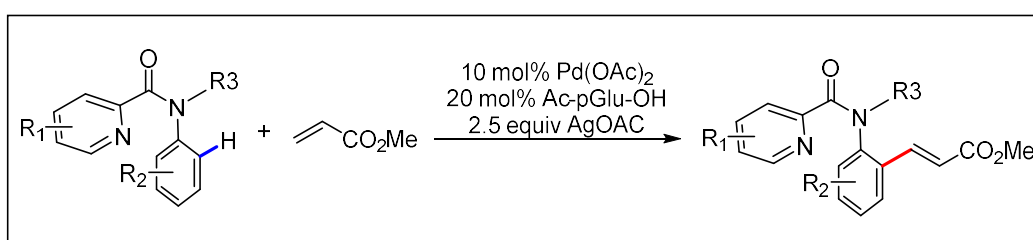
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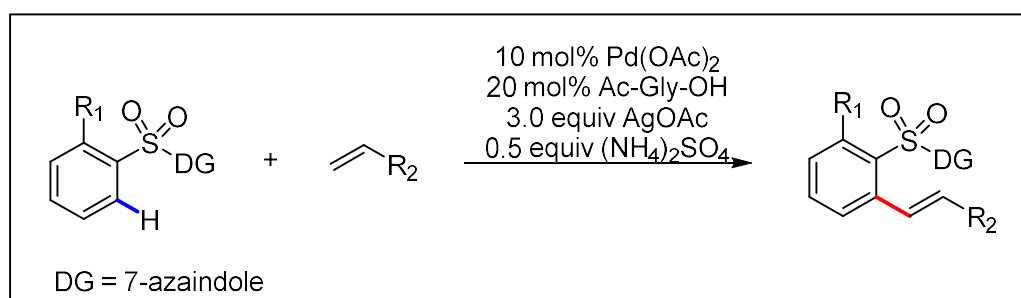
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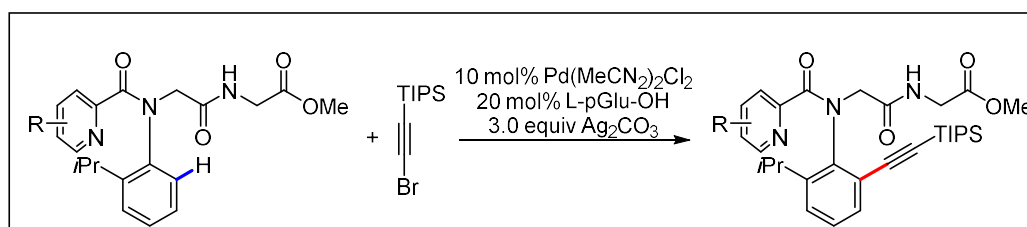
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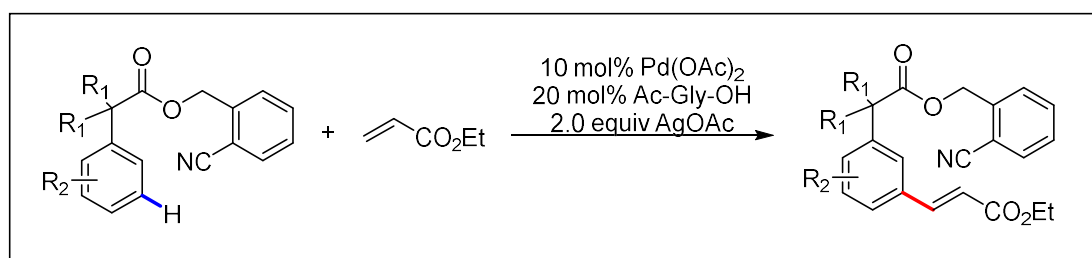
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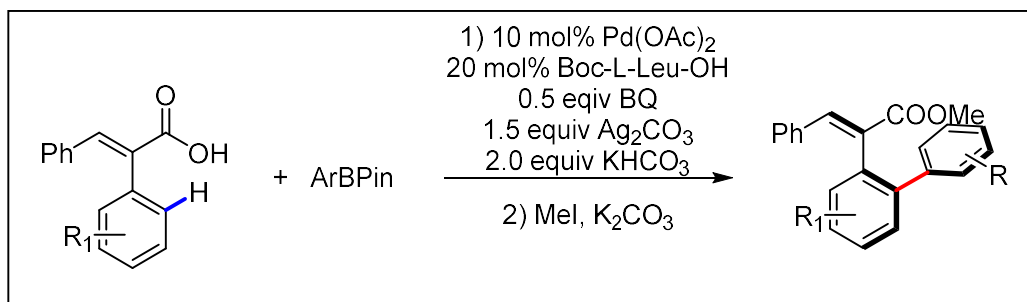
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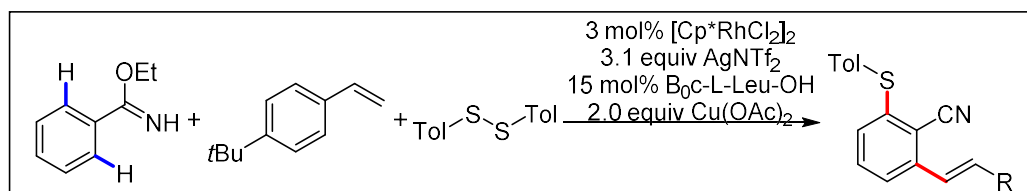
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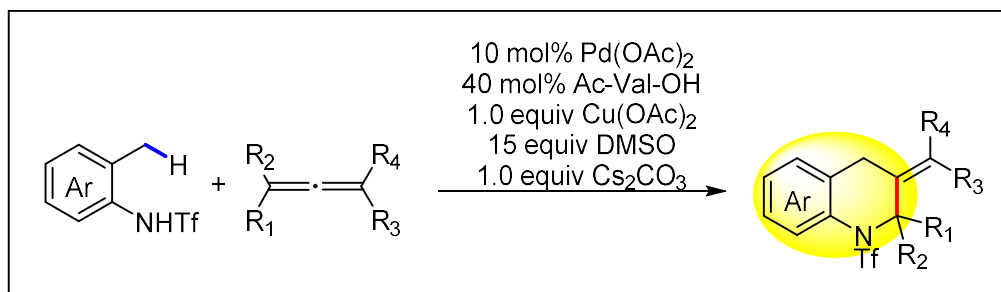
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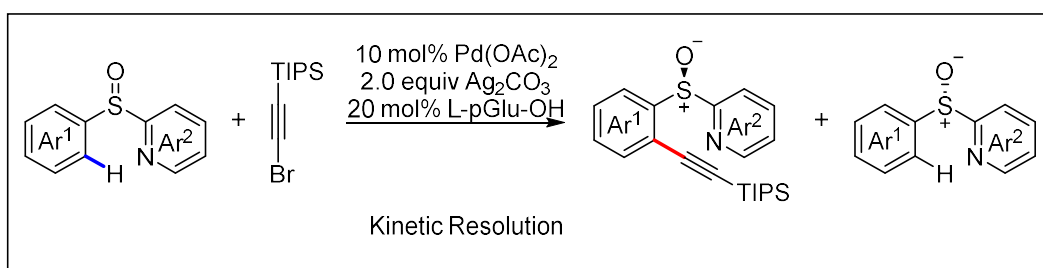
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