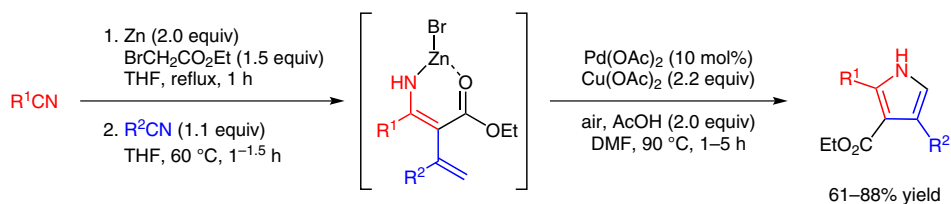


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Tandem One-Pot Synthesis of Polysubstituted NH-Pyrroles Involving the Palladium-Catalyzed Intramolecular Oxidative Amination of the Zinc Bromide Complex of  $\beta$ -Enamino Esters

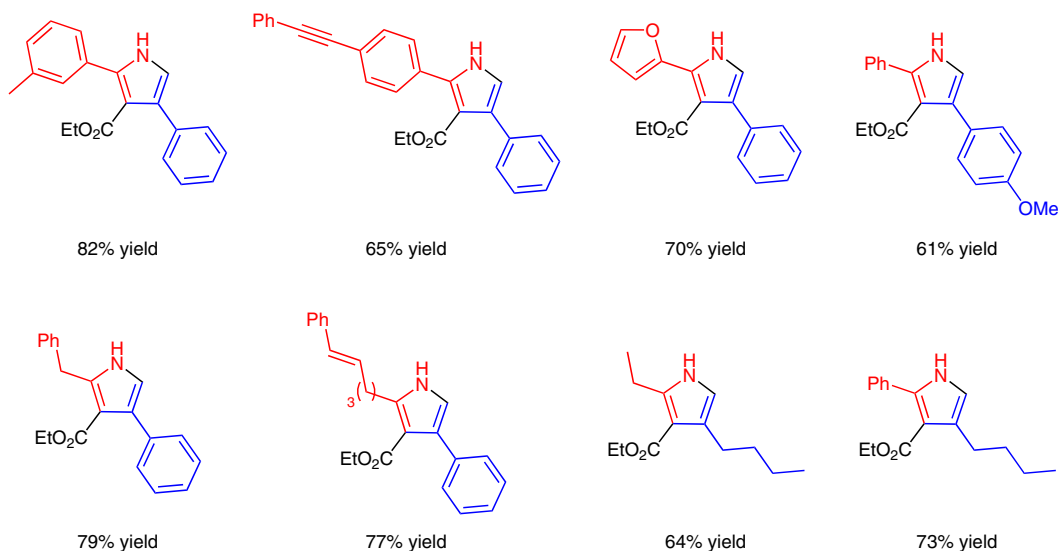
*J. Org. Chem.* **2014**, *79*, 9253–9261.

## Oxidative Amination of the Zinc Bromide Complex of $\beta$ -Enamino Esters



R<sup>1</sup> = Alk, Ar, HetAr, Bn  
R<sup>2</sup> = Alk, Ar, CH<sub>2</sub>CH<sub>2</sub>Ph

### Selected examples:



**Significance:** Lee and co-workers report a tandem palladium-catalyzed intramolecular oxidative olefin amination of the zinc bromide complex of  $\alpha$ -vinylated  $\beta$ -amino esters to afford various 2,3,4-trisubstituted pyrroles in good yields.

**Comment:** The synthetic utility of this efficient and atom-economical procedure is shown by the synthesis of pyrrolophenanthrenes and pyranopyrrolones through selective palladium- and copper-catalyzed C–C and C–O bond-forming reactions.

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Metal-Mediated  
Synthesis

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amination

zinc

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