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Highly Diastereo- and Enantioselective Silver-Catalyzed Double [3+2] Cyclization of α-Imino Esters with Isocyanoacetate

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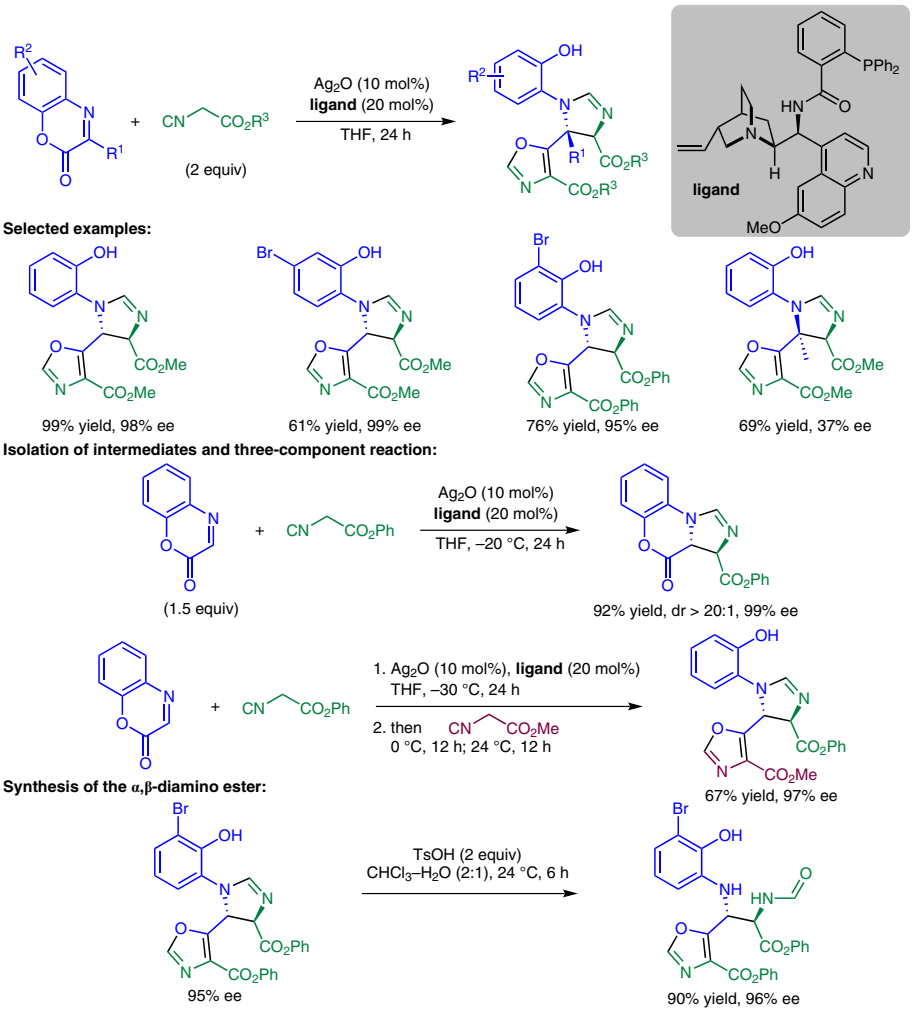
Silver-Catalyzed [3+2] Cyclization of α-Imino Esters with Isocyanoacetate



Significance: The authors present a double [3+2] cyclization of α-amino esters with isocyanates to produce highly functionalized oxazole-imidazoles. Therefore, a silver oxide quinine derived amino phosphine ligand was used. For the pioneering work regarding isocyanates using a gold catalyst, see: Y. Ito, M. Sawamura, T. Hayashi *J. Am. Chem. Soc.* **1986**, *108*, 6405–6406.

Comment: Kinetic studies identified two cyclization processes to be step-wise. The intermediates, mono-[3+2] cyclization products, were isolated. The products can be hydrolyzed to yield functionalized α,β-diamino esters.

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