K. HYODO, S. NAKAMURA,* N. SHIBATA* (NAGOYA INSTITUTE OF TECHNOLOGY, JAPAN)
Enantioselective Aza-Morita-Baylis-Hillman Reactions of Acrylonitrile Catalyzed by Palladium(II) Pincer
Complexes having C_2 -Symmetric Chiral Bis(imidazoline) Ligands
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Palladium-Catalyzed Enantioselective Aza-Morita-Baylis-Hillman Reaction

Significance: This paper describes the palladium-catalyzed enantioselective aza-Morita-Baylis-Hillman reaction of acrylonitriles with imines. The bulky pincer ligand enabled the synthesis of enantioenriched α -methylene- β -aminonitriles in high yield.

Comment: The palladium-pincer complex preferably activates acrylonitrile, even in the presence of ethyl acrylate. The palladium ketenimide is a key intermediate for the asymmetric induction. The palladium complex may promote other Lewis acid catalyzed reactions.

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