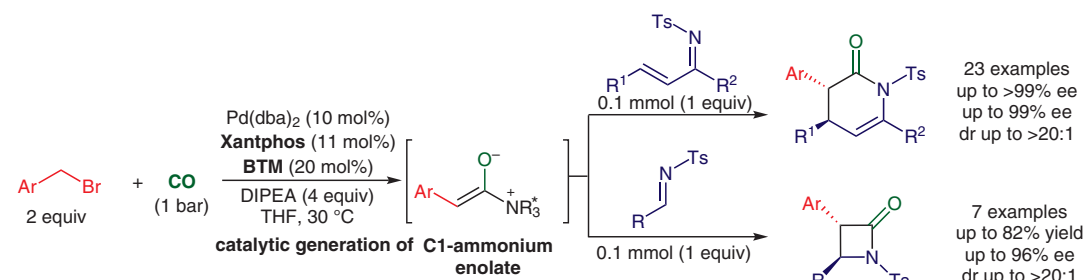


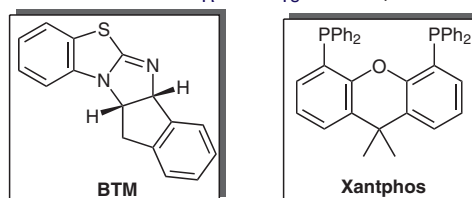
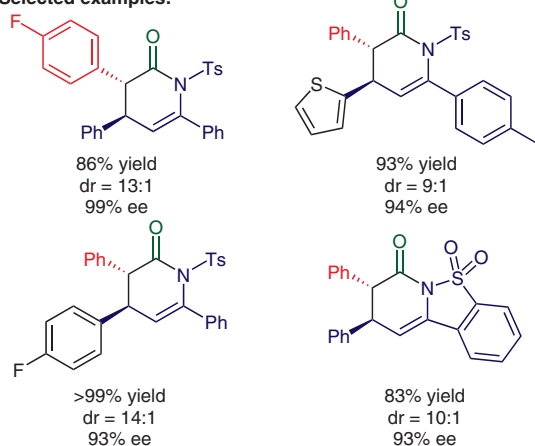
L.-L. LI, D. DING, J. SONG, Z.-Y. HAN*, L.-Z. GONG* (UNIVERSITY OF SCIENCE AND TECHNOLOGY OF CHINA, HEFEI AND COLLABORATIVE INNOVATION CENTER OF CHEMICAL SCIENCE AND ENGINEERING, TIANJIN, P. R. OF CHINA)

Catalytic Generation of C1 Ammonium Enolates from Halides and CO for Asymmetric Cascade Reactions
Angew. Chem. Int. Ed. **2019**, *58*, 7647–7651.

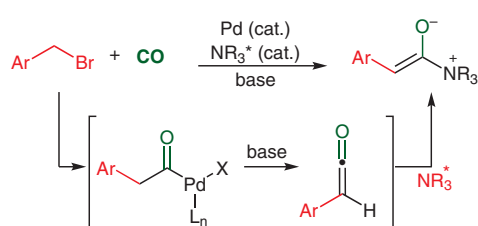
Palladium-Catalyzed Generation of C1 Ammonium Enolates



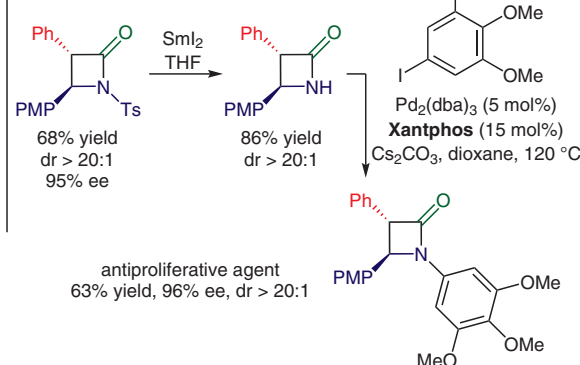
Selected examples:



C1-ammonium enolate generation:



Derivatization:



Significance: The authors disclose a palladium-catalyzed generation of C1 ammonium enolates from readily available halides, carbon monoxide, and catalytic chiral Lewis base. The intermediate participated in asymmetric reactions with ketimines.

Comment: The chiral dihydropyridone and β -lactam products were obtained in high yields, high diastereoselectivities, and excellent enantioselectivities. This methodology was employed in the asymmetric synthesis of an antiproliferative agent.

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Category

Metals in Synthesis

Key words

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 ammonium enolates
 dihydropyridones
 β -lactams

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