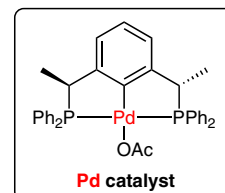
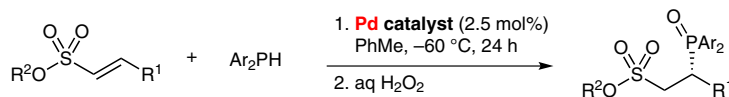
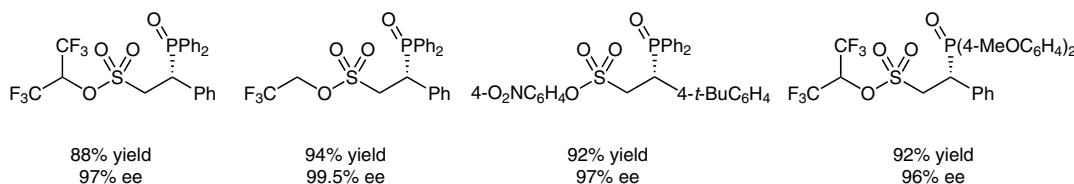


J. LU, J. YE, W.-L. DUAN* (SHANGHAI INSTITUTE OF ORGANIC CHEMISTRY AND EAST CHINA UNIVERSITY OF SCIENCE AND TECHNOLOGY, SHANGHAI, P. R. OF CHINA)
Palladium-Catalyzed Asymmetric Addition of Diarylphosphines to α,β -Unsaturated Sulfonic Esters for the Synthesis of Chiral Phosphine Sulfonate Compounds
Org. Lett. **2013**, *15*, 5016–5019.

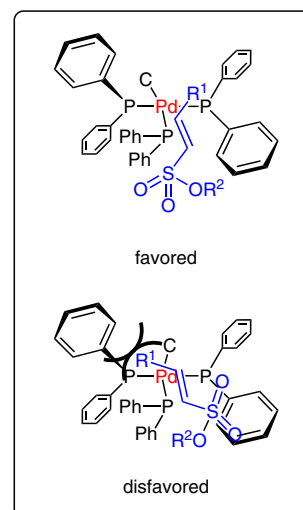
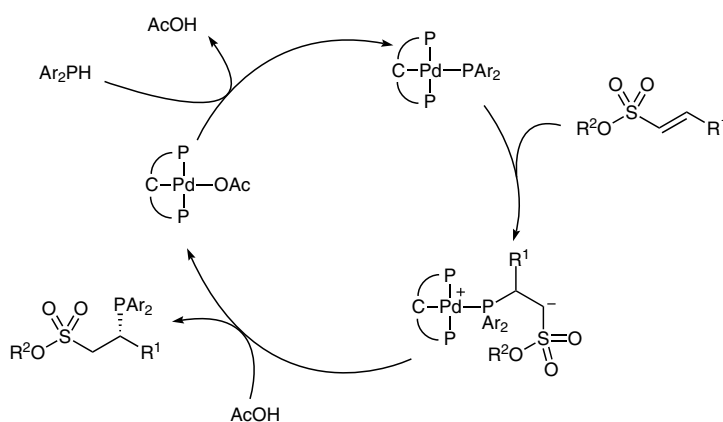
Palladium-Catalyzed Asymmetric Synthesis of Phosphine Sulfonates



Selected examples:



Proposed catalytic cycle:



Significance: The authors reported the asymmetric conjugate addition of diarylphosphines to sulfonic esters catalyzed by a pincer-palladium complex. In the presence of an electron-withdrawing group in the sulfonic esters, phosphine sulfonates were obtained in high yields.

Comment: Introducing of heteroatoms into phosphine compounds is interesting since they can be used as ligands in metal-catalyzed transformations. Using this system, a highly enantioselective synthesis of phosphine sulfonates was achieved. The transformation of the product into the palladium complex was also demonstrated.

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