Palladium-Catalyzed Asymmetric Synthesis of Phosphine Sulfonates

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.