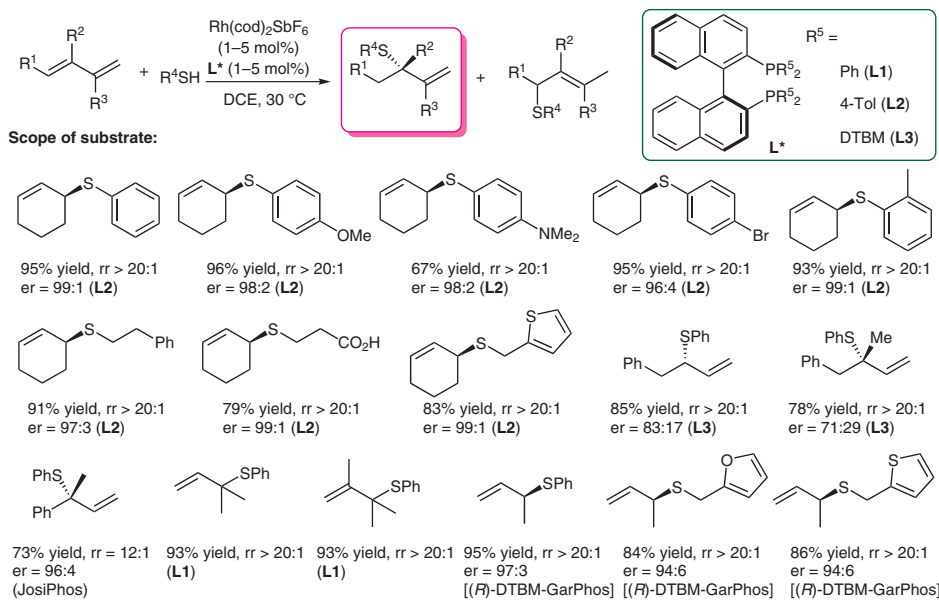


Rhodium-Catalyzed Hydrothiolation of 1,3-Dienes



Significance: The development of reactions for the construction of C–S bonds is important because molecules essential to life contain this linkage. The addition of thiols to alkenes is a direct and atom-economical method for the formation of C–S bonds. The authors have developed an enantioselective addition of thiols to 1,3-dienes catalyzed by a rhodium–chiral bisphosphine ligand complex to give chiral secondary or tertiary allylic sulfides in good to high enantioselectivities.

Comment: The enantioselective hydrothiolation proceeds selectively at the more-substituted double bond. A broad range of functional groups are tolerated in this reaction, and the catalyst loading can be lowered to 0.1 mol%.

SYNFACTS Contributors: Hisashi Yamamoto, Takahiro Sawano
 Synfacts 2018, 14(11), 1145 Published online: 18.10.2018
 DOI: 10.1055/s-0037-1611240; Reg-No.: H12417SF