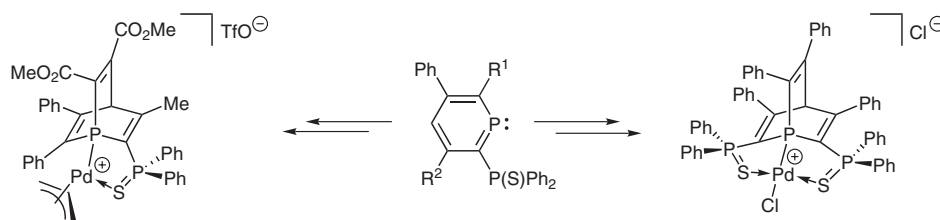


O. PIECHACZYK, M. DOUX, L. RICARD, P. LE FLOCH* (ECOLE POLYTECHNIQUE, PALAISEAU, FRANCE)

Synthesis of 1-Phosphabarrelene Phosphine Sulfide Substituted Palladium(II) Complexes: Application in the Catalyzed Suzuki Cross-Coupling Process in the Allylation of Secondary Amines
Organometallics **2005**, *24*, 1204-1213.

Synthesis of 1-Phosphabarrelene Phosphine Sulfide Substituted Palladium(II) Complexes



Significance: A general Diels–Alder-based synthesis of 1-phosphabarrelenes from substituted phosphinines is reported. Palladium complexes have been prepared which serve as good ligands for cross-coupling reactions and in the allylation of secondary amines with TON up to 7×10^6 . X-ray crystal structural analysis and computational data of the complexes are presented.

Comment: The phosphabarrelenes, P-analogues of the classical barrelene (H. E. Zimmerman, R. M. Paufler *J. Am. Chem. Soc.* **1960**, *82*, 1514-1515) represent a unusual class of heterocycles and phosphorus ligands, which have received little attention (B. Breit, E. Fuchs *Chem. Commun.* **2004**, 694-695). Aside from interest in its chemical reactivity, the three-dimensional heterocyclic core opens new horizons for rational ligand design not only for conventional Pd-catalyzed cross-coupling reactions but also for asymmetric catalytic processes.

SYNFACTS Contributors: Victor Snieckus, Oleg M. Demchuk
Synfacts 2005, 0, 0018-0018

DOI: 10.1055/s-2005-865369; **Reg-No.:** V00405SF

2005 © THIEME STUTTGART • NEW YORK