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Synthesis of Heterocycles via Pd-Ligand Controlled Cyclization of 2-Chloro-N-(2-vinyl)aniline: Preparation of Carbazoles, Indoles, Dibenazepines and Acridines


Pd-Ligand Controlled Cyclization for the Preparation of Heteroaromatics

**Significance:** Various vinyl diphenylamine intermediates are selectively cyclized to the corresponding five-, six- or seven-membered heteroaromatics. The regioselectivity of these palladium-catalyzed cyclizations is almost exclusively directed by the used ligand.

**Comment:** By using 2-bromostyrene and 2-chloroaniline derivatives in this palladium-catalyzed reaction with DavePhos as ligand, a direct one-pot synthesis was achieved, furnishing 5H-diazepines in good to excellent yields.