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Diboron(4) Compounds: From Structural Curiosity to Synthetic Workhorse

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Abstract

Although known for over 90 years, only in the past two decades has the chemistry of diboron(4) compounds been extensively explored. Many interesting structural features and reaction patterns have emerged, and more importantly, these compounds now feature prominently in both metal-catalyzed and metal-free methodologies for the formation of B-C bonds and other processes.

Keywords

KeyWords Plus: CROSS-COUPLING REACTION; N-HETEROCYCLIC CARBENE; PALLADIUM-CATALYZED BORYLATION; ALPHA,BETA-UNSATURATED CARBONYL-COMPOUNDS; B-B BOND; BORON CONJUGATE ADDITIONS; TRANSITION-METAL-COMPLEXES; ASYMMETRIC BETA-BORATION; C-H BONDS; GAMMA-AMINO ALCOHOLS

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