Category

Synthesis of Materials and Unnatural Products

Key words

oligoboroles

organoboron compounds

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Oligo(borolyl)benzenes–Synthesis and Properties
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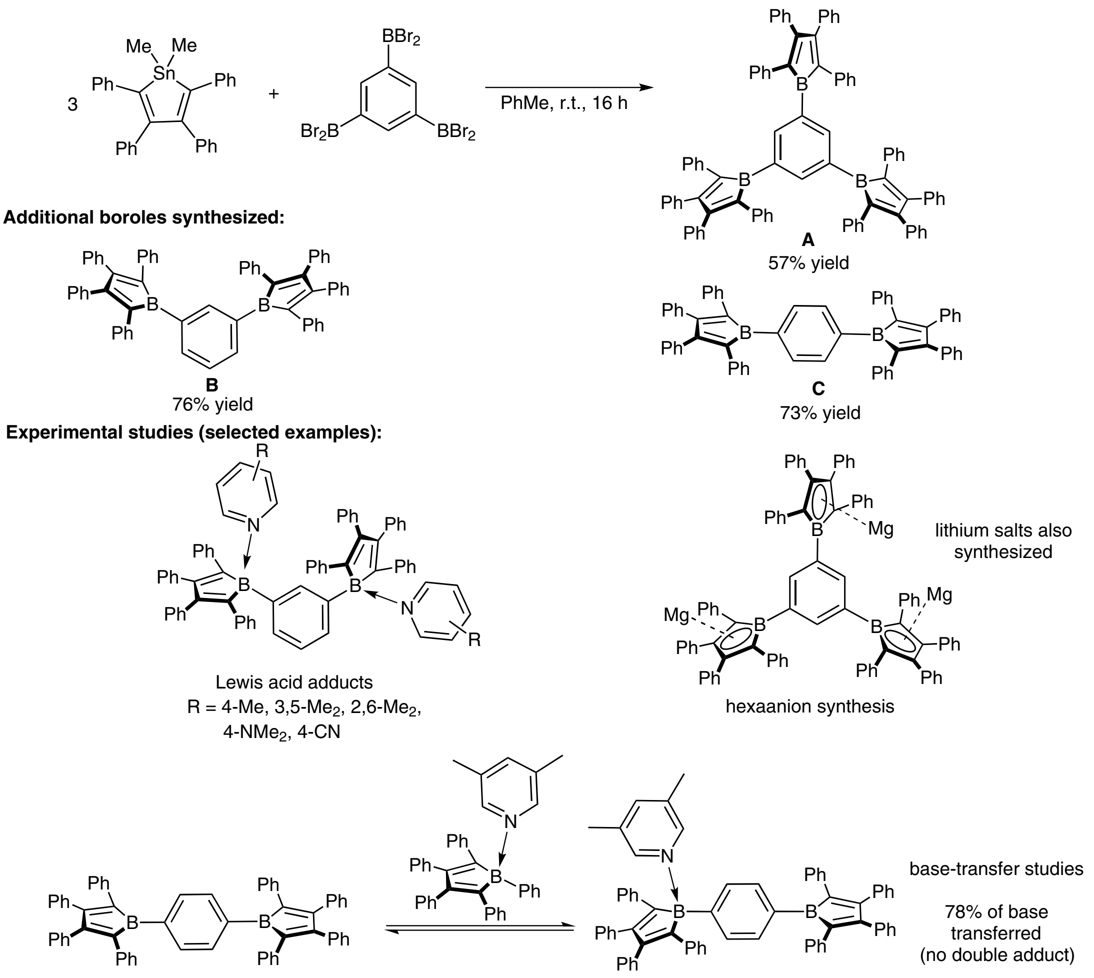
Synthesis of New Borolylbenzenes



Significance: The synthesis and properties of a new class of oligoboroles are reported. These compounds represent the first examples of antiaromatic borolyl moieties connected by an organic π-conjugated system (i.e. benzene) and are synthesized via tin–boron exchange. Adducts of the oligoboroles with various pyridine derivatives and their hexaanion salts with magnesium and lithium are reported and extensively studied.

Comment: The Lewis acidities of boroles **B** and **C** are assessed by base-transfer studies with a pentaphenylborole–3,5-lutidine adduct. The authors conclude that there is an effective electronic communication between the *para*-functionalized borolyl groups of **C** because its double adduct is not observed during the exchange experiment. However, base-transfer studies of **B** indicate the formation of both single and double adducts, thus suggesting less interaction between the *meta*-substituted boroles.

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