Boron–Ate Complexes as Chiral Nucleophiles for Asymmetric Synthesis

**Significance:** The authors report that secondary chiral boronic esters can be converted into reactive nucleophiles by addition of an aryllithium reagent. These enantiomerically enriched nucleophiles react with a broad range of electrophiles with inversion of stereochemistry.

**Comment:** By changing the substituents on the aryl group on boron, a switch in mechanism from a classical 2e⁻ pathway (nucleophilic substitution) to a radical pathway was observed. Therefore, electron-poor boronic esters favor the desired nucleophilic substitution, whereas electron-rich esters give racemized products.

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*SYNFACTS* 2012, 8(1), 0077 | Published online: 19.12.2011

**DOI:** 10.1055/s-0031-1289458; **Reg-No.:** P15311SF

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**Category:** Metal-Mediated Synthesis

**Key words:**
- ate complexes
- boronic esters
- asymmetric synthesis