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Asymmetric Lithiation Trapping of *N*-Boc Heterocycles at Temperatures above -78°C
Org. Lett. **2013**, *15*, 5424–5427.

Asymmetric Lithiation Trapping of *N*-Boc Heterocycles

$\text{E}^+ = \text{PhCHO}, \text{MeO}_2\text{CCl}, \text{Ph}_2\text{CO}, \text{Me}_2\text{SO}_4, \text{PhNCO}, \text{allyl bromide}, \text{PhBr}$

Selected examples:

Significance: The asymmetric lithiation trapping of various *N*-Boc heterocycles is disclosed, using *s*-BuLi and chiral diamines such as (–)-sparteine and (+)-sparteine surrogate at temperatures above -78°C . The corresponding chiral heterocycles are obtained in high yields and with good enantiomeric ratios.

Comment: The experiments can be conveniently performed, since asymmetric lithiation trappings of, for example, *N*-Boc pyrrolidine may be conducted at -30°C , still furnishing the chiral heterocycles with a high enantiomeric ratio of about 9:1.

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Synfacts 2014, 10(1), 0076 Published online: 13.12.2013
DOI: 10.1055/s-0033-1340374; **Reg-No.:** P16413SF

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