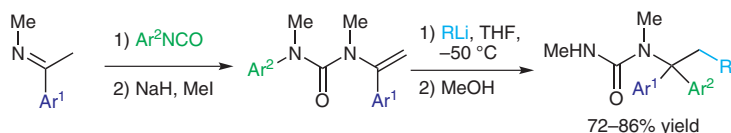


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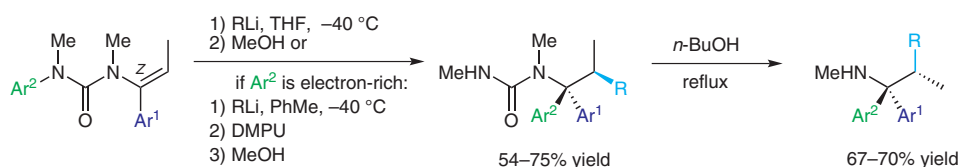
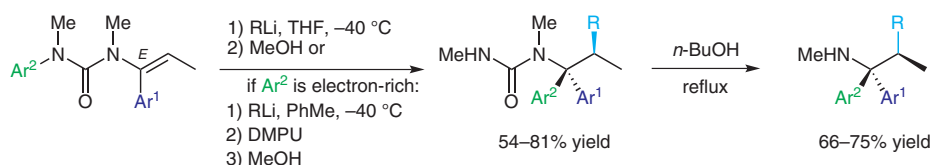
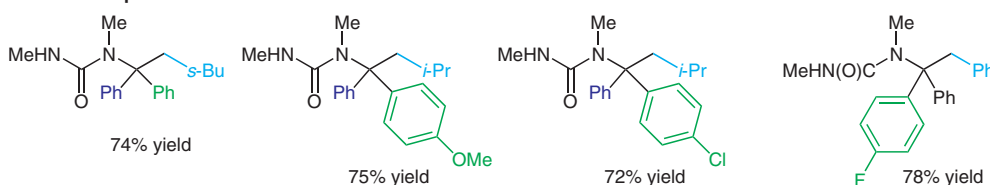
Tandem  $\beta$ -Alkylation- $\alpha$ -Arylation of Amines by Carbolithiation and Rearrangement of *N*-Carbamoyl Enamines (Vinyl Ureas)

*J. Am. Chem. Soc.* **2010**, *132*, 6624-6625.

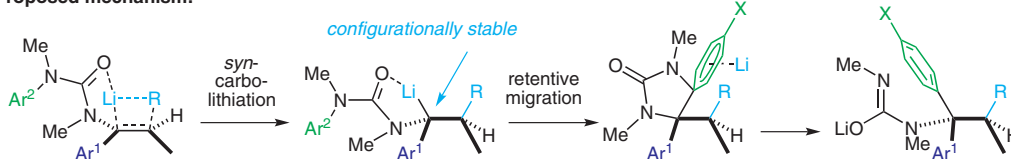
# N-C Aryl Transfer via Umpolung Carbolithiation of Vinyl Ureas



Selected examples:



Proposed mechanism:



**Significance:** The umpolung carbolithiation of vinyl ureas was shown to result in an N-C aryl transfer allowing a fast access to tertiary alkyl amines. Notably, (*E*)- and (*Z*)-alkenyl ureas undergo this carbolithiation-rearrangement sequence diastereospecifically.

**Comment:** This novel tandem reaction represents an important achievement for the synthesis of heavily substituted tertiary amines. The reaction is general, allows the use of various organolithium reagents, and proceeds with electron-rich and electron-poor aryl moieties.

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Synthesis

Key words

carbolithiation  
rearrangement  
aryl migration  
N-C aryl transfer  
vinyl ureas  
tandem reaction

**SYNFACTS**  
*of the month*

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