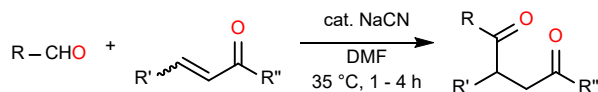


- Reaction was discovered by Hermann Stetter, a German chemist in 1976 and is named after him.
- It forms 1,4 dicarbonyls efficiently with a reverse polarity conjugate addition.
- Irreversible compared to Benzoin Condensation

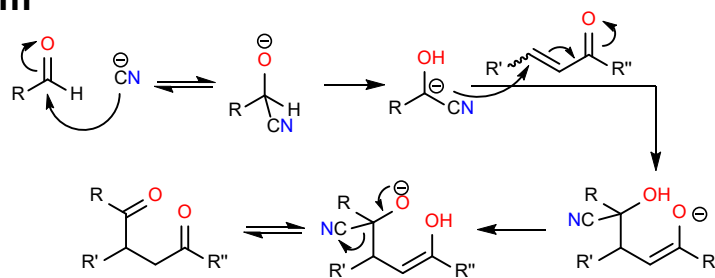
Initial discovery



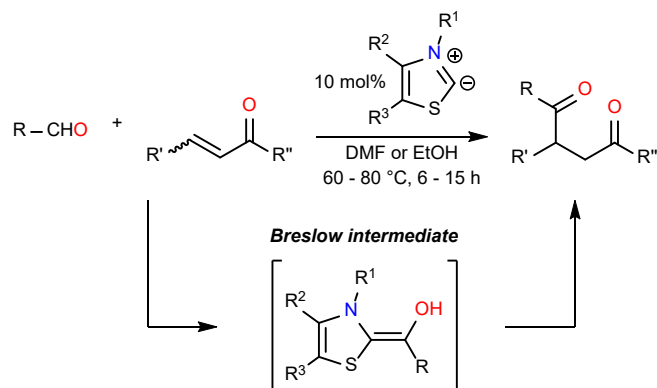
Stetter, H. *Angew. Chem. Int. Ed. Engl.* **1973**, 12, 81
doi.org/10.1002/anie.197300811

- Substrate can be alkyl/aryl aldehydes with α,β -unsaturated ketones/esters/nitriles.

Mechanism

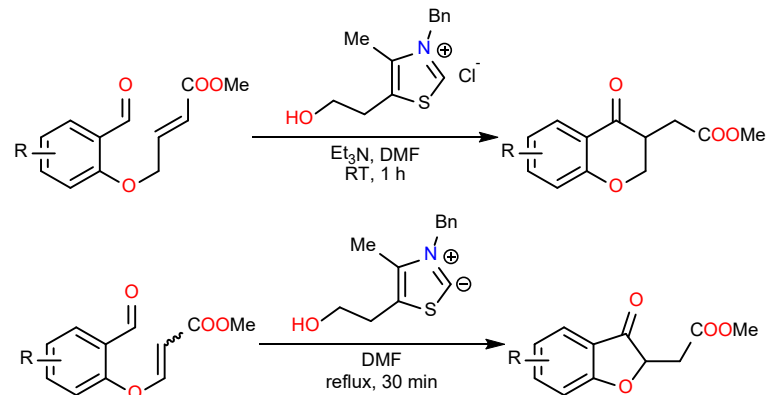


Thiazolium salts instead of cyanide



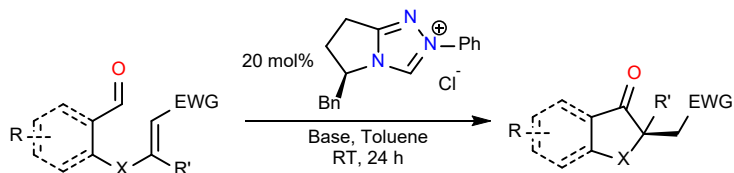
Stetter, H. *Angew. Chem., Int. Ed. Engl.* **1976**, 15, 639
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Intramolecular version

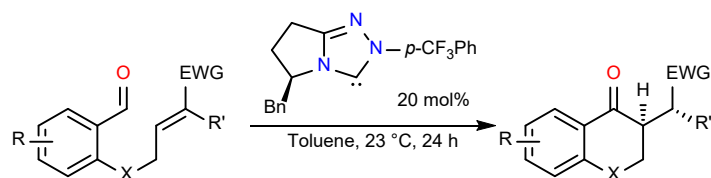


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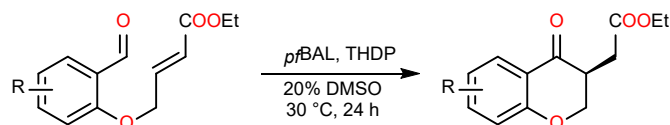
Asymmetric versions



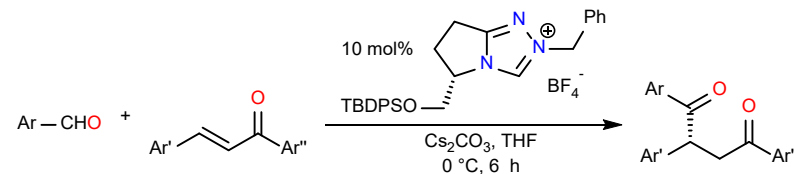
Rovis, T. *J. Am. Chem. Soc.* **2004**, 126: 8876
<https://doi.org/10.1021/ja047644h>



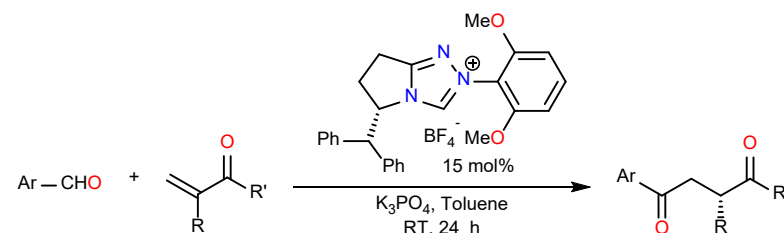
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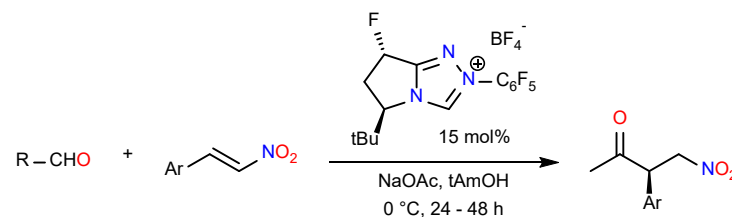
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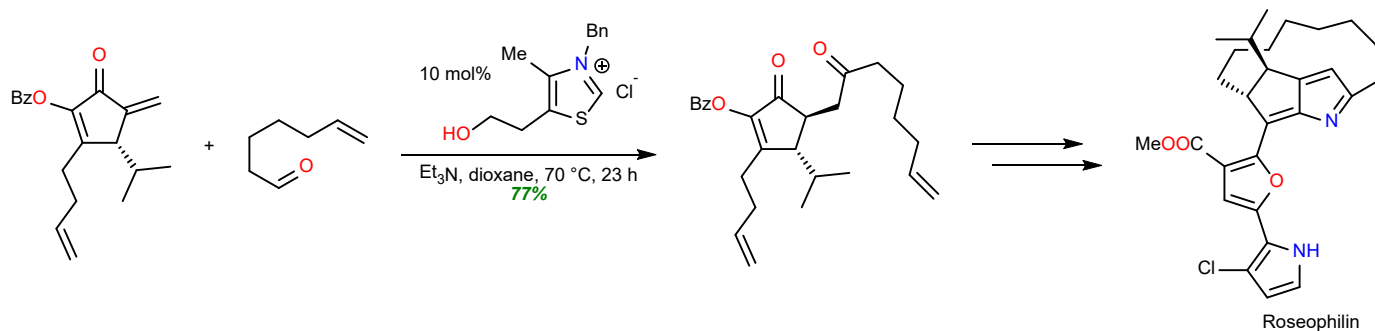


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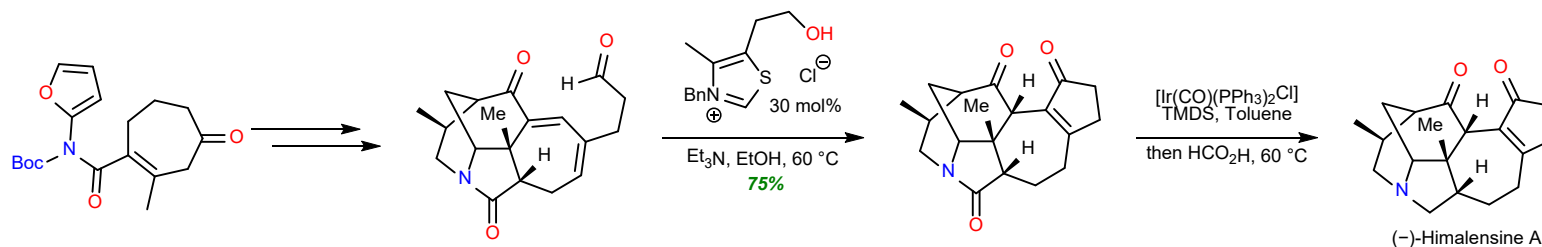


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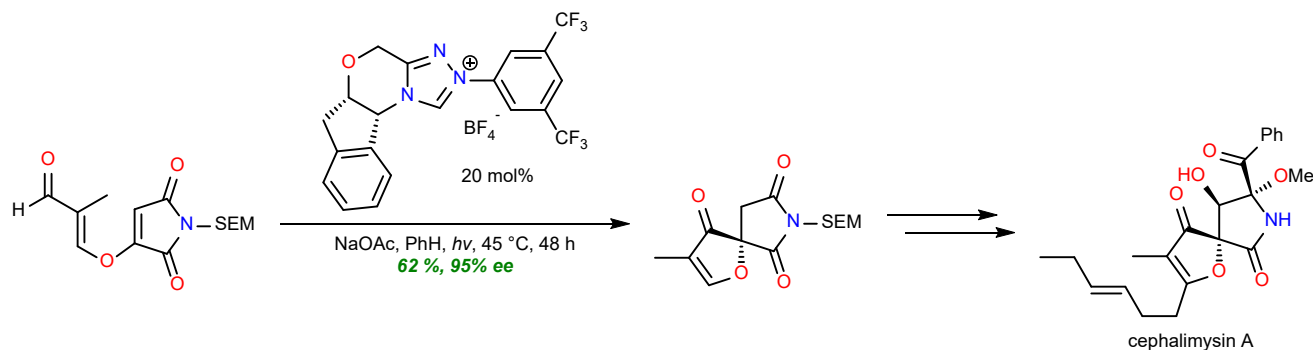
Application in synthesis



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