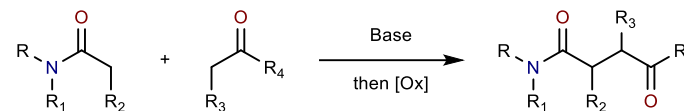
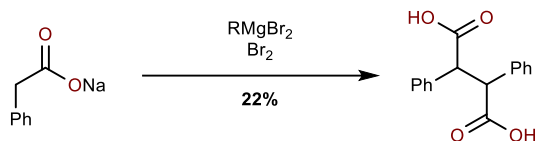


Introduction

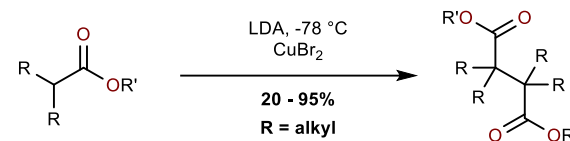
- Umpolung strategy
- Gives access to a variety of unnatural 1,4-synthons, such as 1,4-dicarbonyls
- Homo-coupling and cross-coupling are developed
- Inter- and intramolecular applications



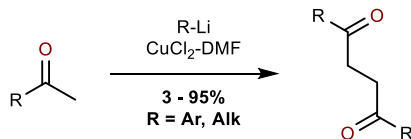
First reported examples



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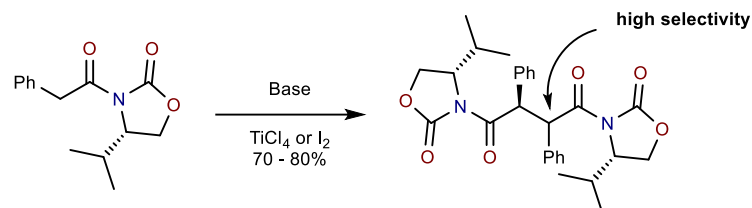


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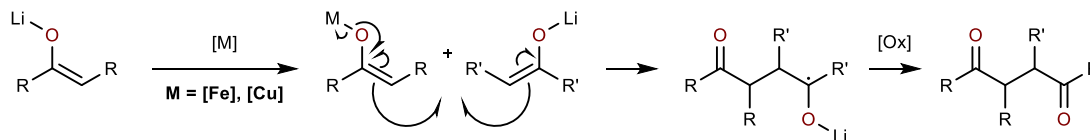
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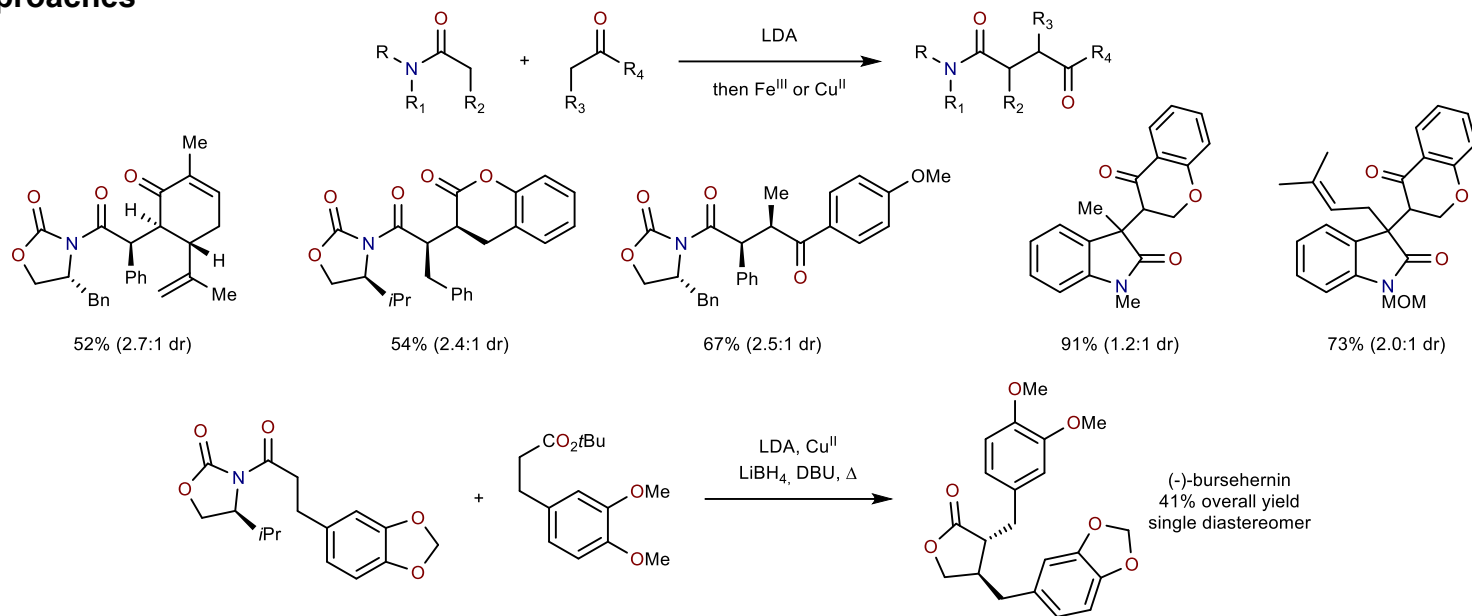
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[doi/10.1021/jo00110a003](https://doi.org/10.1021/jo00110a003)

General mechanism

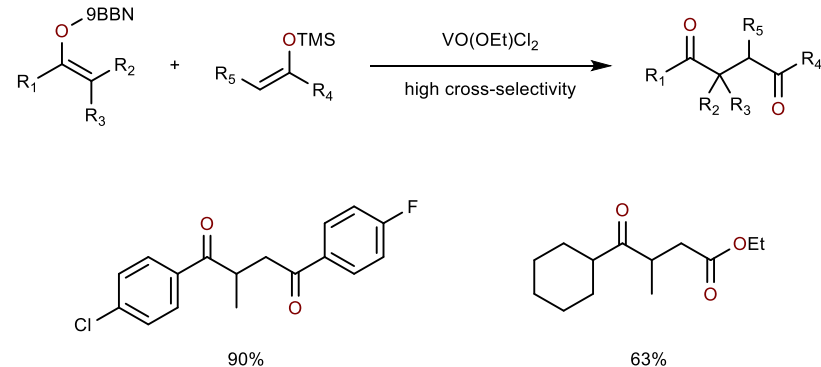
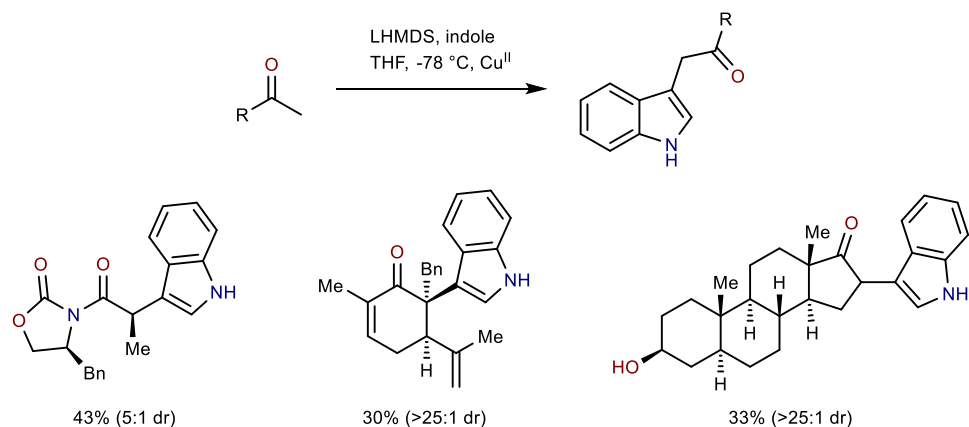


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Modern approaches

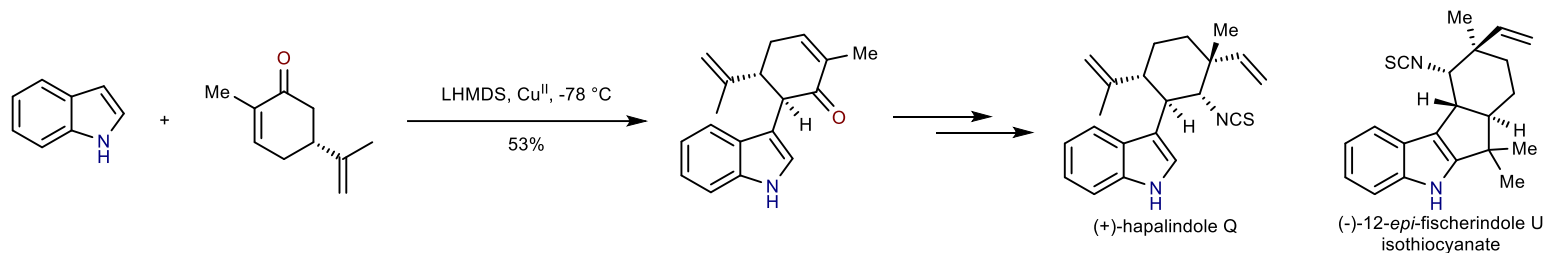


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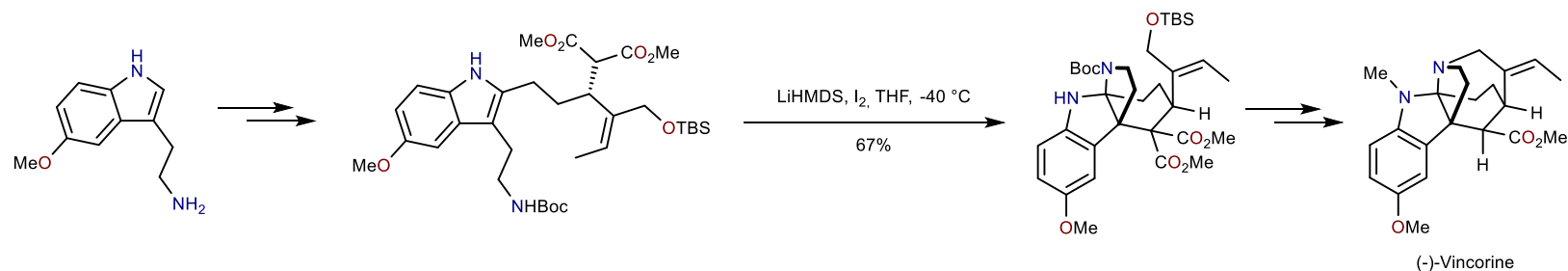


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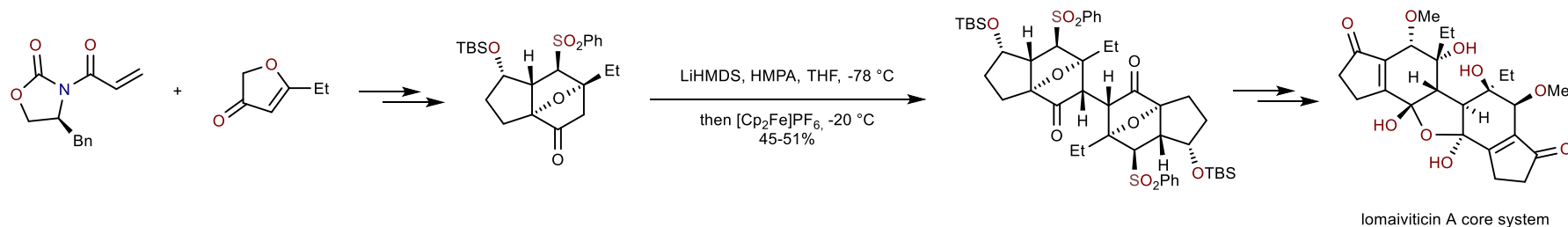
Applications in total synthesis



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