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Catalytic Deracemization of Chiral Allenes by Sensitized Excitation with Visible Light
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**Category**

**Organo- and Biocatalysis**

**Key words**

**photocatalysis**
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**allenes**
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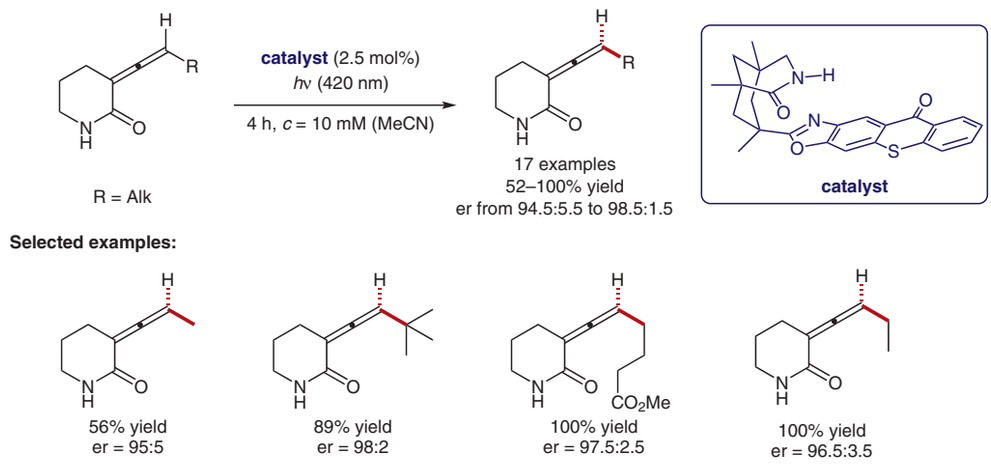
Synfact of the Month

# Catalytic Deracemization of Allenes




**Significance:** Bach and co-workers report an allene deracemization reaction catalyzed by an organic chiral sensitizer under visible light. By using this method, several racemic allenes were converted into enantiomers with yields of ≤100% and er values of ≤98.5:1.5. DFT calculations are also provided to support the proposed mechanistic description.

**Comment:** Light-driven deracemization of chiral compounds might be implicated in the origin of early-stage chirality. The present unprecedented discovery presents an example to support this hypothesis. With different substrate classes, solutions to generate chiral centers might be possible in cases where thermally controlled catalytic deracemizations are entropically disfavored.

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