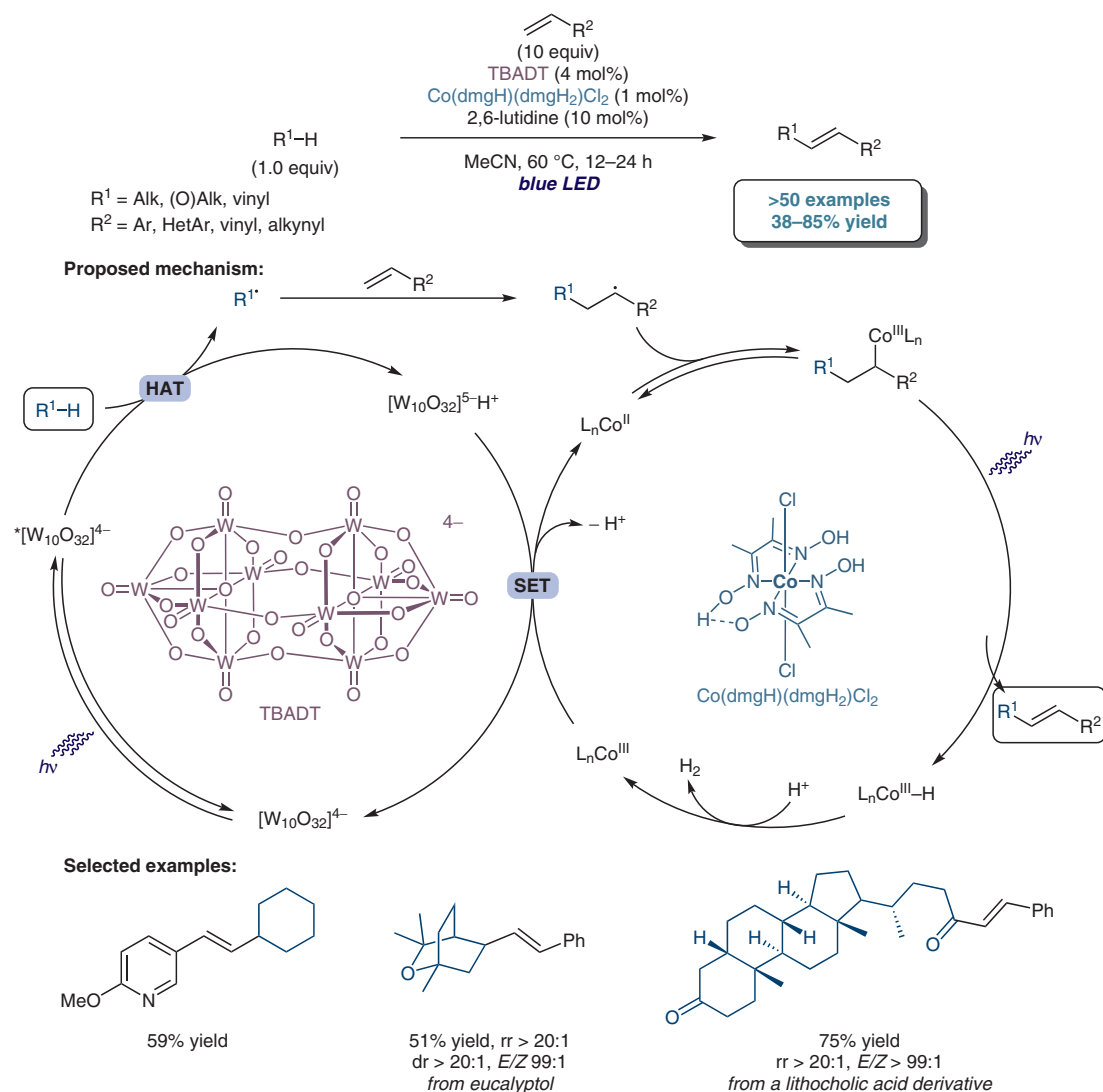


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 Photoinduced Site-Selective Alkenylation of Alkanes and Aldehydes with Aryl Alkenes
Nat. Commun. **2020**, *11*, DOI: 10.1038/s41467-020-15878-6z.

Dual-Catalyst Photoinduced Alkenylation of Alkanes and Aldehydes via C–H Activation



Significance: The authors report a site-selective photoinduced alkenylation of various alkanes and aldehydes with aryl and heteroaryl alkenes. This dehydrogenative reaction utilizes two photoactive catalysts (tetra-*n*-butylammonium decatungstate (TBADT) as HAT agent and $\text{Co}(\text{dmgH})(\text{dmgH}_2)\text{Cl}_2$), which eliminates the need for an external oxidant.

Comment: This mild alkenylation was used for the late-stage functionalization of diverse complex molecules, while still ensuring a high level of site-selectivity for the sterically most accessible and most electron-rich C–H bond. Wu and co-workers propose a mechanism that involves cooperation of the tungstate and the cobalt catalysts.

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 Synfacts 2020, 16(07), 0795 Published online: 17.06.2020
 DOI: 10.1055/s-0040-1707836; Reg-No.: P06020SF

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Category

Metals in Synthesis

Key words

photoredox

alkenylation

C–H activation

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