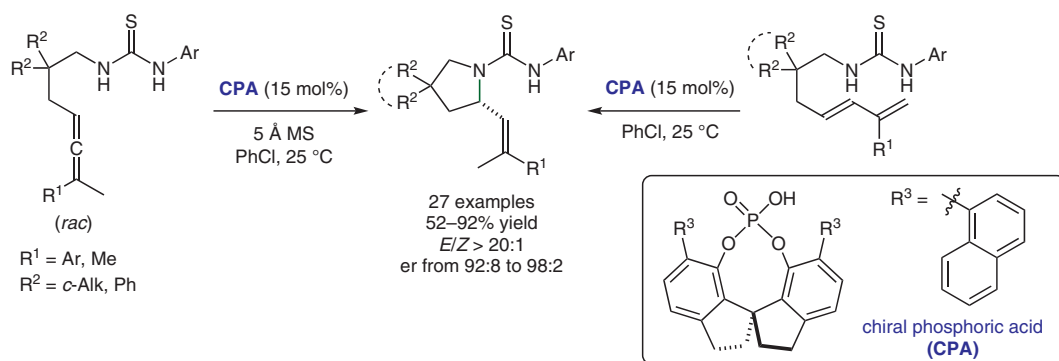


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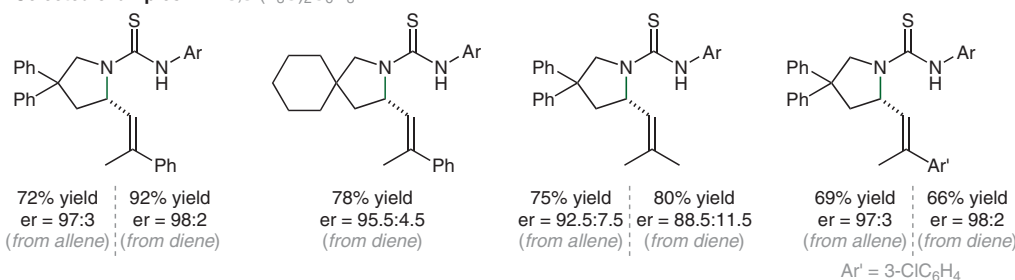
Chiral Brønsted Acid-Catalyzed Dynamic Kinetic Asymmetric Hydroamination of Racemic Allenes and Asymmetric Hydroamination of Dienes

Angew. Chem. Int. Ed. **2019**, *58*, 7092–7096.

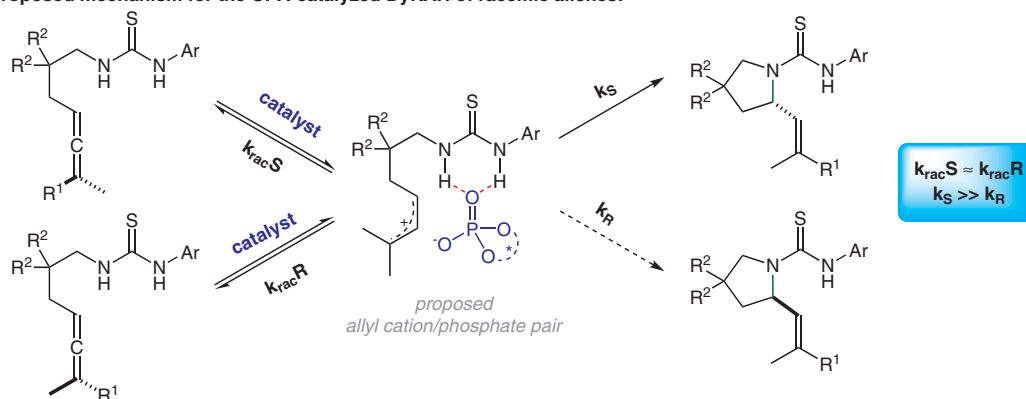
Organocatalytic Asymmetric Hydroamination of Allenes and Dienes



Selected examples $\text{Ar} = 3,5\text{-(F}_3\text{C)}_2\text{C}_6\text{H}_3$:



Proposed mechanism for the CPA-catalyzed DyKAH of racemic allenenes:



Significance: Liu and co-workers report an intramolecular Brønsted acid catalyzed dynamic kinetic asymmetric hydroamination (DyKAH) of racemic allenenes and an asymmetric hydroamination of non-activated dienes. In all cases, geminal disubstituted substrates with tethered thiourea moieties were used to give the corresponding pyrrolidines with both high diastereo- and enantioselectivities.

Comment: Intramolecular olefin hydroaminations are highly appreciated and desirable transformations that lead to valuable heterocycles. The presented CPA-catalyzed variant is limited to substrates activated by the Thorpe–Ingold effect and requires a directing thiourea group, undermining its general applicability. Further mechanistic studies should be conducted to confirm the proposed cationic nature of the reaction intermediate.

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