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Catalytic Asymmetric Hydroamination of Unactivated Internal Olefins to Aliphatic Amines
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Enantioselective Hydroamination of Unactivated Internal Olefins

Proposed reaction mechanism:

Significance: Previous hydroaminations of alkenes have been achieved with a restricted range of substrates (for example, styrenes or terminal olefins). Here, the authors succeed in asymmetric hydroamination of nonactivated internal olefins. This system provides ready access to various α -branched chiral amines with high enantioselectivities ($\geq 96\%$ ee).

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Comment: Electron-rich hydroxylamines are used as aminating reagent to suppress undesired reductions of hydroxylamines. The late-stage modification of pharmaceutical compounds is also demonstrated.