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Stereoselective Synthesis of β -Hydroxy Enamines, Aminocyclopropanes, and 1,3-Amino Alcohols via Asymmetric Catalysis

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Synthesis of PRC200-SS

Significance: PRC200-SS is a serotonin–norepinephrine–dopamine reuptake inhibitor and a lead compound for the treatment of depression. This short and efficient synthesis of PRC200-SS features the asymmetric addition of the β -amino alkenyl zinc reagent **D** to benzaldehyde in the presence of the chiral chaperone **E**.

Comment: The β -hydroxy (*E*)-enamine derivative **F** underwent a hydroxyl-directed diastereoselective hydrogenation via conformation **G** to give the *syn*-1,2-disubstituted-1,3-amino alcohol **H** in moderate yield.

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Category

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Key words

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ynamides

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