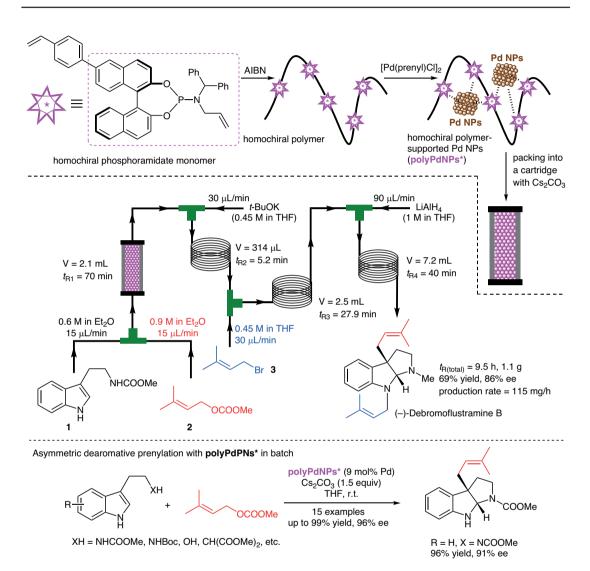
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Four-Step Continuous-Flow Total Synthesis of (-)-Debromoflustramine B Using a Chiral Heterogeneous Pd NP Catalyst Chem. Sci. 2024, 15, 16205-16209, DOI: 10.1039/d4sc03471f

Continuous-Flow Total Synthesis of (–)-Debromoflustramine B Using Homochiral Polymer-Supported Pd NPs



Significance: A homochiral phosphoramidate polymer was treated with [Pd(prenyl)Cl]₂ to form a polymeric homochiral nanopalladium composite, polyPdNPs*. A four-step synthesis of (-)-debromoflustramine B was achieved in flow using **polyPdNPs*** (total 69% yield, 86% ee).

Comment: Asymmetric dearomative prenylation of various indole derivatives, which is the key enantioselective step of the flow total synthesis, was examined in batch with polyPdNPs* (15 examples; up to 99% yield, 96% ee).

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Polymer-Supported Synthesis

Key words

phosphoramidates palladium nanoparticles asymmetric catalysis flow synthesis asymmetric allylation

