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Category

Peptide Chemistry

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HAT

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β³-Tryptophans by Iron-Catalyzed Enantioselective Amination of 3-Indolepropionic Acids

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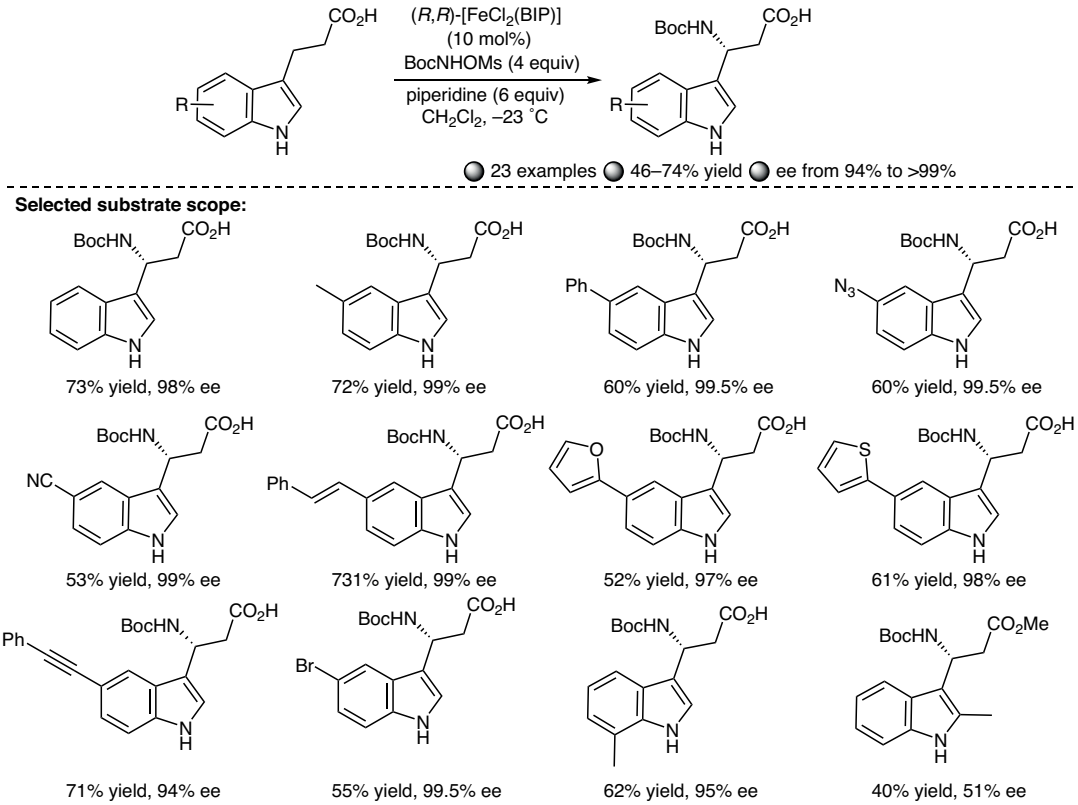
Asymmetric Synthesis of β³-Tryptophan via C–H Amination



Significance: β-Amino acids are key building blocks for many drug molecules. The authors described a strategy of iron-catalyzed 1,6-hydrogen-atom transfer (HAT) followed by C–N bond formation to access enantioselective β³-tryptophan derivatives.

Comment: This new method for synthesizing N-Boc-β³-tryptophans using an iron-catalyzed C(sp³)–H amination of 3-indolepropionic acids provides high ee values and is versatile for various applications, aligning with sustainability principles by utilizing iron as a safe and eco-friendly catalyst.

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