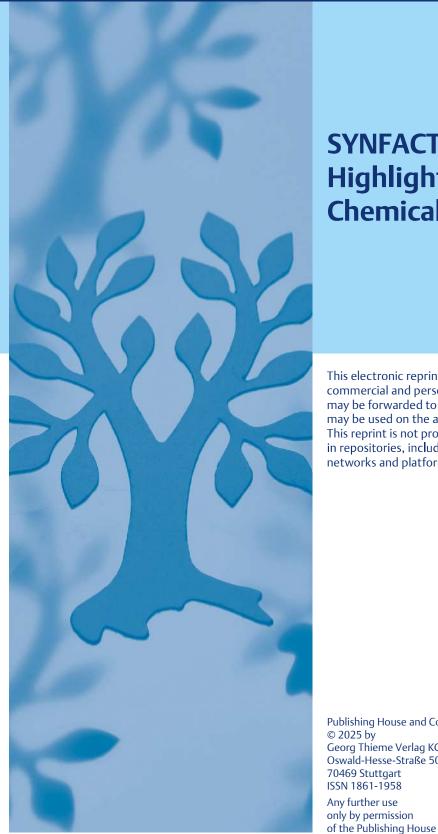
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SYNFACTS Highlights in Chemical Synthesis

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Category

Peptide Chemistry

Key words

enantioselective iron catalyst **β-tryptophan** C-H amination HAT

B. ZHOU, M. I. IH, S. YAO, M. HEMMING, S. I. IVLEV, S. CHEN*, E. MEGGERS* (OBERLIN COLLEGE, USA AND PHILIPPS-UNIVERSITÄT MARBURG, GERMANY)

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

Org. Lett. 2024, 26, 8361-8365, DOI: 10.1021/acs.orglett.4c03130

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-hydrogenatom 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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