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Enantioselective Synthesis of a Two-Fold Inherently Chiral Molecular Nanographene

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Enantioselective Synthesis of Molecular Nanographene

Category

Synthesis of
Materials and
Unnatural Products

Key words

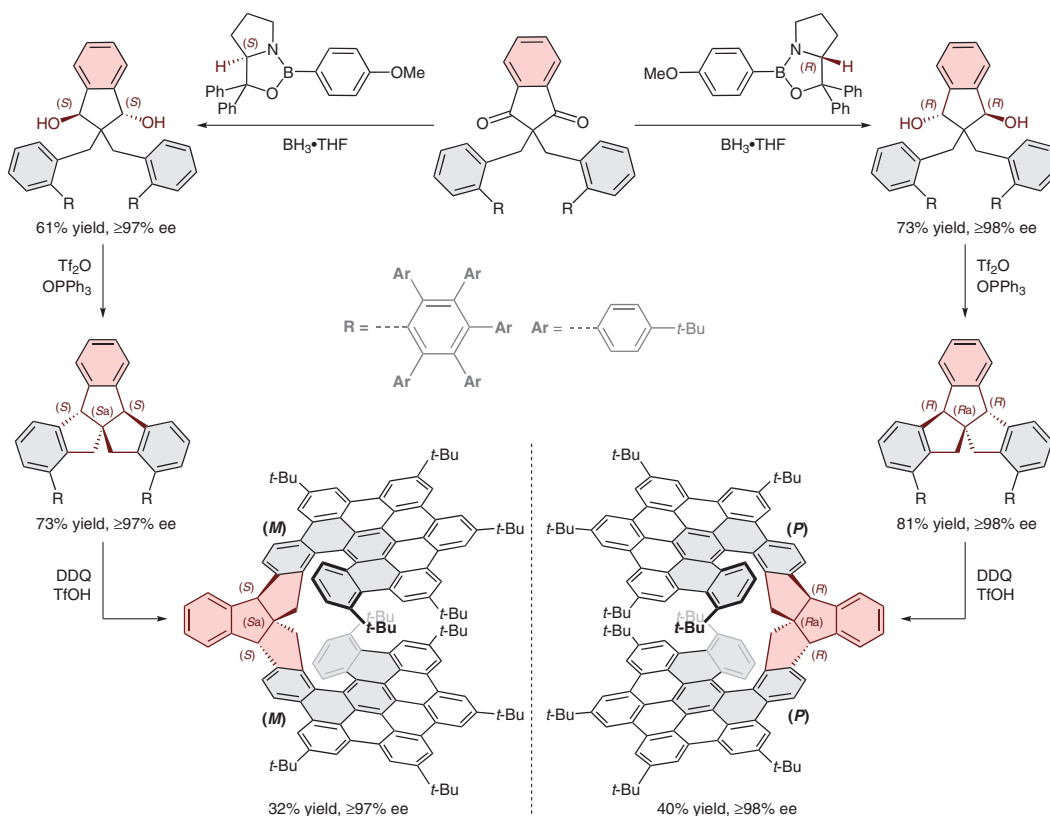
chiral
nanographenes

chiral center

axial chirality

helicity

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of the
Month



Significance: Enantioselective syntheses of a pair of all-carbon nanographene molecules, featuring central, axial, and helical, three types of chiral elements, are achieved.

Comment: The key step is the enantioselective double substitution of two OH groups at the chiral benzylic carbons by the aromatic nucleophiles. The resultant asymmetric stereo-configuration biases the helical chirality subsequently appearing in the Scholl reaction.

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