Helicene and Double Helicene

Significance: A high-yield synthesis of three novel helicene compounds (3, 5 and 6) was developed. X-ray single-crystal structure analysis revealed multiple intermolecular short contacts and UV/Vis spectra indicate significant \( \pi \)-delocalization in double helicene 6, indicating potential in organic functional materials.

Comment: The efficient synthesis of 1 can be achieved in a total yield of 28% from 3-bromo-thiophene (J. Org. Chem. 2009, 74, 408).