

CHIRAL BIS-BENZO[1,2-*b*:4,3-*b'*]DITHIOPHENES: SYNTHESIS AND STEREOCHEMICAL PROPERTIES

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Thiophene-containing fused aromatic compounds are an interesting class of π -conjugated systems with applications in functional organic materials.¹ Among them, benzo[1,2-*b*:4,3-*b'*]dithiophene (**BDT**) and its derivatives are widely studied in the field of materials science,² and for photovoltaic applications.³ Moreover, **BDT** is a key intermediate for the synthesis of inherently chiral helical systems such as tetrathia[7]helicenes.⁴ In our ongoing studies on the synthesis and functionalization of **BDTs**,⁵ we have developed a novel and convenient route to prepare an interesting class of chiral heterobiaryl bis(benzo[1,2-*b*:4,3-*b'*]dithiophene) systems **2** and **3** (Figure 1).

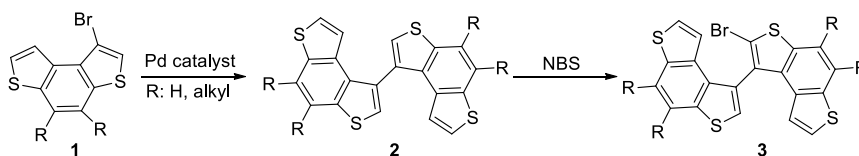


Figure 1. Synthetic pathway for the synthesis of compounds **2** and **3**

In this communication we will report the synthesis of compounds **2** and **3** along with the study of their chiroptical properties. Bromides **3** are also expected to have potential applications in asymmetric reactions, including the enantioselective synthesis of tetrathia[7]helicene derivatives.

References

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