

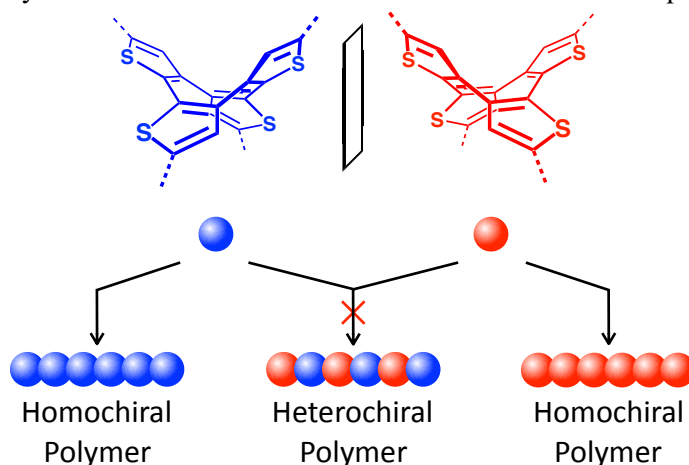
## Supramolecular Polymerization of Photo-Aromatizable Thiophene-Fused Chiral [4*n*]Annulene: Switching of Stereochemical Preference by Side Chain Modification

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**Keywords:** Supramolecular Polymerization; Chirality; [4*n*]Annulene; Stereoselectivity; Side Chain

Stereoselective polymerization is one of the important topics not only in covalent polymers, but also in supramolecular polymers. Although several stereoselective supramolecular polymerizations have been reported, the relationship between monomer structure and stereoselectivity has not been well understood yet.<sup>1</sup> In particular, the effect of side chain structure on stereoselectivity in supramolecular polymerization has rarely been investigated.

Recently, we achieved the first highly selective alternating heterochiral supramolecular polymerization of monomers with a chiral thiophene-fused [4*n*]annulene as a core unit.<sup>2,3</sup> In this presentation, we report the successful switching of the stereoselectivity from heterochiral to homochiral in supramolecular polymerization of monomers with the same chiral core simply by slight modification of the side chains. This stereoselectivity derives from a competitive interaction between hydrogen bonds and dipole moments. The mechanism of the stereoselectivity and the properties of the supramolecular polymer will be discussed in detail.



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