



Synthesis and Functions of Biomimetic Helical Polymers and Oligomers

Eiji Yashima

Department of Molecular Design and Engineering, Graduate School of Engineering,
Nagoya University, Chikusa-ku, Nagoya 464-8603, Japan

*e-mail yashima@apchem.nagoya-u.ac.jp

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Abstract Speech

Unique macromolecules and oligomers that fold into a preferred-handed single- or double-stranded helical conformation induced by chiral substituents covalently bonded to the main-chains or external chiral stimuli followed by memory of the helical chirality are presented.¹ The direct observations of helical structures of artificial helical polymers by atomic force microscopy (AFM) will be also presented.² A series of double helices composed of different components and sequences that exhibit specific functions, such as chirality sensing, chiral recognition, enantioselective asymmetric catalysis, and anisotropic spring-like motion are also described.³

■ Biomimetic Helical Polymers and Oligomers

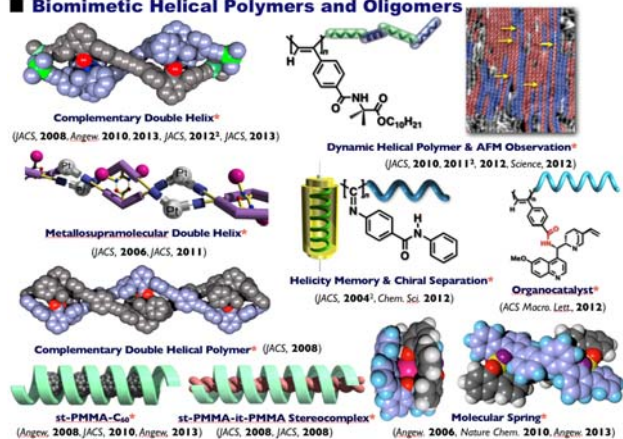


Figure Single- and double-stranded helical polymers and oligomers with specific functions.

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