Photochirogenesis with Cyclic Oligosaccharides

Yoshihisa Inoue

Osaka University (Japan)
inoue@chem.eng.osaka-u.ac.jp

Photochirogenesis, or chiral photochemistry, is a challenging topic in current chemistry, as a unique alternative to the conventional catalytic and enzymatic asymmetric syntheses which met a great success in the last few decades.

Photochemical asymmetric synthesis can be achieved by using chiral sensitizers, templates, scaffolds, and supra/biomolecular hosts. In my talk, I would like to demonstrate how cyclic oligosaccharides are useful in elucidating the mechanisms operative in photochemical enantio/diastereodifferentiation processes and also in providing guiding principles and practical tools for controlling photochirogenic processes, by using the results of our recent studies on molecular and supramolecular photochirogeneses.