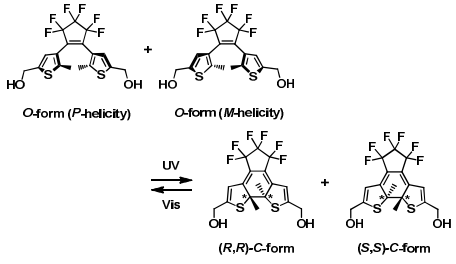


IRG PHENICS ON-GOING COLLABORATION

Title of the collaboration:	Full elucidation of enantioselective photocyclization of diarylethenes in chiral environments
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COUNTRY A:	Japan	COUNTRY B:	France
Name of group/Institution:	Research Association in Yokohama for Light-Triggered Events	Name of group/Institution:	University Paul Sabatier
Name:	Yasushi Yokoyama	Name:	Jean-Claude Micheau
Other participants:		Other participants:	Christophe Coudret
Role in the collaboration:	Synthesis, photoreaction, analysis of reactions	Role in the collaboration:	Theoretical calculation and analysis

Background, objectives, results:	Figure:
Several diarylethenes showed enantioselective photochromic ring-closing reactions in chiral biological environments. The reaction involves the equilibrium between two enantiomeric conformations in chiral media, and one of the two conformers is more favorable. Upon photoirradiation the enantioselective photocyclization will be achieved. In this collaboration we elucidate the full thermodynamic details with photoreactions and theoretical calculations.	 <p style="text-align: center;"> $\text{O-form (P-helicity)} + \text{O-form (M-helicity)} \xrightleftharpoons[\text{Vis}]{\text{UV}} \text{(R,R)-C-form} + \text{(S,S)-C-form}$ </p>

Common publications, communications, bilateral funding, invitation funding, co-tutoring of students, ...:	Paper: in preparation.
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