

Supplementary Information

Circularly Polarized Microscopy of Thin Films of Chiral Organic Dyes

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Materials and methods

The films were prepared by spin-coating (Laurell WS-650MZ-23NPPB) 150 μ L of a 2·10⁻² M solution of the material of interest in CH₂Cl₂ onto a 25x25 mm² glass substrate. Spin coating conditions: 1000 rpm, 30 sec, acceleration 1000 rpm/sec. The film of (S,S)-PTPO **2** was then thermally annealed in an oven at 80 °C for 1 hour. The film of **1** was characterized without further post-deposition treatments.

Microscopy and optics

- Microscope: Zeiss Discovery V8. Magnification optics: microscope built-in.
- Microscope objective: Zeiss PlanApo S 1.0x, FWD = 60 mm.
- Camera: Canon PowerShot A640.
- Light source: Philips, 6423FO 150W GZ6.35 15V 1CT.
- Linear polarizer: microscope built-in.
- Quarter-wave plate: Thorlabs, AQWP05M-600.
- Bandpass filter: Edmund Optics traditional coated filter centered at 450 nm, FWHM = 80 nm, optical density (average) ≥ 3.0 , minimum transmission (%) ≥ 60 .

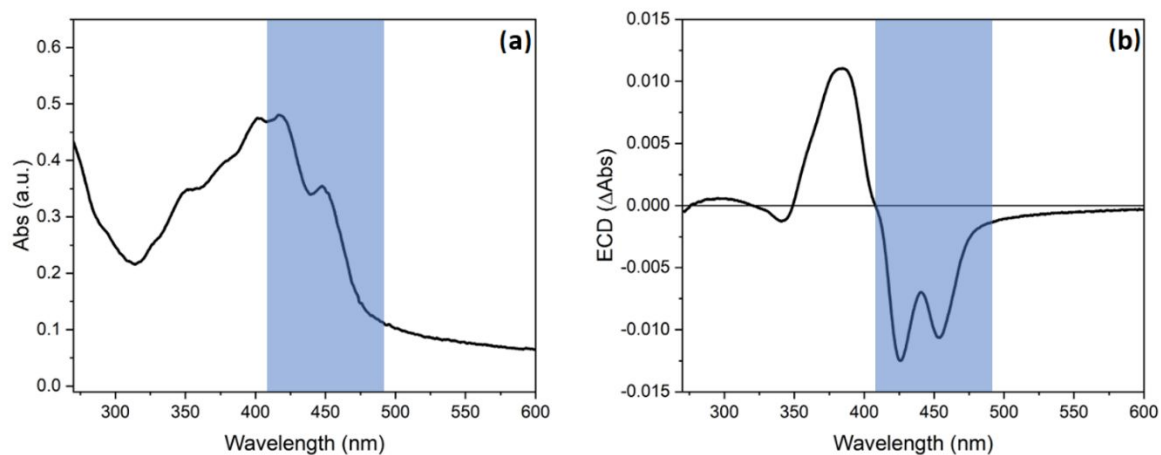


Figure S1. (a) Absorption spectrum of compound **1** in thin film. (b) ECD spectrum of compound **1** material in thin film. The blue semi-transparent rectangles indicate the spectral region selected with the bandpass filter centered at 450 nm (FWHM = 80 nm).

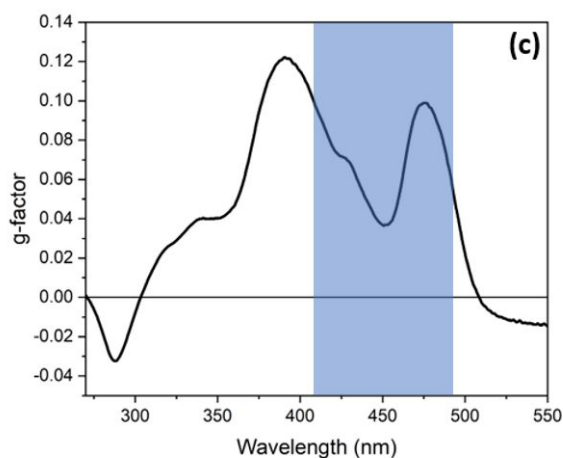
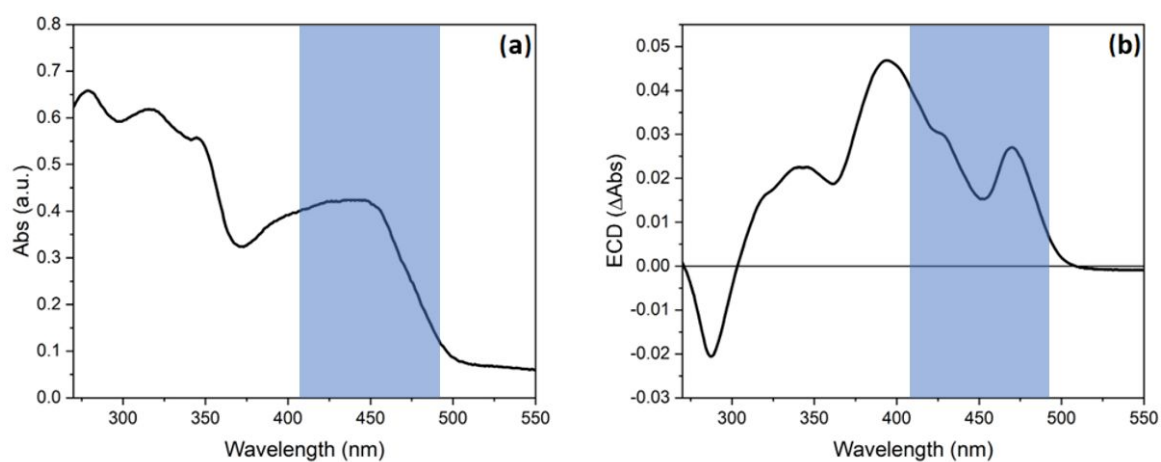


Figure S2. (a) Absorption spectrum of (S,S)-PTPO **2** in thin film. (b) ECD spectrum of (S,S)-PTPO **2** in thin film. (c) g-factor spectrum of (S,S)-PTPO **2** in thin film. The blue semi-transparent rectangles indicate the spectral region selected with the bandpass filter centered at 450 nm (FWHM = 80 nm).

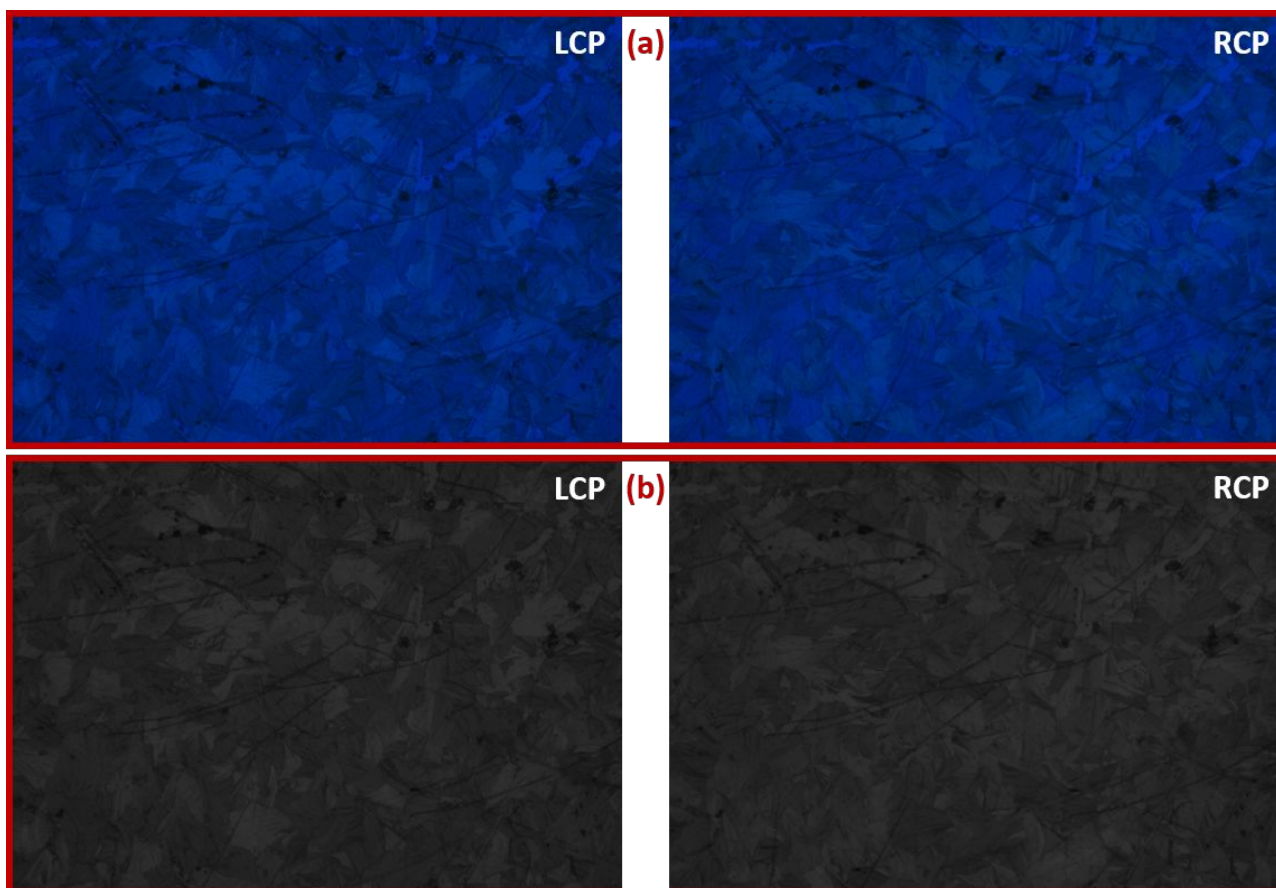


Figure S3. (a) Clippings analysed of the blue region images of (S,S)-PTPO **2** thin film under LCP and RCP back-illumination. (b) scale of grey images of the blue region clippings selected for (S,S)-PTPO **2** thin film.

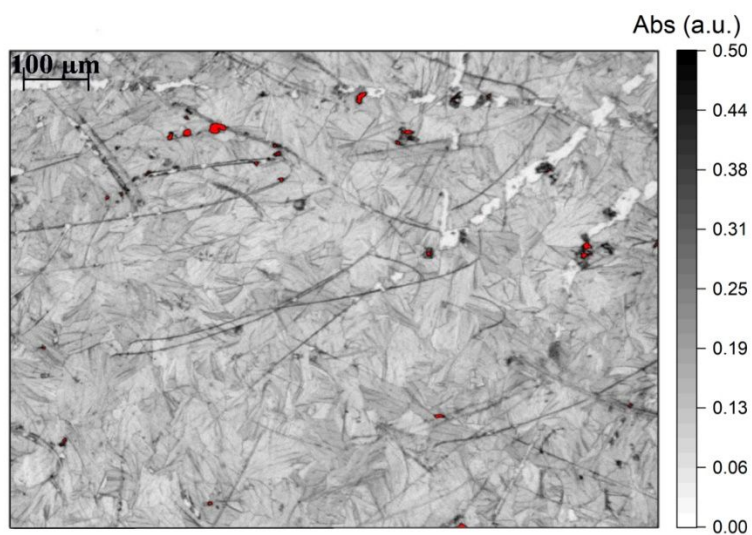


Figure S4. Absorbance map of the area of (S,S)-PTPO **2** thin film studied obtained as average between LCP and RCP absorbances. Red pixels represent outliers.