Supporting information

Highly birefringent polymer films from the photo-crosslinking polymerisation of bistolane-based methacrylate monomers

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Spectral data

Figure S1. ^1H NMR spectrum of **monomer 1** (300 MHz, CDCl_3).

Figure S2. ^1H NMR spectrum of **monomer 2** (300 MHz, CDCl_3).

Figure S3. POM images for (a) the fan-shaped texture of the SmA phase of **1** at 95 °C, and (b) the broken fan-shaped texture of the SmC phase of **1** at 70 °C (obtained with a homogeneous alignment cell).

Figure S4. DSC thermogram of **4a**.

Figure S5. DSC thermogram of **4b**.

Figure S6. POM images of (a) the marble texture of the N phase at 180 °C for precursor **4a**, and (b) the marble texture of the N phase at 180 °C for precursor **4b**.

Figure S7. Phase diagram for the mixture of **1** and **2**, obtained by POM of a cooling scan.

Birefringence measurement

Figure S8. Wavelength dispersion of Δn of the 20/80 (w/w) mixture of **1** and **2**. The dashed line and the solid line refer to $T_m + 10^\circ\text{C}$ prior to polymerisation, and room temperature posterior to polymerisation, respectively.