

Supporting Information for

First Thiol-yne Click Chemistry approach for Liquid Crystalline Elastomer preparation

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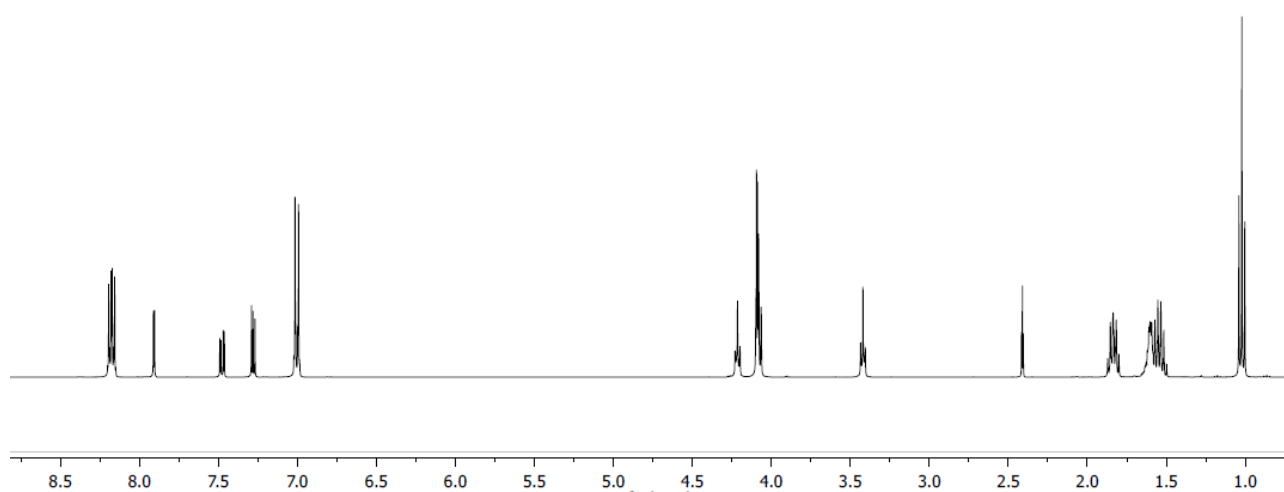
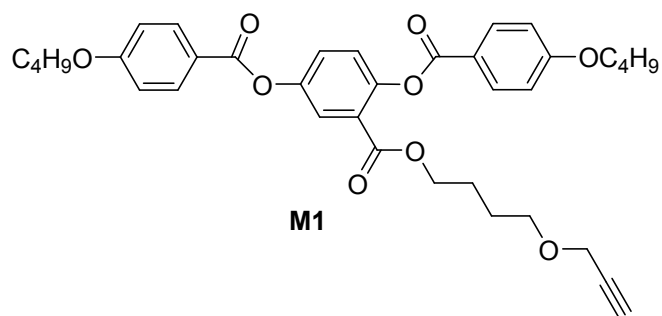


Figure S1. ^1H -NMR spectrum (400 MHz, CDCl_3) of compound M1.

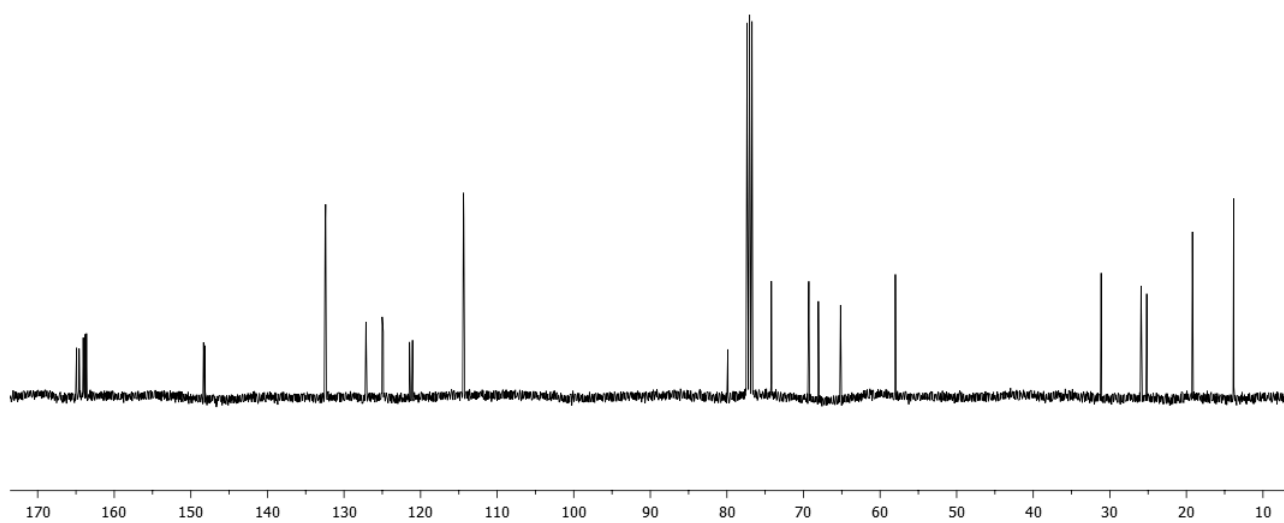


Figure S2. ^{13}C -NMR spectrum (100 MHz, CDCl_3) of compound M1.

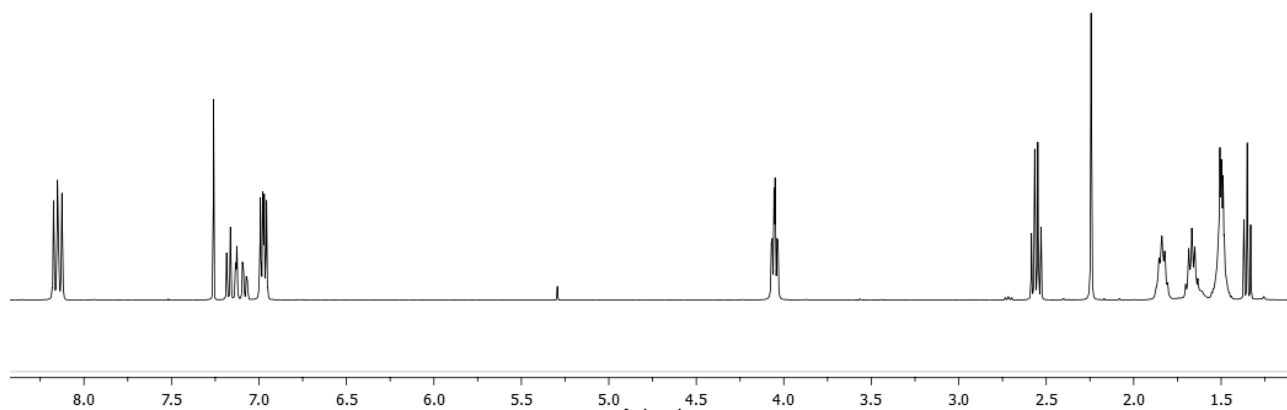
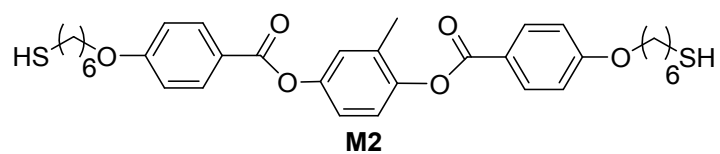


Figure S3. ^1H -NMR spectrum (400 MHz, CDCl_3) of compound M2.

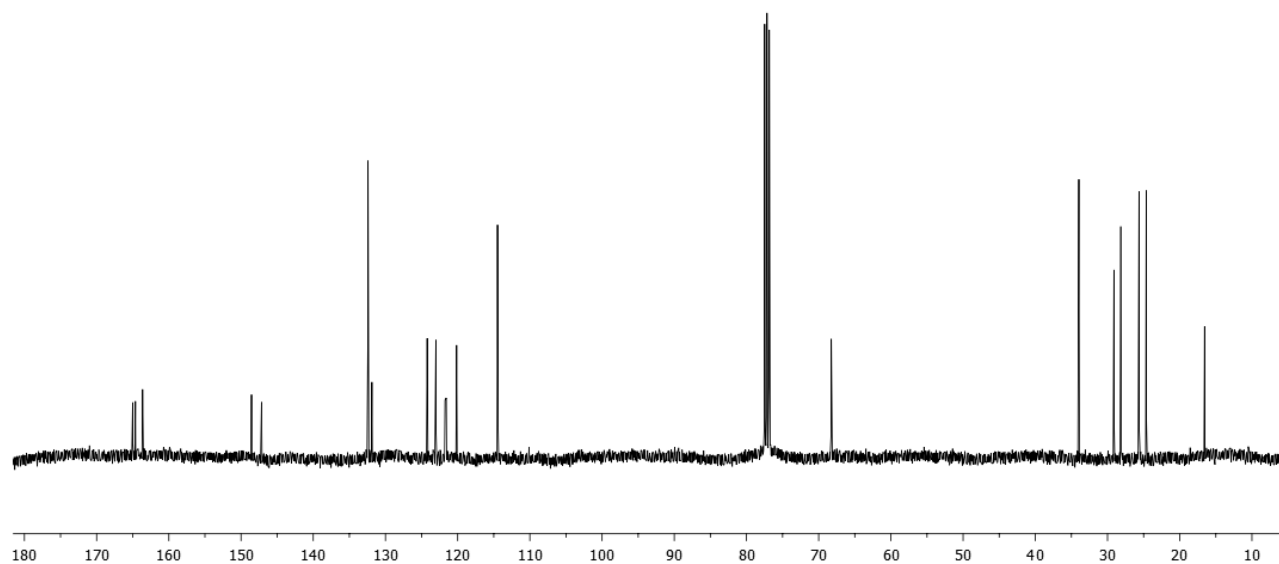


Figure S4. ^{13}C -NMR spectrum (100 MHz, CDCl_3) of compound M2.

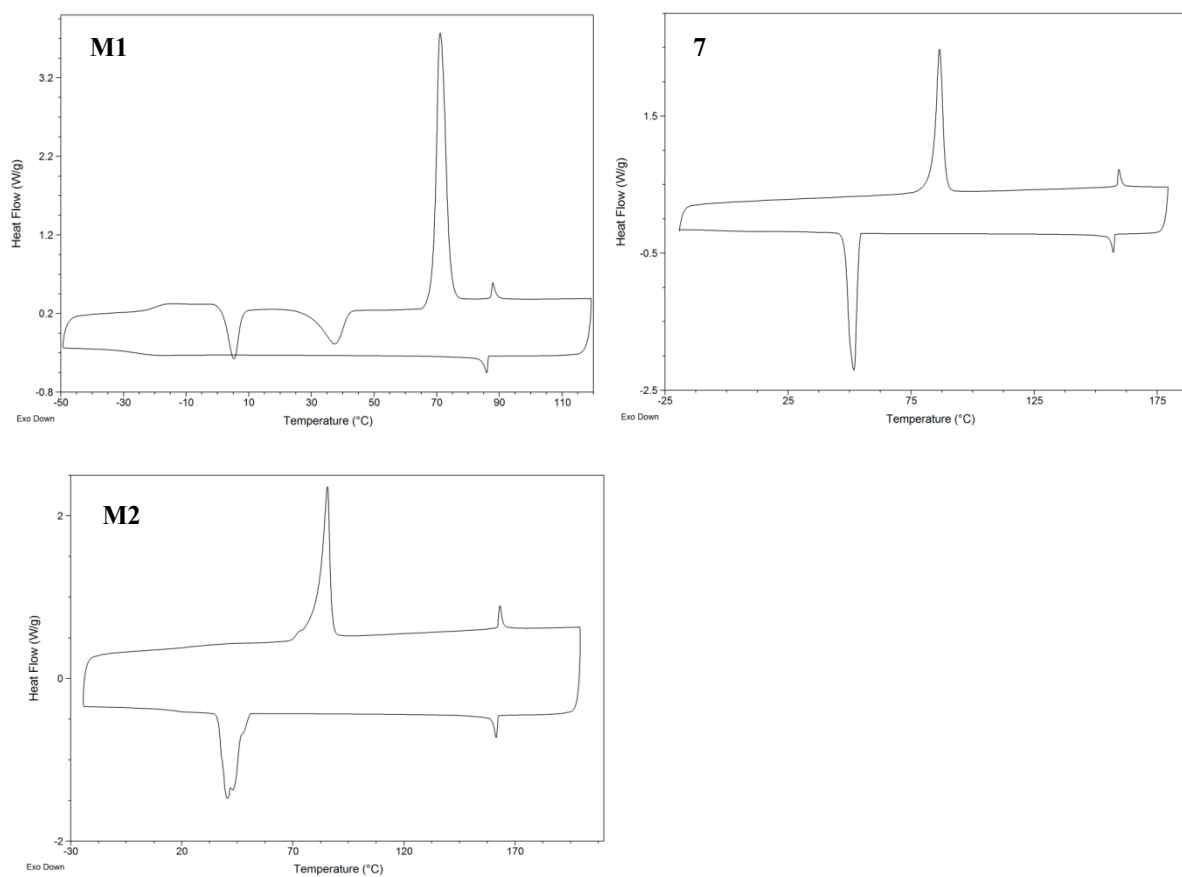


Figure S5. DSC traces (10 °C/min) corresponding to the second cycle of heating and cooling of M1, 7 and M2.

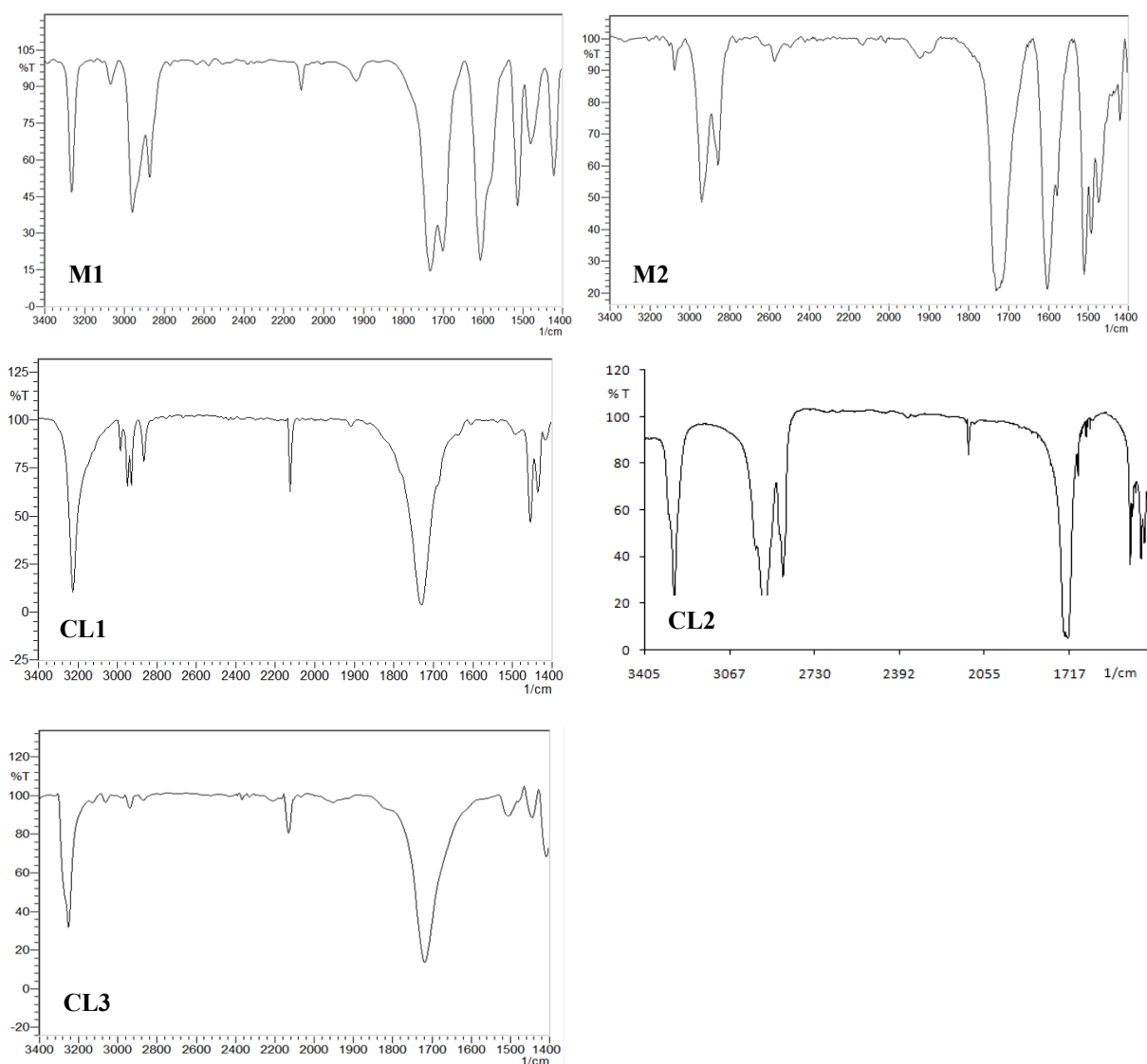


Figure S6. FTIR spectra of the monomers.

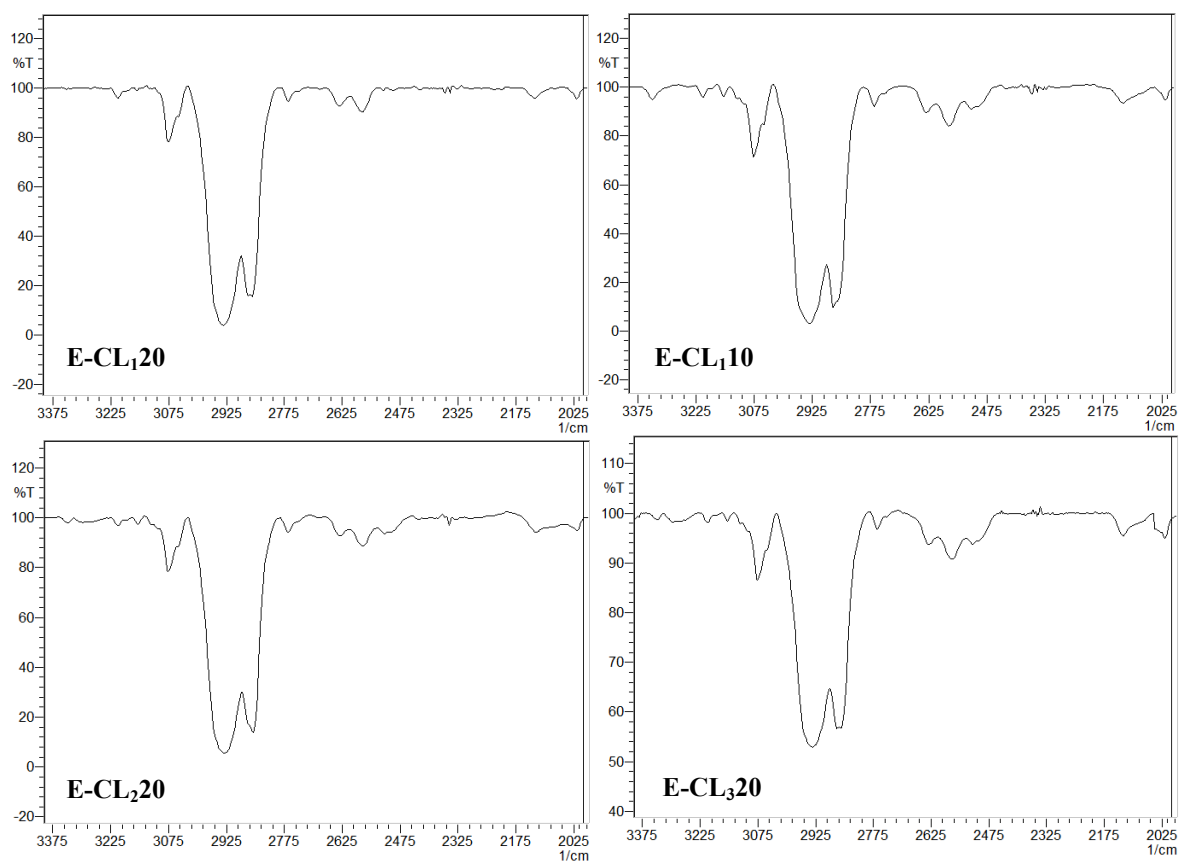


Figure S7. FTIR spectra of the LCE films.

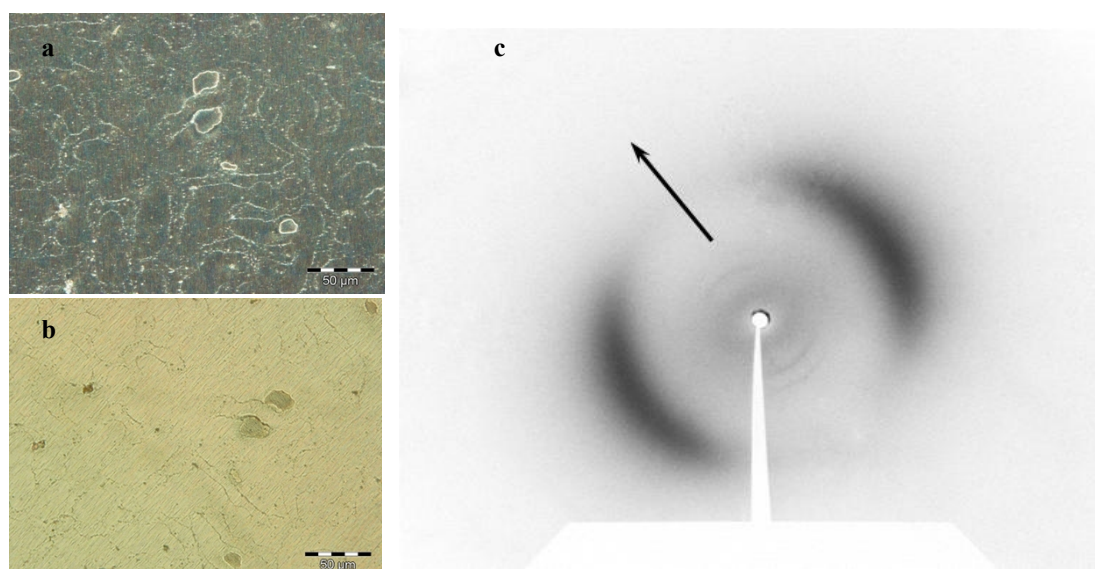


Figure S8. POM images and XRD trace for E-CL₁20 film. a) POM image of the film (20); b) same image rotated of 45° in respect of the analyzer. c) XRD pattern, the arrow indicates the alignment direction

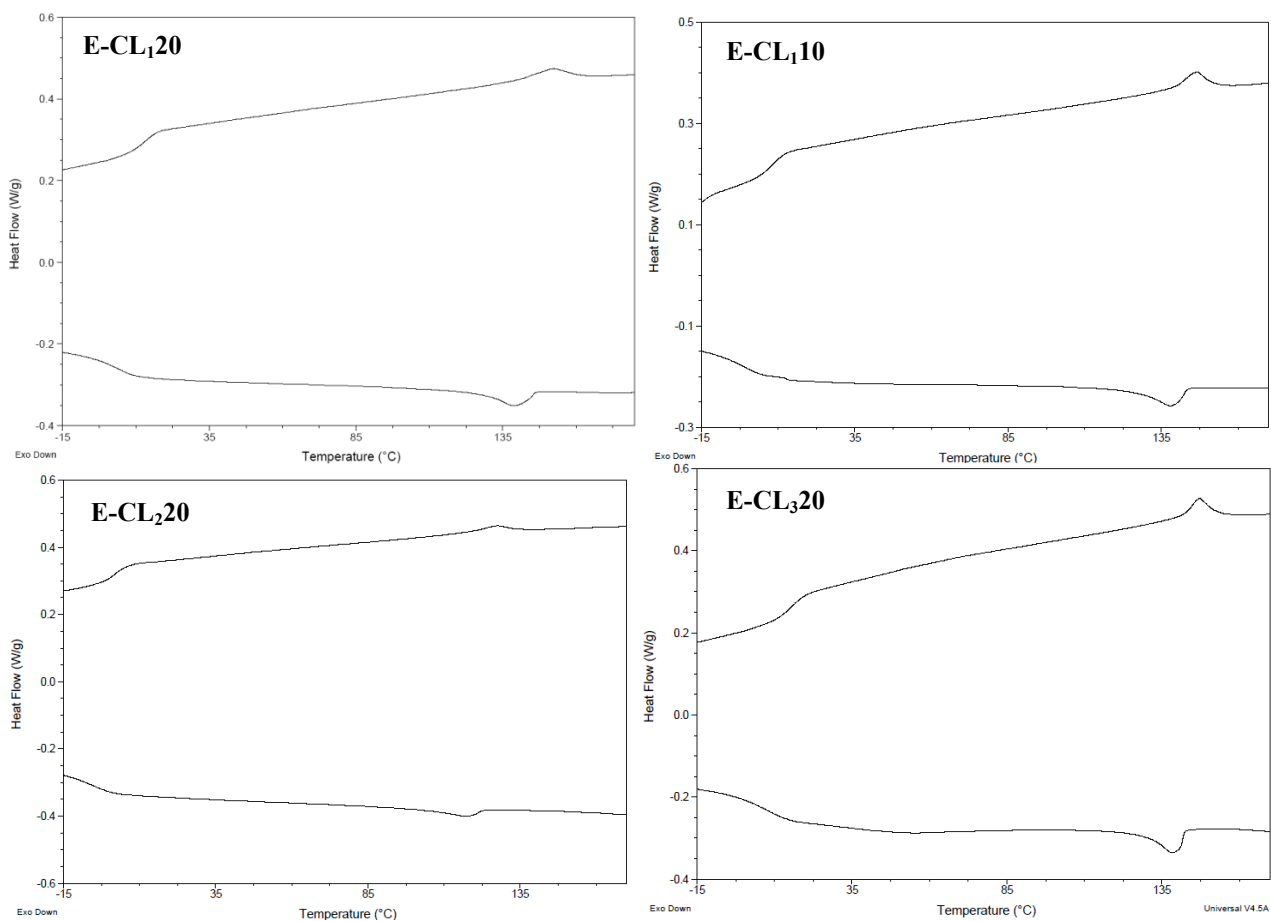


Figure S9. DSC traces (10 °C/min) corresponding to the second cycle of heating and cooling of LCE films.

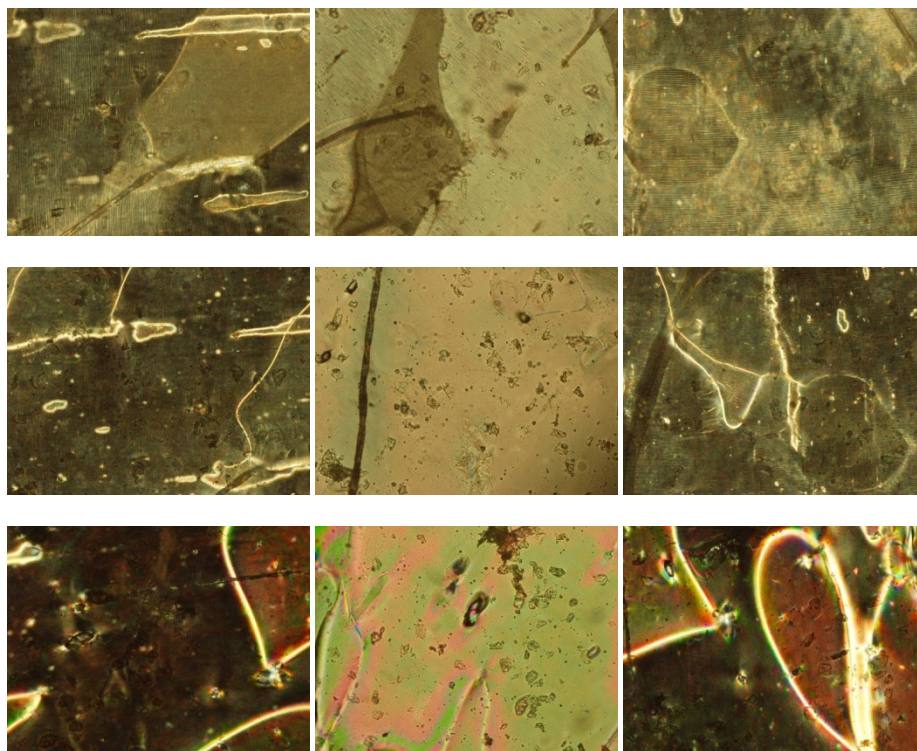


Figure S10. POM images of E-CL₁₂₀ film at different temperatures. Images registered at 90 °C, 120 °C and 160 °C (up to down) while rotating the sample 0, 45 and 90° in relation to the preferential alignment direction (left to right).

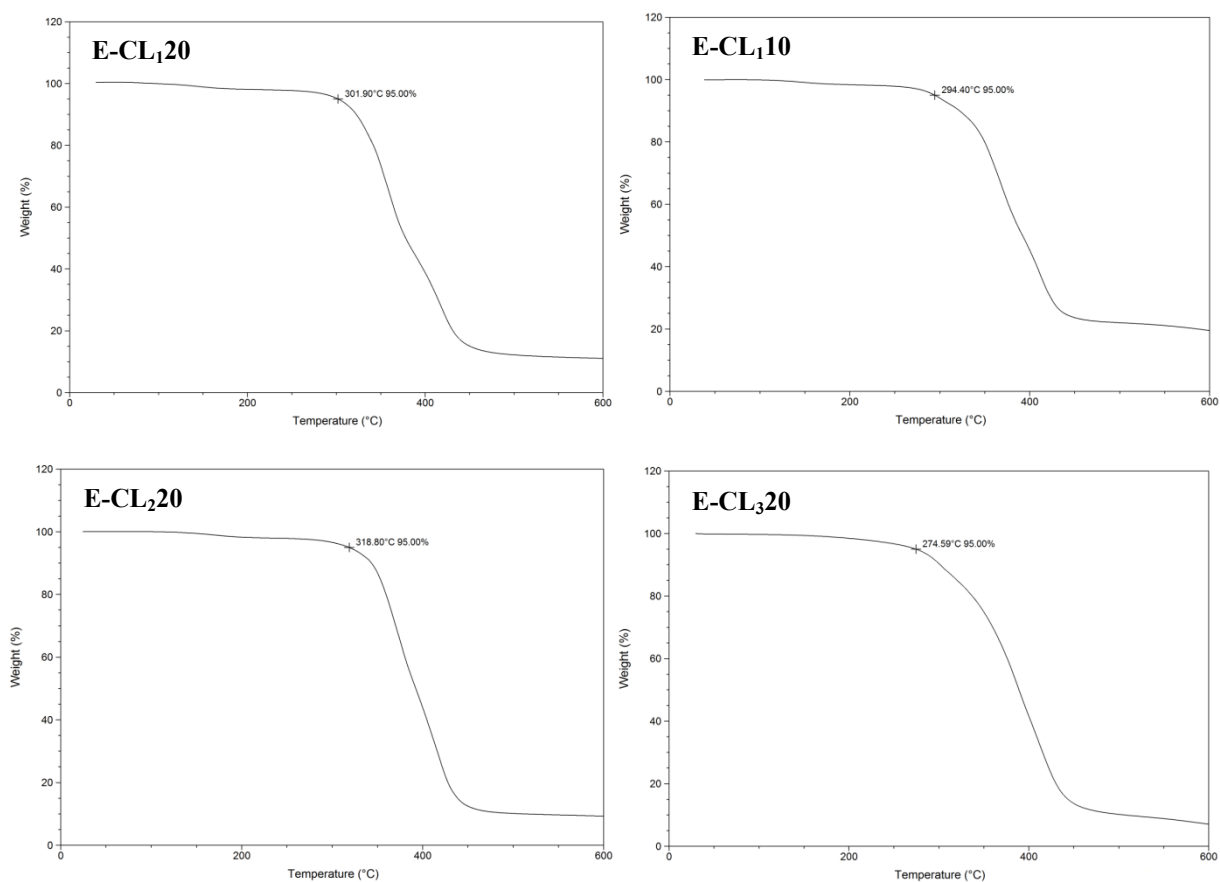


Figure S11. TGA traces of the LCE films.

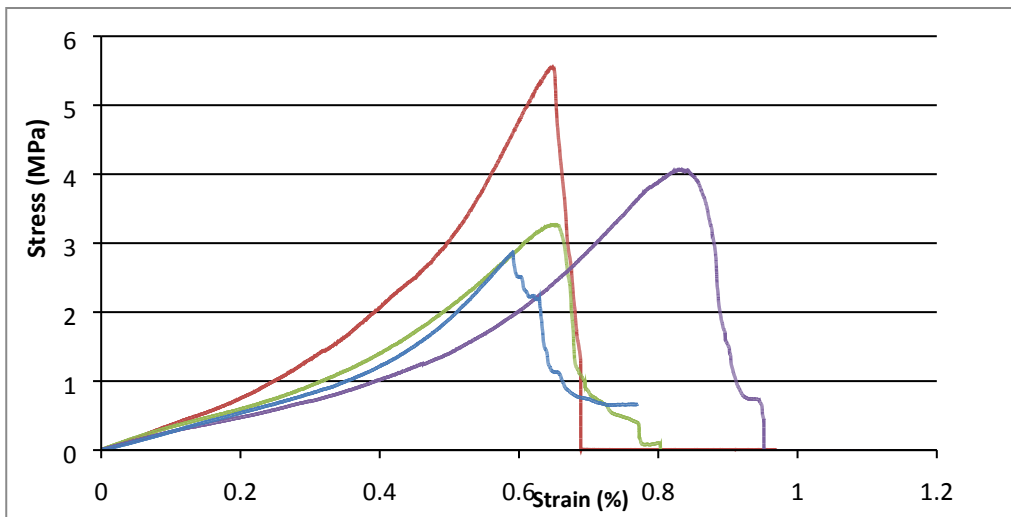


Figure S12. Stress-strain curves for E-CL₁₂₀ at room temperature.