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Synthesis and Mesomorphic Properties of Side Chain Liquid-Crystalline Biphenyl-Phenyl Polyacrylates

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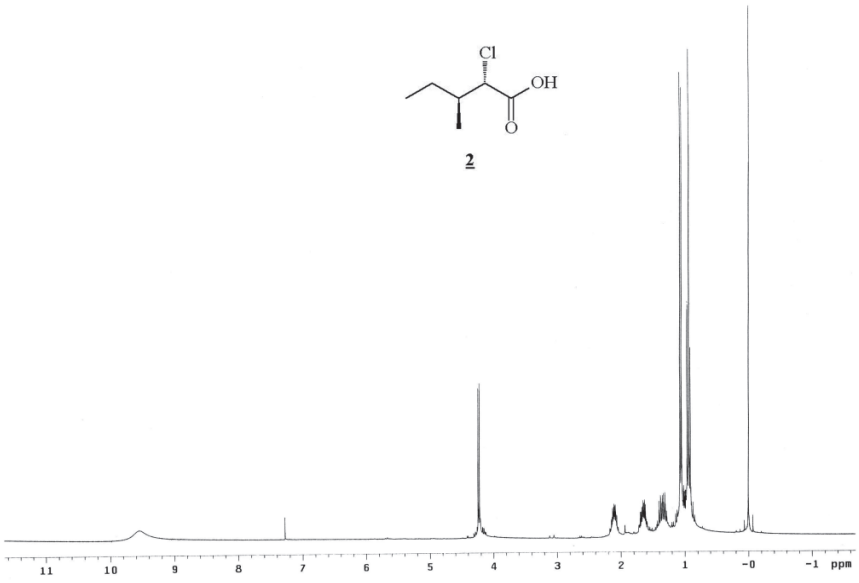

Figure S1. ^{1}H NMR ($CDCl_3$, 300 MHz) for compound **2**.

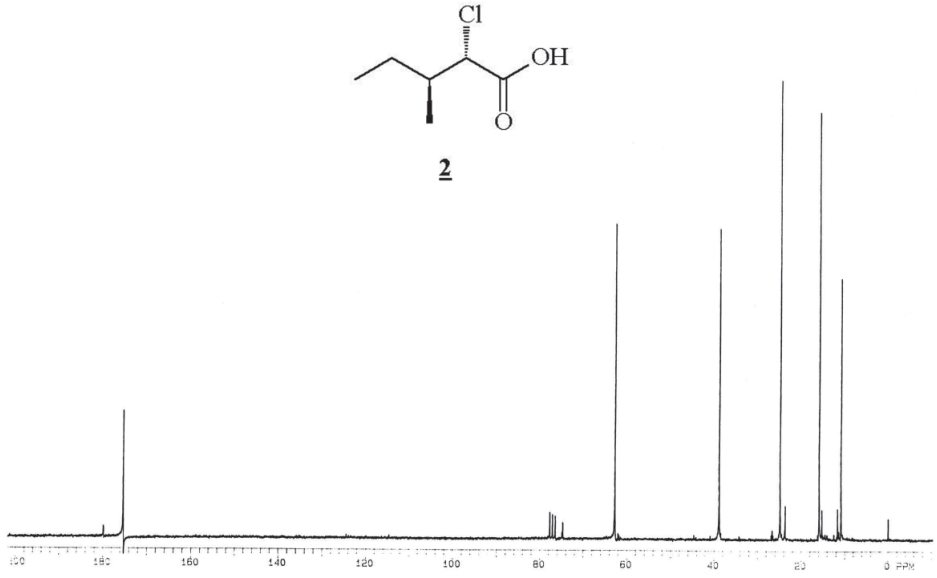

Figure S2. ^{13}C NMR ($CDCl_3$, 50 MHz) for compound **2**.

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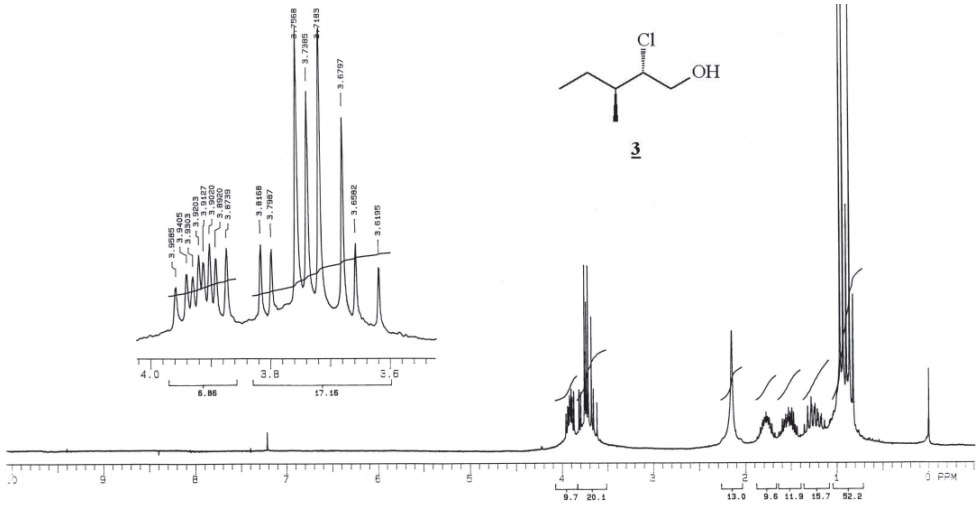

Figure S3. ^{1}H NMR ($CDCl_3$, 200 MHz) for compound **3**.

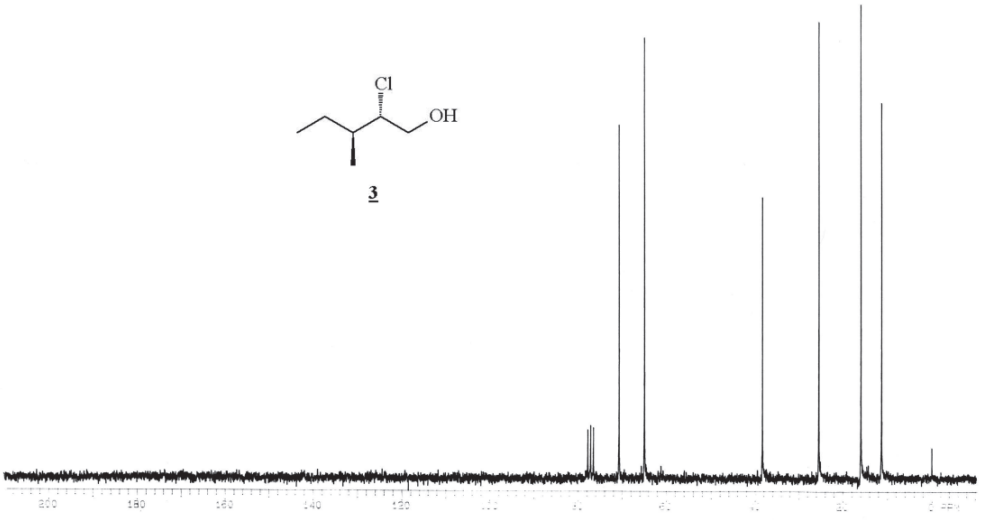

Figure S4. ^{13}C NMR ($CDCl_3$, 50 MHz) for compound **3**.

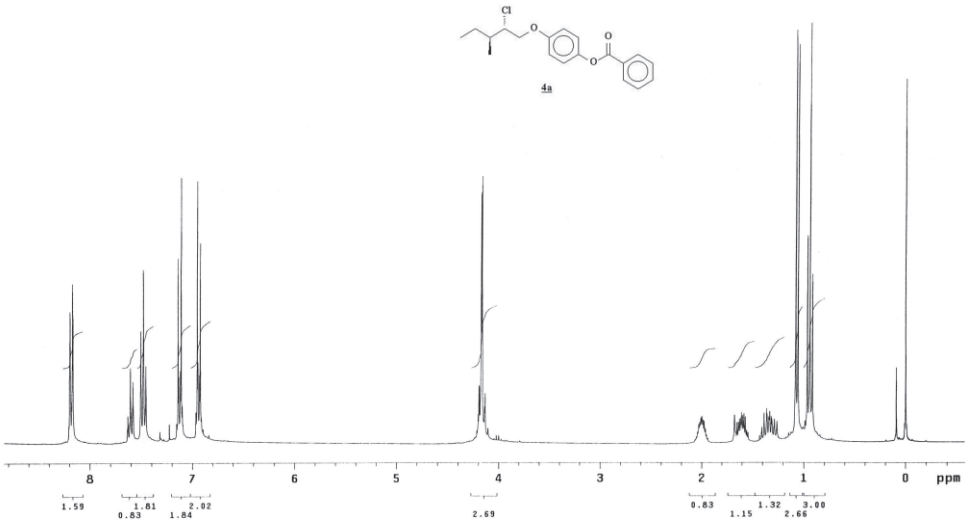

Figure S5. ^{1}H NMR ($CDCl_3$, 300 MHz) for compound **4a**.

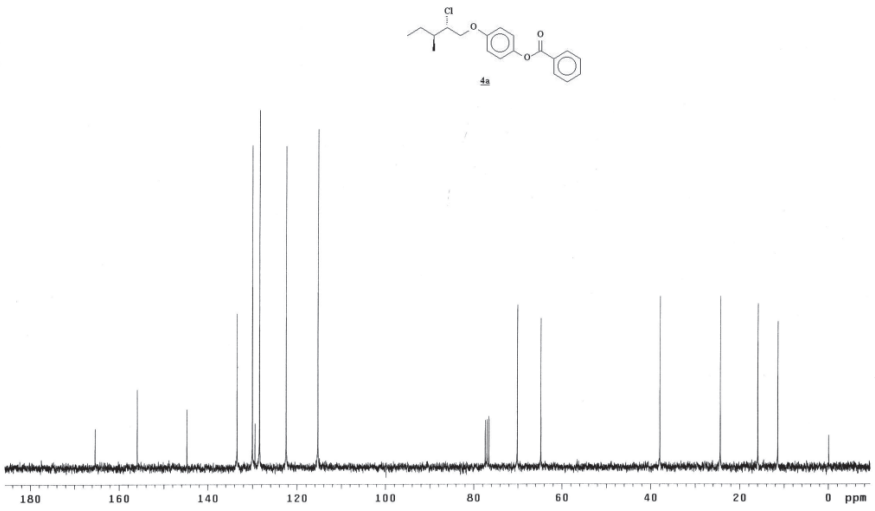

Figure S6. ^{13}C NMR ($CDCl_3$, 75 MHz) for compound **4a**.

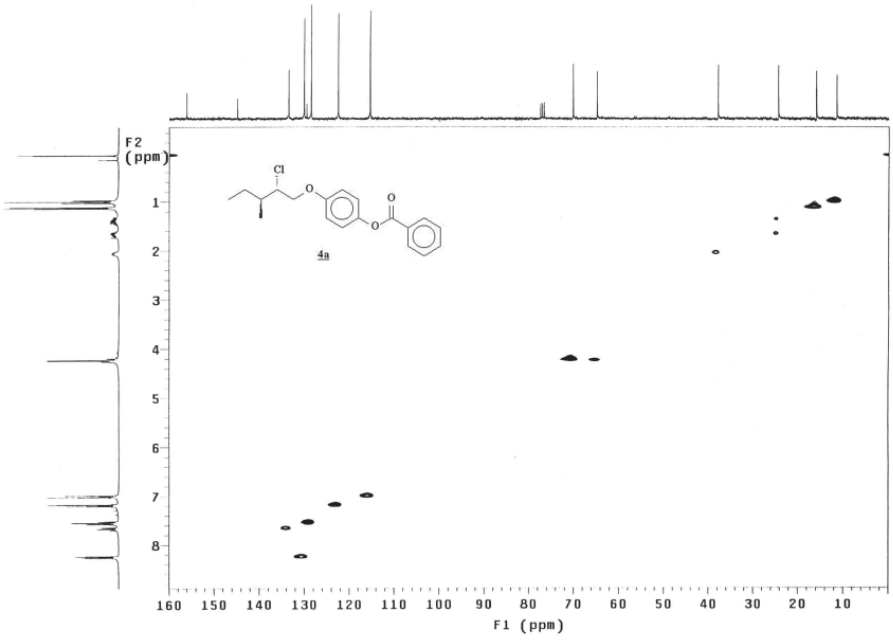

Figure S7. HMQC (^1H ^{13}C NMR, $CDCl_3$, 300 MHz/75 MHz) for compound **4a**.

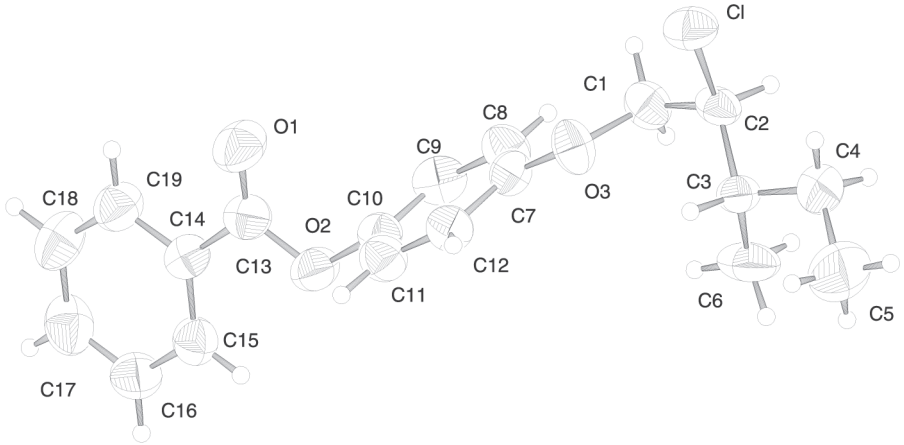

Figure S8. Molecular structure **4a**. Perspective view and atom labelling. Thermal ellipsoids are given at the 50% probability level. Reference 11.

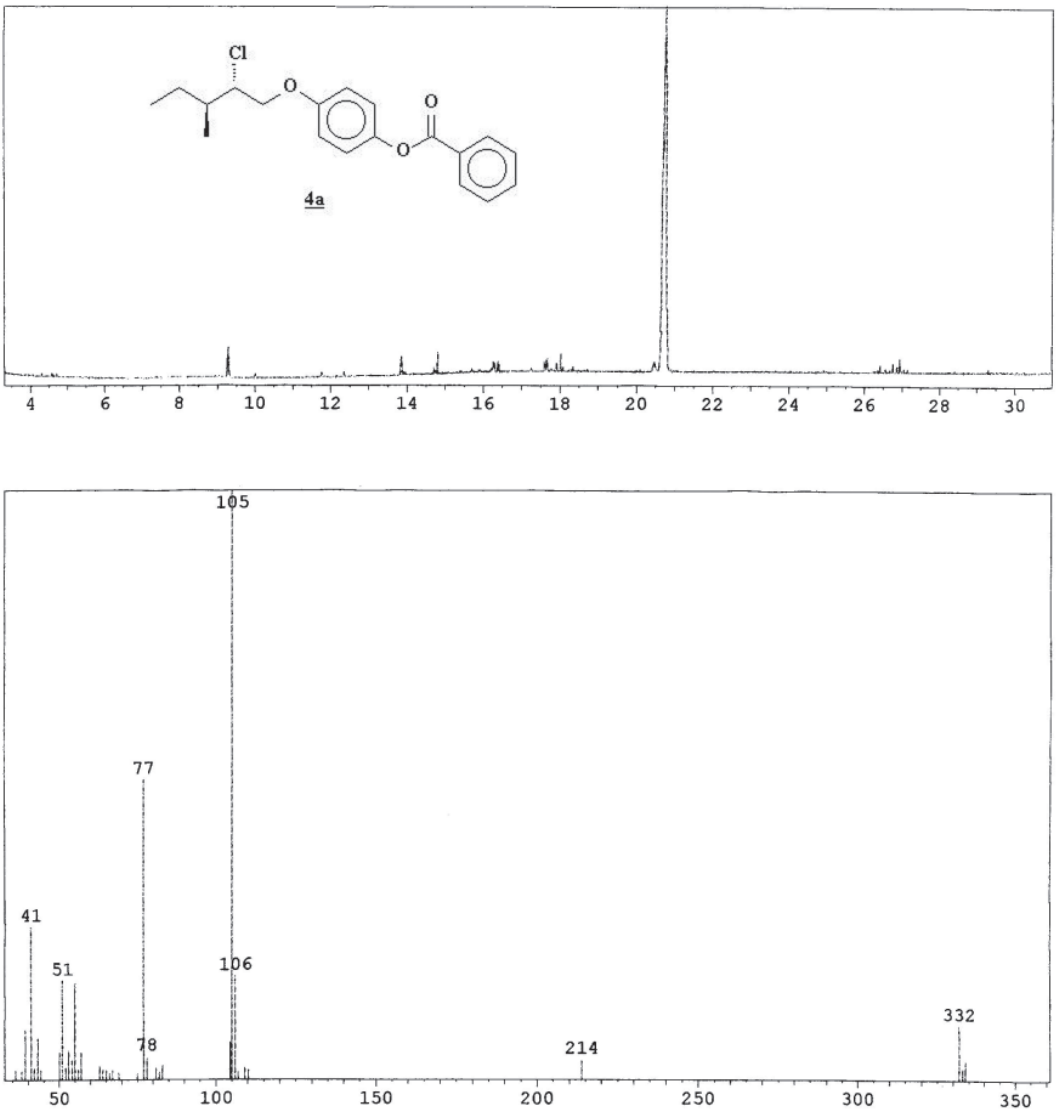

Figure S9. CG/MS (EI, 70 eV) for compound **4a**.

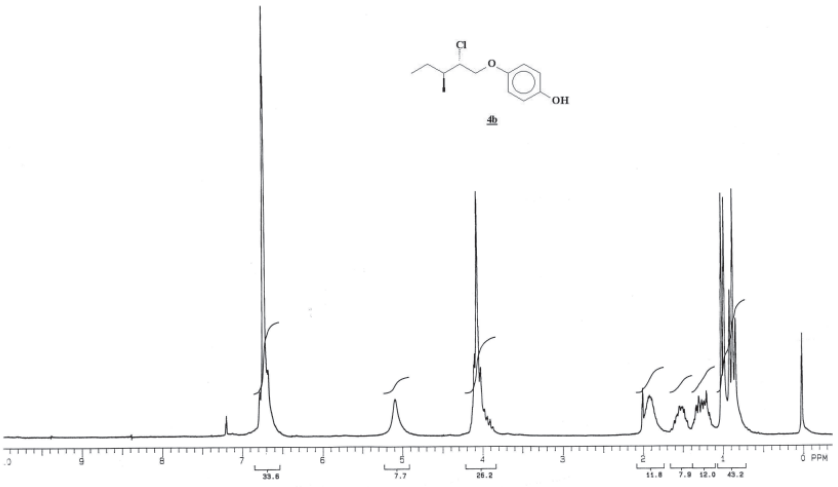

Figure S10. ^{1}H NMR ($CDCl_3$, 200 MHz) for compound **4b**.

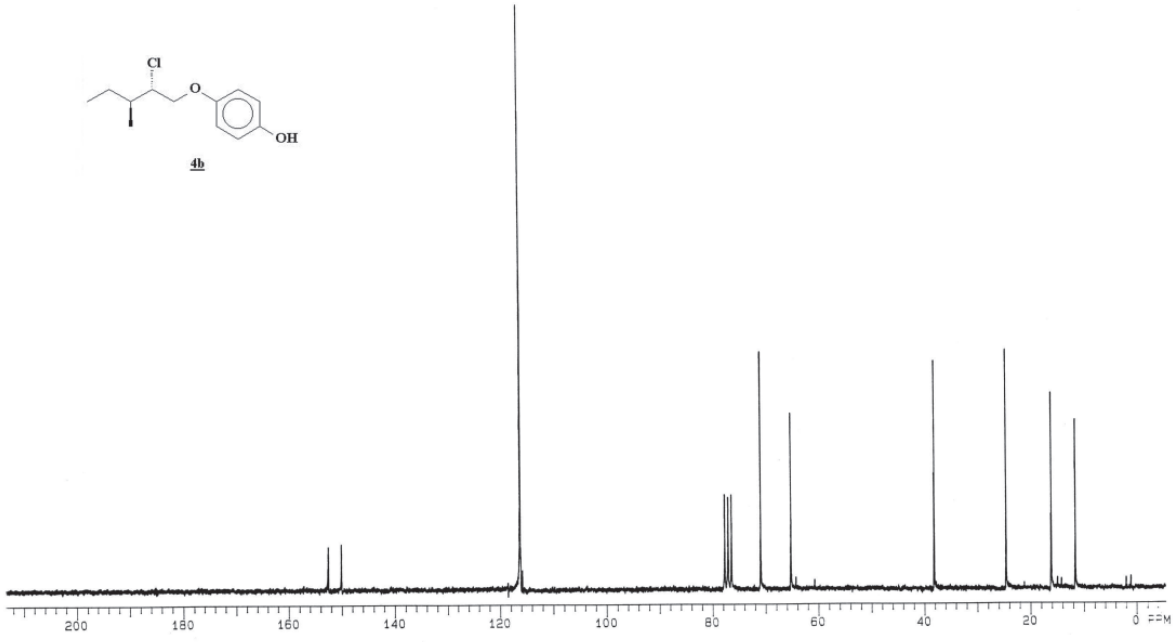

Figure S11. **^{13}C NMR** ($CDCl_3$, 50 MHz) for compound **4b**.

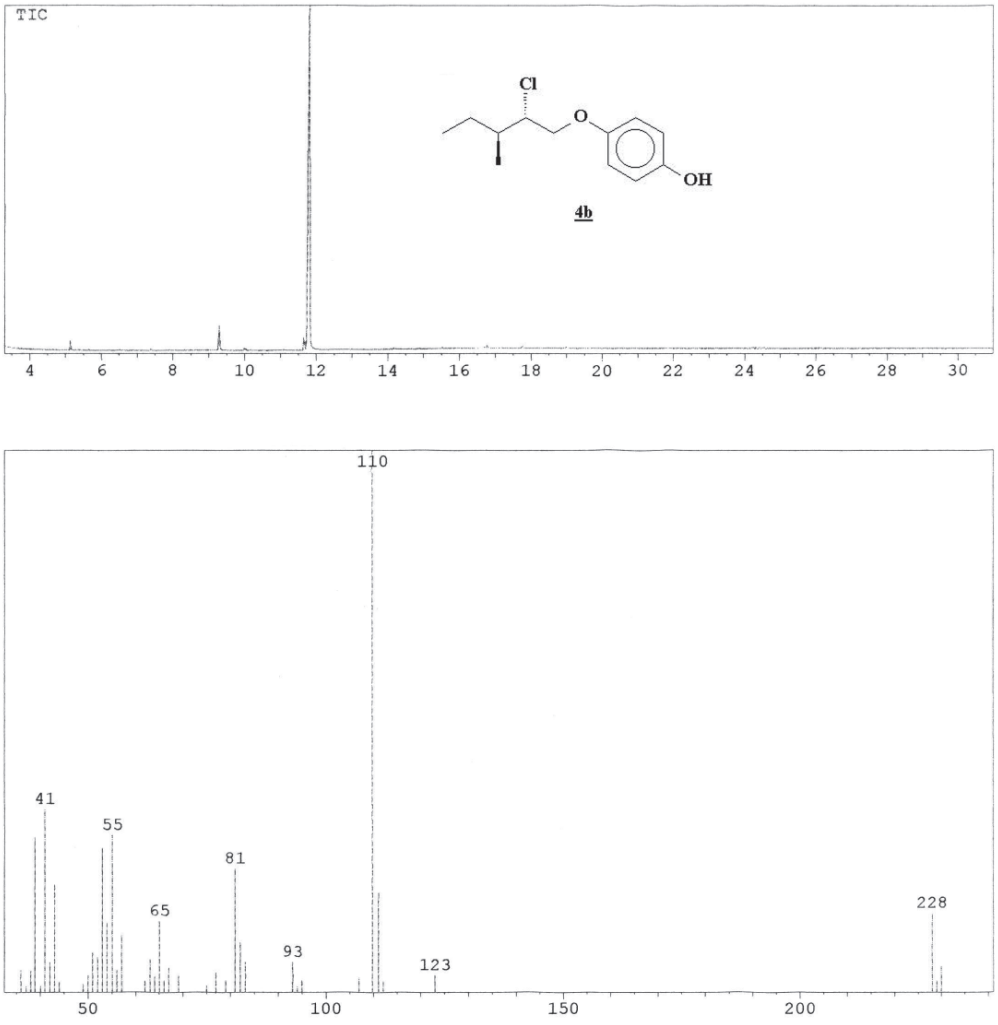

Figure S12. CG/MS (EI, 70 eV) for **4b**.

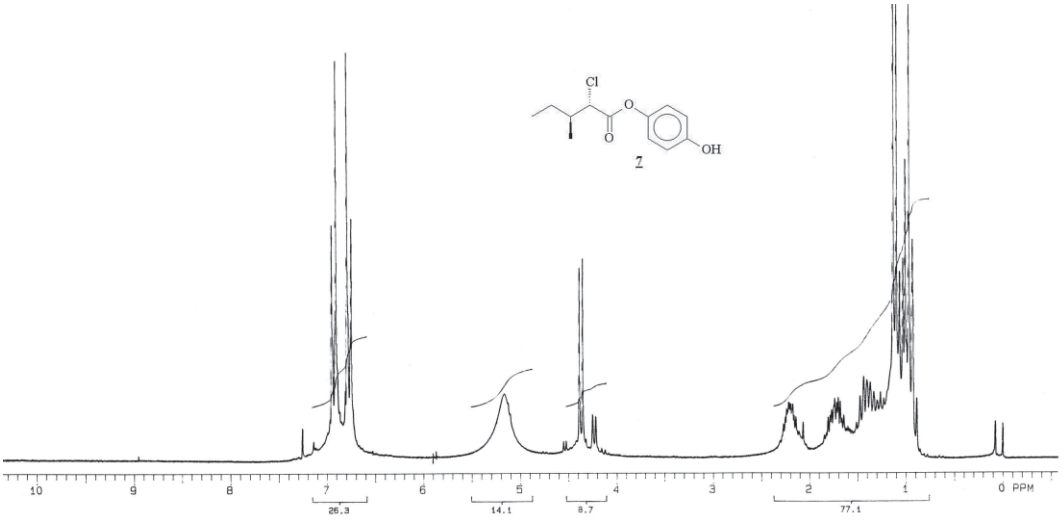

Figure S13. ^{1}H NMR ($CDCl_3$, 200 MHz) for compound **7**.

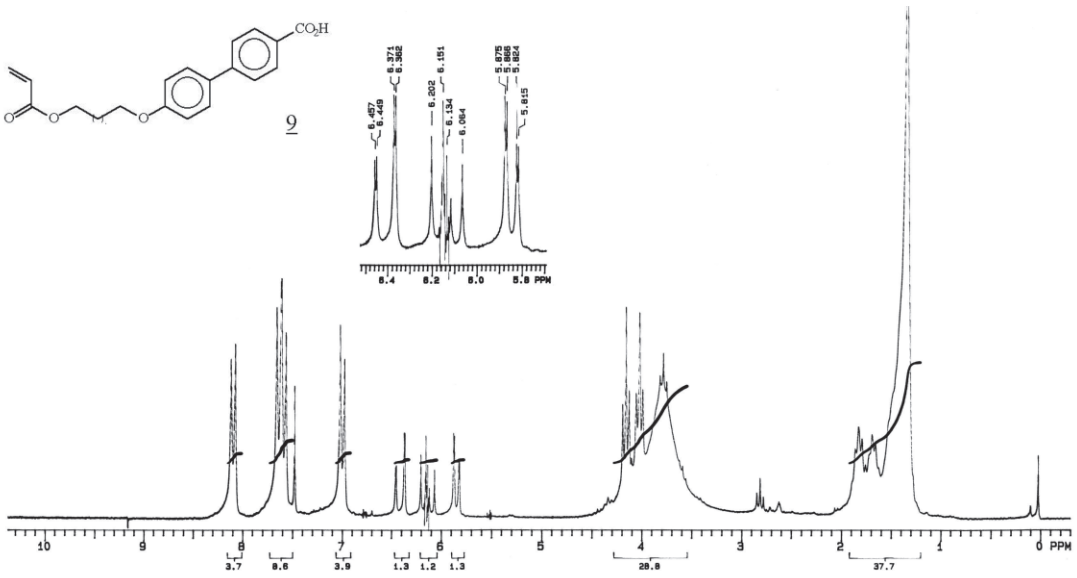

Figure S14. ^{1}H NMR ($CDCl_3$/DMSO, 200 MHz) for compound **9**.

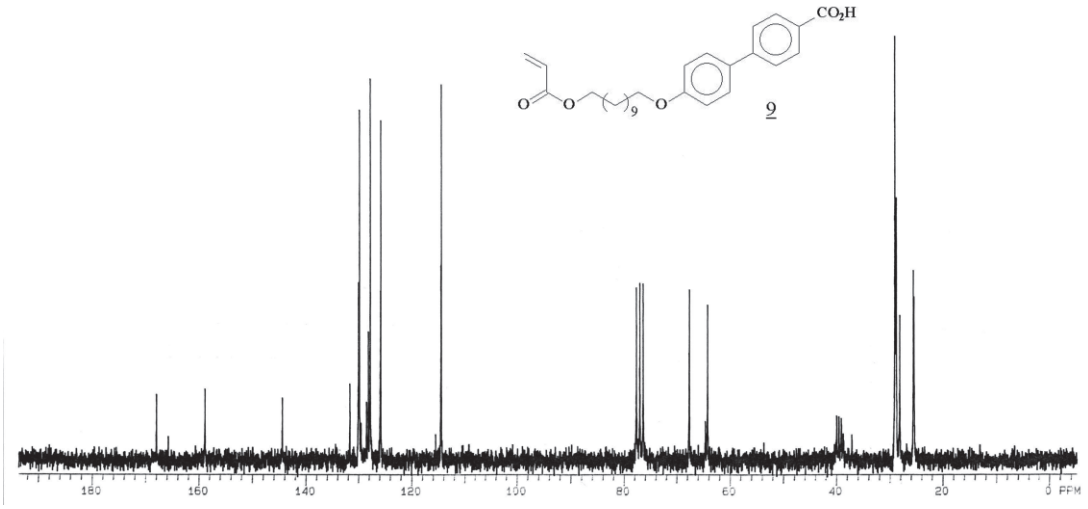

Figure S15. ^{13}C NMR ($CDCl_3$/DMSO, 50 MHz) for compound **9**.

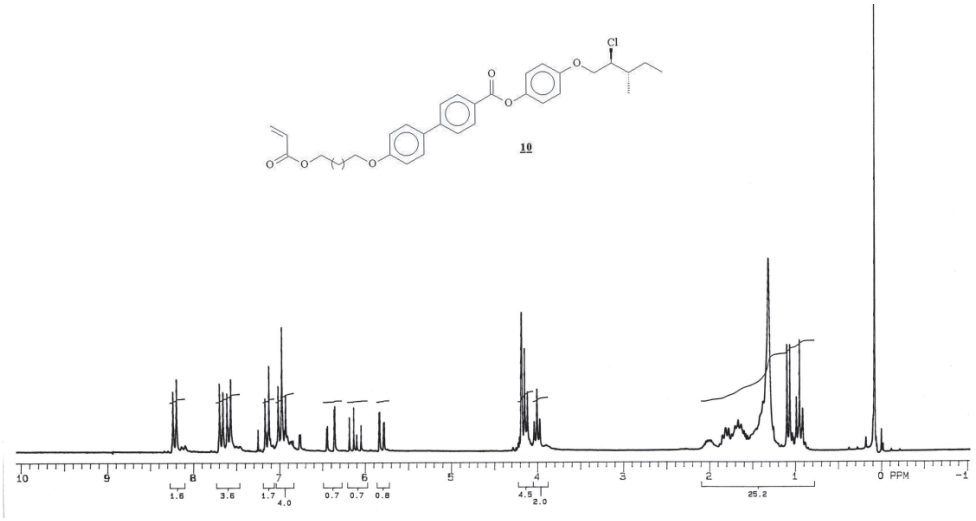

Figure S16. ^{1}H NMR ($CDCl_3$, 200 MHz) for compound **10**.

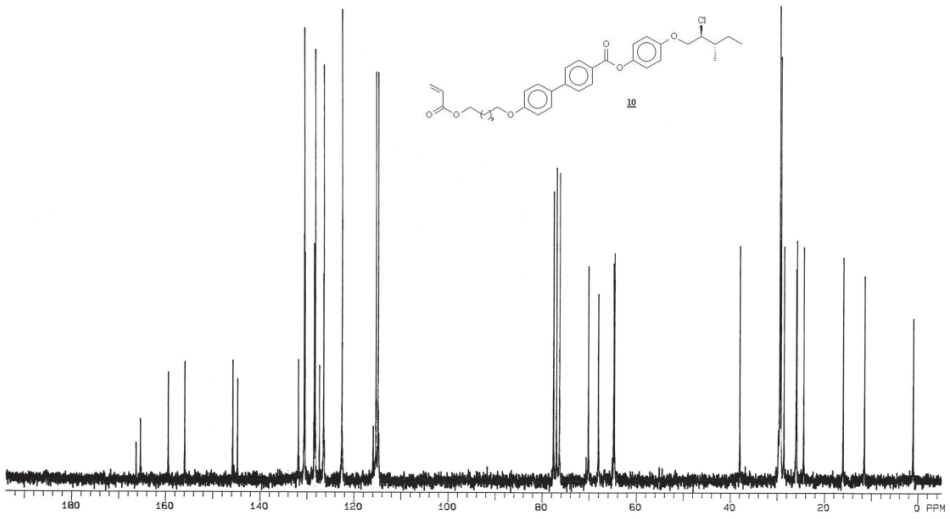

Figure S17. ^{13}C NMR ($CDCl_3$, 50 MHz) for compound **10**.

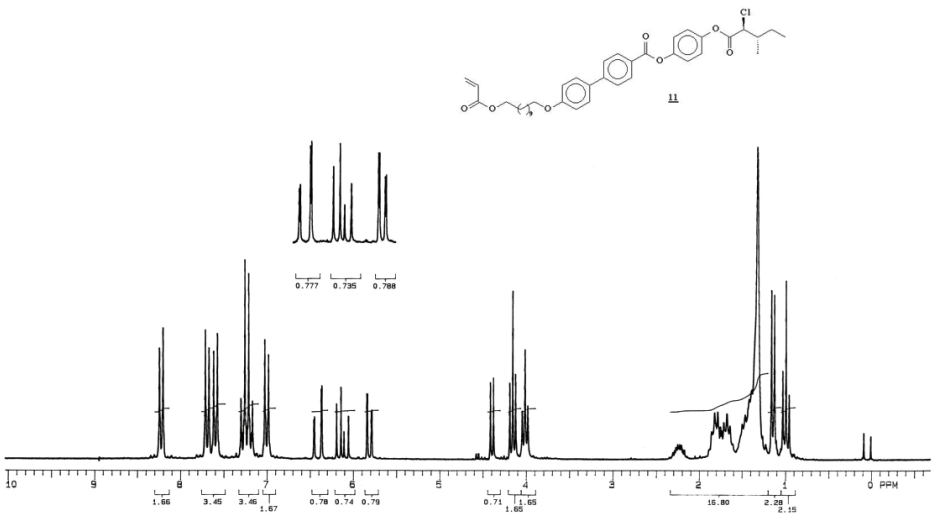

Figure S18. ^{1}H NMR ($CDCl_3$, 200 MHz) for compound **11**.

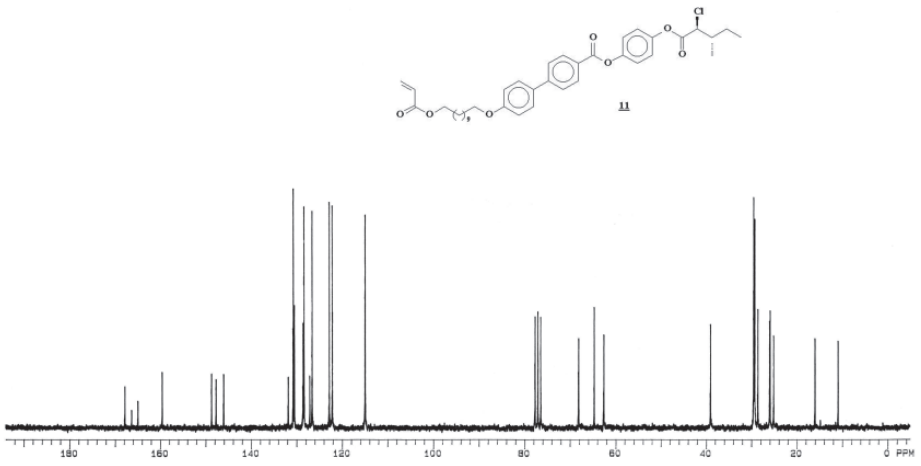

Figure S19. ^{13}C NMR ($CDCl_3$, 50 MHz) for compound **11**.

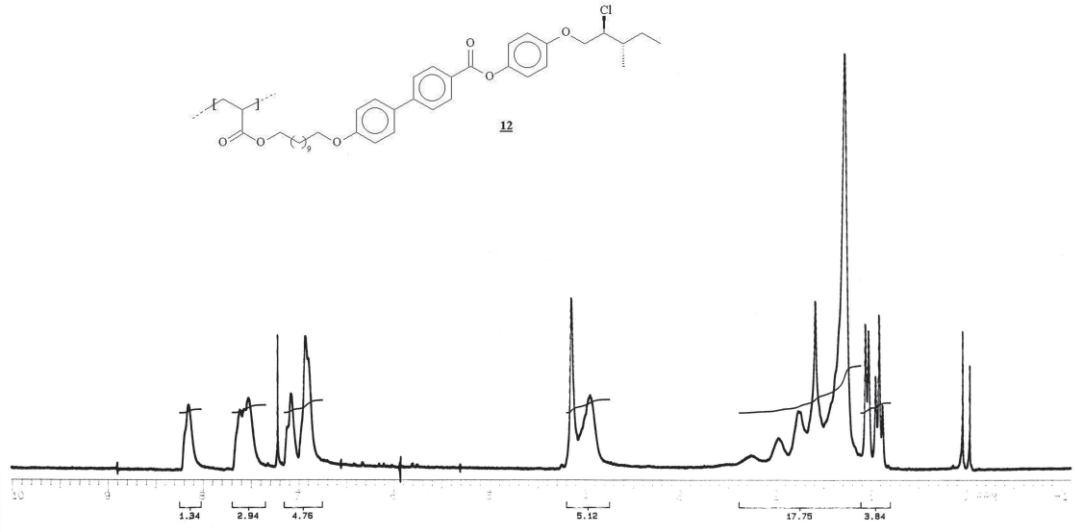

Figure S20. ^{1}H NMR ($CDCl_3$, 200 MHz) for compound **12**.

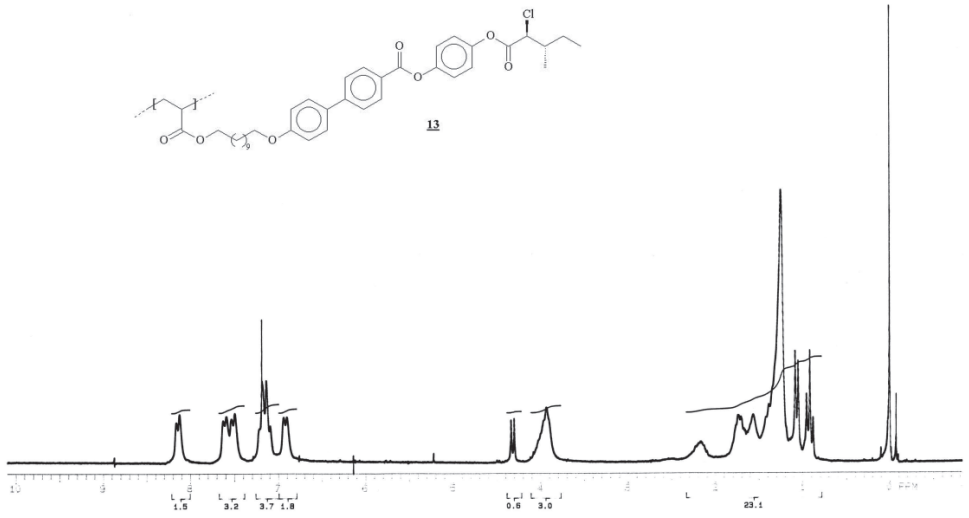

Figure S21. ^{1}H NMR ($CDCl_3$, 200 MHz) for compound **13**.

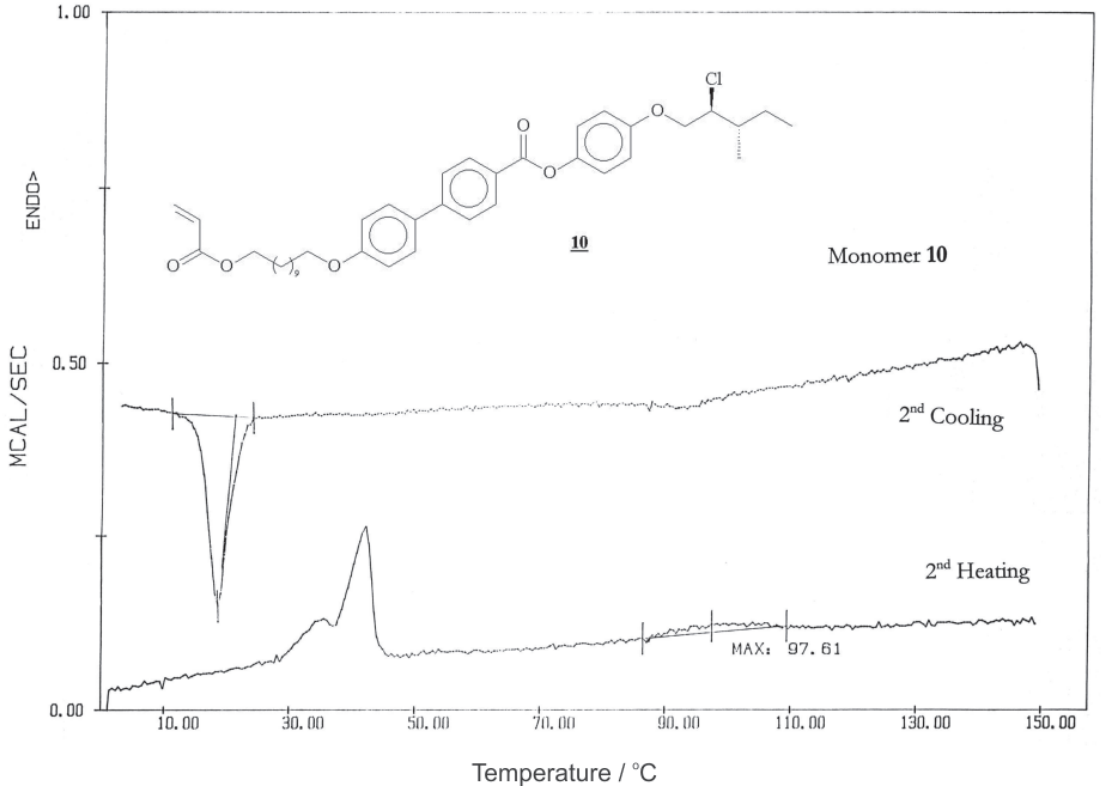

Figure S22. DSC Thermogram for monomer **10** on 2nd at 5 ºC min-1.

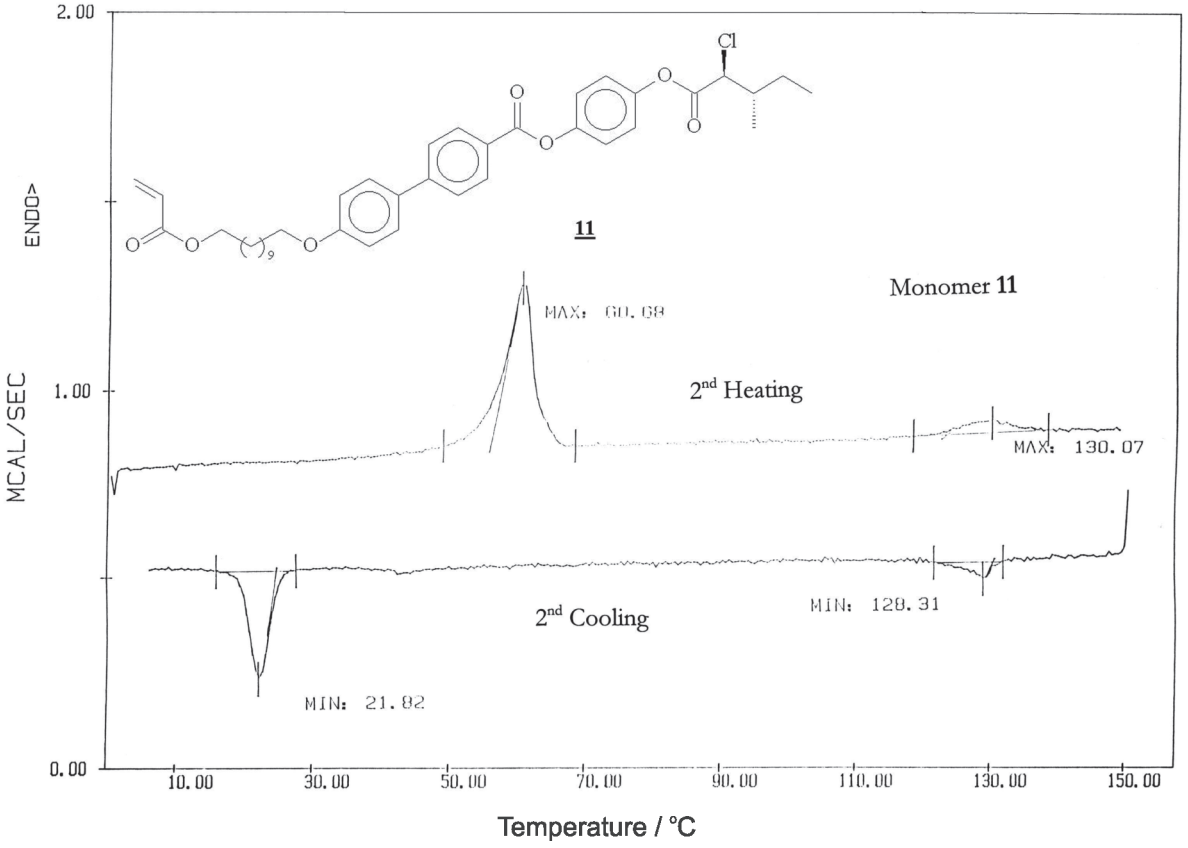

Figure S23. DSC Thermogram for monomer **11** on 2nd cycle at 5 ºC min-1.

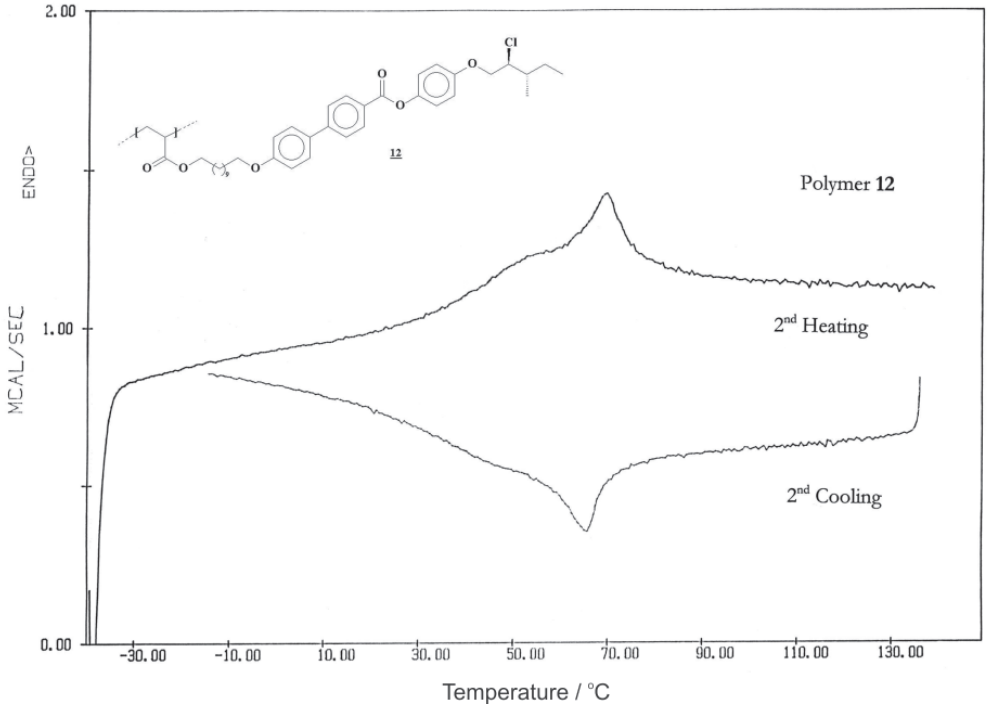

Figure S24. DSC Thermogram for polymer **12** on 2nd cycle at 10 ºC min^{-1}.

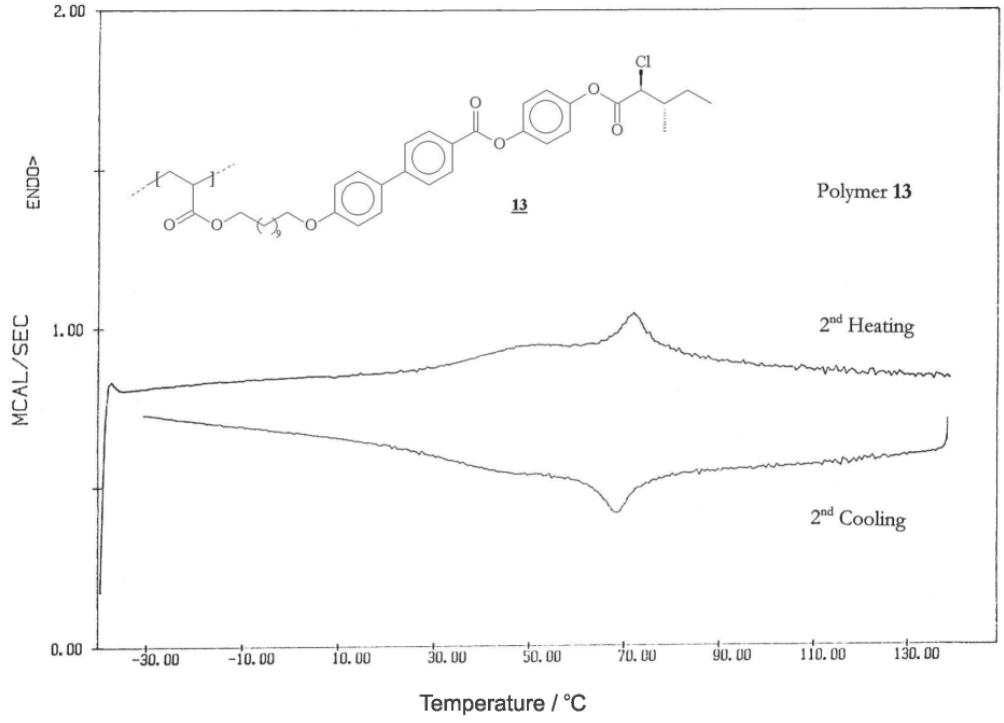

Figure S25. DSC Thermogram for polymer **13** on 2nd cycle at 10 ºC min^{-1}.

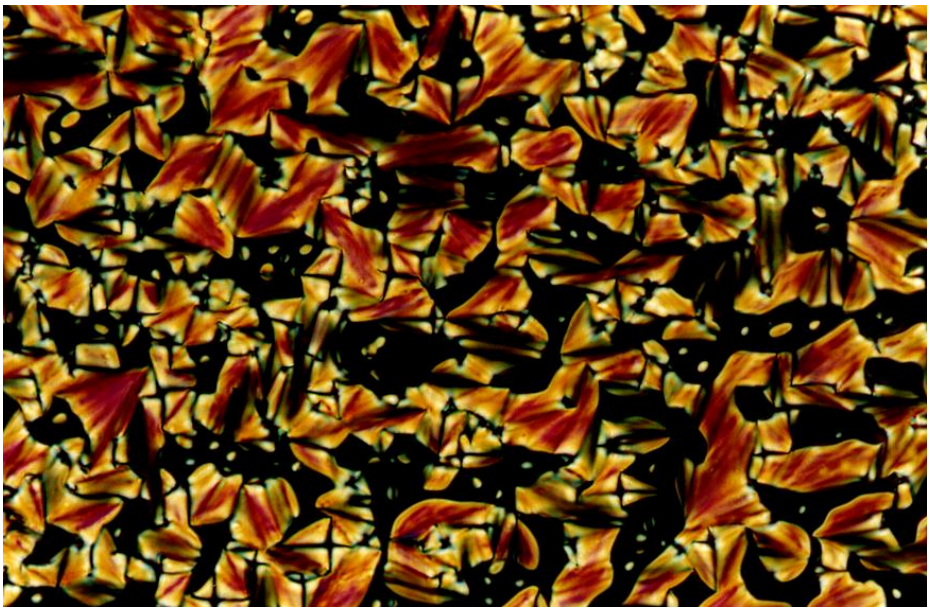

Figure S26. Texture of the smectic A* phase for **10** on cooling at 94 ºC (40x)

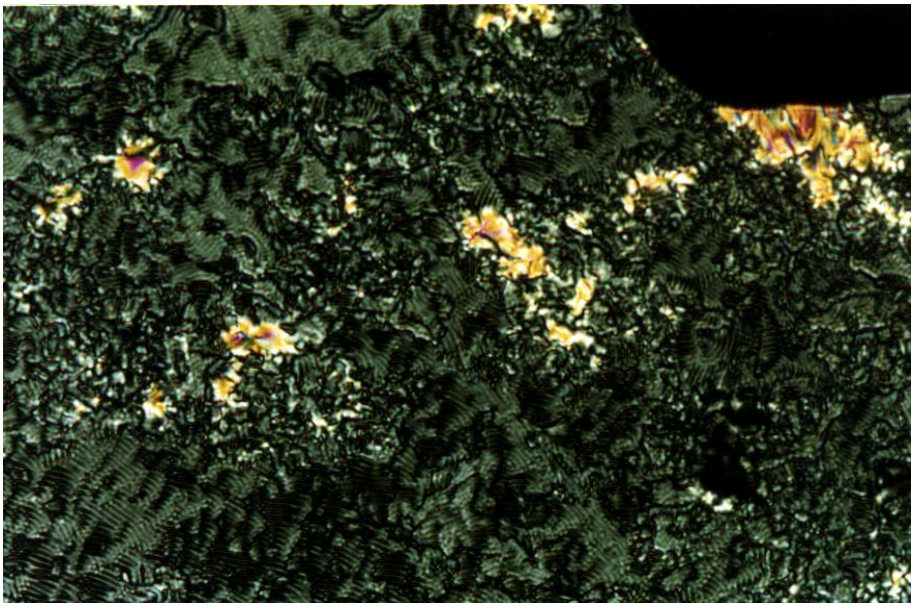

Figure S27. Texture of the smectic C* for **11** on cooling at 65 ºC (40x)

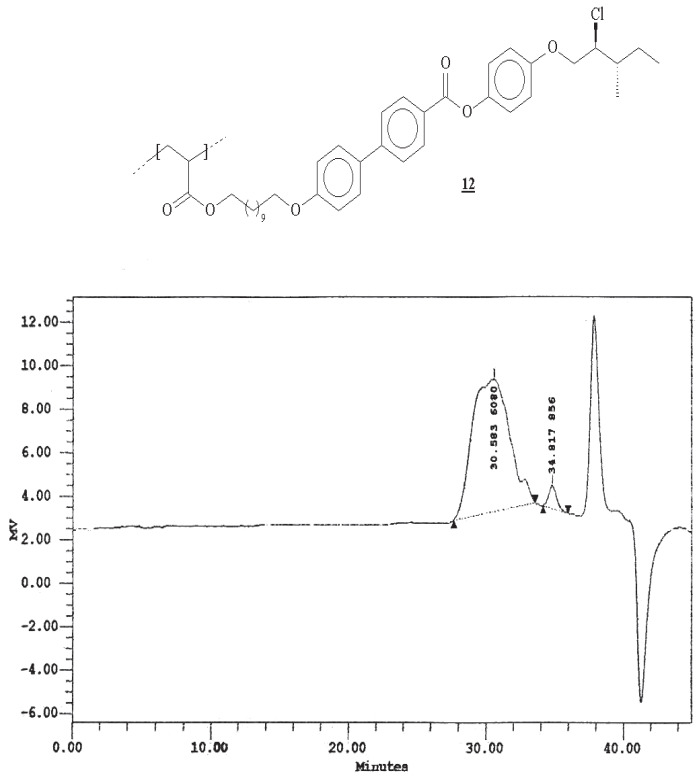

Figure S28. GPC chromatogram for polymer **12**.

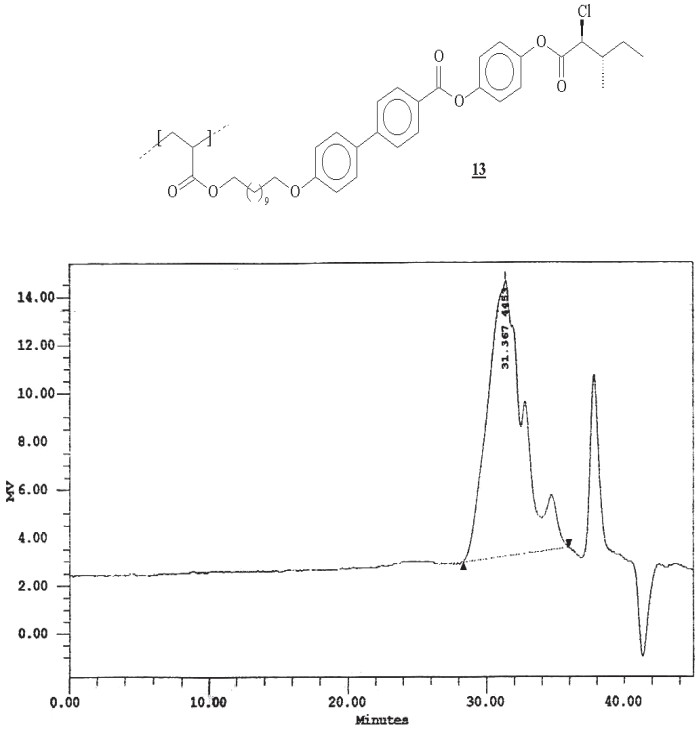

Figure S29. GPC chromatogram for polymer **13**.