

## Supporting Information

# Highly Thermal Conductive Resins formed from Wide-Temperature-Range Eutectic Mixtures of Liquid Crystalline Epoxies Bearing Diglycidyl Moieties at the Side Positions

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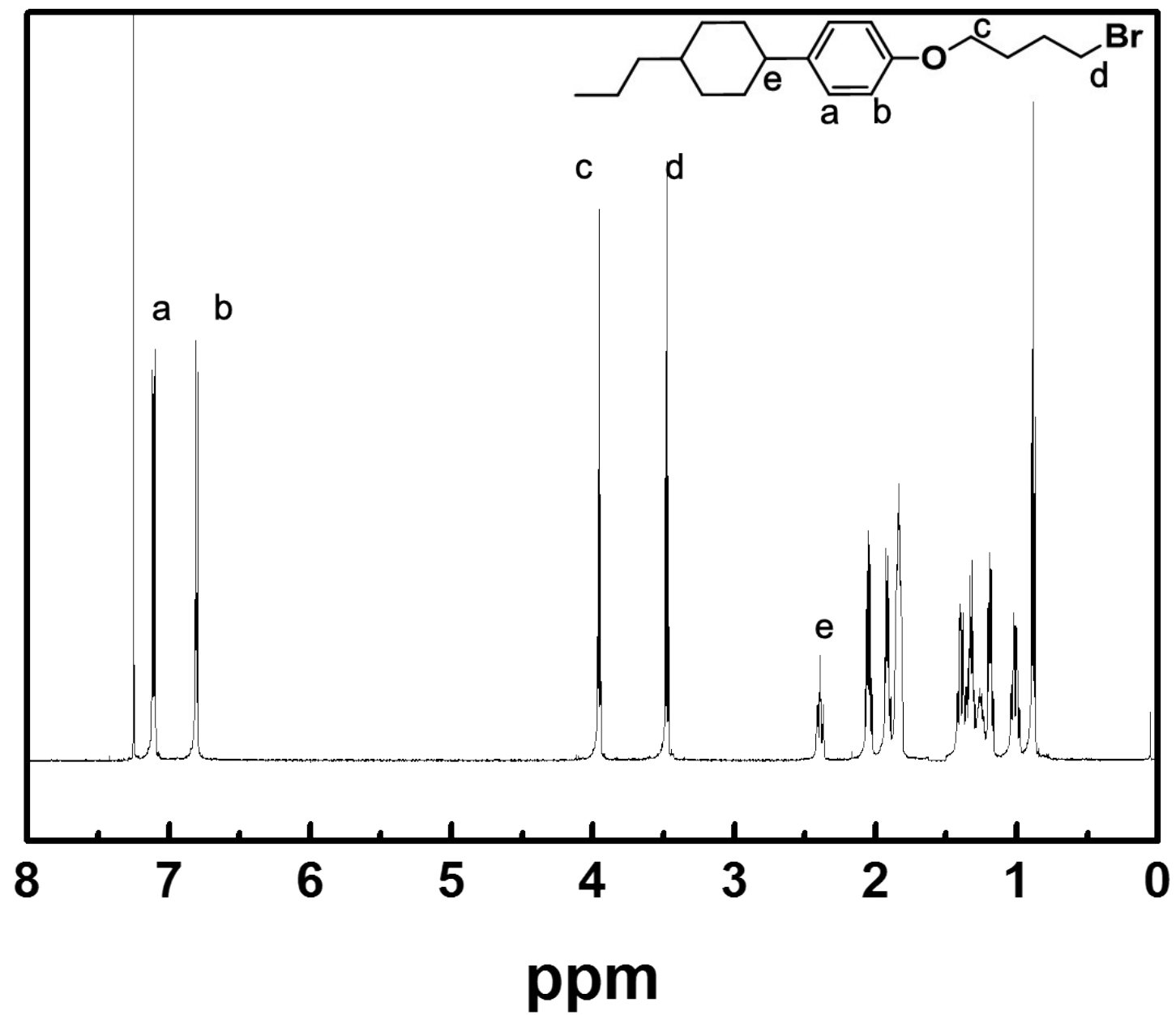
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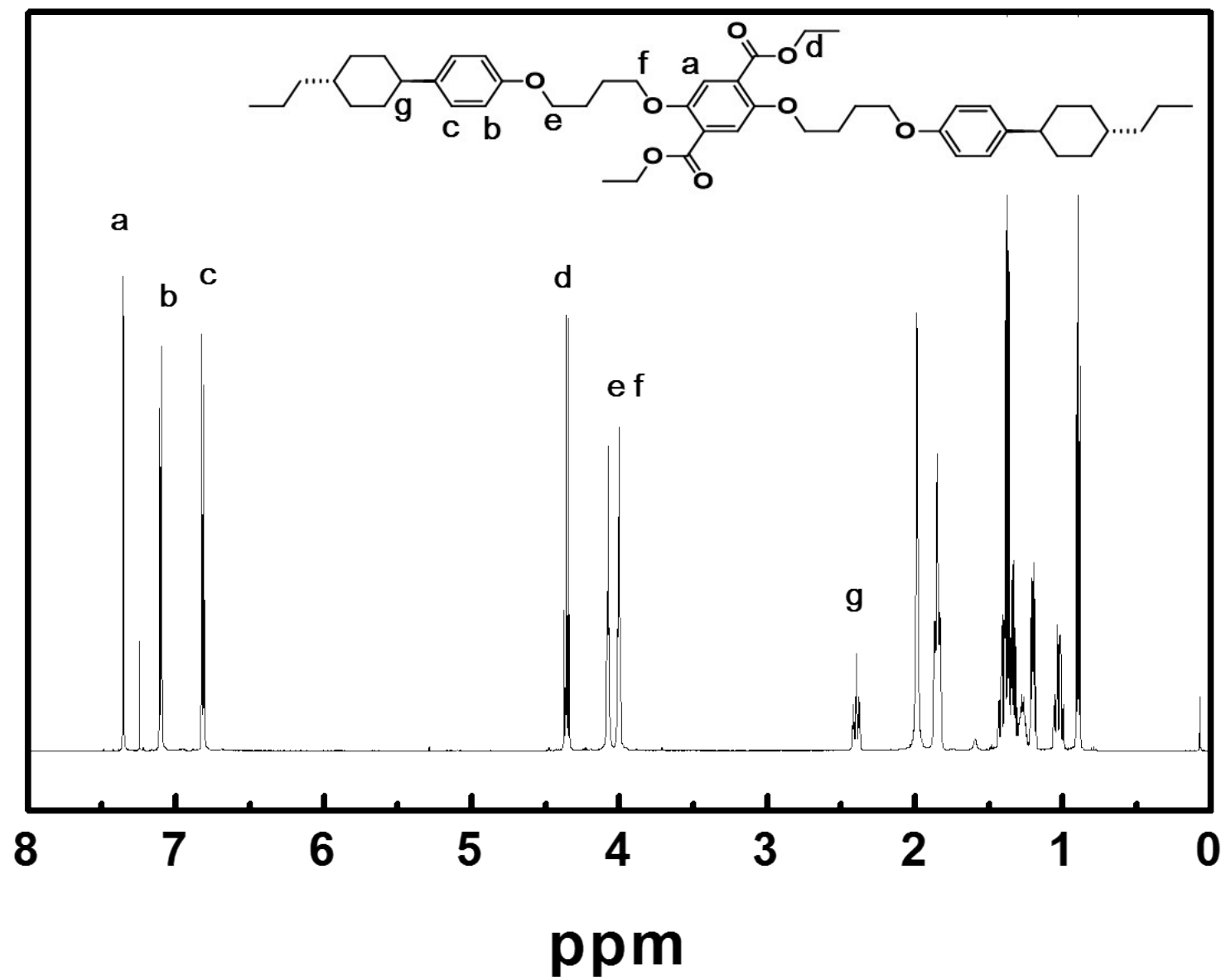
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<sup>‡</sup>These authors contributed equally.

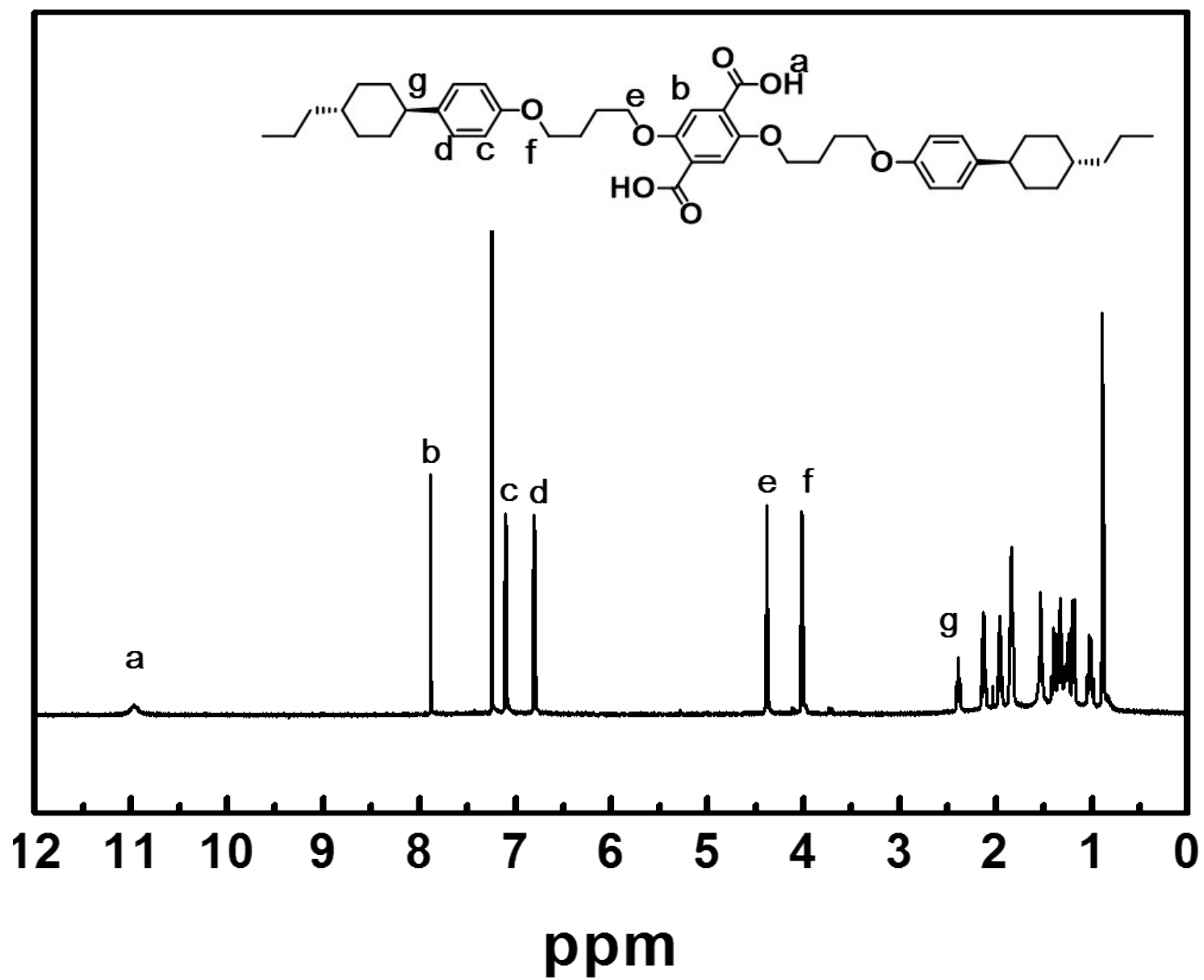
**EMAIL ADDRESS:** goh@kist.re.kr



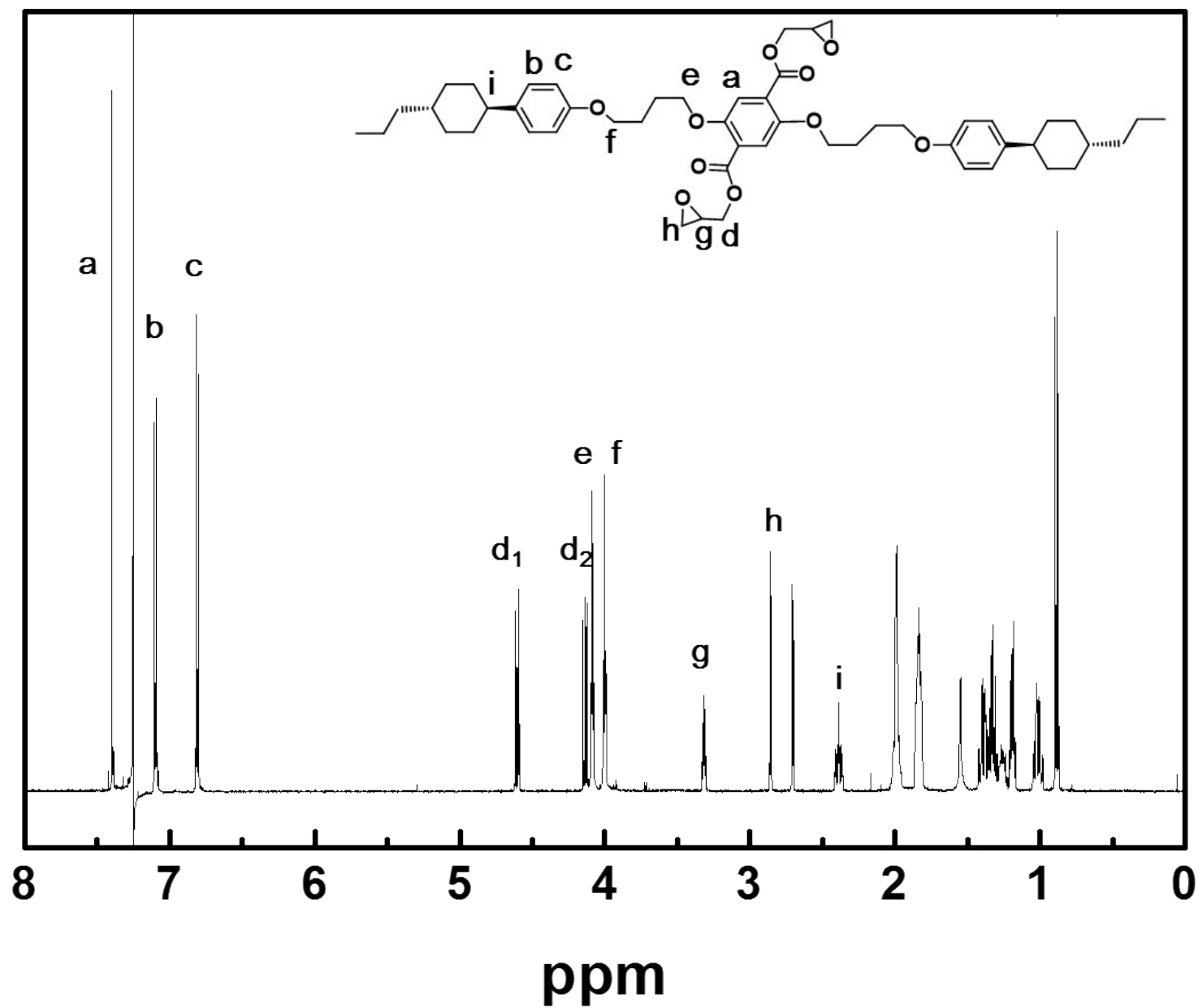
**Figure S1.** <sup>1</sup>H NMR spectra of PCH304Br



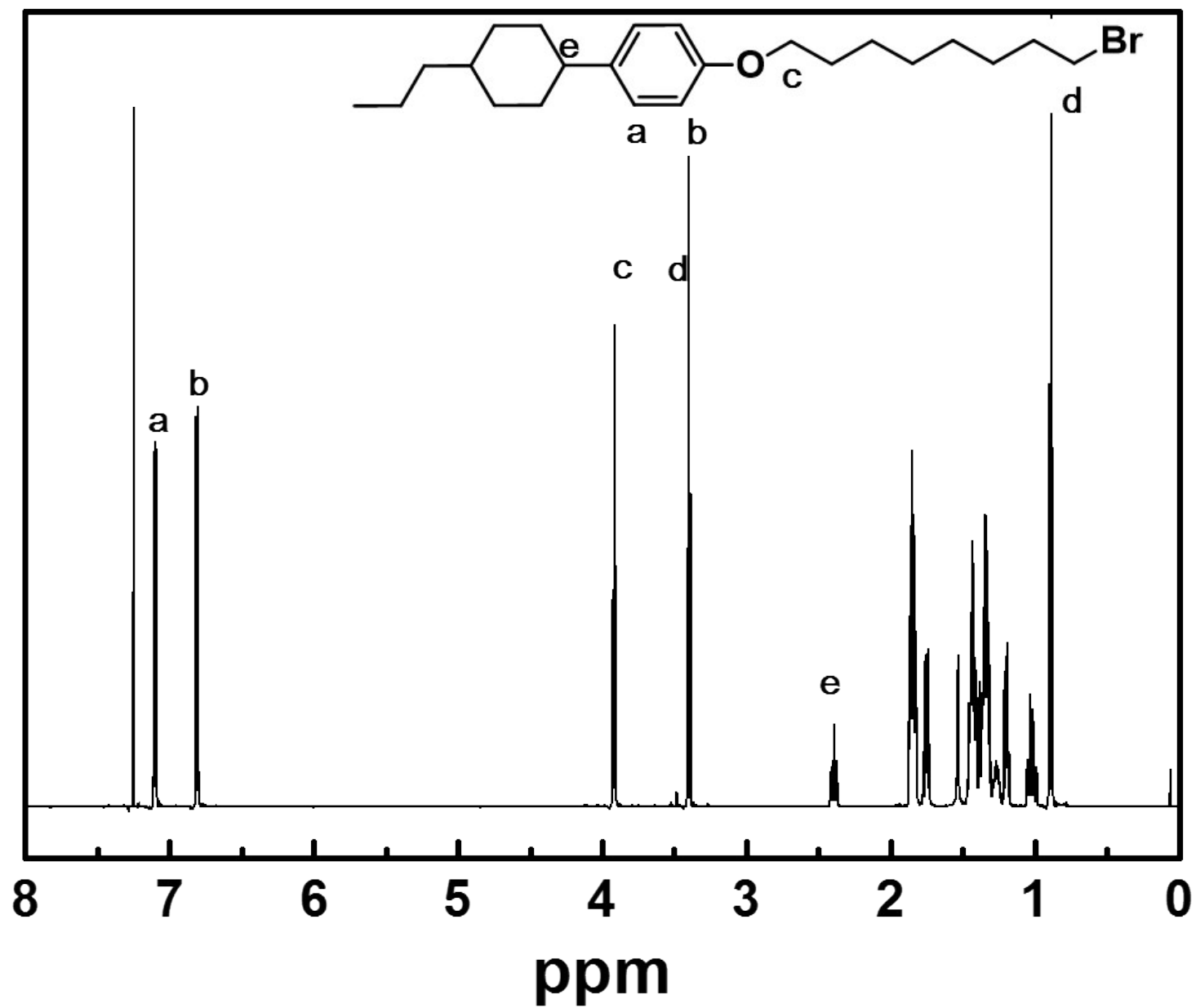
**Figure S2.** <sup>1</sup>H NMR spectra of DEP304



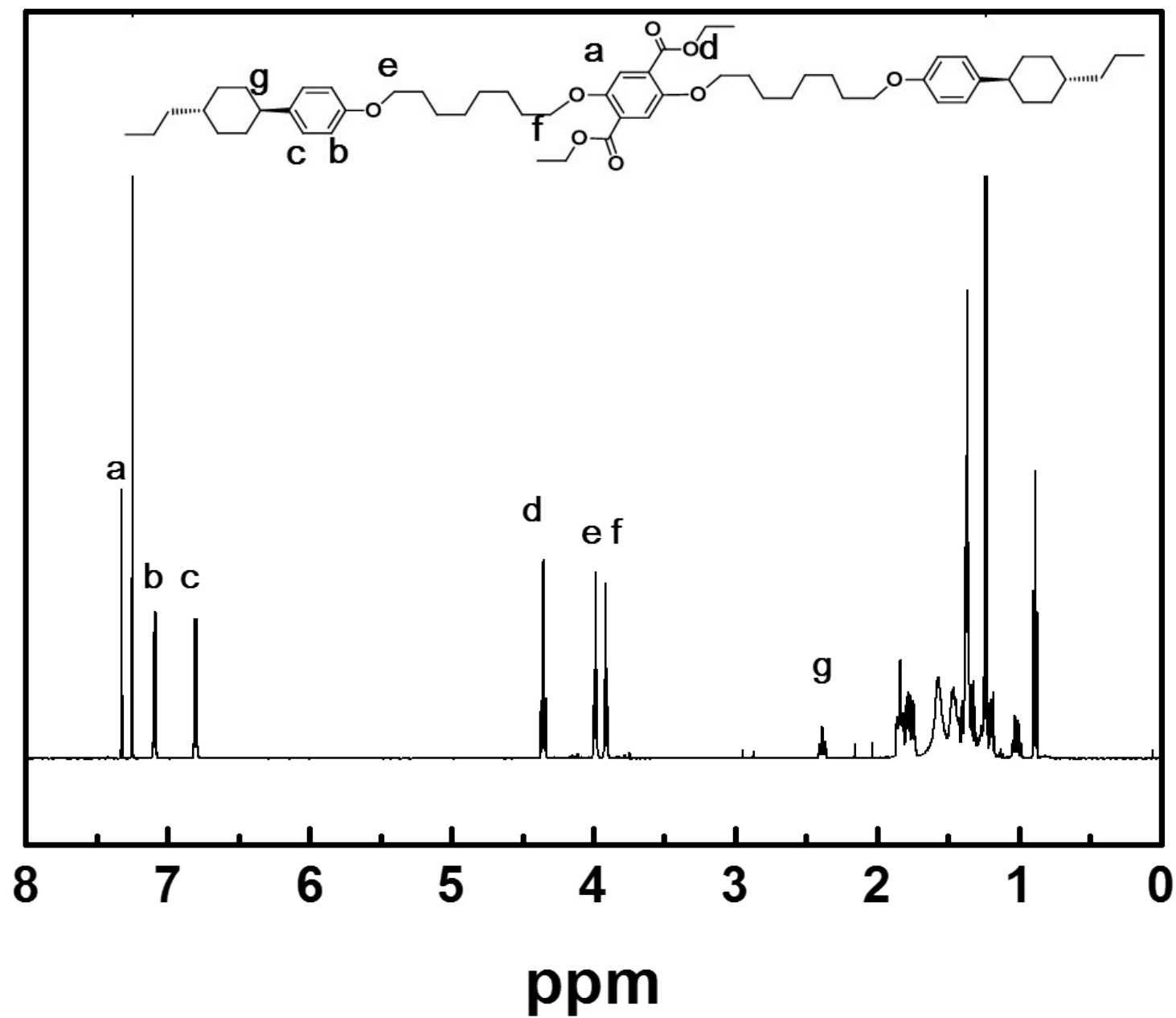
**Figure S3.** <sup>1</sup>H NMR spectra of DCP304



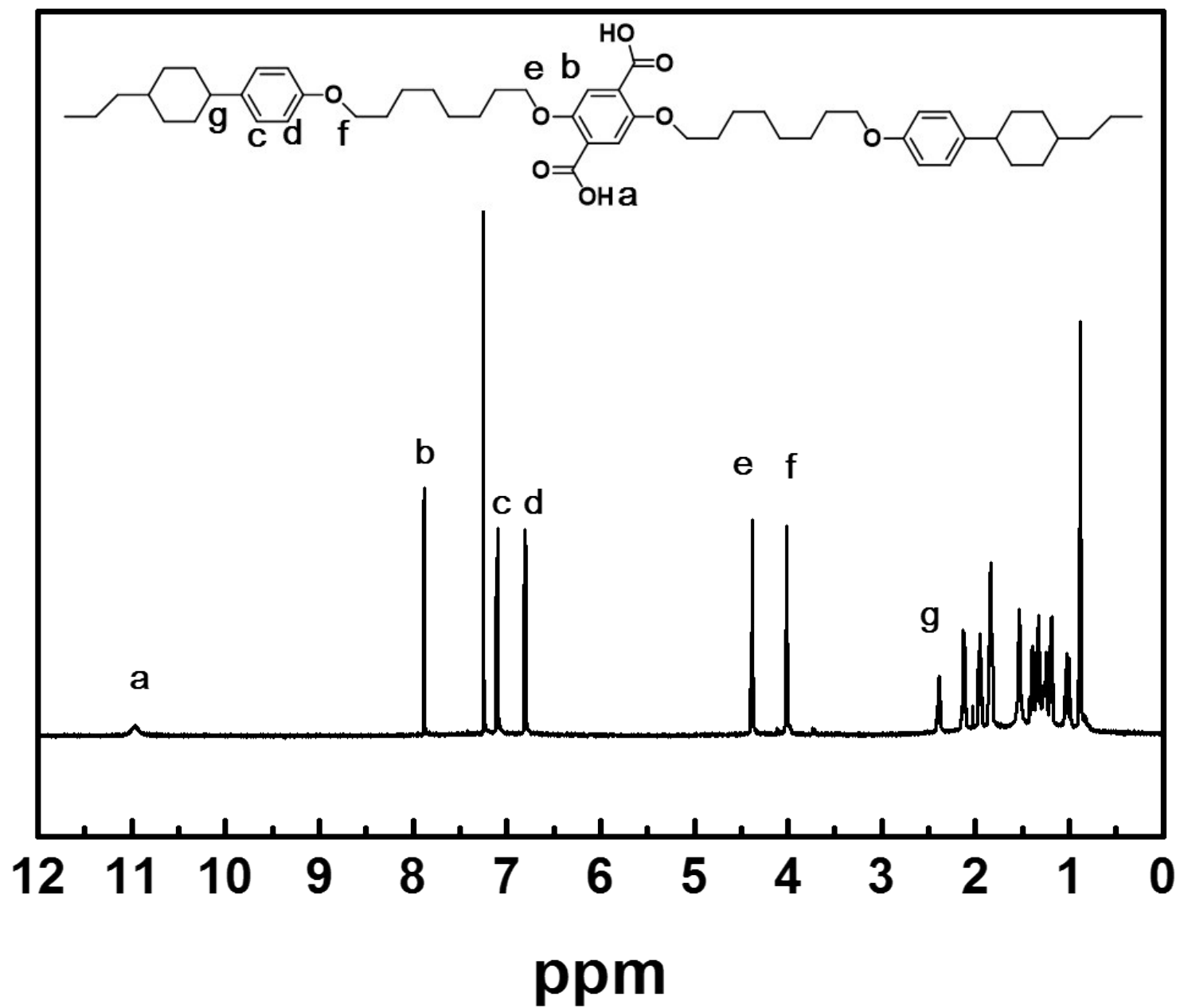
**Figure S4.** HNMR spectra of DGP304



**Figure S5.** <sup>1</sup>H NMR spectra of PCH308Br

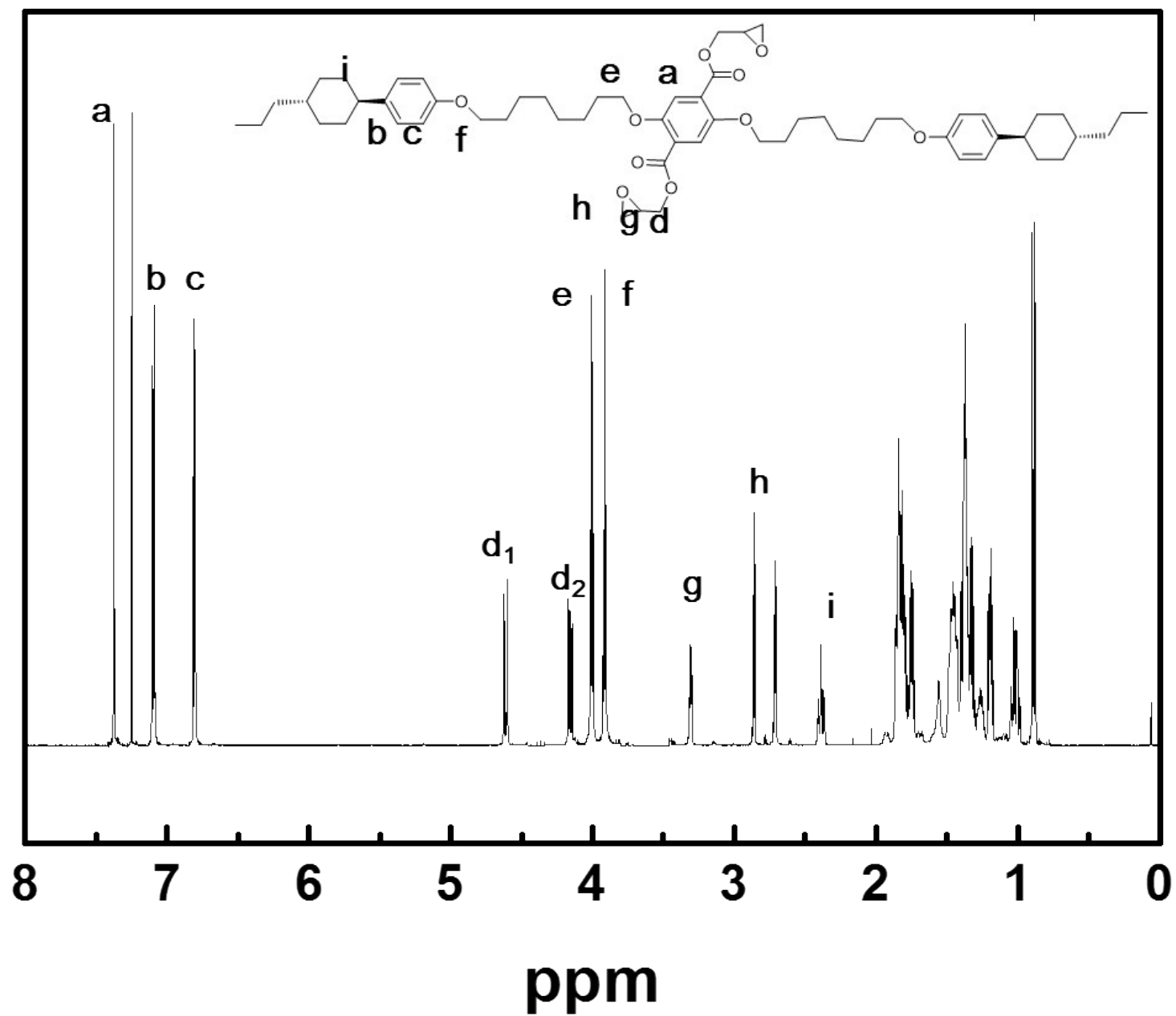


**Figure S5.** <sup>1</sup>H NMR spectra of DEP308

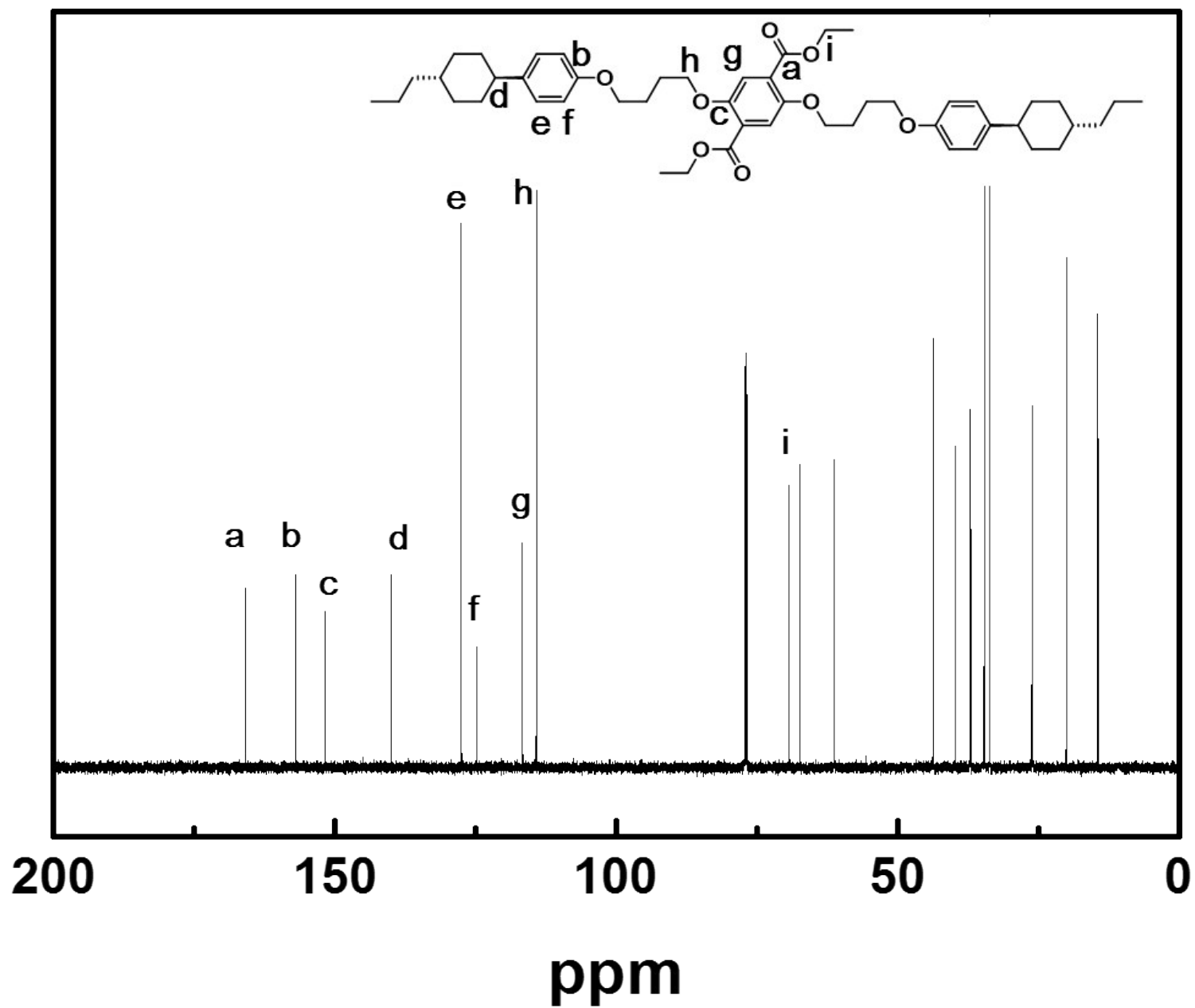


**Figure S6.** <sup>1</sup>H NMR spectra of DCP308

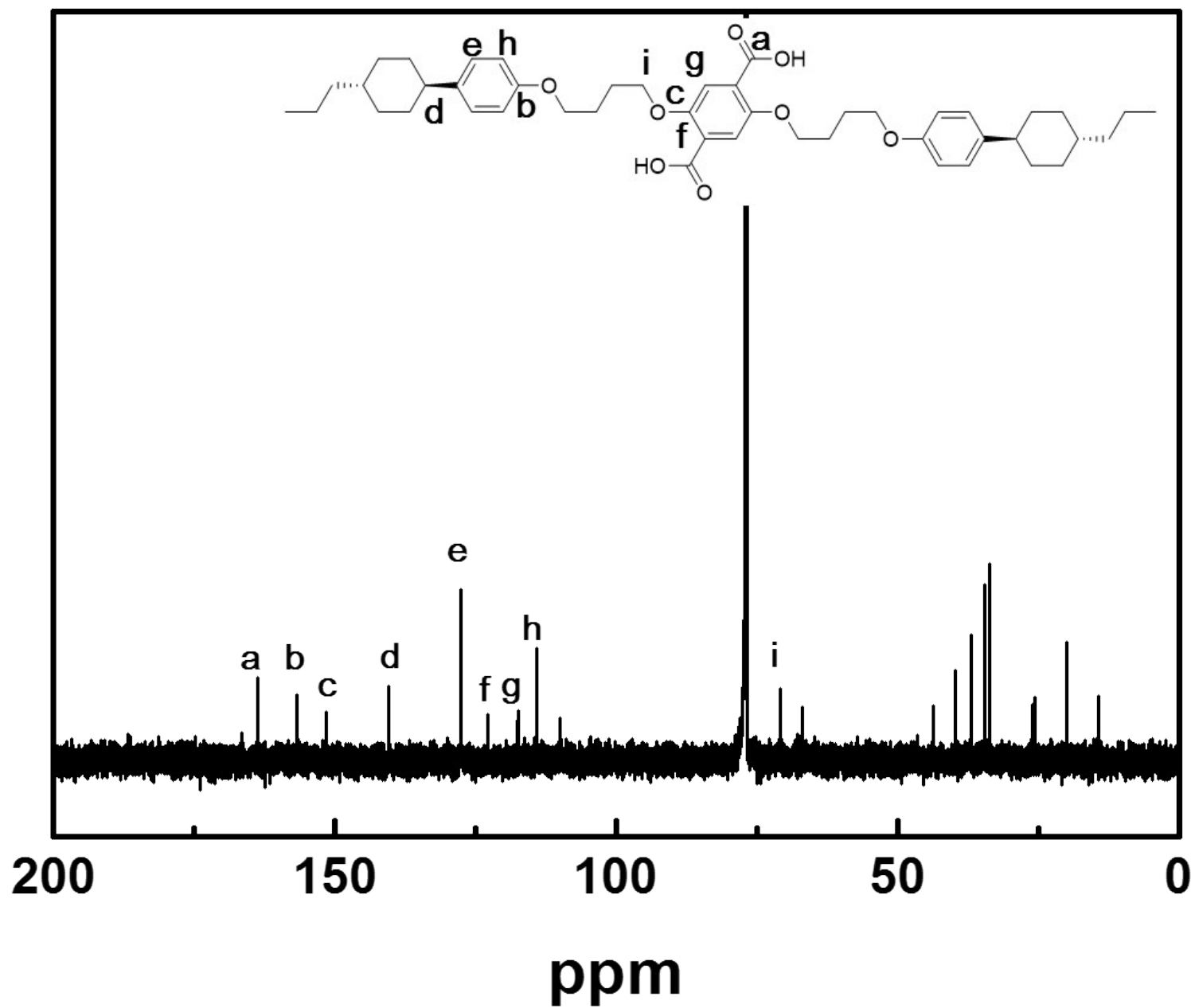




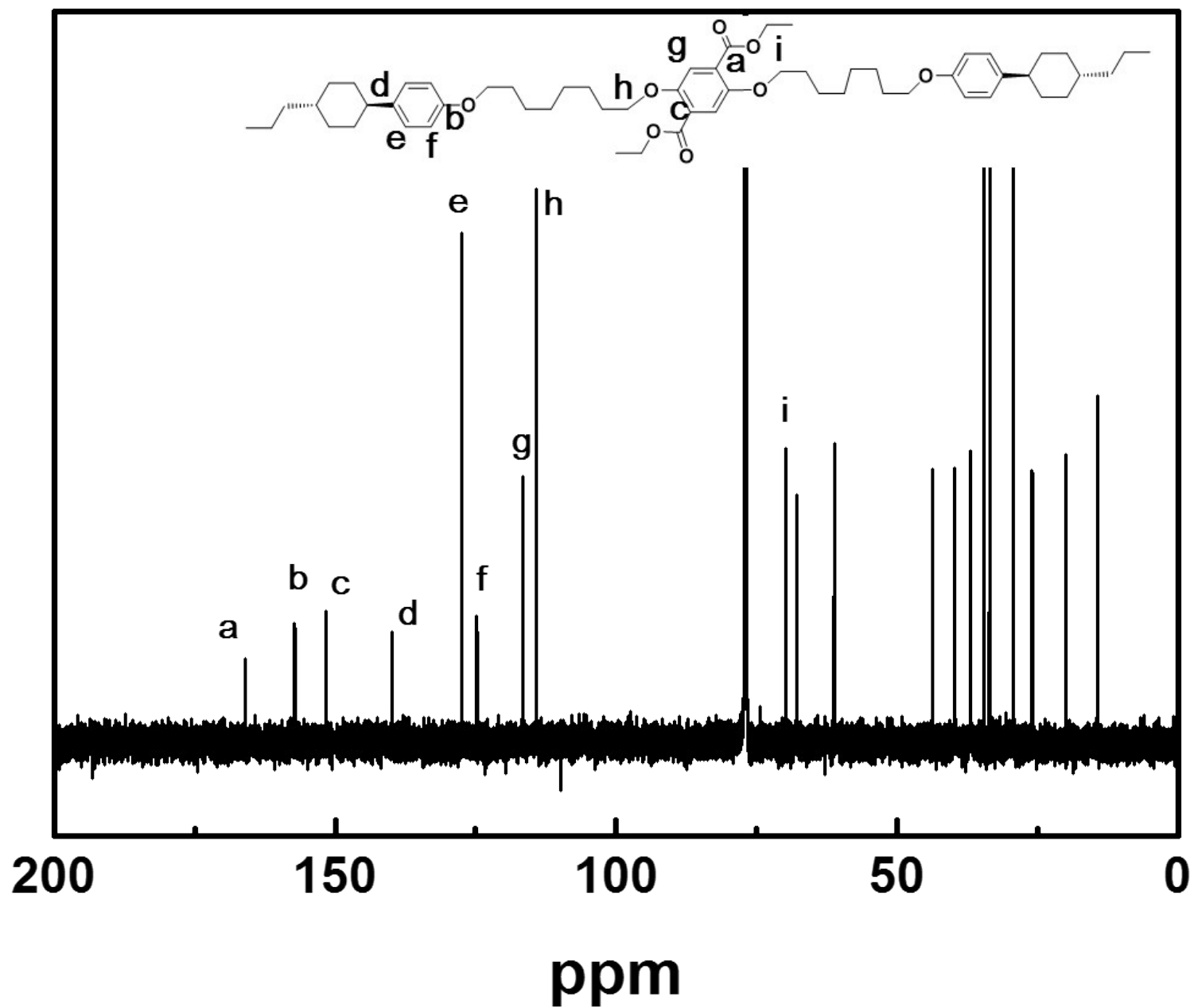
**Figure S7.** <sup>1</sup>H NMR spectra of DGP308



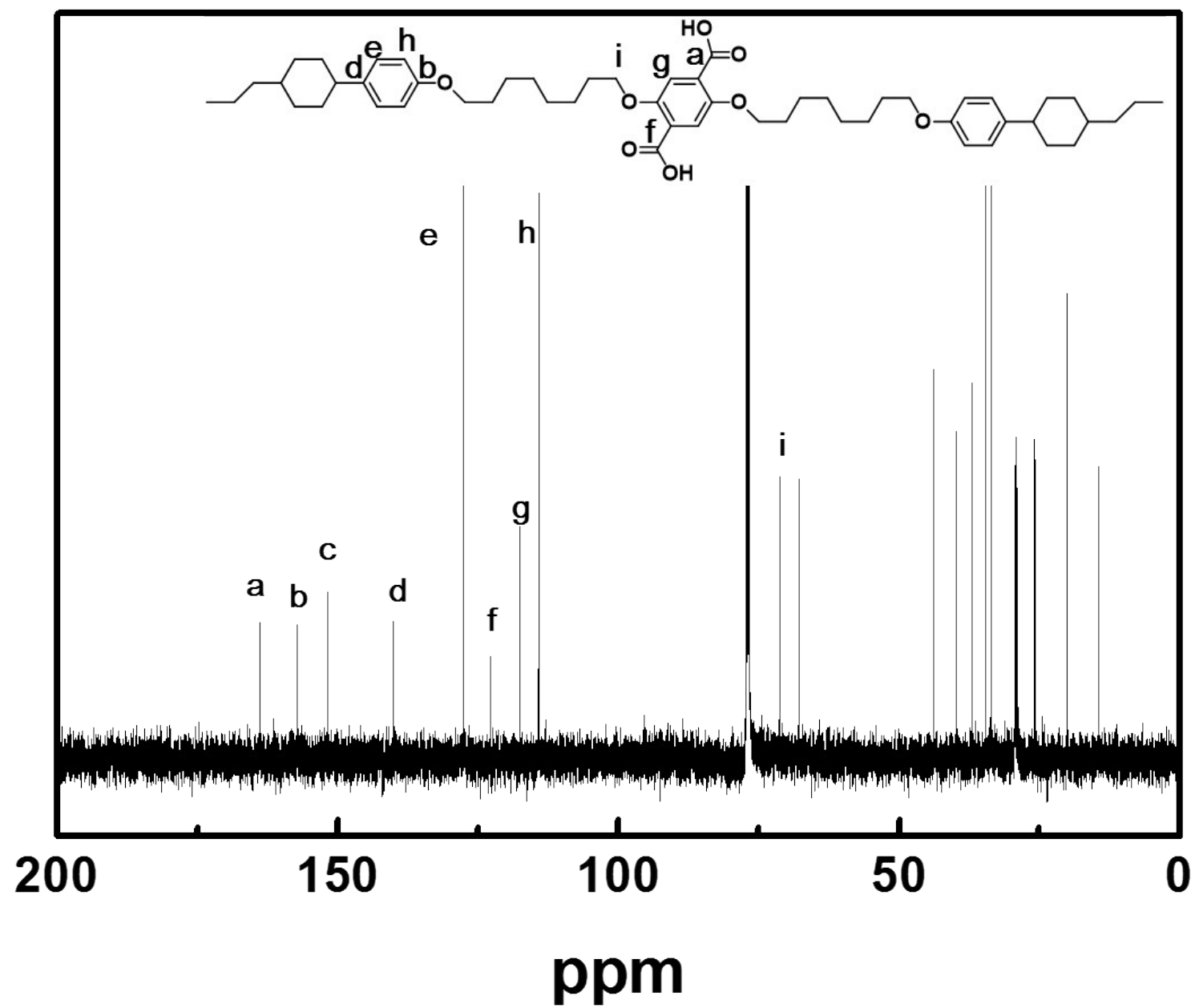
**Figure S8.** CNMR spectra of DEP308



**Figure S9.** CNMR spectra of DCP308



**Figure S10.** CNMR spectra of DEP308



**Figure**

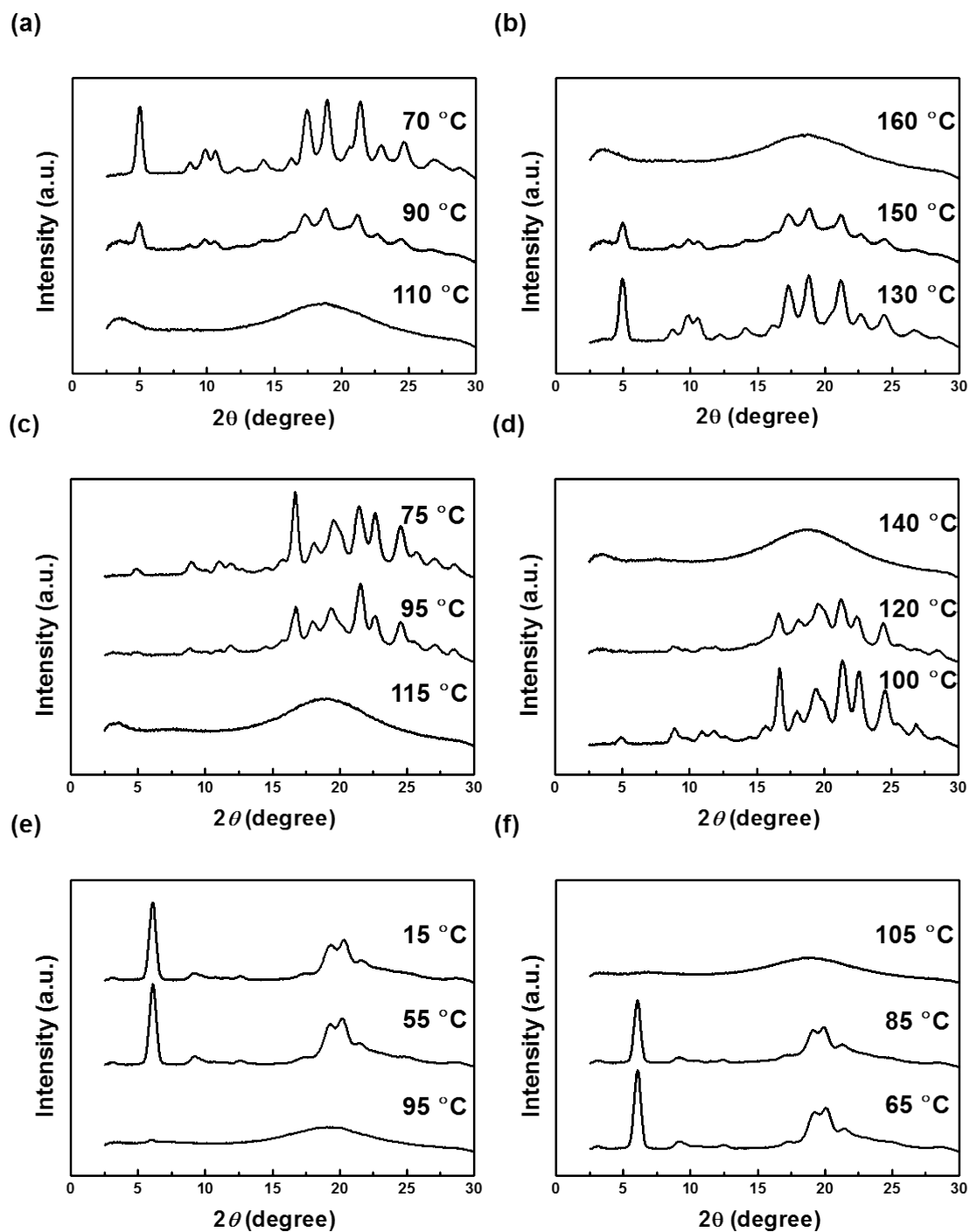
**S11.**

CNMR

spectra

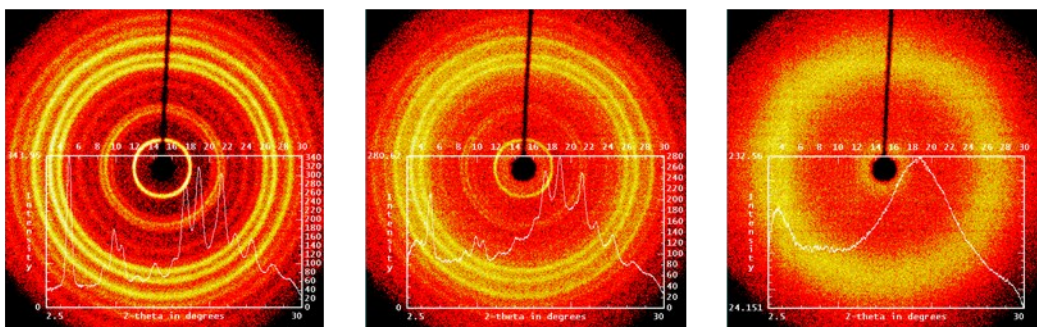
of

DCP308



**Figure S12.** XRD patterns of (a, b) DGP304, (c, d) DGP306, and (e, f) DGP308 in the 1st cooling scan (a, c, e) and 2nd heating scan (b, d, f).

(a)

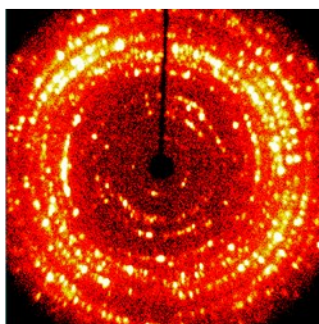


(b)

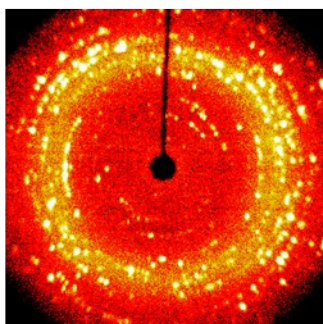
Crystal (138 °C)

Smectic A (154 °C)

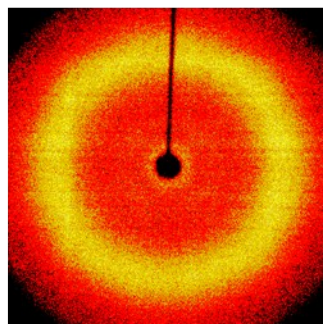
Isotropic (158 °C)



Crystal (100 °C)

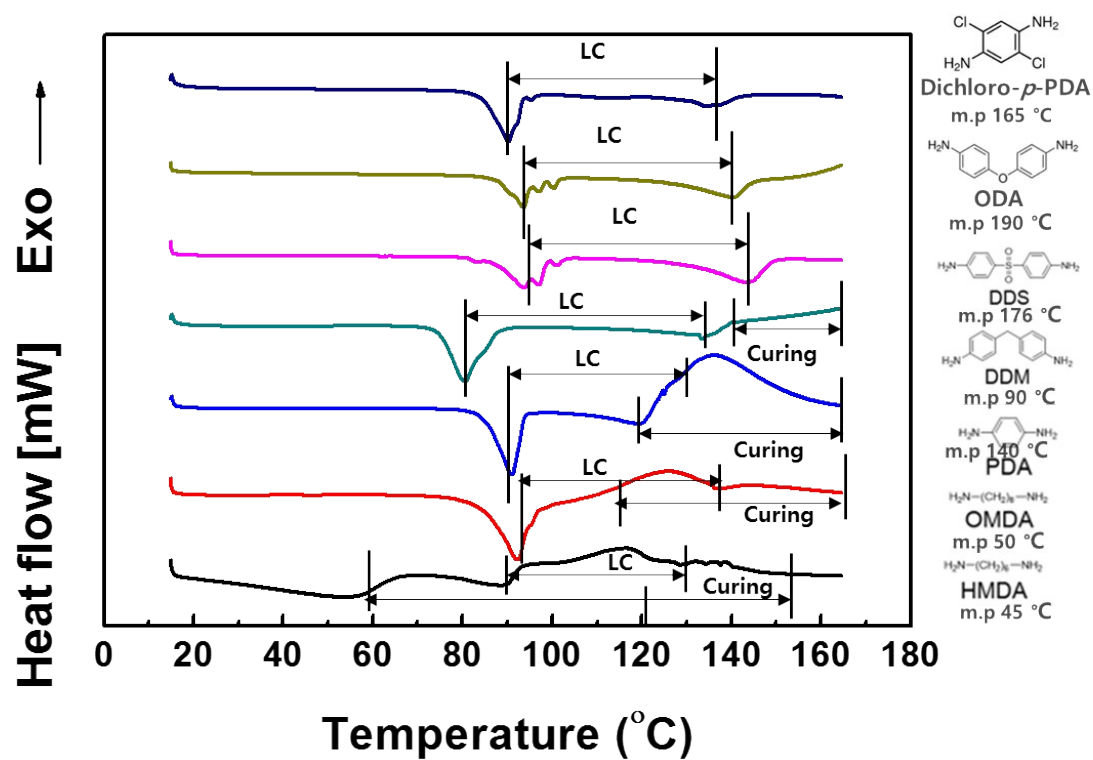


Smectic (120 °C)



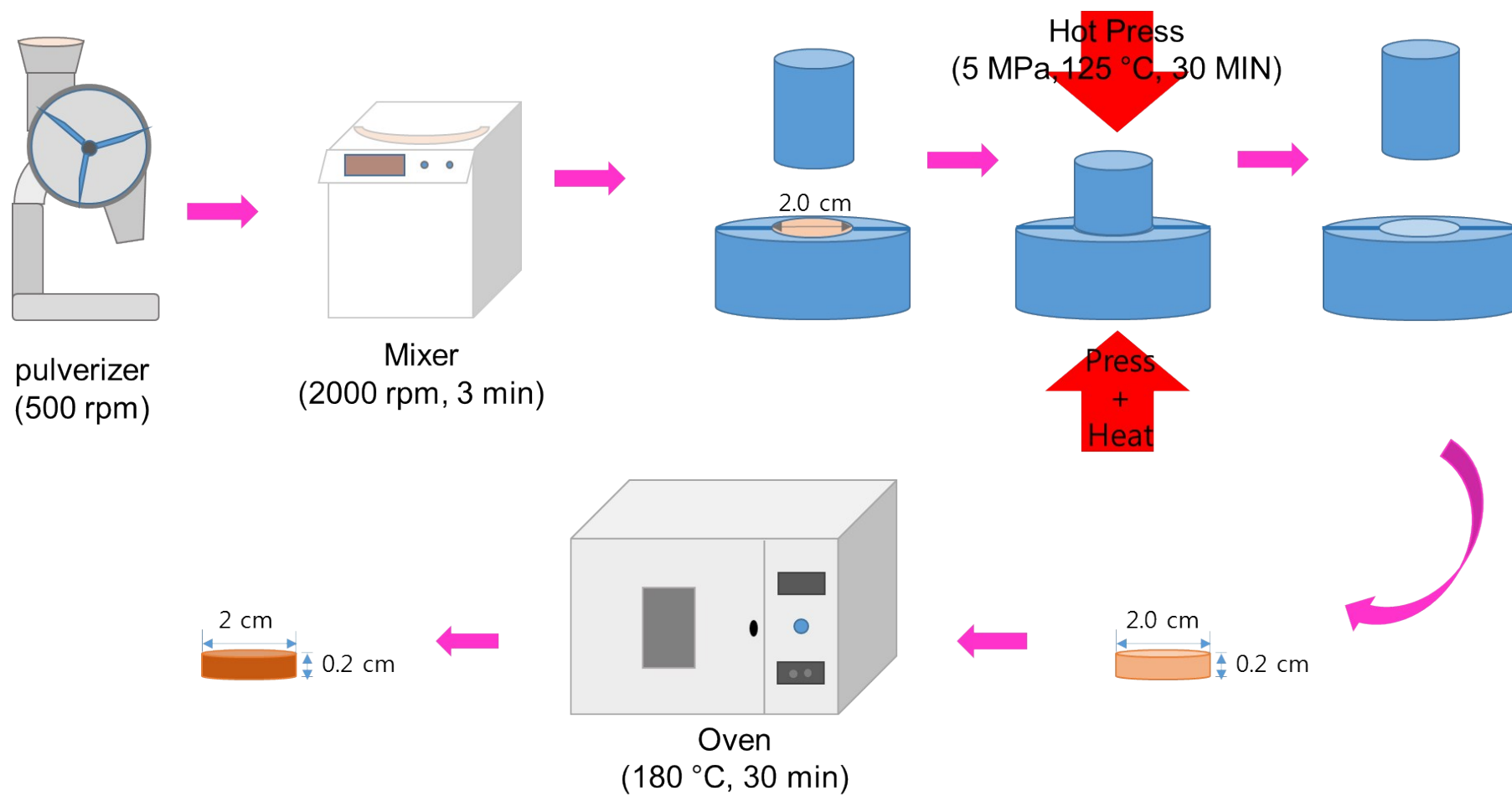
Isotropic (130 °C)

**Figure S13.** 2DXRD patterns of DGP30X epoxy (a) DGP304, (b) DGP306



**Figure S14.** DSC thermograms for mixtures of System 2 and curing agents in the 1st heating scan





**Figure S15.** Procedure of sample of System 2/PDA by using hot-press