

## Supplementary Materials

# Sustainable aromatic aliphatic polyesters and polyurethanes prepared from vanillin-derived diols via green catalysis

Changbo Zhao<sup>1</sup>, Caijuan Huang<sup>1\*</sup>, Qin Chen<sup>1</sup>, Ian D. V. Ingram<sup>2</sup>, Xiankui Zeng<sup>1</sup>, Tianhua Ren<sup>1</sup>, Haibo Xie<sup>1\*</sup>

<sup>1</sup> Department of Polymer Materials &Engineering, College of Materials & Metallurgy, Guizhou University, West Campus, Huaxi District, Guiyang, China; [zcb565782908@163.com](mailto:zcb565782908@163.com) (C.Z.); [460831749@qq.com](mailto:460831749@qq.com) (C.H.); [qchen6@gzu.edu.cn](mailto:qchen6@gzu.edu.cn) (Q.C.); [I.Ingram@mmu.ac.uk](mailto:I.Ingram@mmu.ac.uk) (I.I.); [xk\\_kkkkk@163.com](mailto:xk_kkkkk@163.com) (X.Z.); [thren96@outlook.com](mailto:thren96@outlook.com) (T.R.)

<sup>2</sup> Department of Natural Sciences, Manchester Metropolitan University, Chester Street, Manchester, M1 5DG

\* Correspondence: [cjhuang98@163.com](mailto:cjhuang98@163.com) (C.H.); [hbxie@gzu.edu.cn](mailto:hbxie@gzu.edu.cn); Tel.: +86-851-83627806 (H.X.)

### SFigures

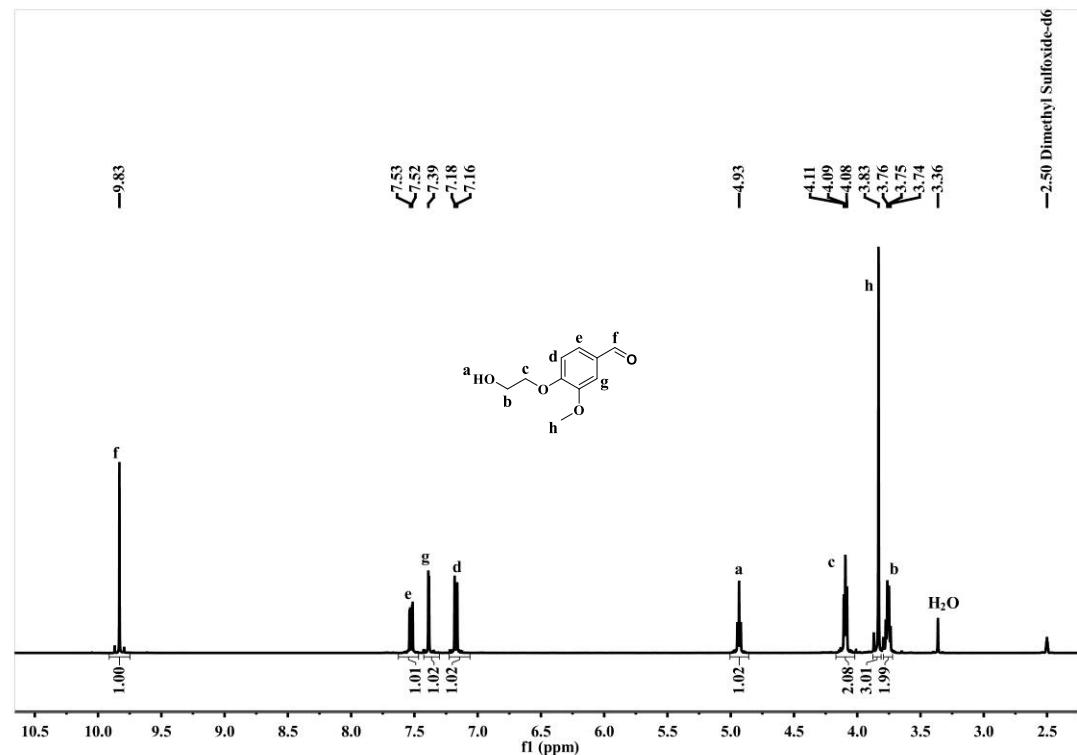
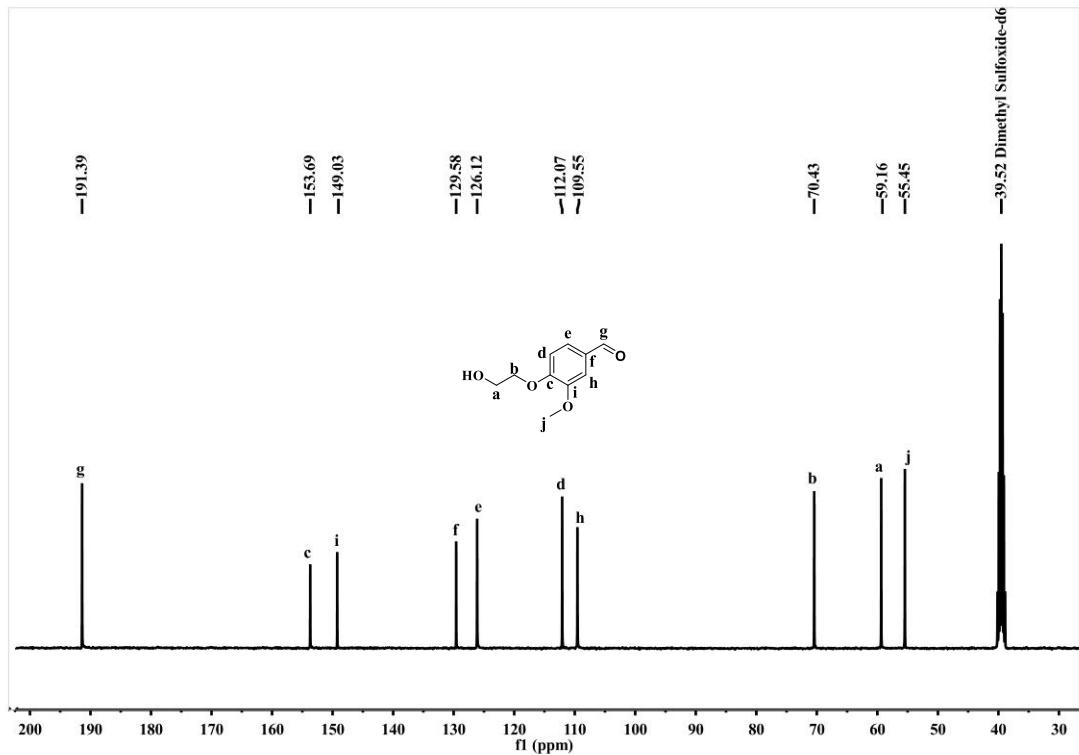
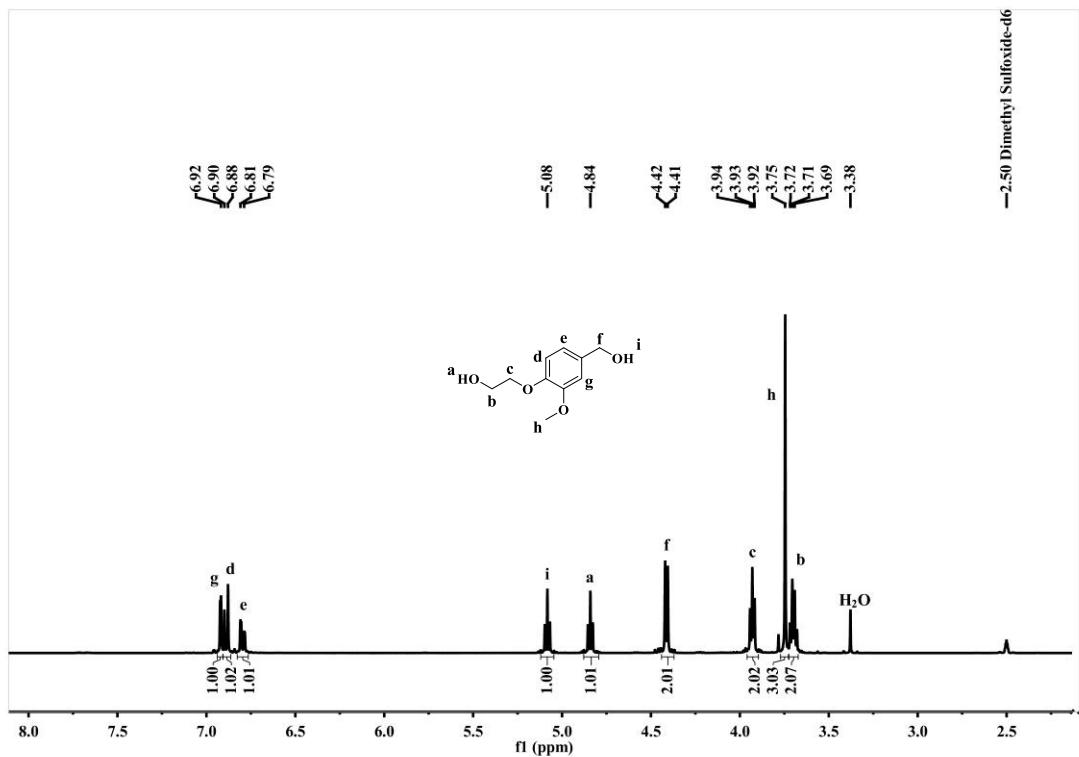


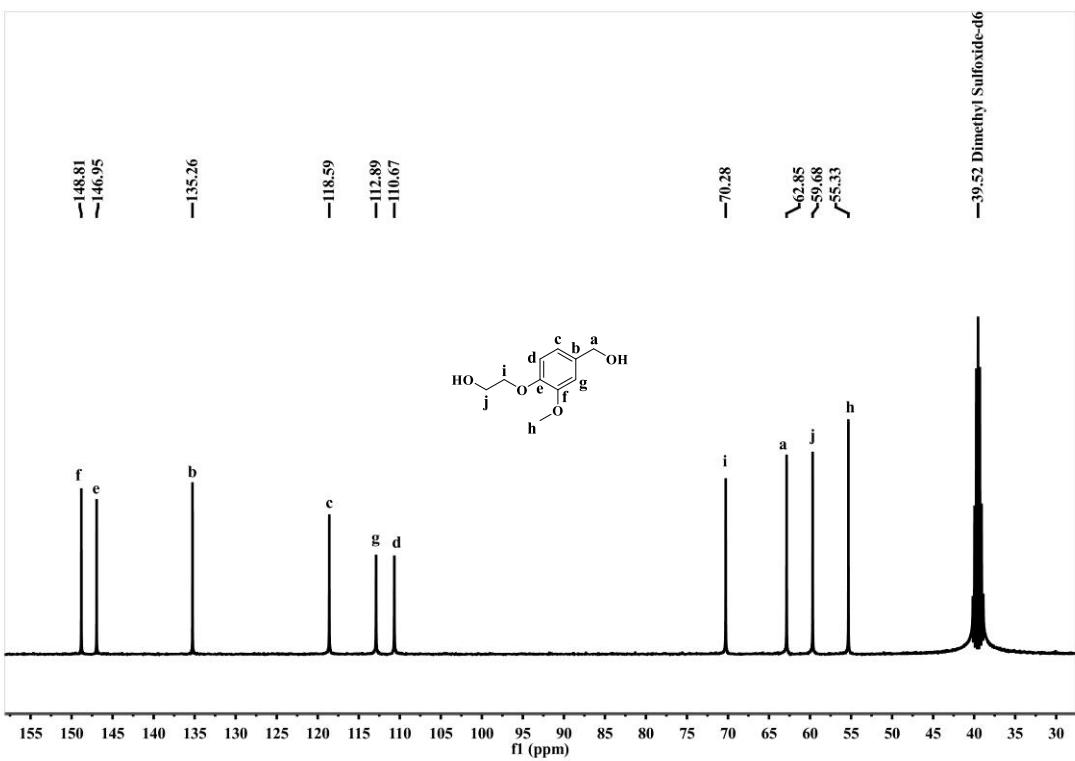
Figure S 1. <sup>1</sup>H NMR spectrum of HMBD.



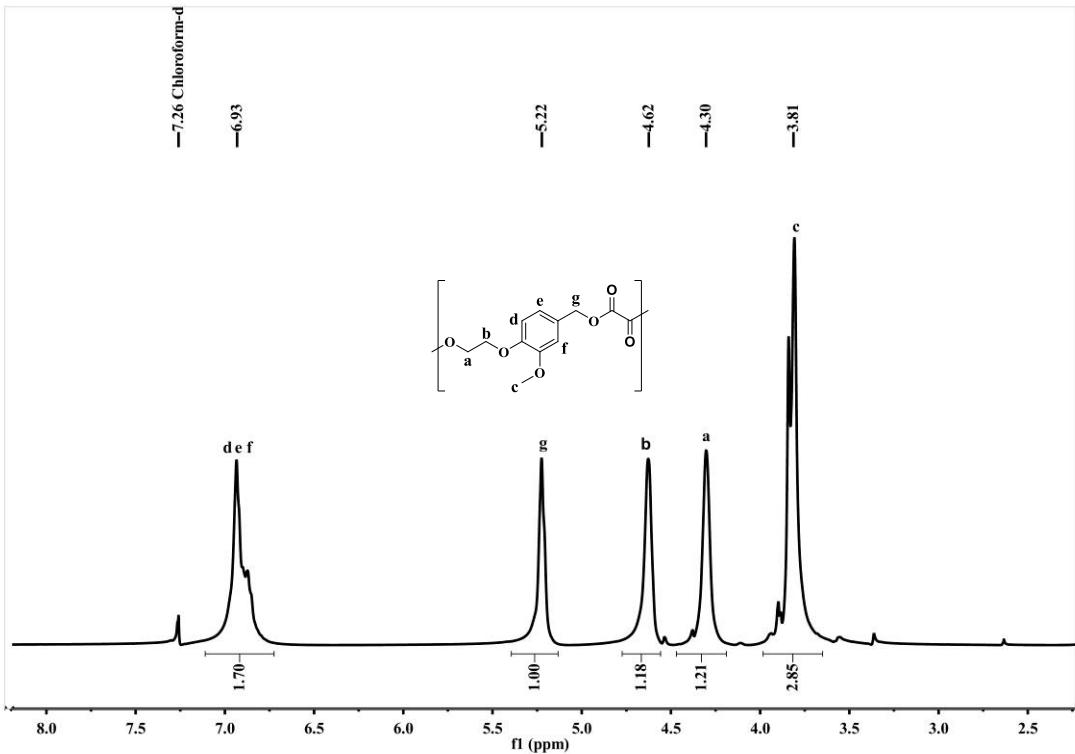
**Figure S 2.**  $^{13}\text{C}$  NMR spectrum of HMBD.



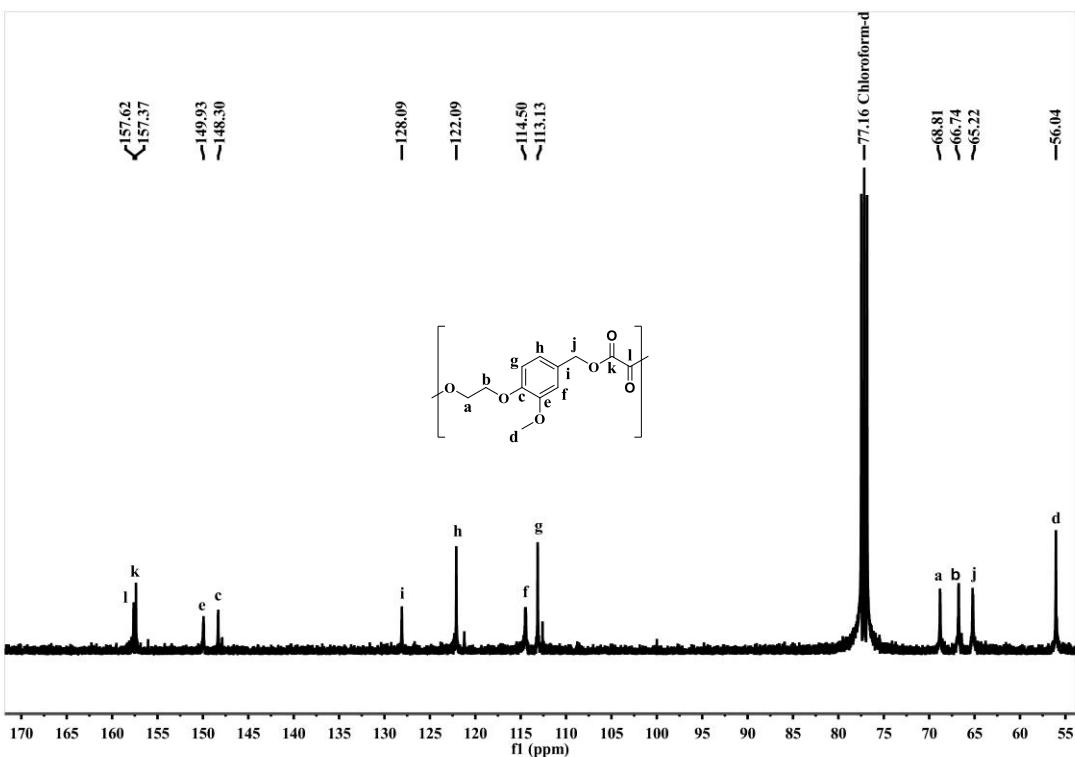
**Figure S 3.**  $^1\text{H}$  NMR spectrum of HMEO.



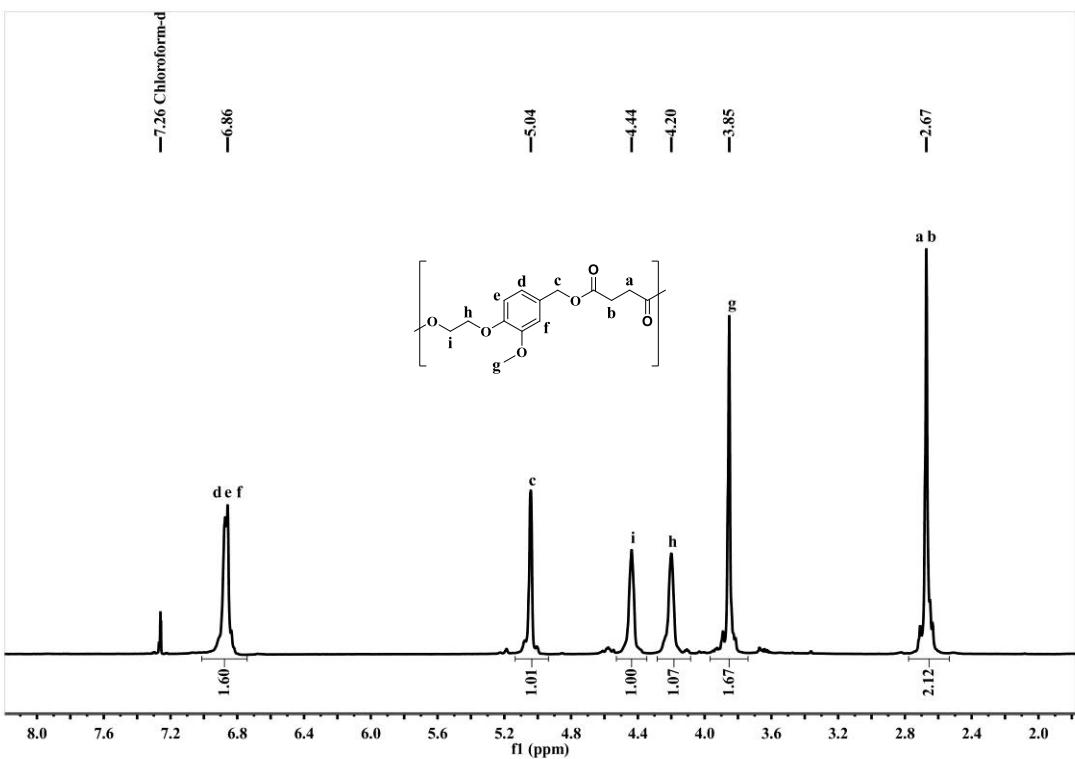
**Figure S 4.**  $^{13}\text{C}$  NMR spectrum of HMOE.



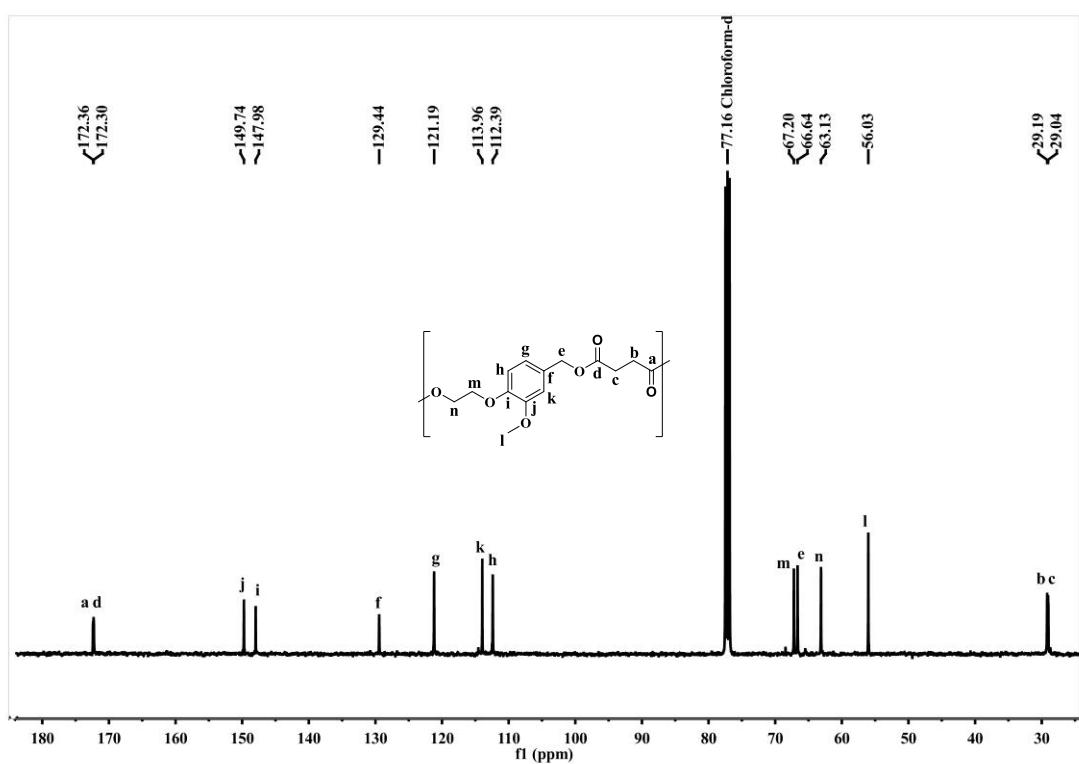
**Figure S 5.**  $^1\text{H}$  NMR spectrum of PE-1.



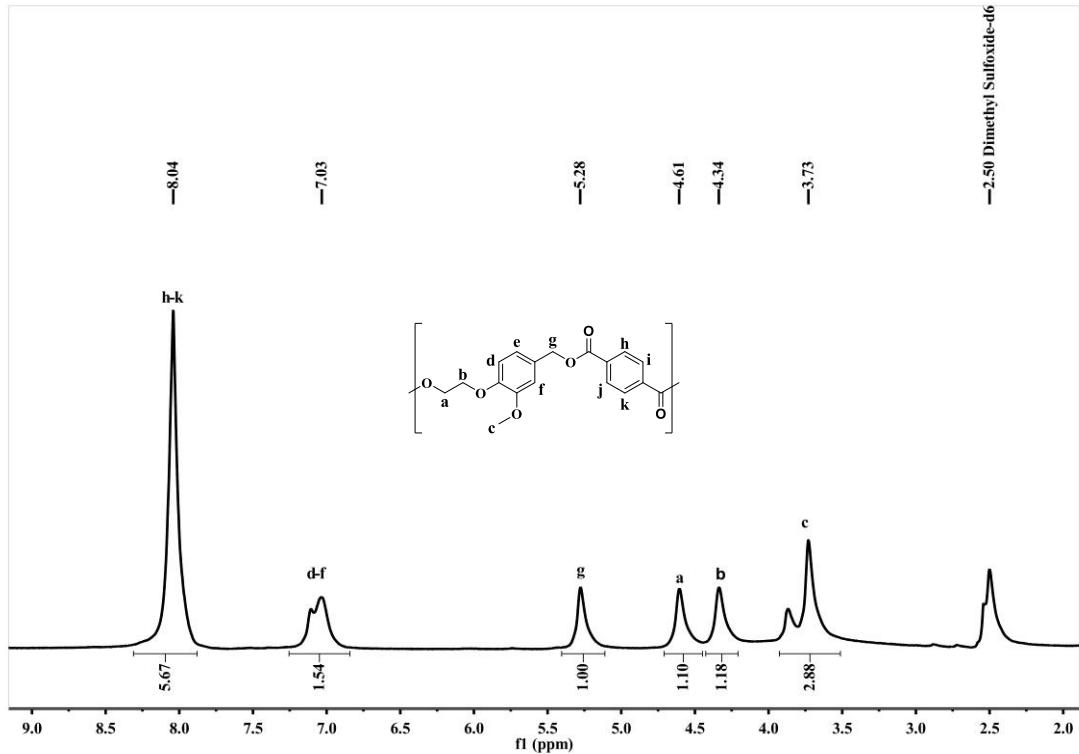
**Figure S 6.**  $^{13}\text{C}$  NMR spectrum of PE-1.



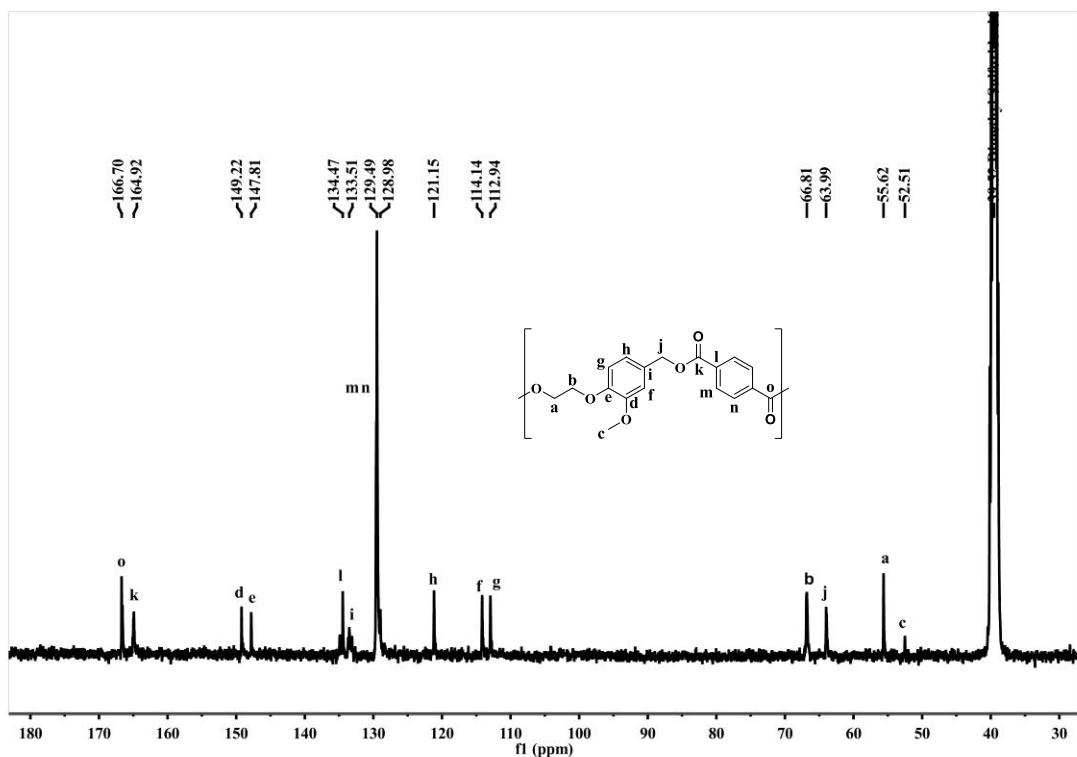
**Figure S 7.**  $^1\text{H}$  NMR spectrum of PE-2.



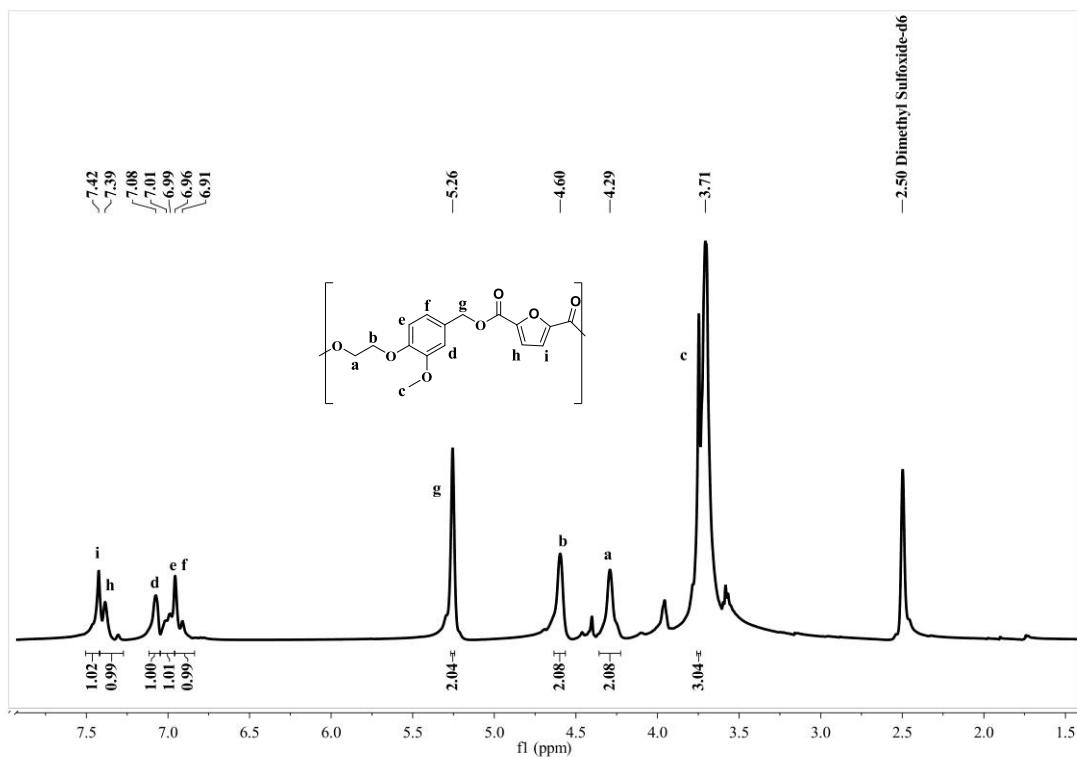
**Figure S 8.**  $^{13}\text{C}$  NMR spectrum of PE-2.



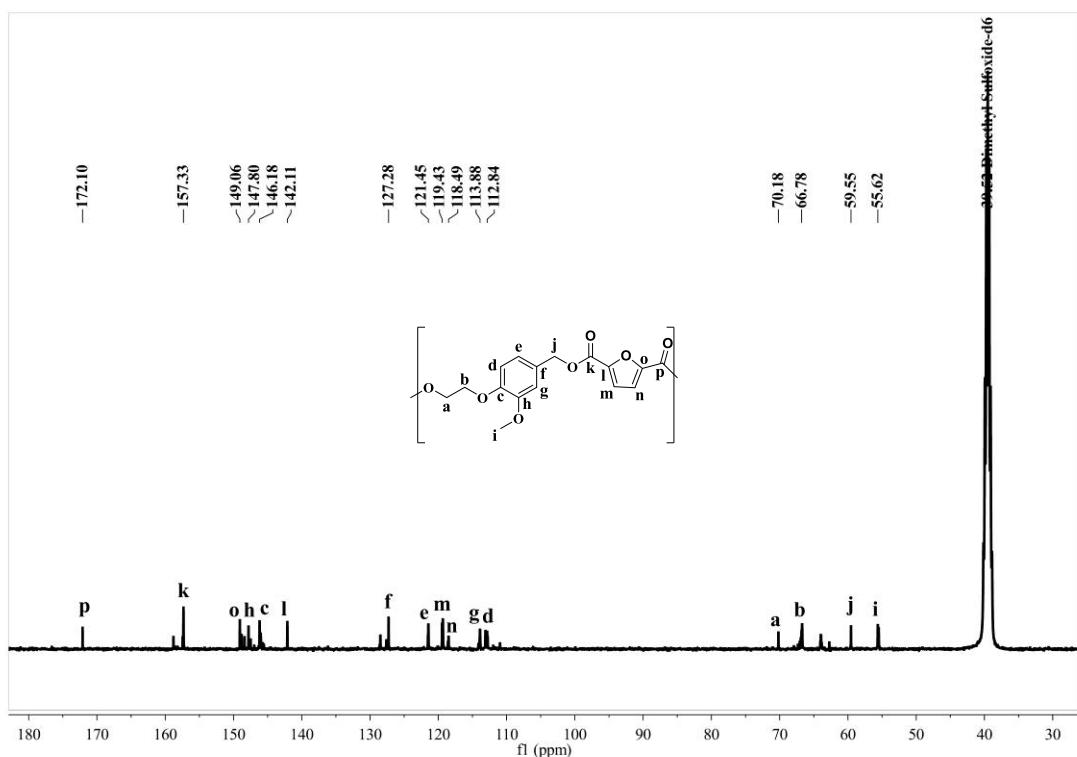
**Figure S 9.**  $^1\text{H}$  NMR spectrum of PE-3.



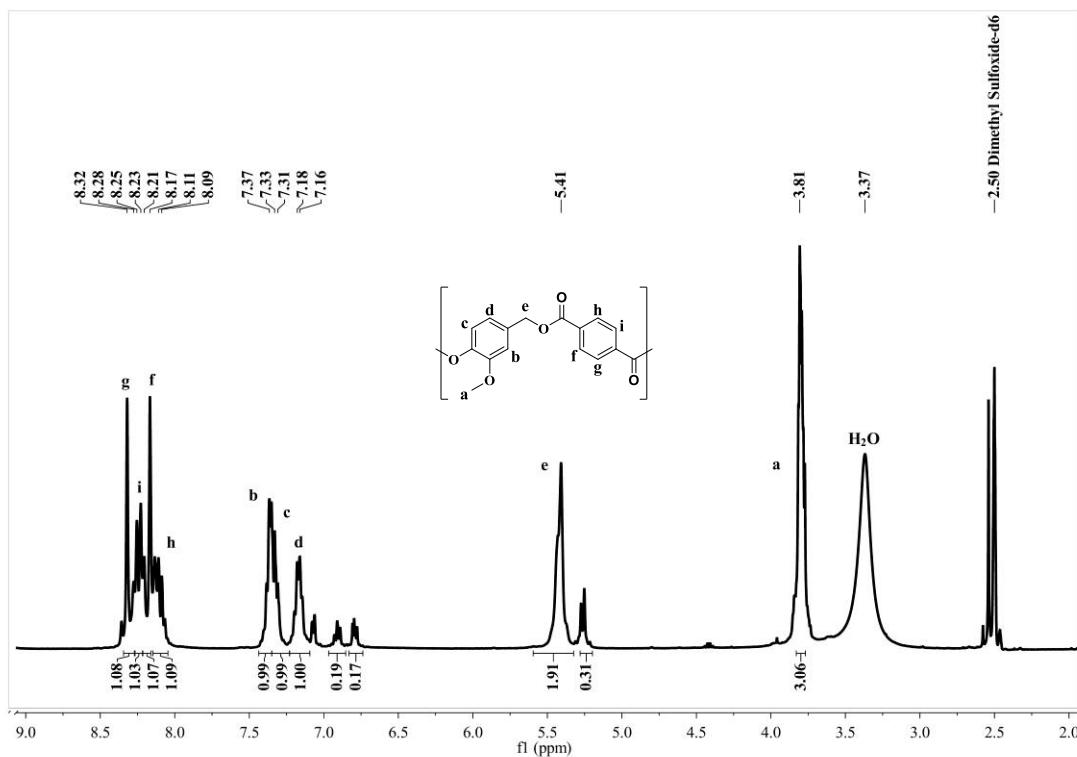
**Figure S 10.**  $^{13}\text{C}$  NMR spectrum of PE-3.



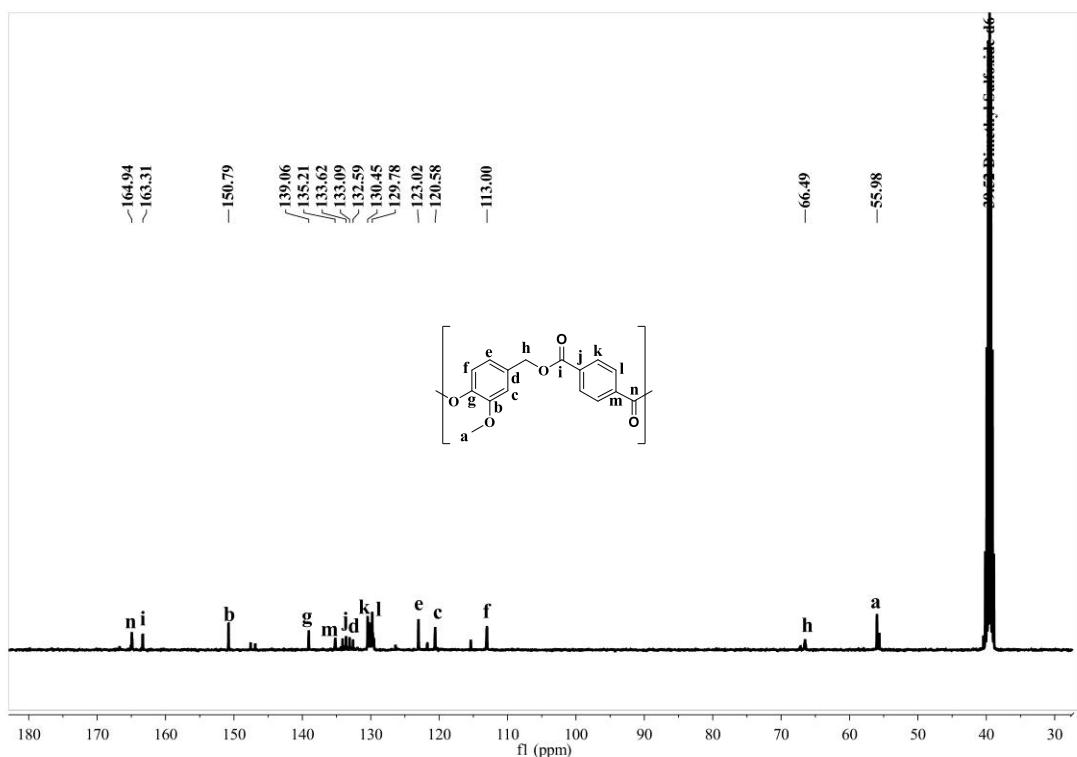
**Figure S 11.**  $^1\text{H}$  NMR spectrum of PE-4.



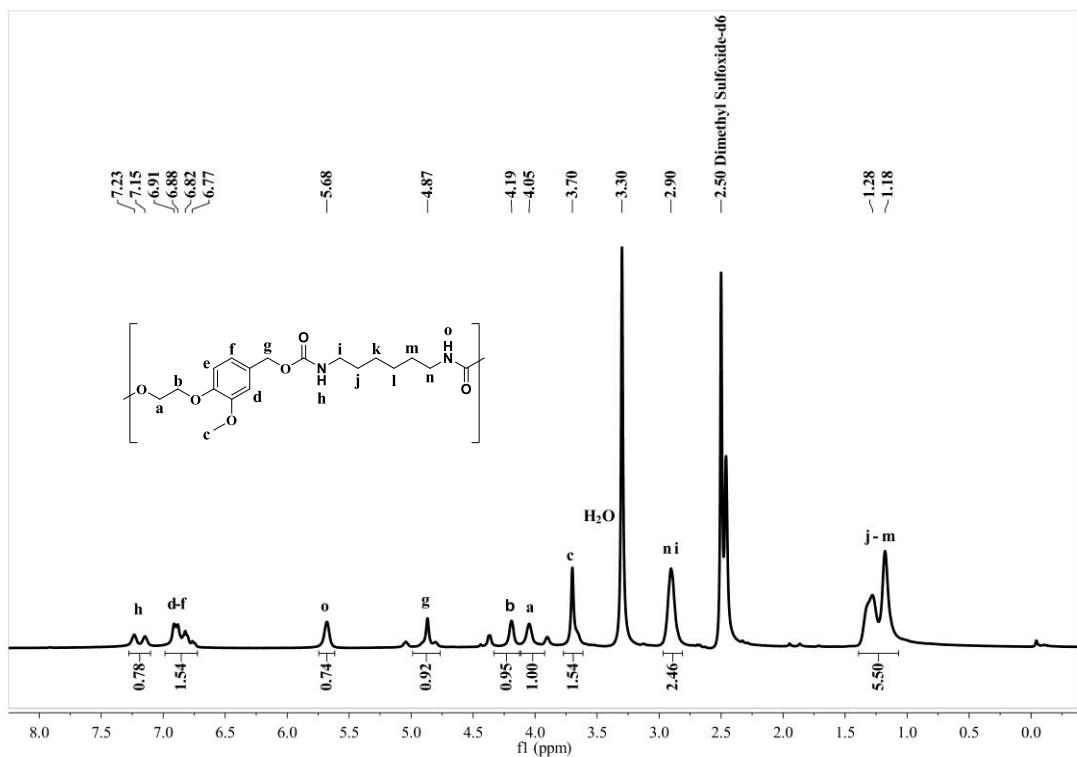
**Figure S 12.**  $^{13}\text{C}$  NMR spectrum of PE-4.



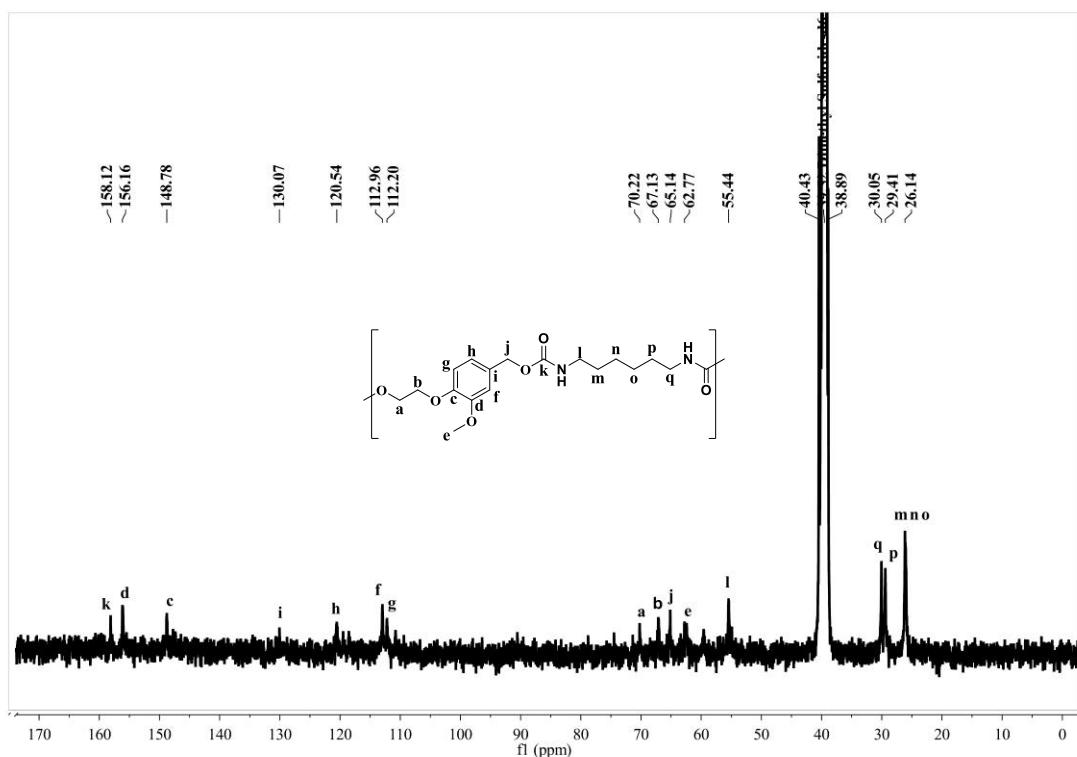
**Figure S 13.**  $^1\text{H}$  NMR spectrum of PE-5.



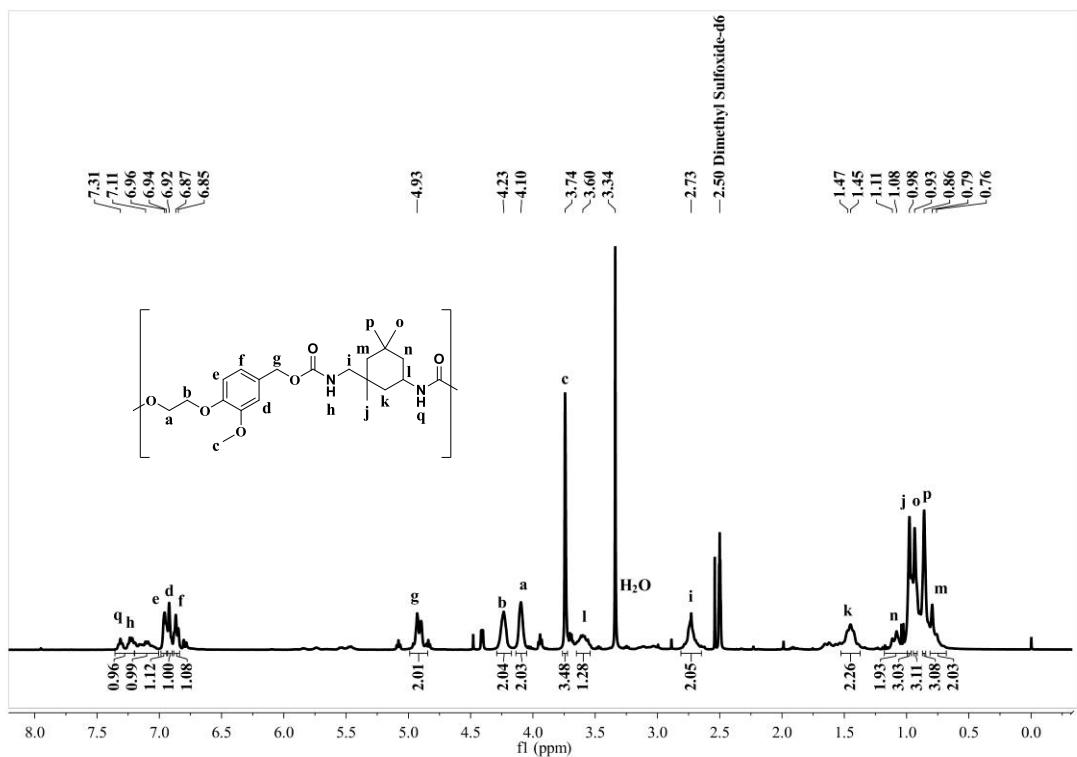
**Figure S 14.**  $^{13}\text{C}$  NMR spectrum of PE-5.



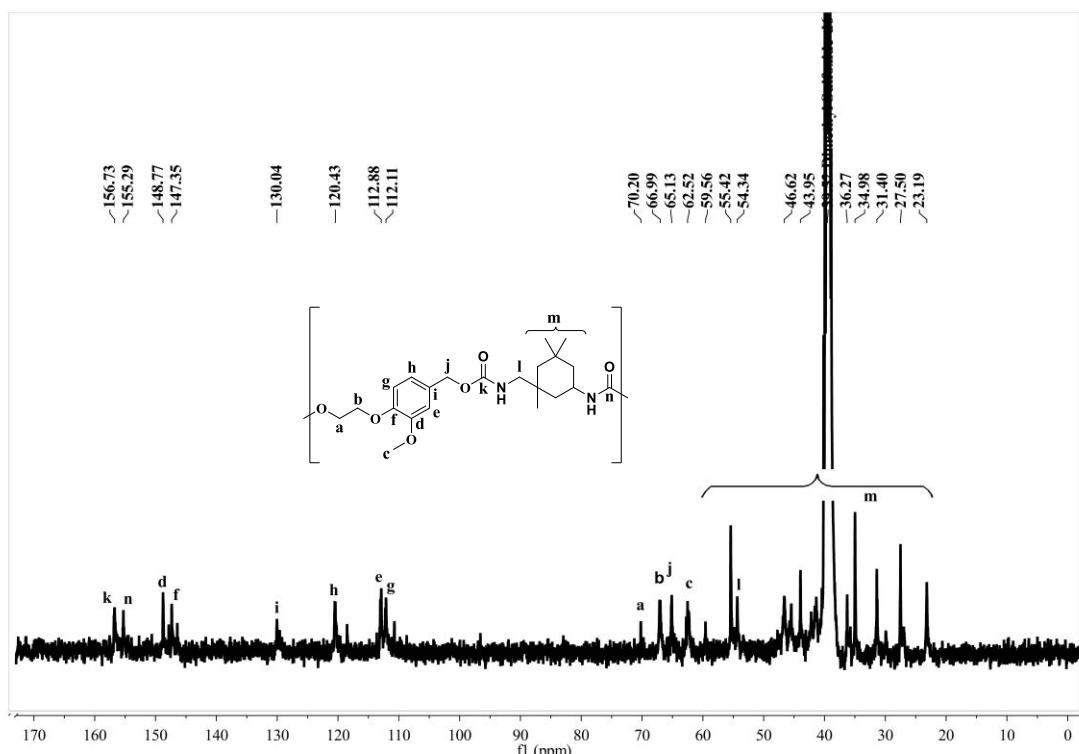
**Figure S 15.**  $^1\text{H}$  NMR spectrum of PU-1.



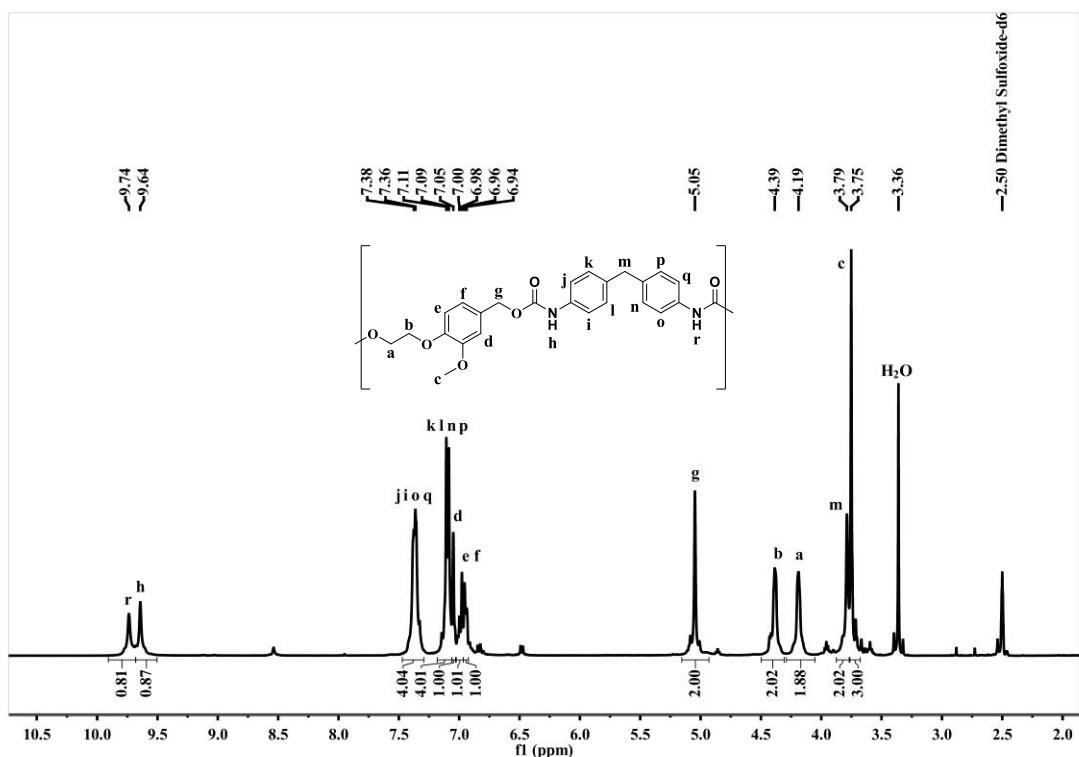
**Figure S 16.**  $^{13}\text{C}$  NMR spectrum of PU-1.



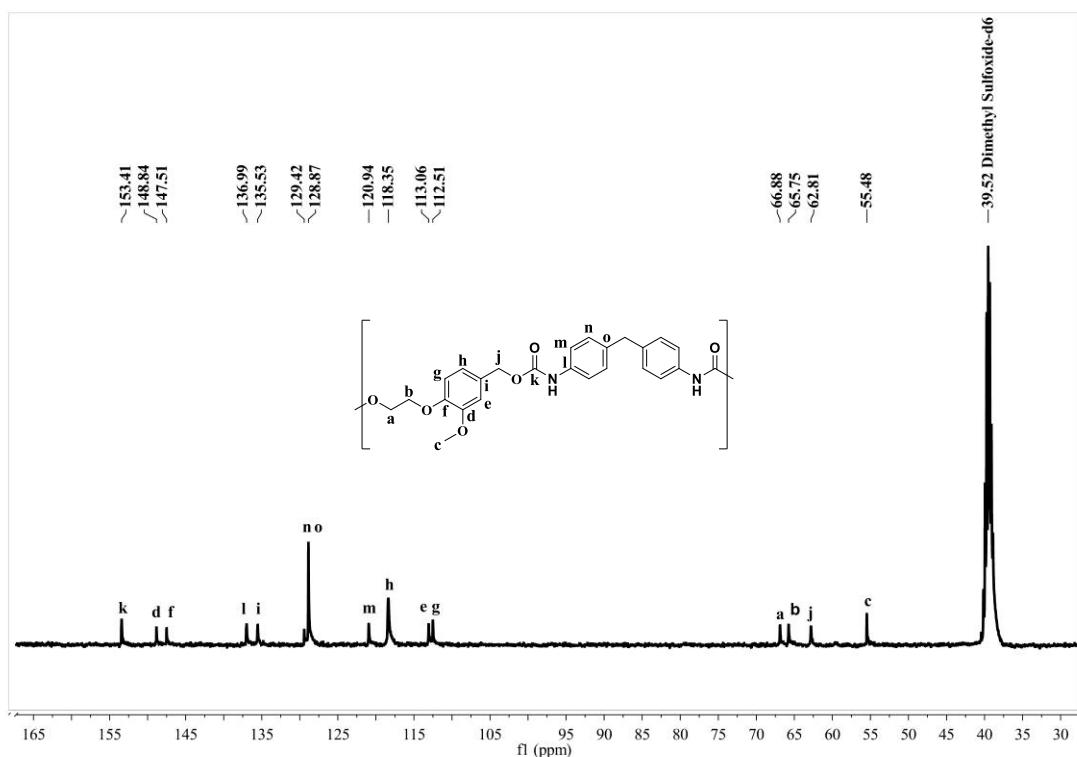
**Figure S 17.**  $^1\text{H}$  NMR spectrum of PU-2.



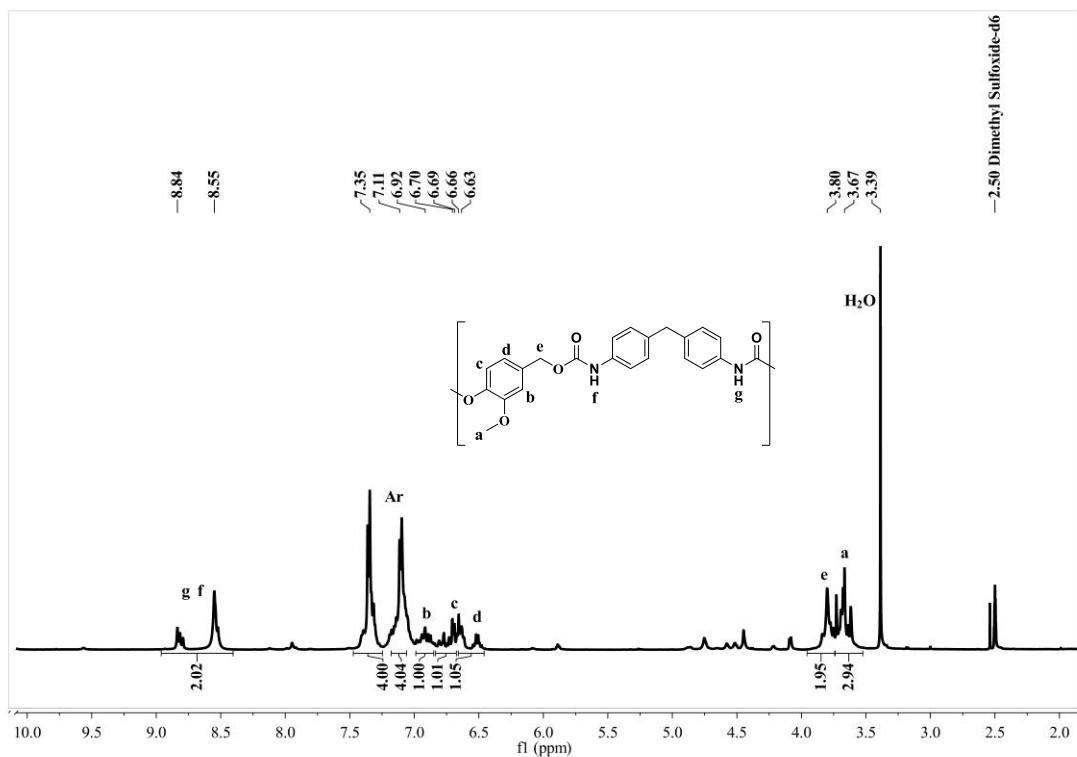
**Figure S 18.**  $^{13}\text{C}$  NMR spectrum of PU-2.



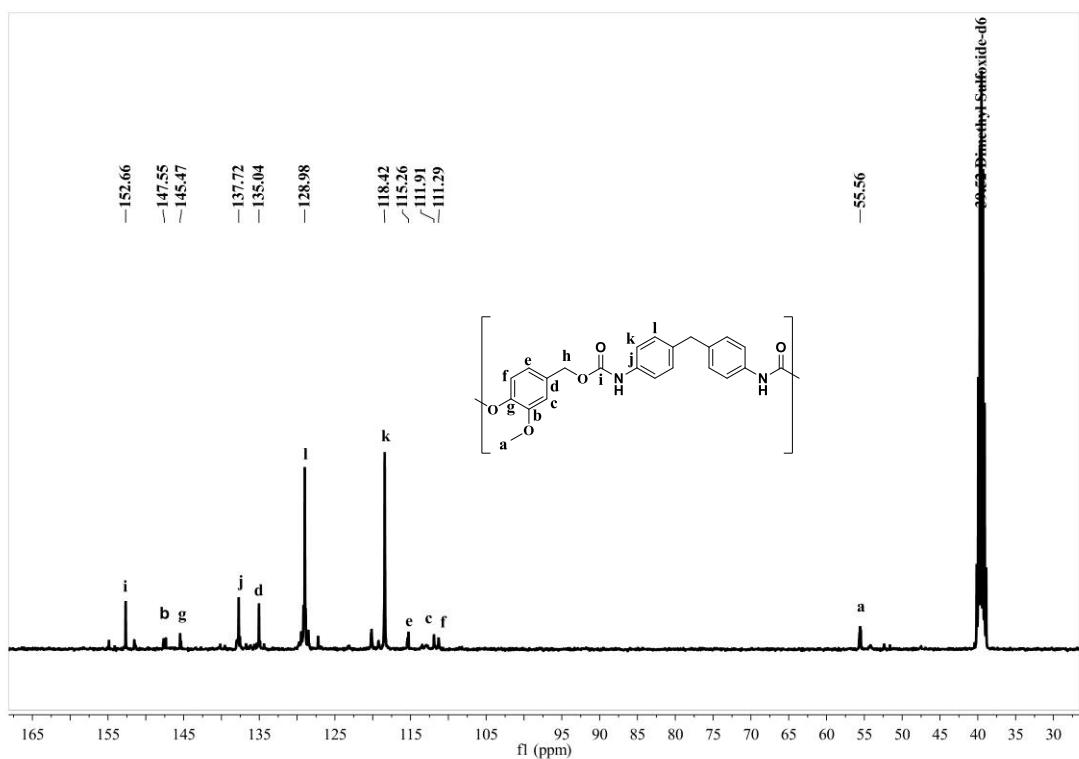
**Figure S 19.**  $^1\text{H}$  NMR spectrum of PU-3.



**Figure S 20.**  $^{13}\text{C}$  NMR spectrum of PU-3.



**Figure S 21.**  $^1\text{H}$  NMR spectrum of PU-4.



**Figure S 22.**  $^{13}\text{C}$  NMR spectrum of PU-4.