

Backbone vs. side-chain: Two light-degradable polyurethanes based on 6-nitropiperonal

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Supporting Information

Experimental Section

Spectra

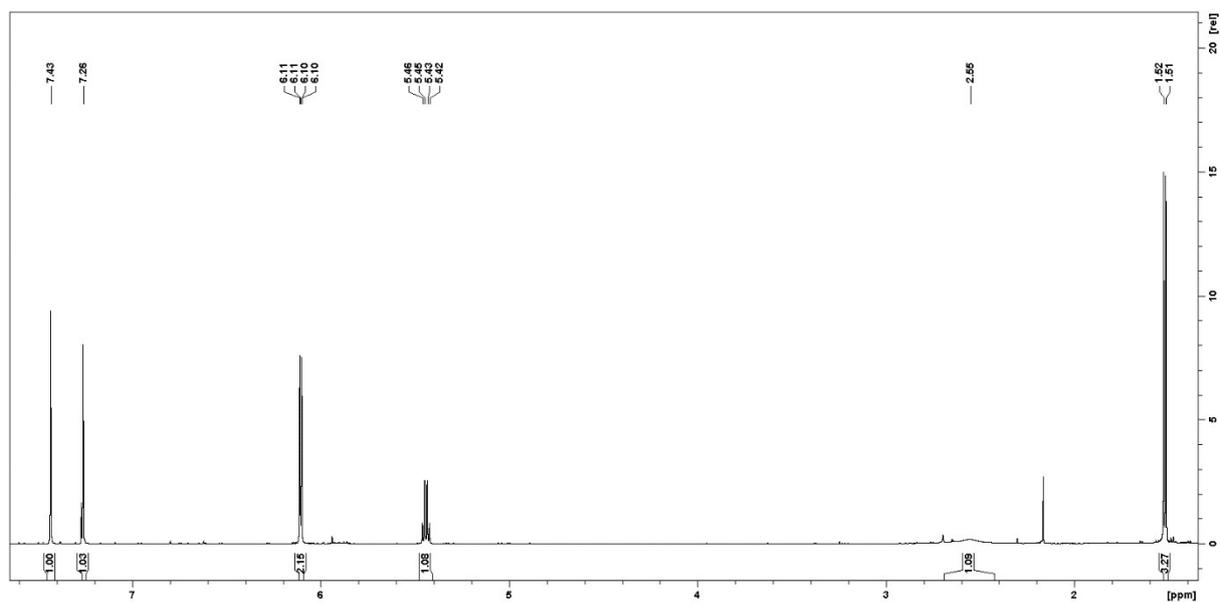


Fig. S1: ¹H NMR spectra of **1**.

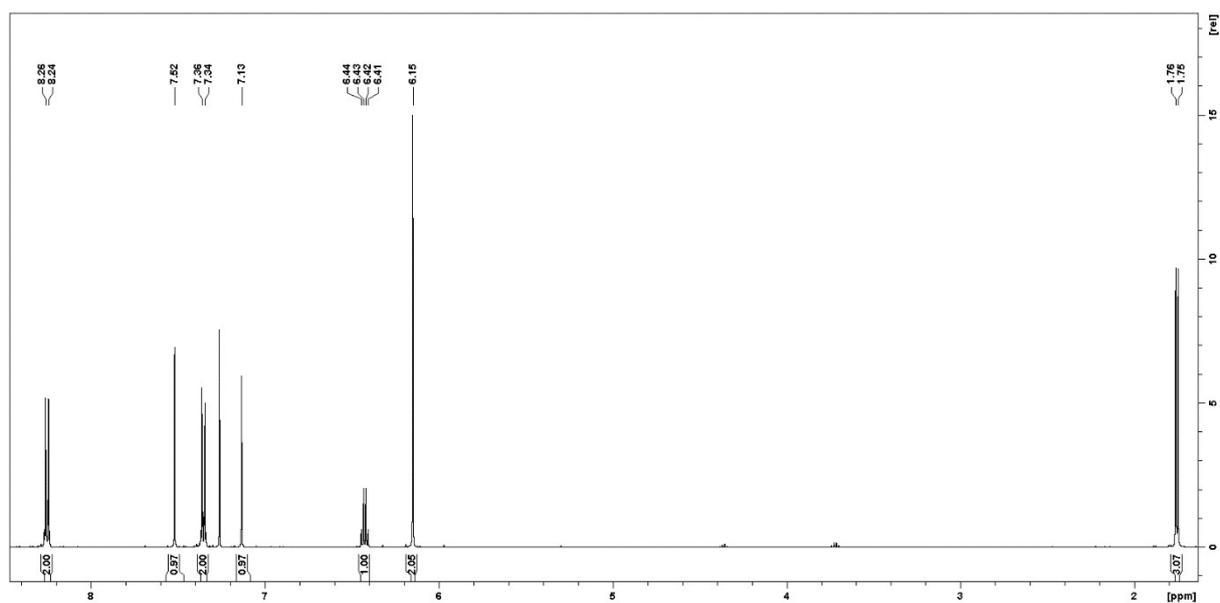
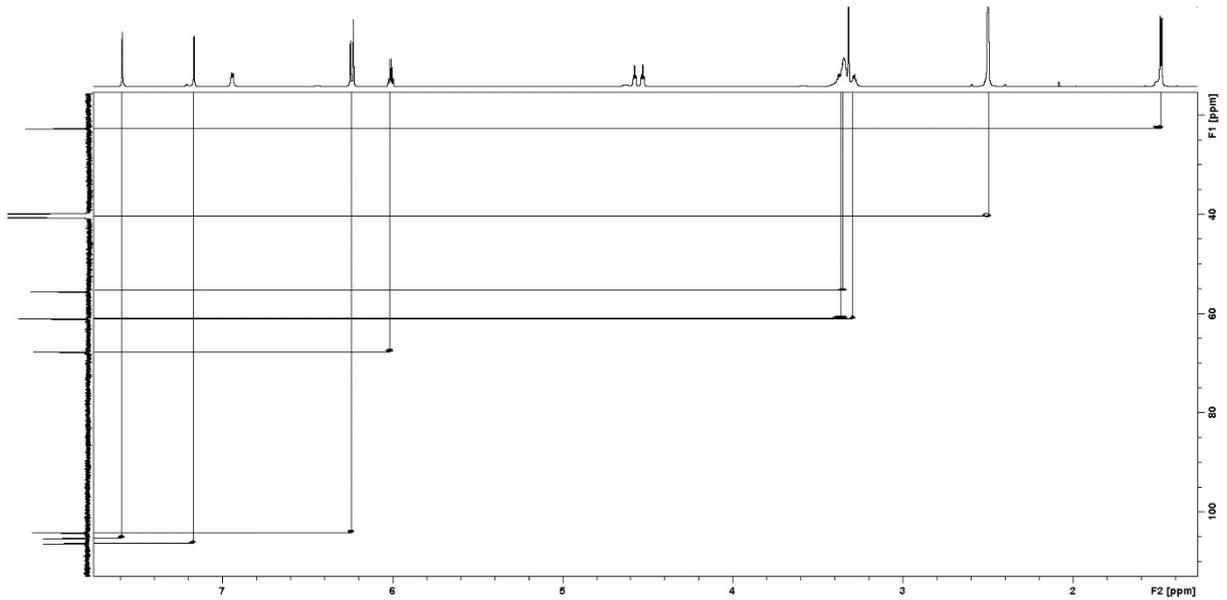
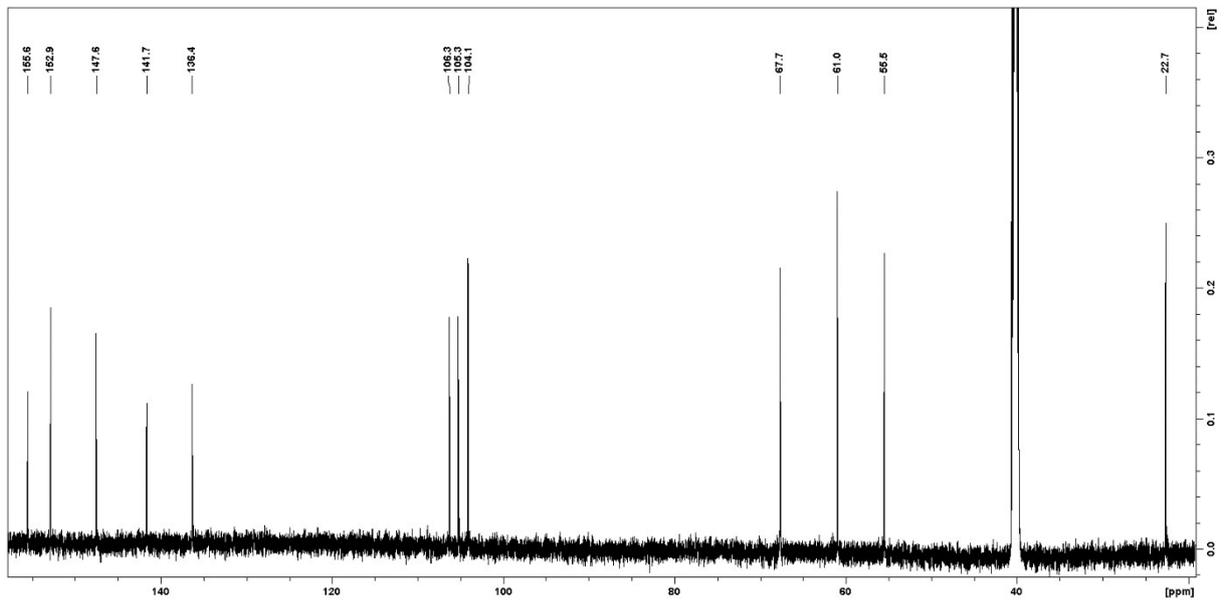
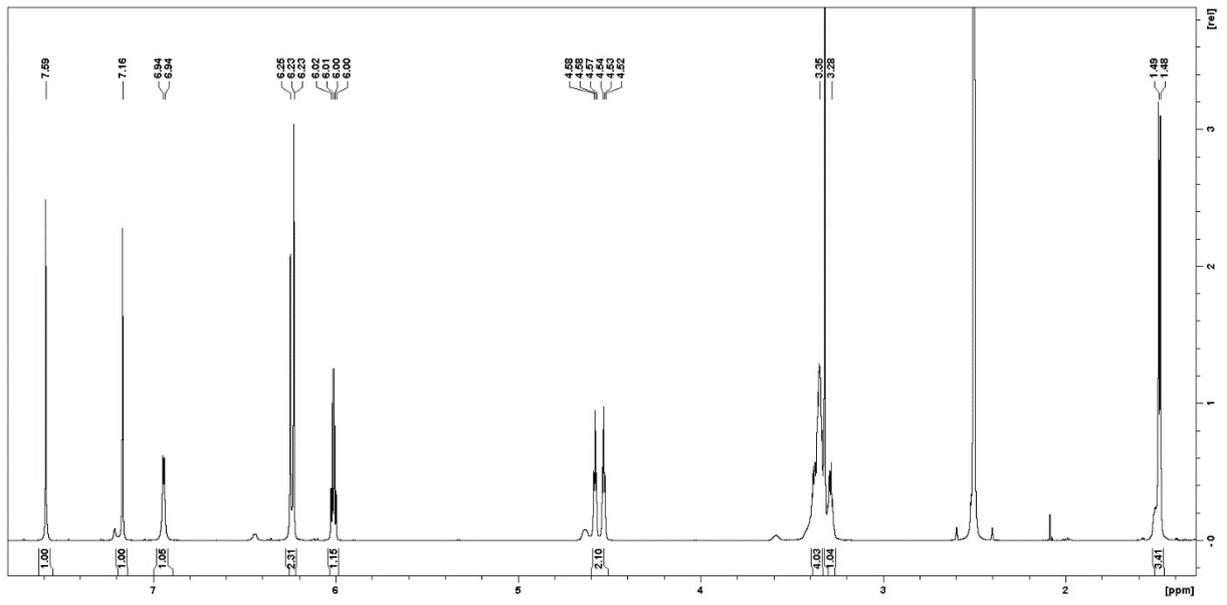


Fig. S2: ¹H NMR spectra of **2**.



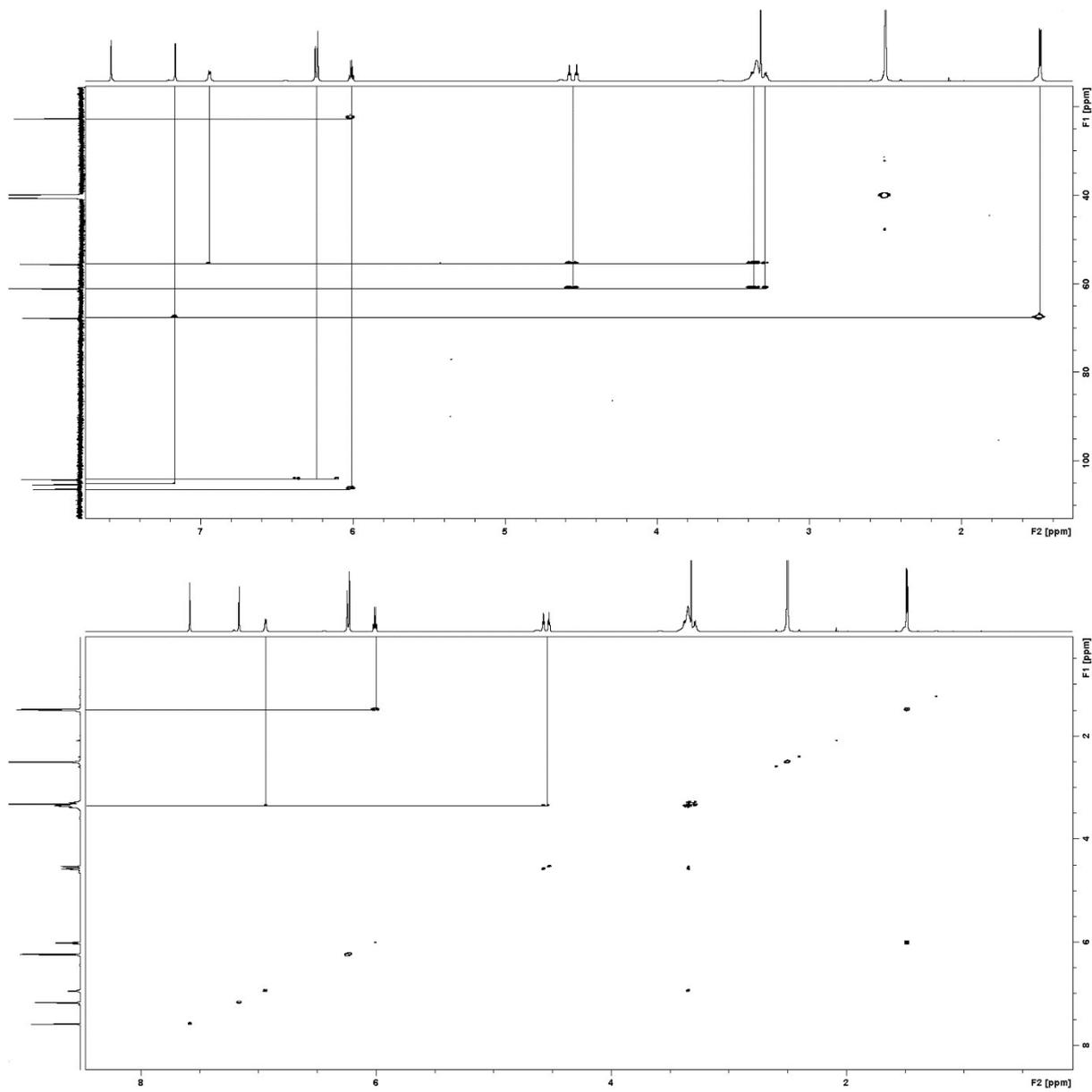


Fig. S3: ^1H , ^{13}C , hsqc, hmbc, cosy NMR spectra of monomer 3.

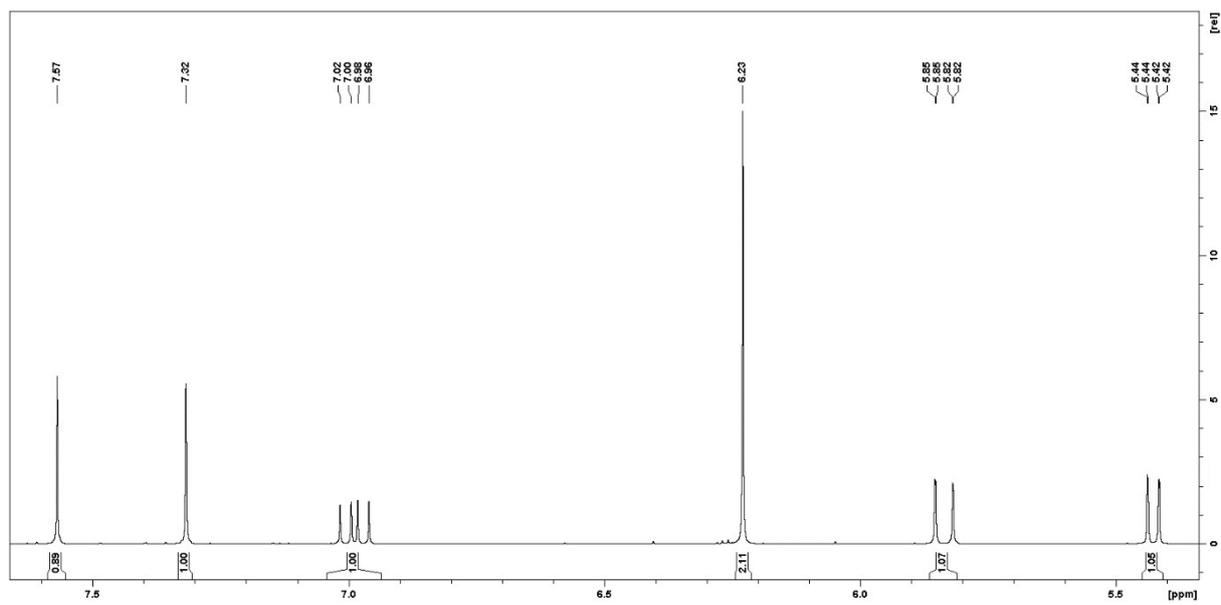
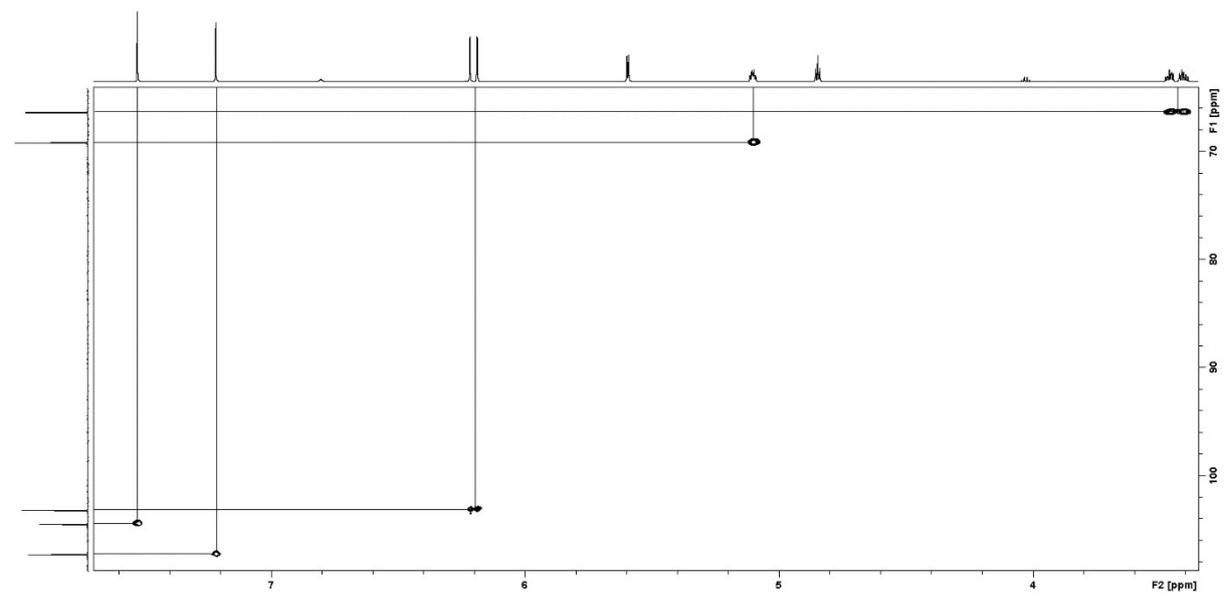
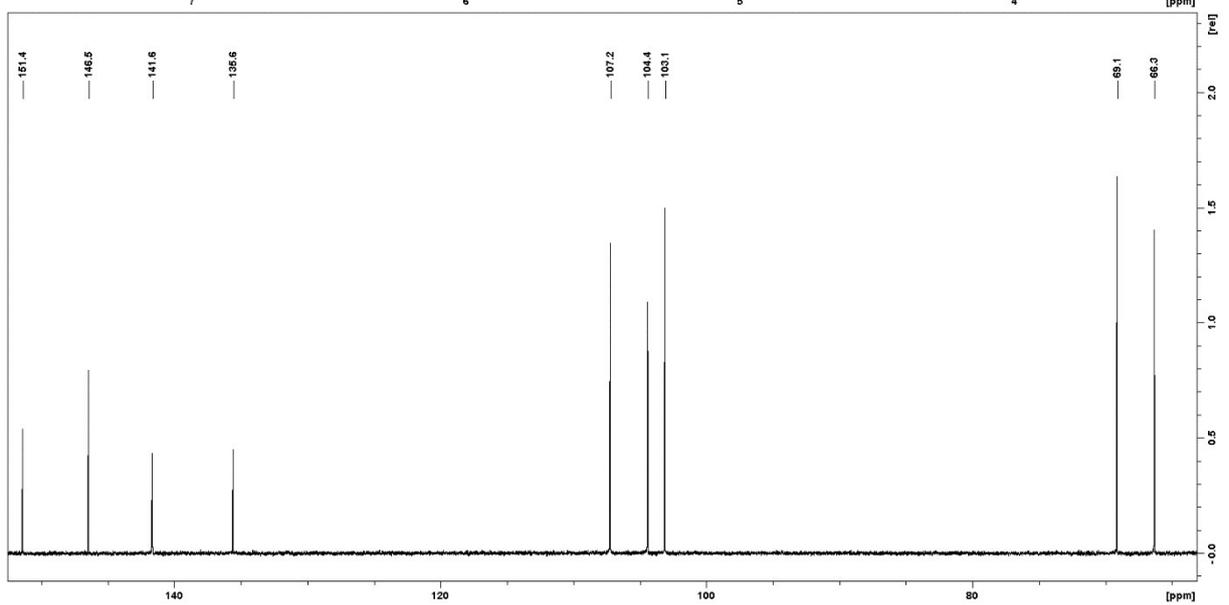
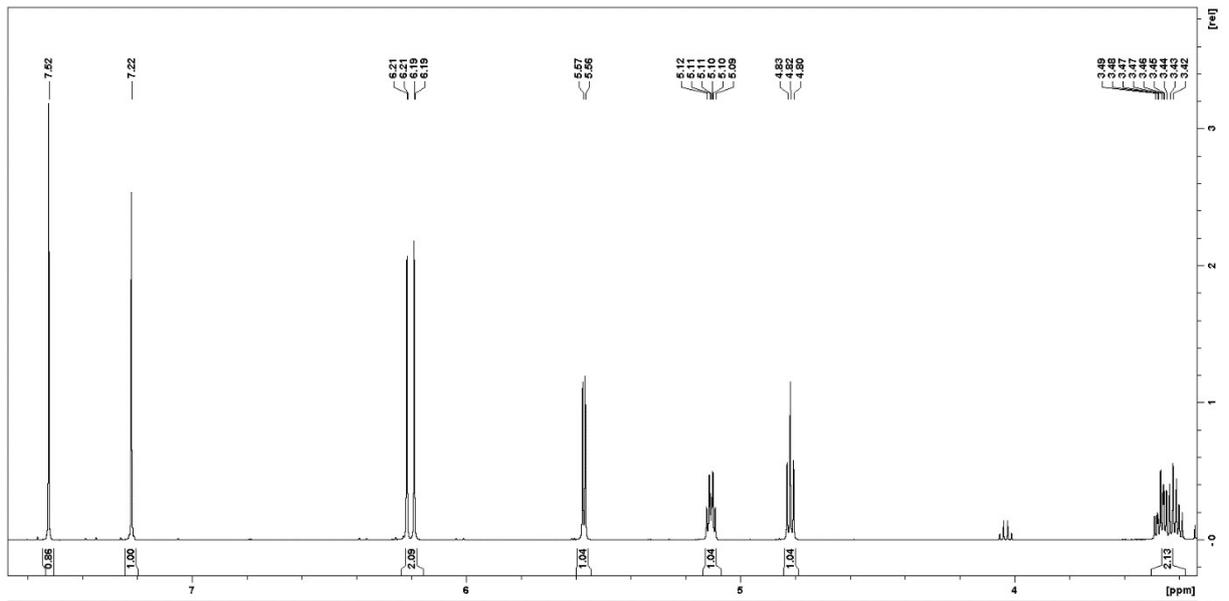


Fig. S4: ^1H NMR spectra of 4.



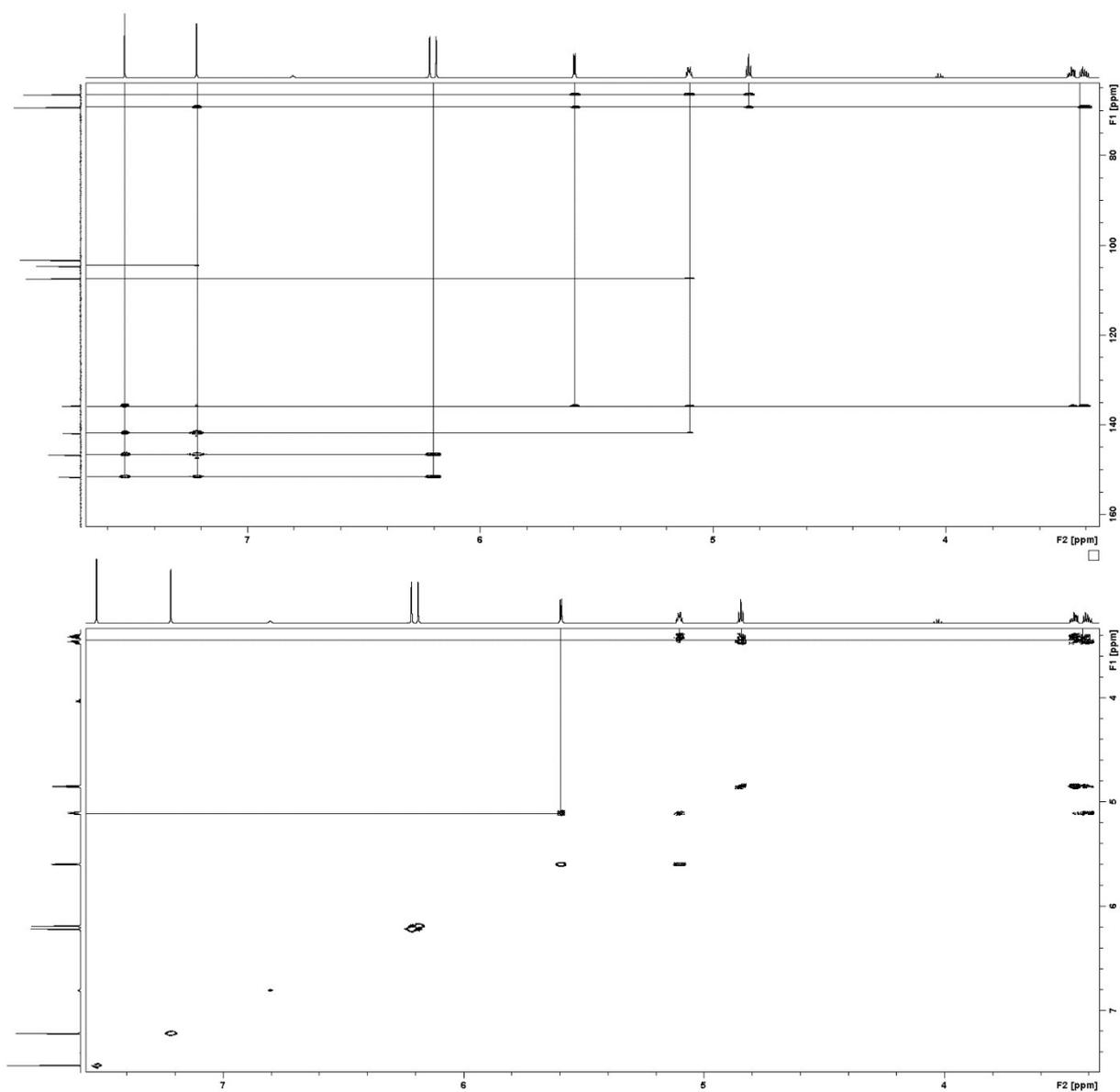


Fig. S5: ^1H , ^{13}C , hsqc, hmbc and cosy NMR spectra of diol 5.

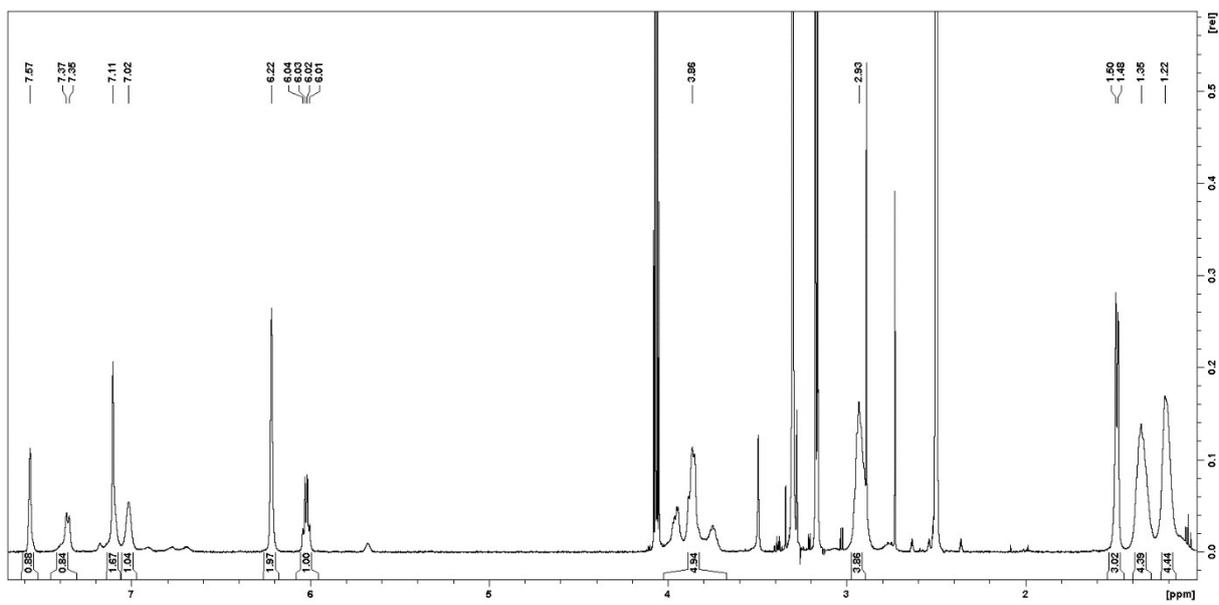


Fig. S6: ^1H NMR spectra of polymer 6.

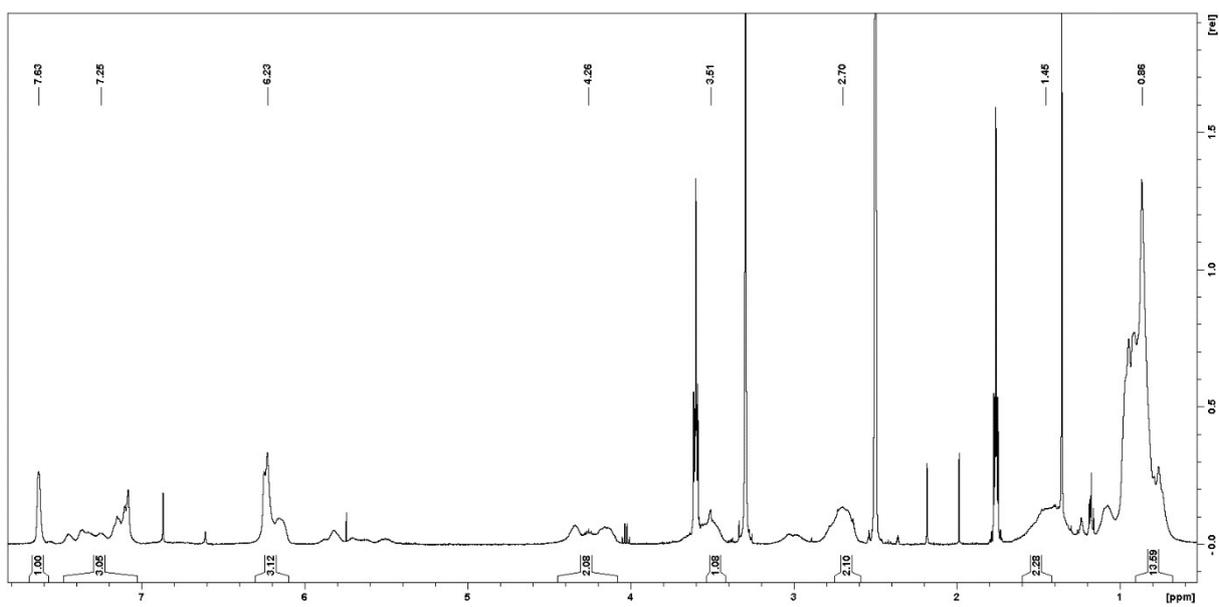


Fig. S7: ^1H NMR spectra of polymer 7.

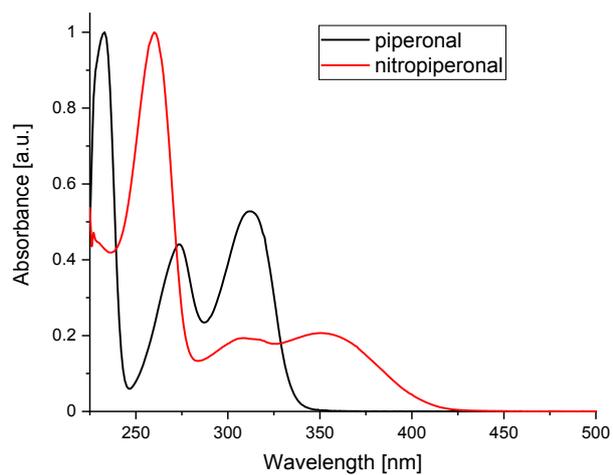


Fig. S8: UV/Vis spectra of nitropiperonal and piperonal in DCM solution.

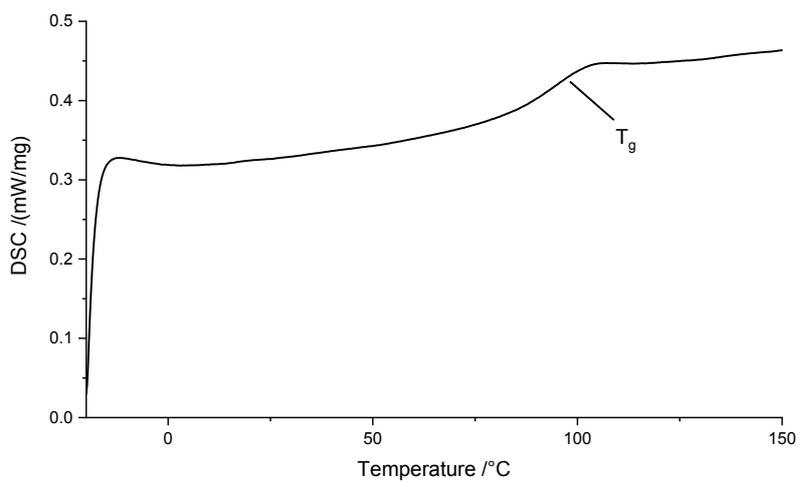
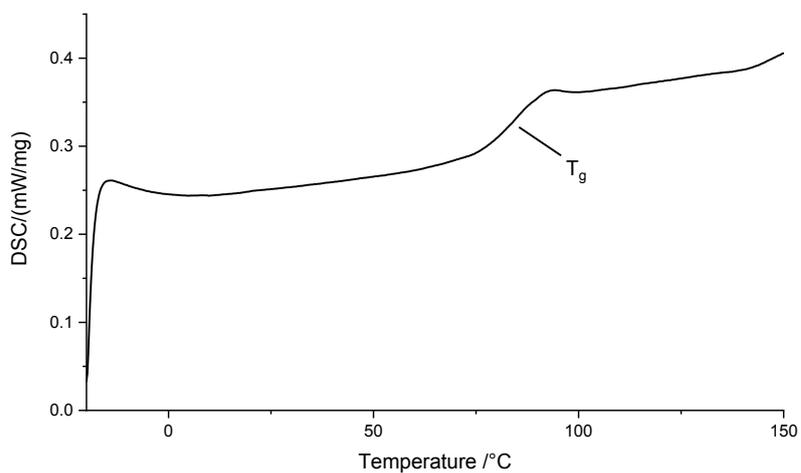


Fig. S9: DSC-curves of polymer 6 (top) and polymer 7 (bottom).

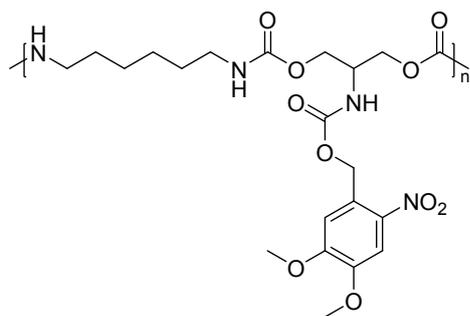


Fig. S10: Light-responsive Polyurethane based on oNB (previously published)^[1]

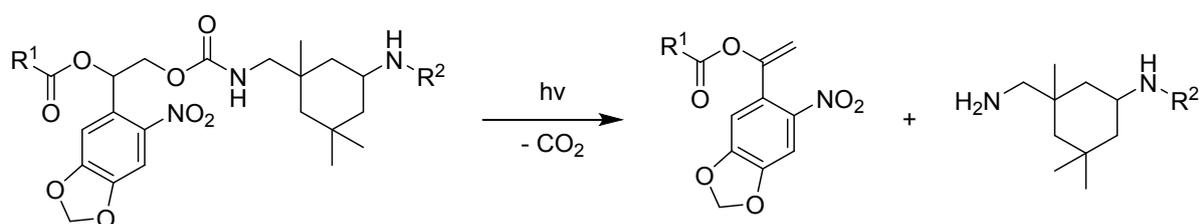


Fig. S11: Alternative route of degradation upon irradiation for the backbone-degradable polyurethane.

References

- [1] J. Sun, T. Rust, D. Kuckling, *Macromolecular Rapid Communications* **2019**, *40*, 1900348.