

Supporting Information

Scalable, Hydrophobic and Highly-Stretchable Poly(isocyanurate-urethane) Aerogels

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Movie S1: The typical real-time DIC measurement demonstration of the instantaneous strain fields during the quasi-static uniaxial test of the PU aerogel at 0.28 g/cm³ to measure the Poisson's ratio.

Appendix I: Formulations and gelation times of PU aerogels

Table S.1: Formulations and gelation times of PU aerogels

Sample	N3300A		TEG		DBDTL		CH ₃ CN (ml)	Gelation time (min)
	Mass (g)	mmol	Mass (g)	mmol	Volume (ml)	mmol		
PU1	14.732	30	6.758	45	0.805	1.364	162.369	120
PU2	14.732	30	6.758	45	0.732	1.240	160.749	106
PU3	14.732	30	6.758	45	0.486	0.824	159.489	93
PU4	14.732	30	6.758	45	0.467	0.792	156.429	90

Density information provided by the suppliers: N3300A (1.17 g/cm³), TEG (1.10 g/cm³), CH₃CN (0.79 g/cm³) and DBDTL (1.07 g/cm³).

Appendix II: SEM images of PU aerogels

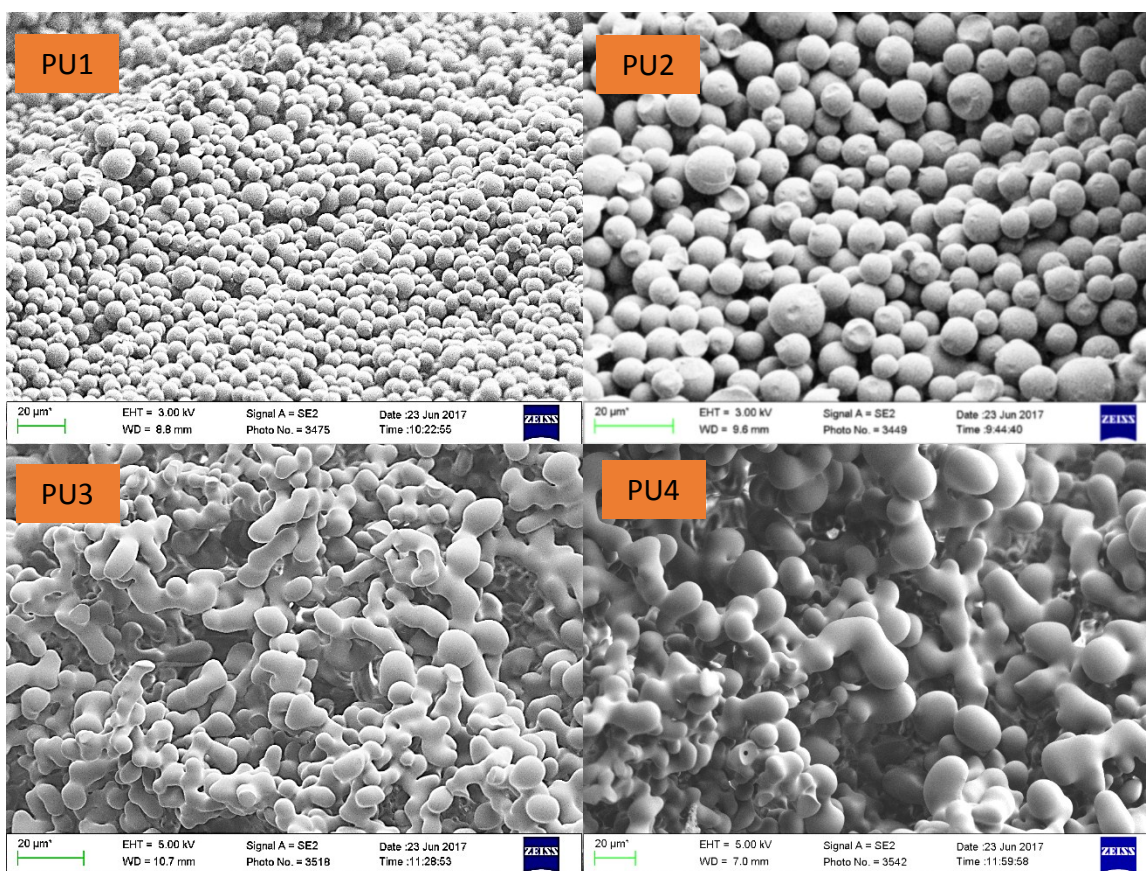


Figure S.1: The SEM images of PU aerogels

Appendix III: The effect of hexylamine concentration on the static water drop contact angle with the aerogel surface

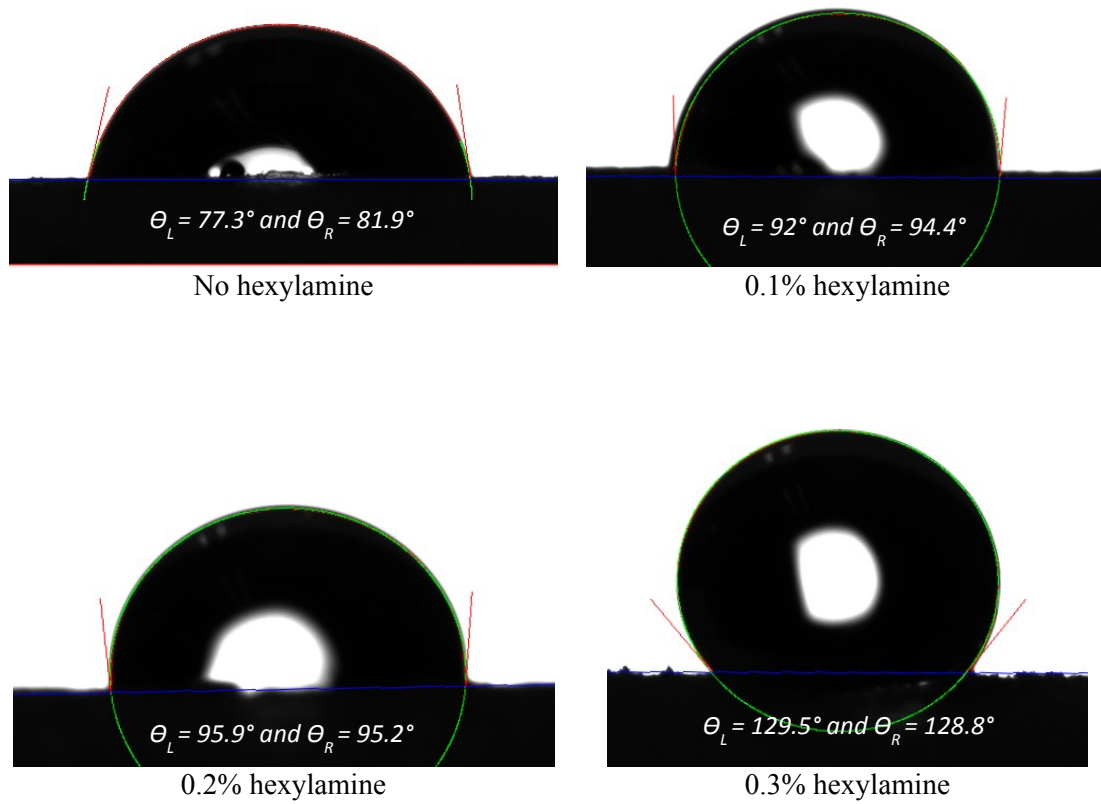


Figure S.2: The static water drop contact angles with the aerogel surface at different hexylamine concentrations

Appendix IV: TGA and DSC data of PU aerogels

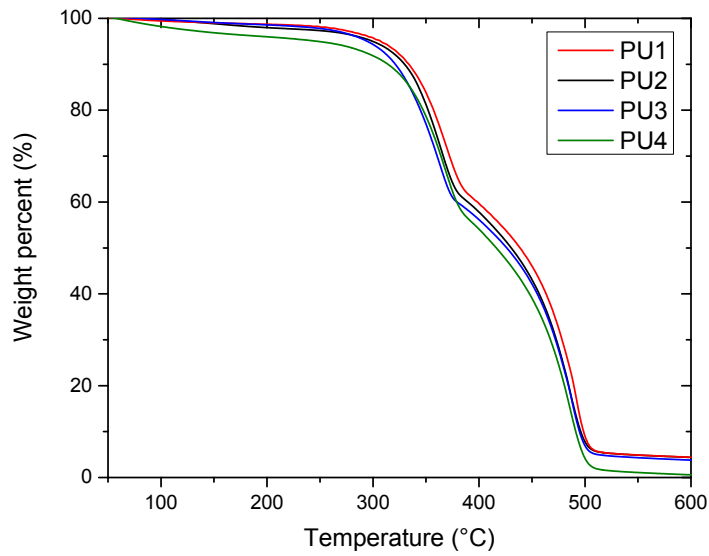


Figure S.3: TGA analysis of PU aerogels

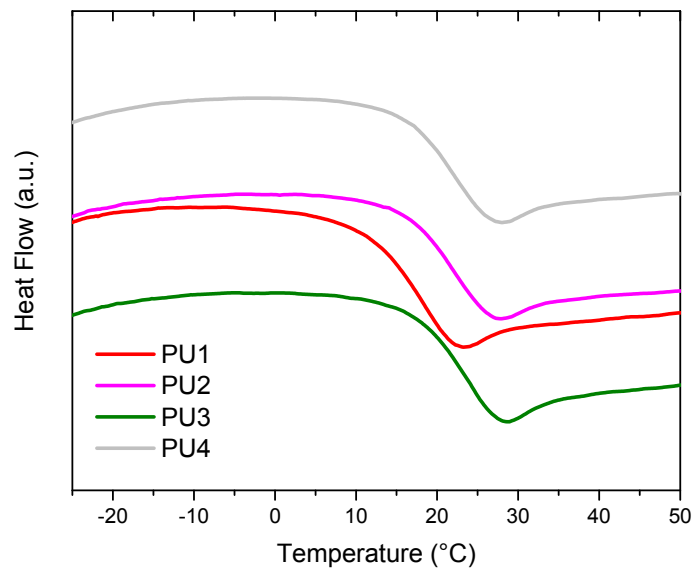


Figure S.4: DSC data of PU aerogels

Appendix V: SHPB data of PU aerogels

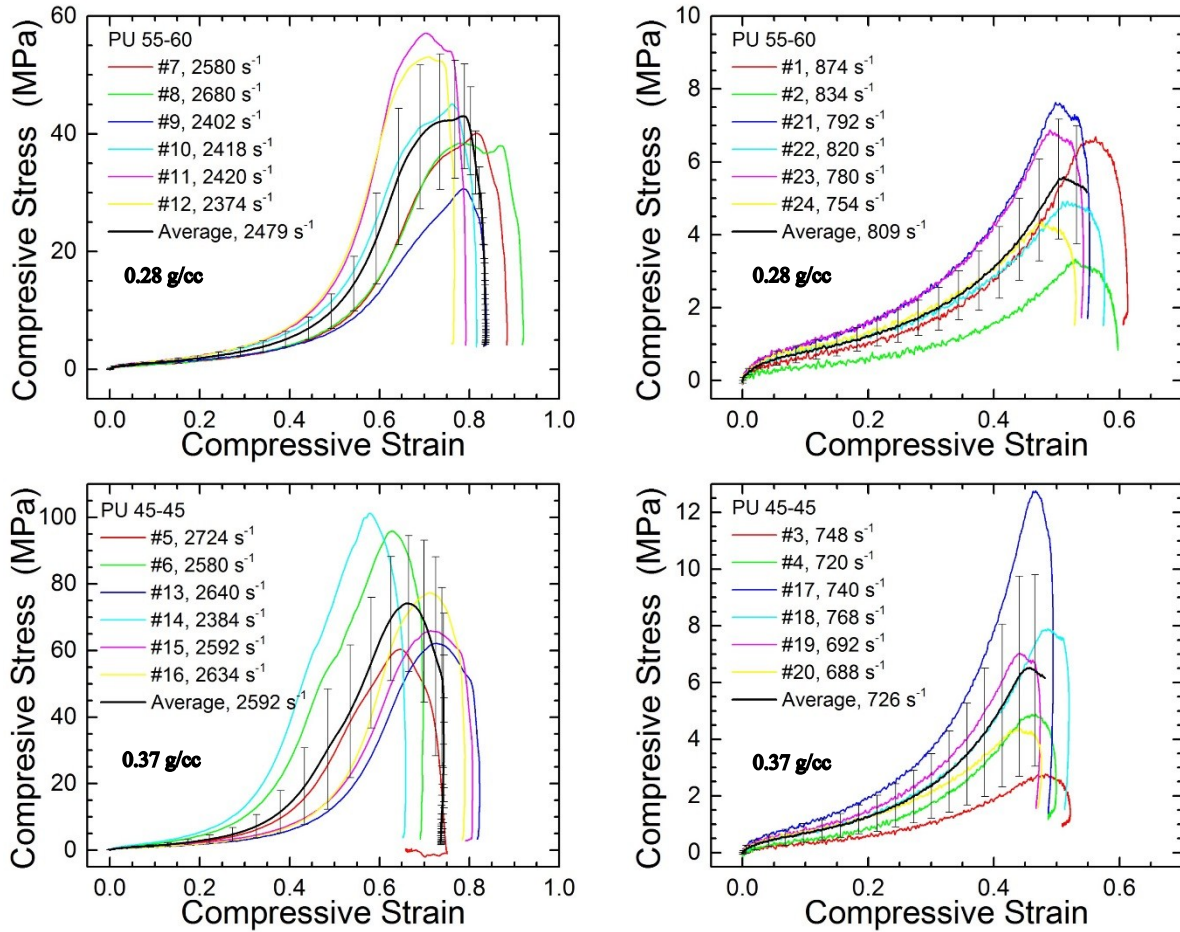


Figure S.5: SHPB data of PU aerogels (PU 55-60 at 0.28 g/cc and PU 45-45 at 0.37 g/cc)