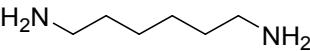
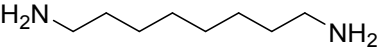
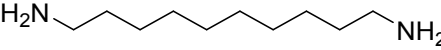
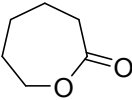
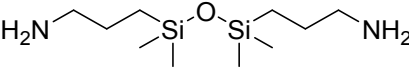
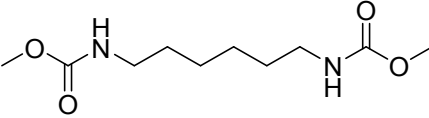
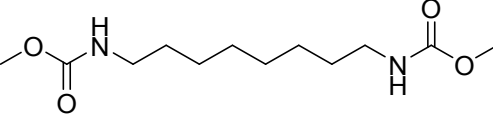
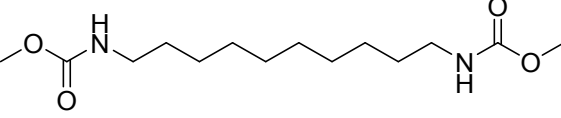


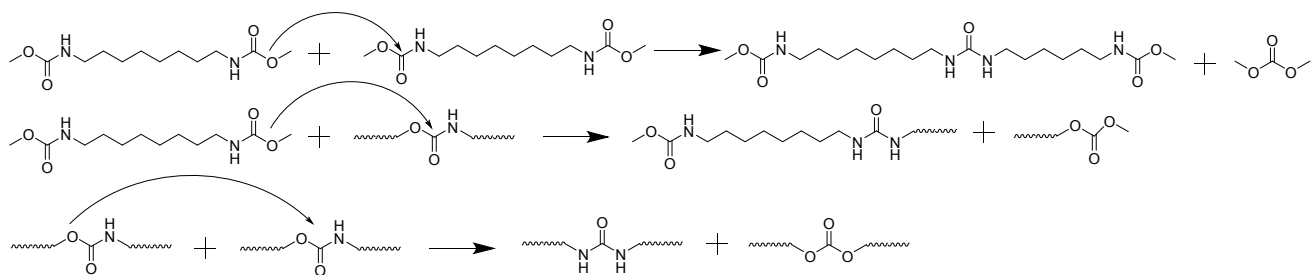
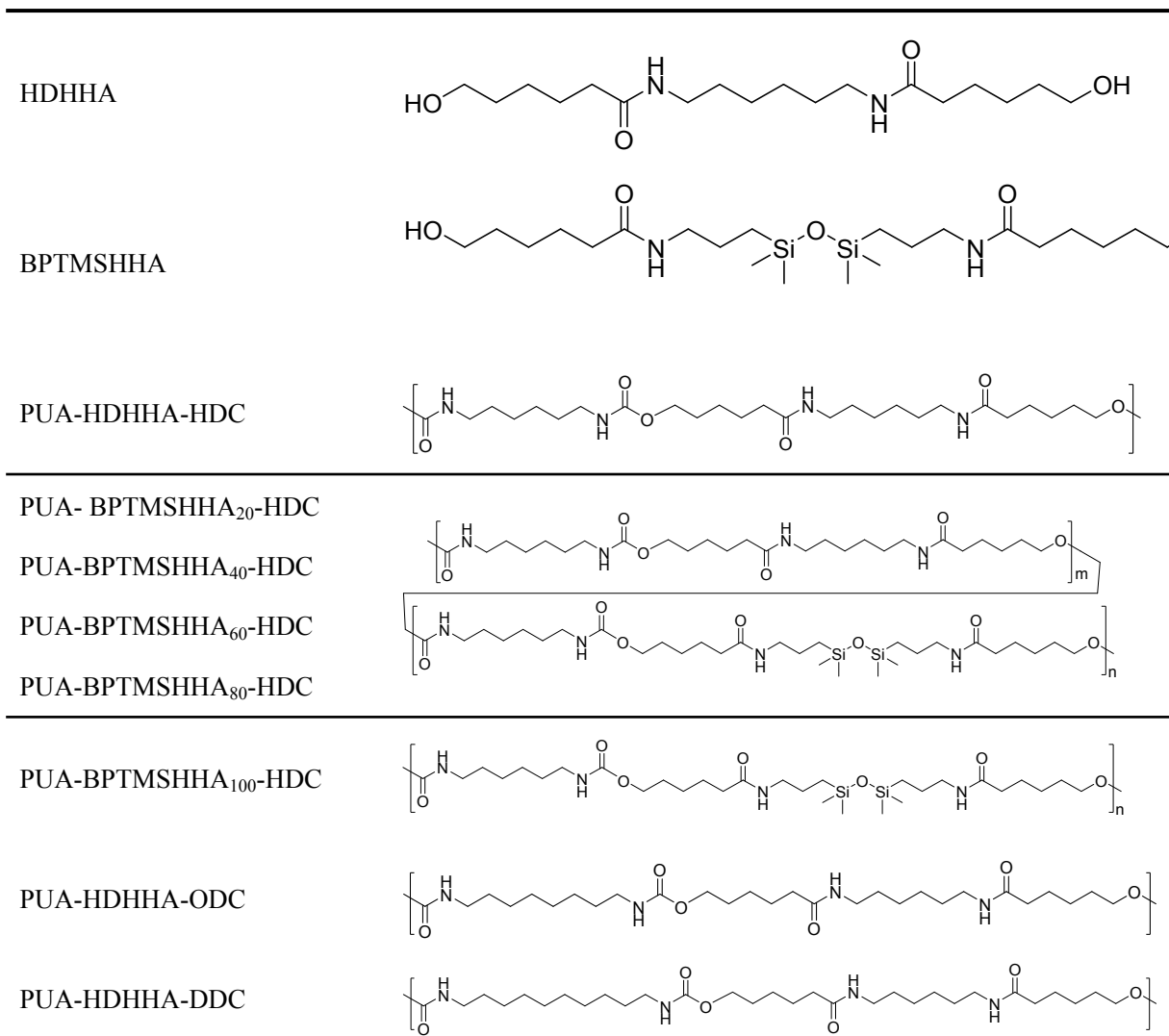
Supplementary material

High Performance Poly(urethane-co-amide) from CO₂-based Dicarbamate: An Alternative to Long Chain Polyamide

Jiaxiang Qin, Junqiao Jiang, Shuxian Ye, Shuanjin Wang, Min Xiao, Youji Tao, Ganxin Jie, and Yuezhong Meng

Table S1 Abbreviations and structure of some important compounds in this manuscript

Abbreviations	Structure
HDA	
ODA	
DDA	
CL	
BATMS	
HDC	
ODC	
DDC	



Scheme S1 Urea Formation by carbamate-carbamate, carbamate-urethane segment, and urethane-urethane segment transurethane reactions

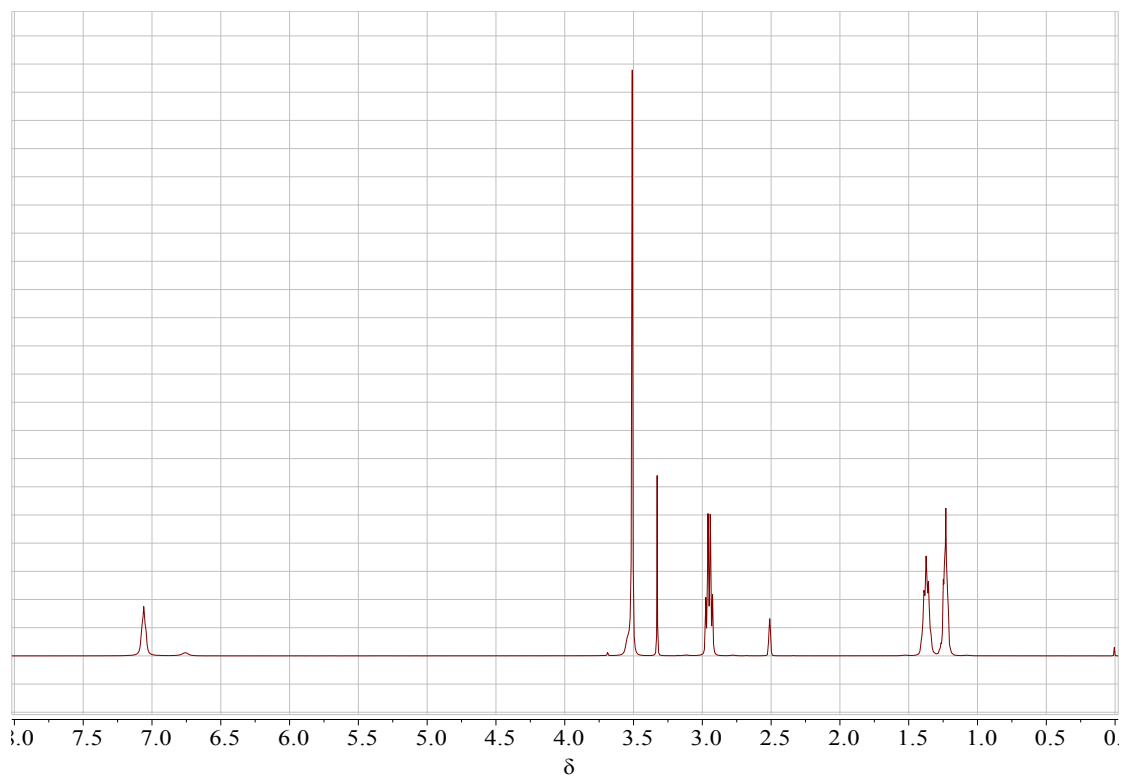


Fig. S1 ¹H-NMR spectrum for HDC

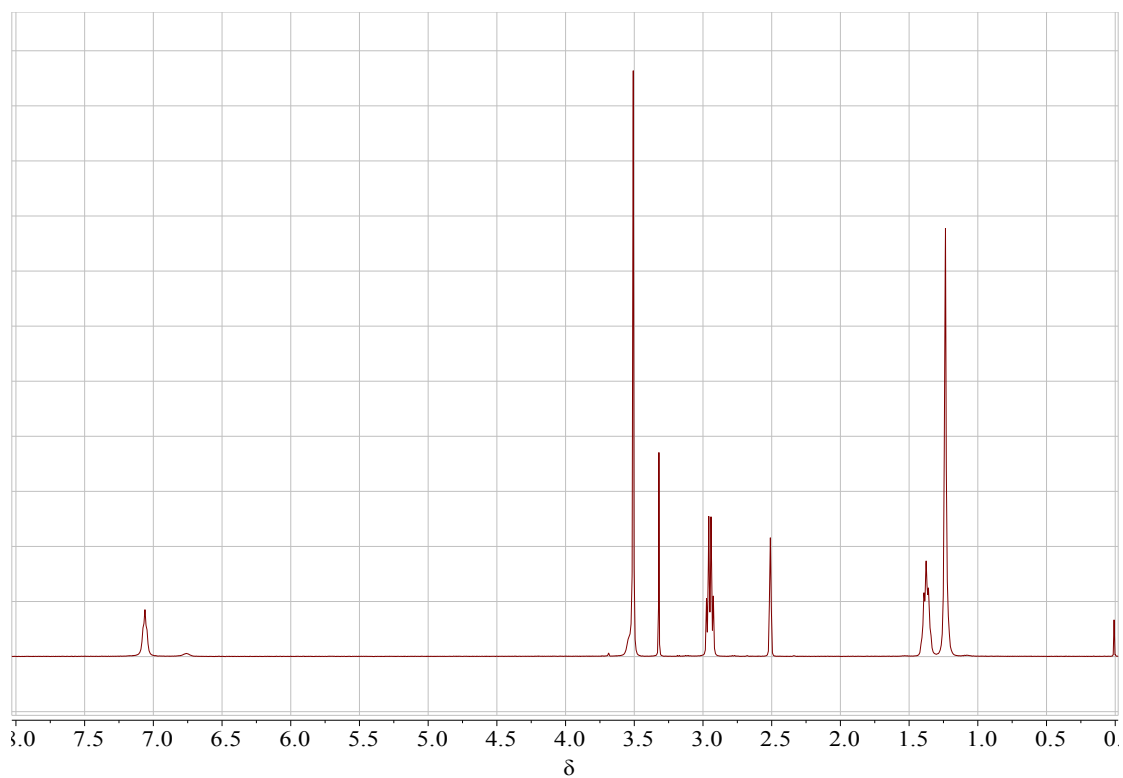


Fig. S2 ¹H-NMR spectrum for ODC

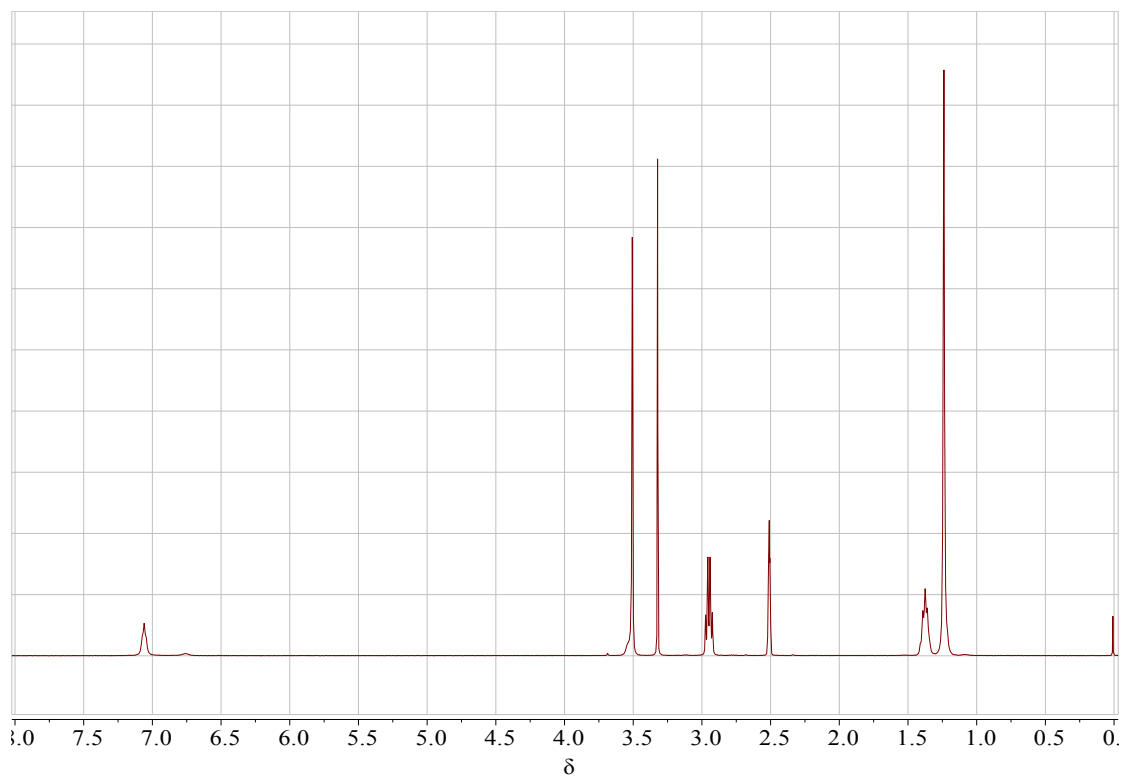


Fig. S3 ¹H-NMR spectrum for DDC

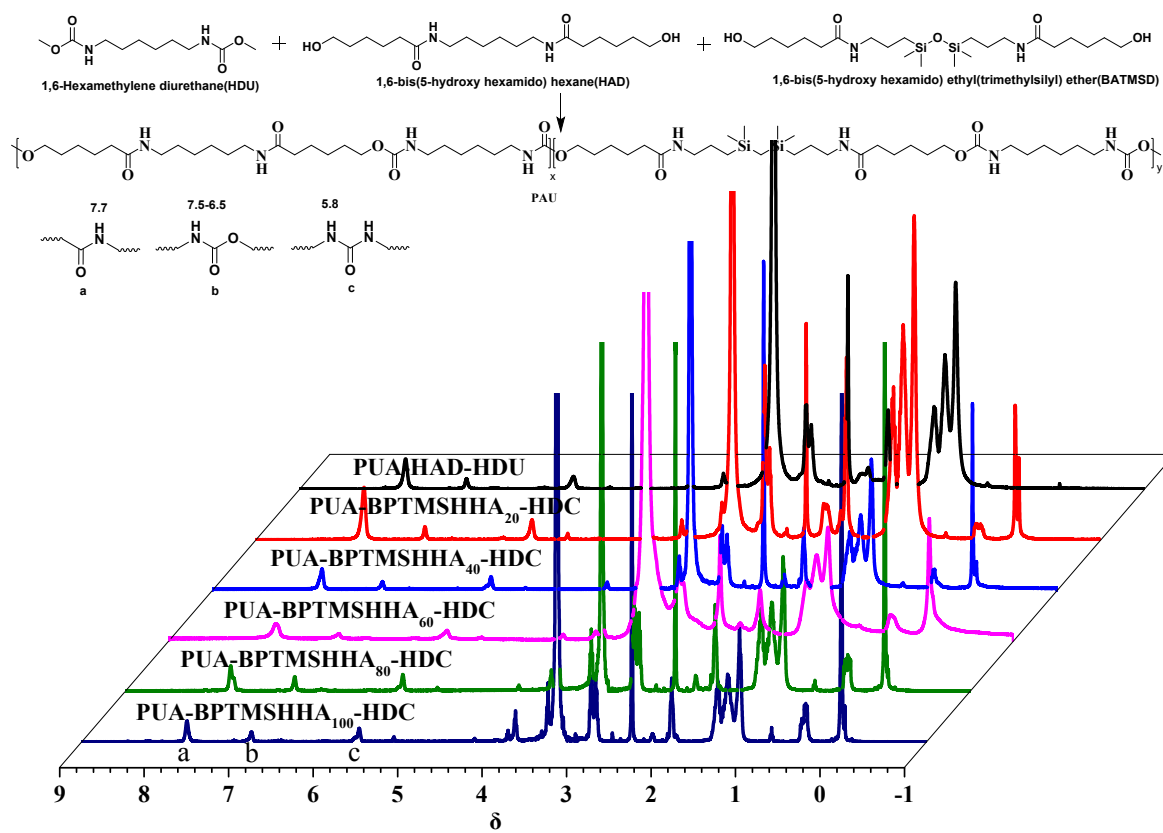


Fig. S4 ¹H-NMR spectra of PUAs from two different diamide diol and HDC

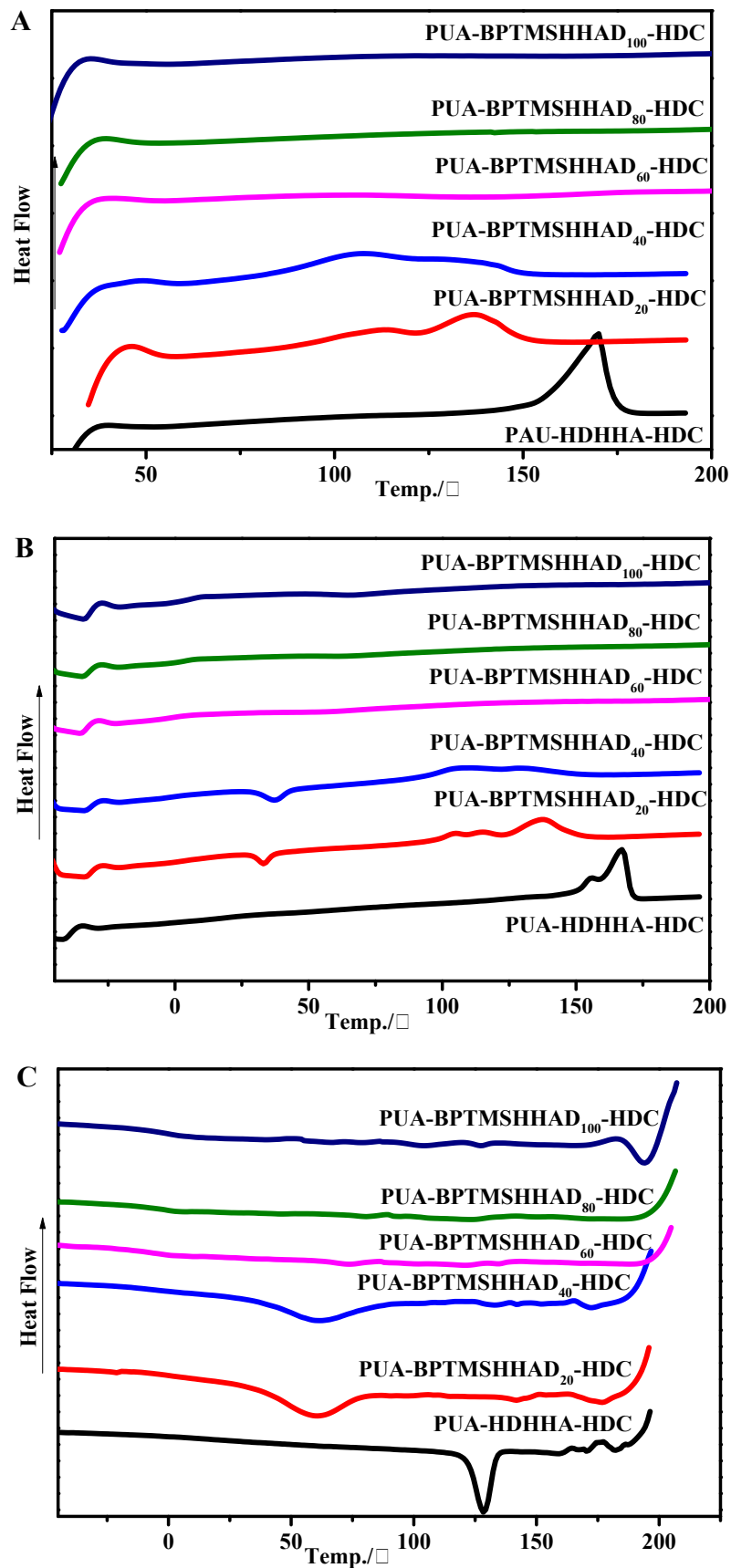


Fig. S5 DSC curves of PUAs from two diamides and HDC: (A) First heating run (B) Second heating run (C) Cooling run

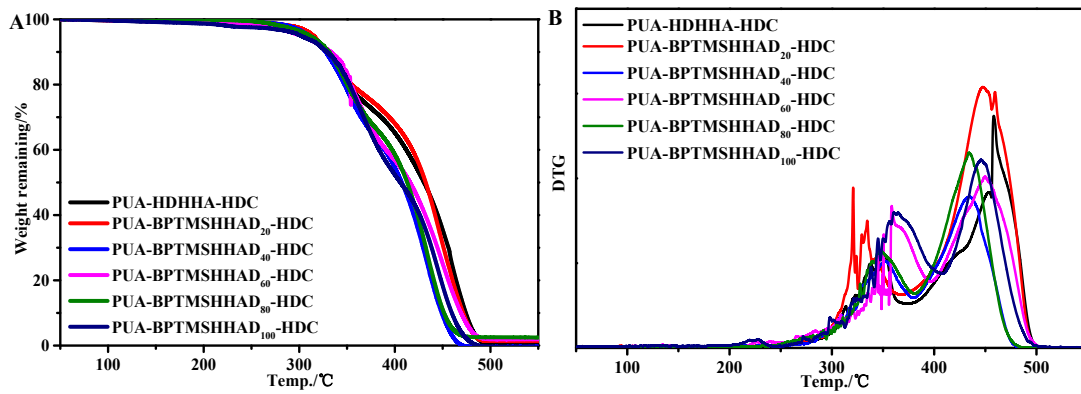


Fig. S6 TGA (A) and DTG (B) curves of PUAs from two diamide diols and HDC

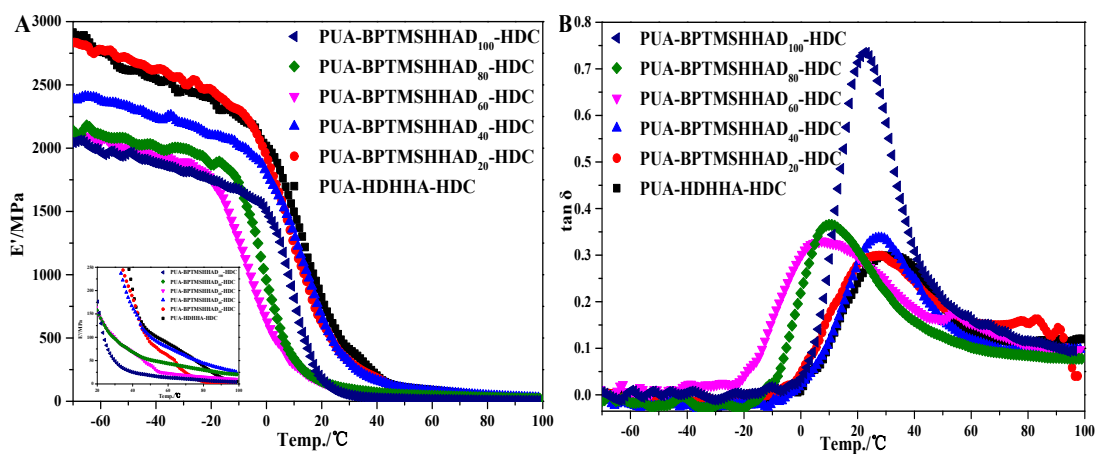


Fig. S7 DMA single frequency temperature sweep experiment for PUAs from two diamide diols (HDC and BPTMSHHA) and DHU: (A) Storage modulus (B) $\tan \delta$

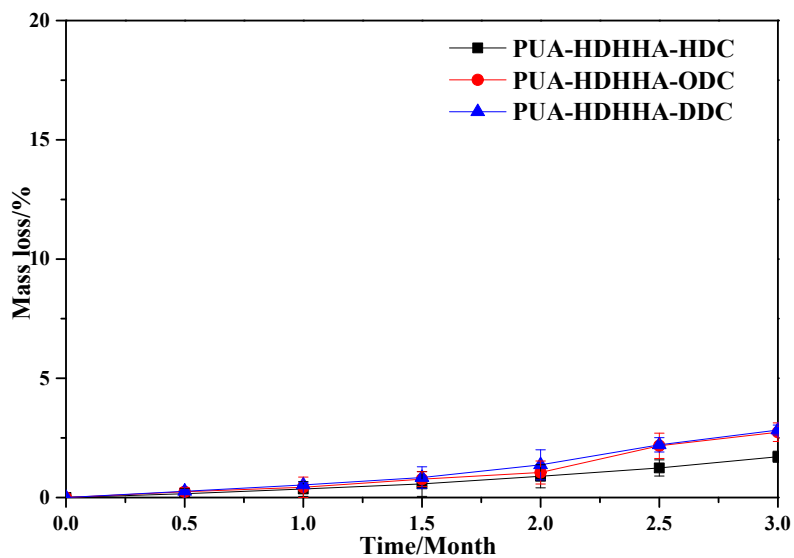


Fig. S8 Weight loss with time of immersion in phosphate buffer solution at 25 °C for PUAs