

Supplementary Information for: 1,2,3-Triazolium-based ionic polyurethanes

Antoine Jourdain, Iurii Antoniuk, Anatoli Serghei, Eliane Espuche, and Eric Drockenmuller,*
Univ Lyon, Université Lyon 1, CNRS, Ingénierie des Matériaux Polymères, UMR 5223, F-69003, Lyon, France

Correspondance to: E. Drockenmuller (eric.drockenmuller@univ-lyon1.fr)

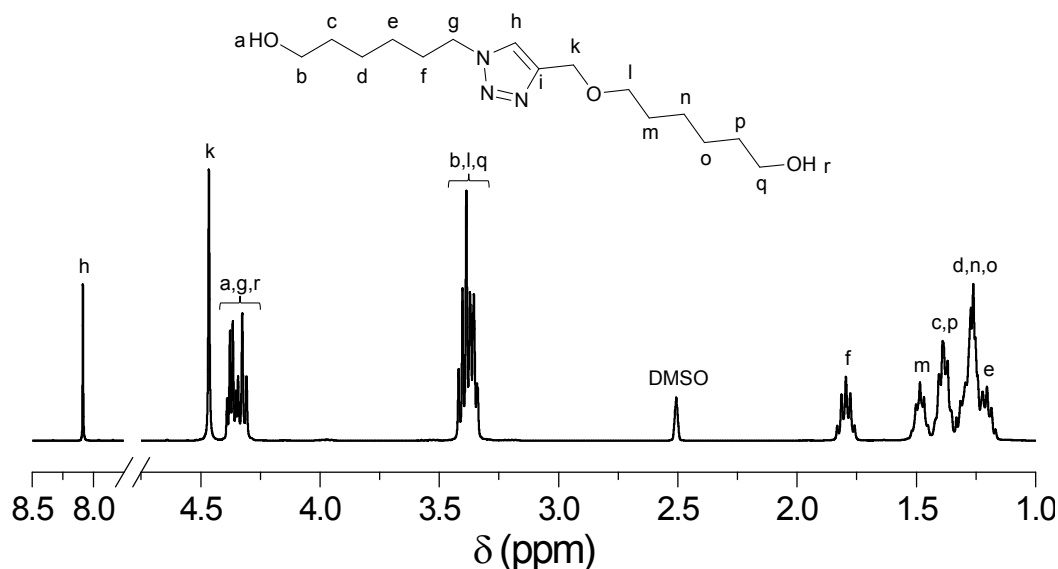


Figure S1. ¹H NMR (DMSO-*d*₆, 400 MHz) of dihydroxy-functionalized 1,2,3-triazole **3**.

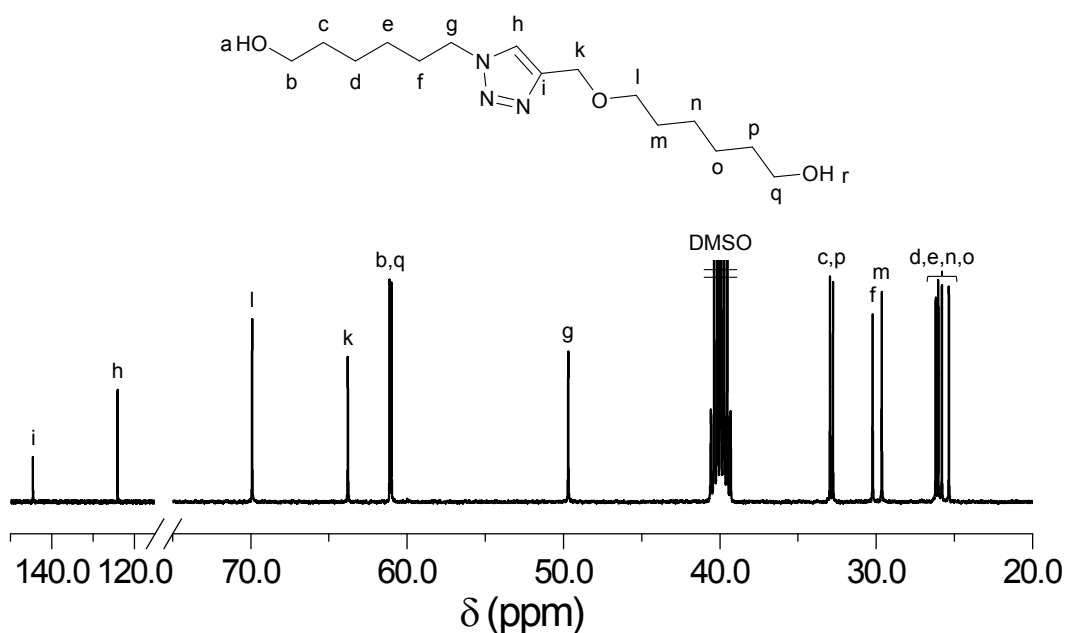


Figure S2. ¹³C NMR (DMSO-*d*₆, 100 MHz) of dihydroxy-functionalized 1,2,3-triazole **3**.

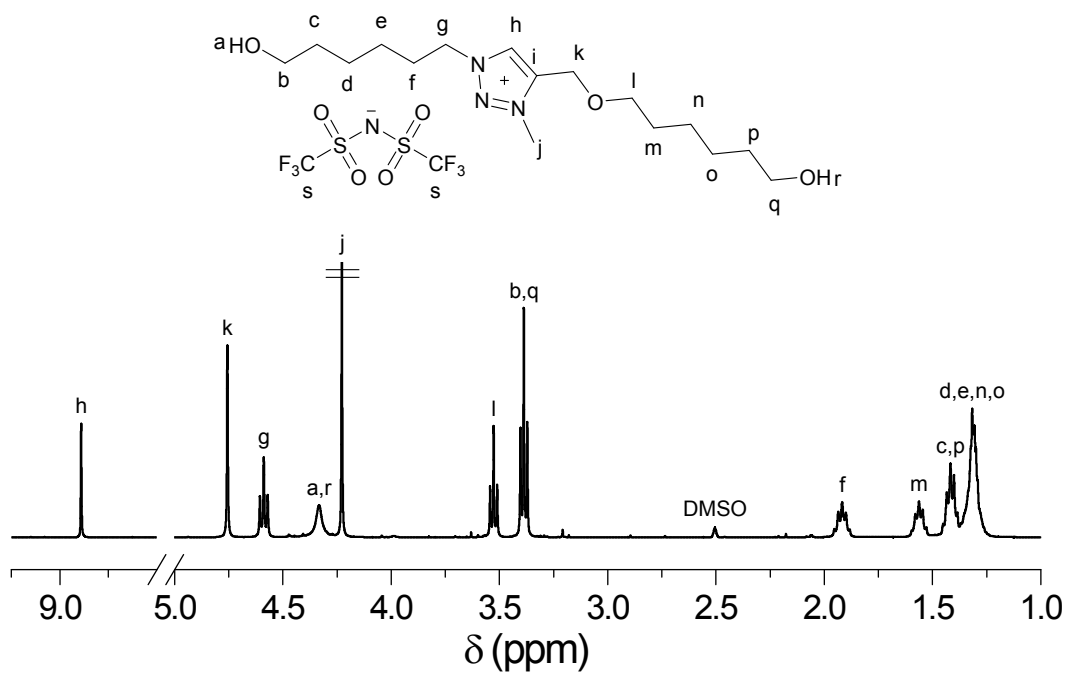


Figure S3. ^1H NMR ($\text{DMSO-}d_6$, 400 MHz) of dihydroxy-functionalized 1,2,3-triazolium **5**.

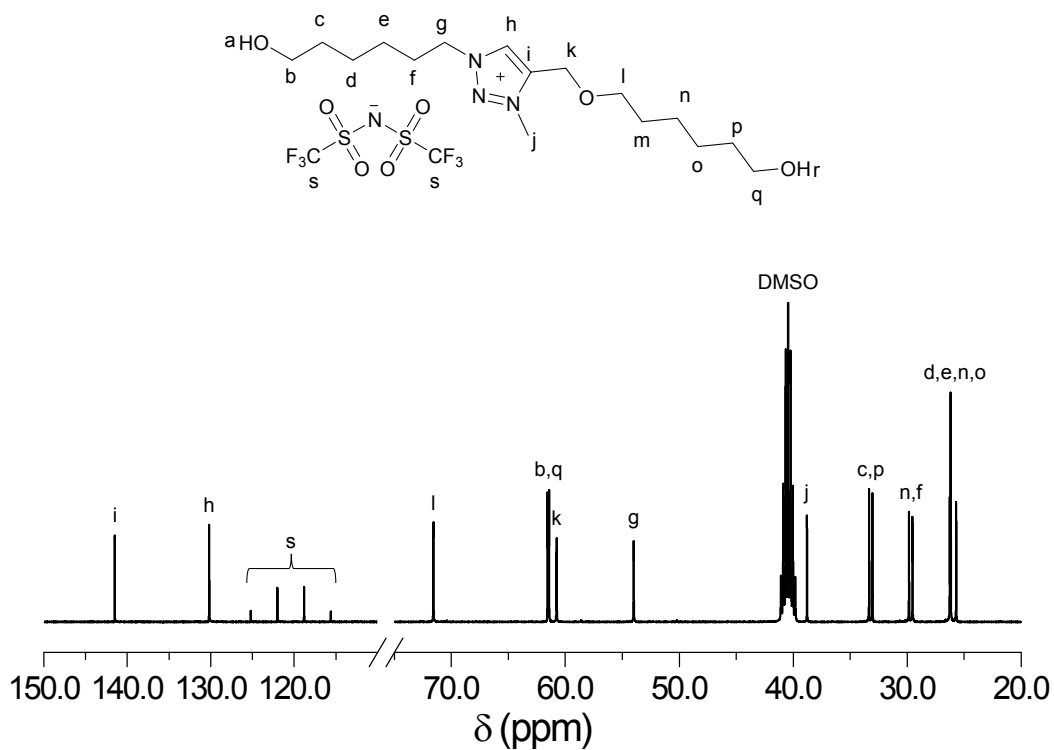


Figure S4. ^{13}C NMR ($\text{DMSO-}d_6$, 100 MHz) of dihydroxy-functionalized 1,2,3-triazolium **5**.

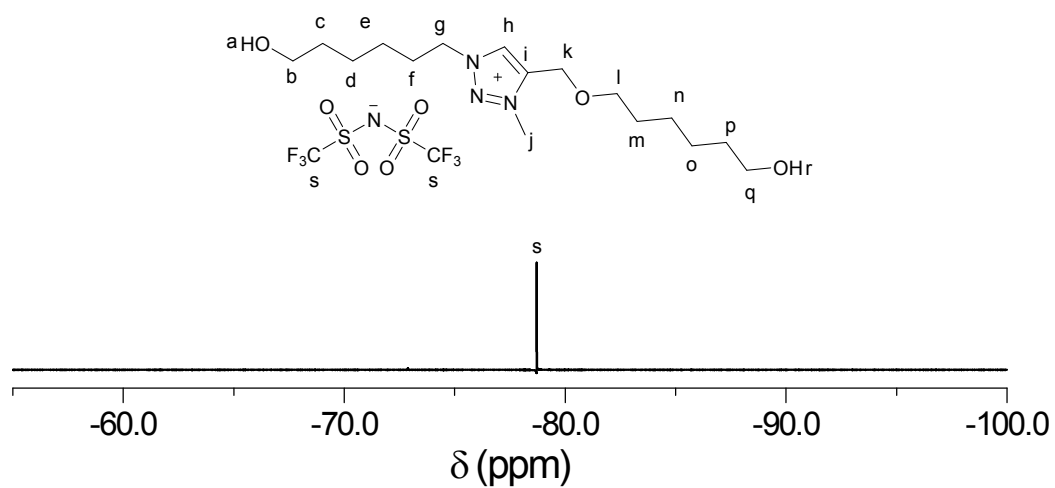


Figure S5. ¹⁹F NMR (DMSO-*d*₆, 376.5 MHz) of dihydroxy-functionalized 1,2,3-triazolium **5**.

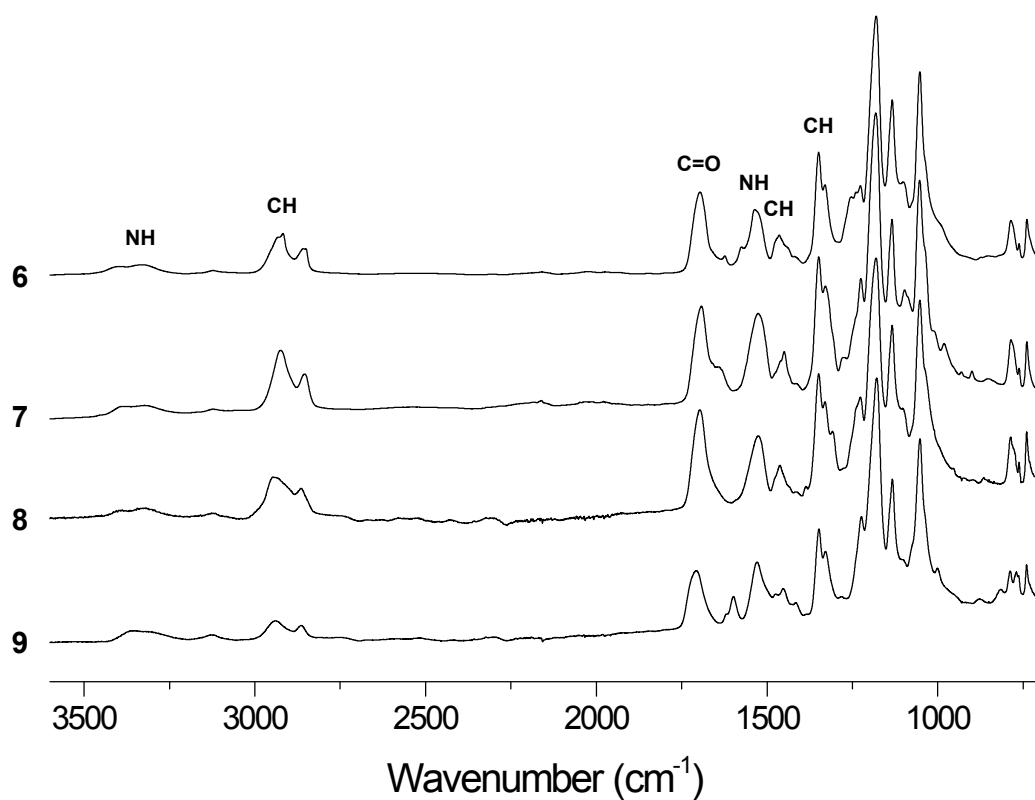


Figure S6. FTIR spectra of ionic PUs **6-9**.

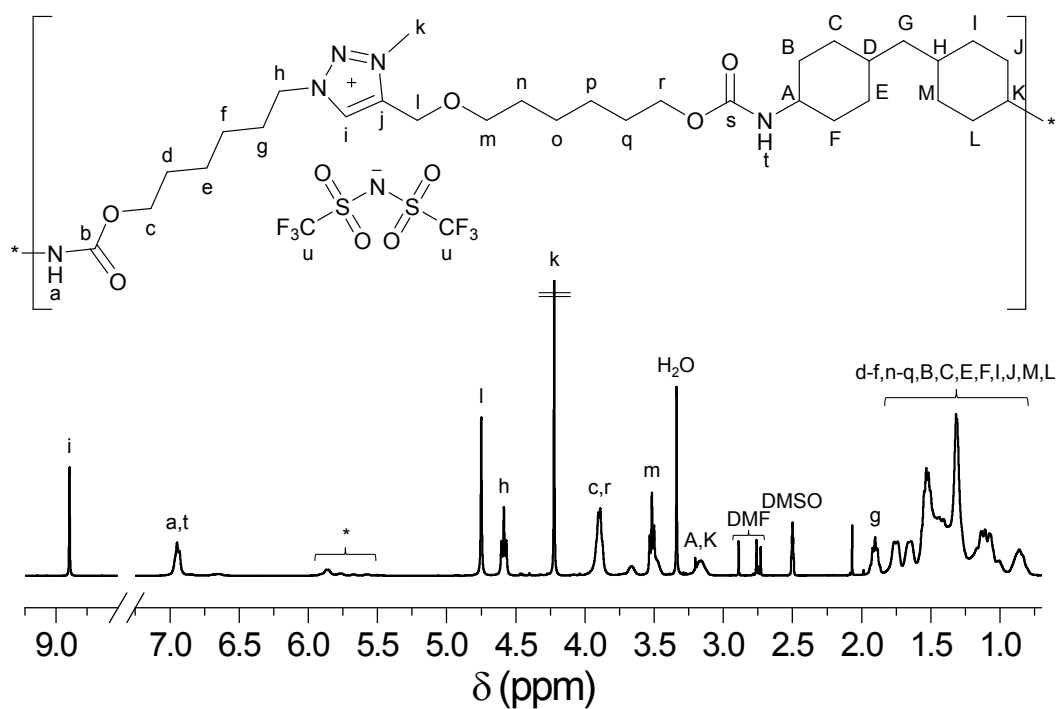


Figure S7. ^1H NMR (DMSO- d_6 , 400 MHz) of ionic PU 7. *: signals assigned to urea groups.

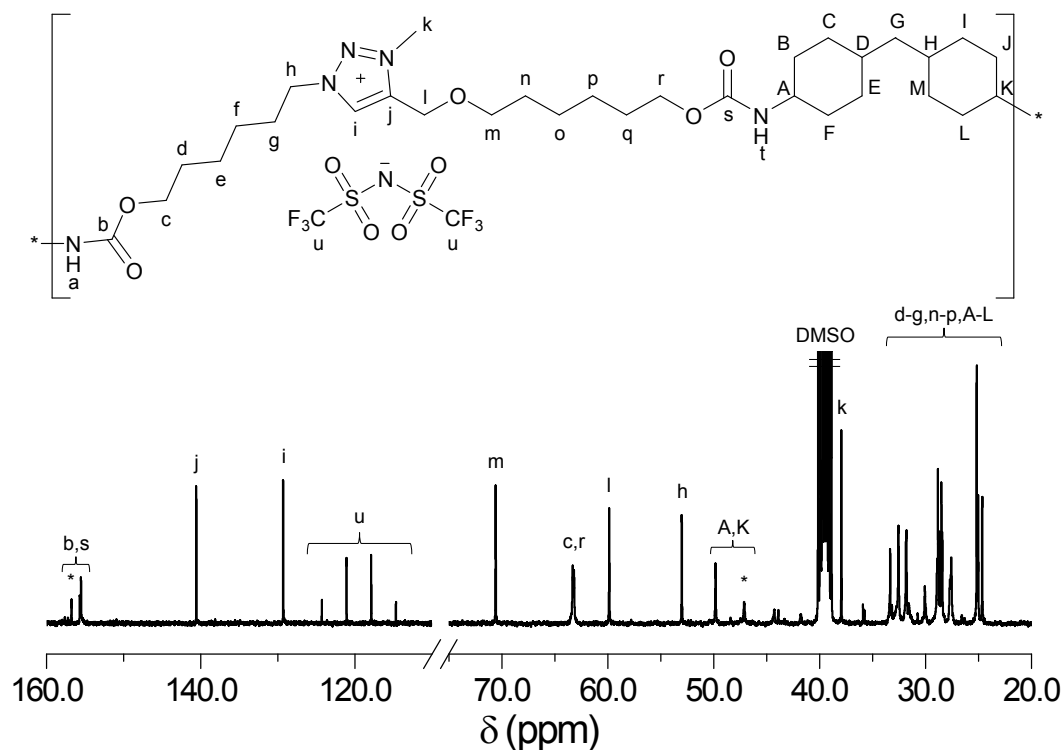


Figure S8. ^{13}C NMR (DMSO- d_6 , 100 MHz) of ionic PU 7. *: signals assigned to urea groups.

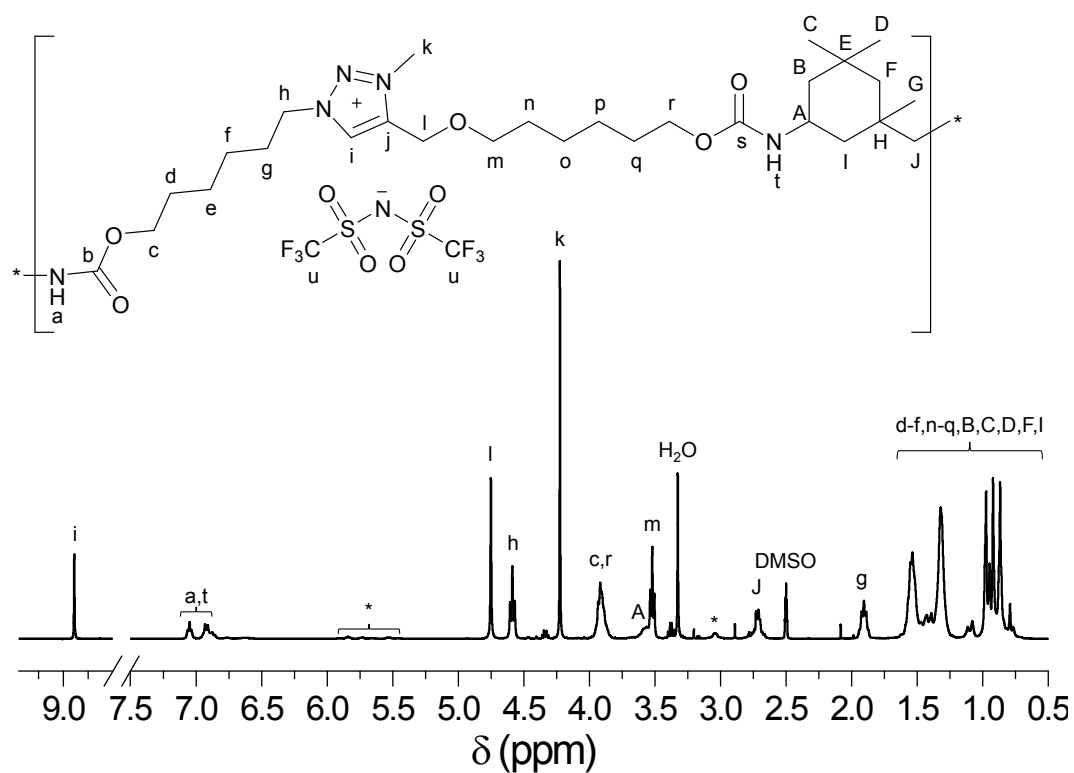


Figure S9. ^1H NMR (DMSO- d_6 , 400 MHz) of ionic PU **8**. *: signals assigned to urea groups.

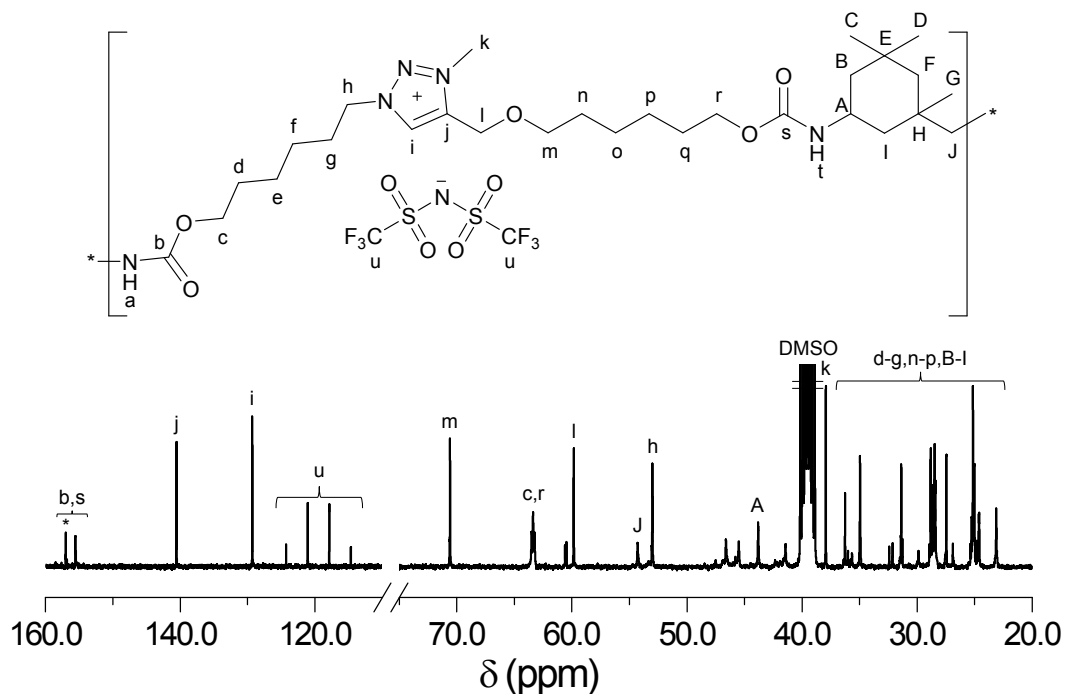


Figure S10. ^{13}C NMR (DMSO- d_6 , 100 MHz) of ionic PU **8**. *: signals assigned to urea groups.

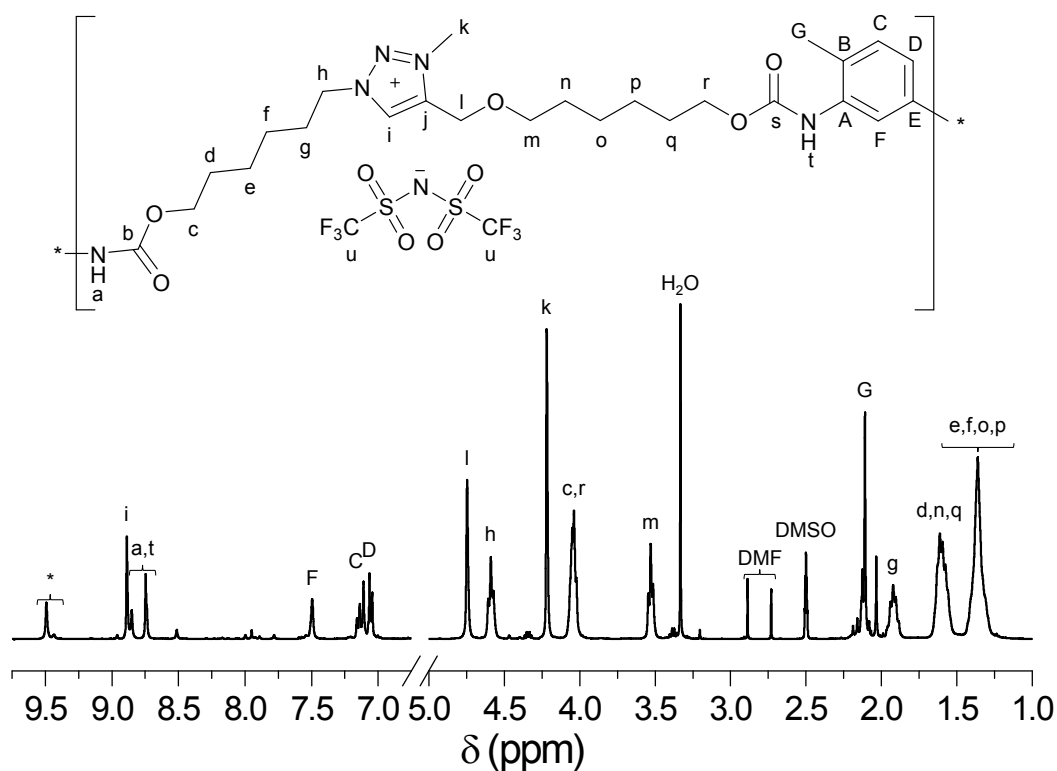


Figure S11. ^1H NMR (DMSO- d_6 , 400 MHz) of ionic ionic PU 9. *: signals assigned to urea groups.

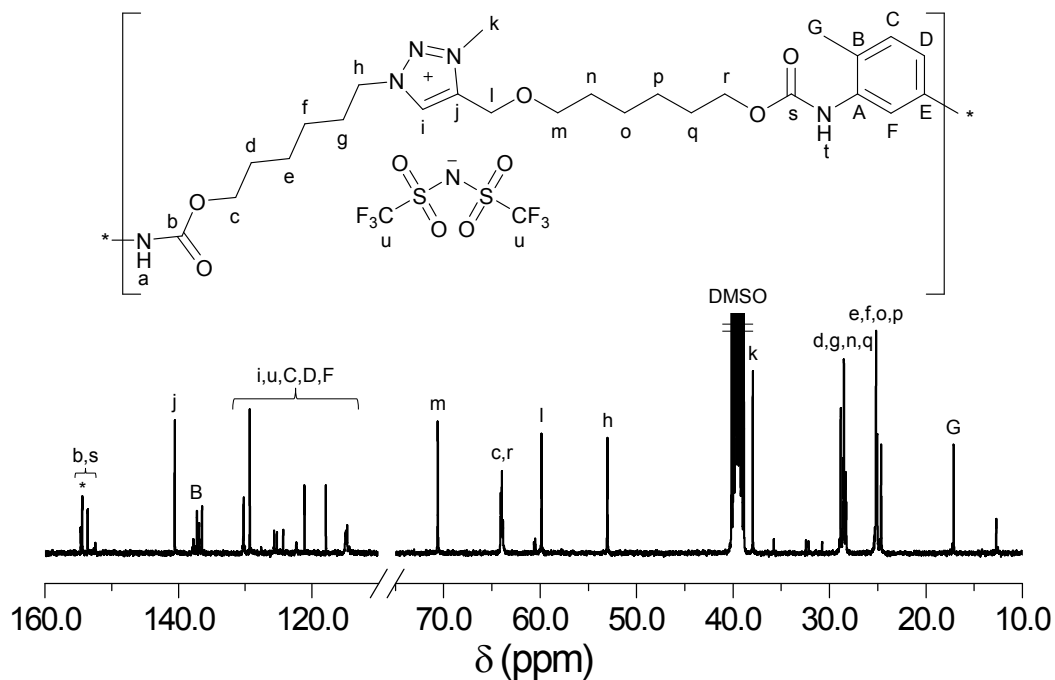


Figure S12. ^{13}C NMR (DMSO- d_6 , 100 MHz) of ionic ionic PU 9. *: signals assigned to urea groups.

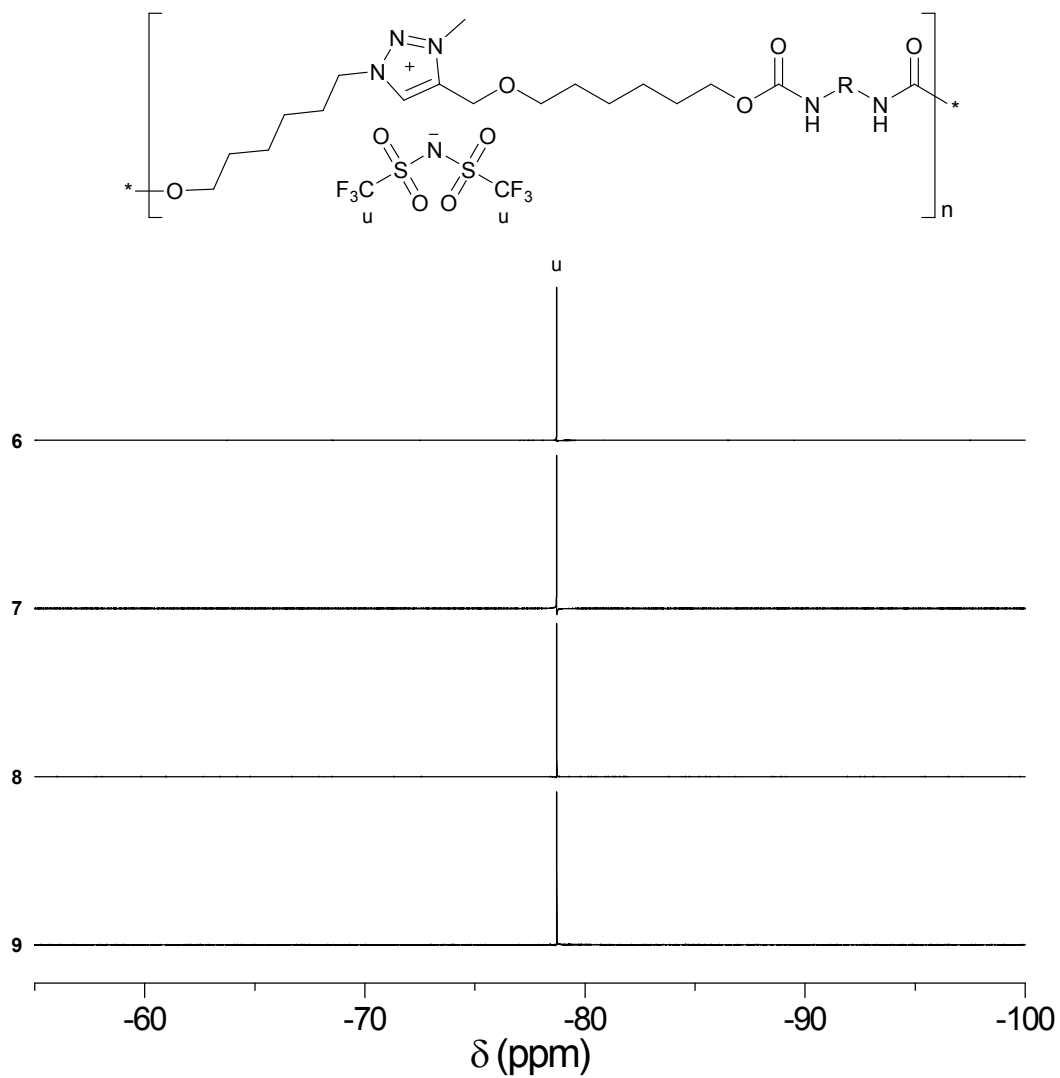


Figure S13. ^{19}F NMR (DMSO- d_6 , 376.5 MHz) of ionic PUs **6-9**.

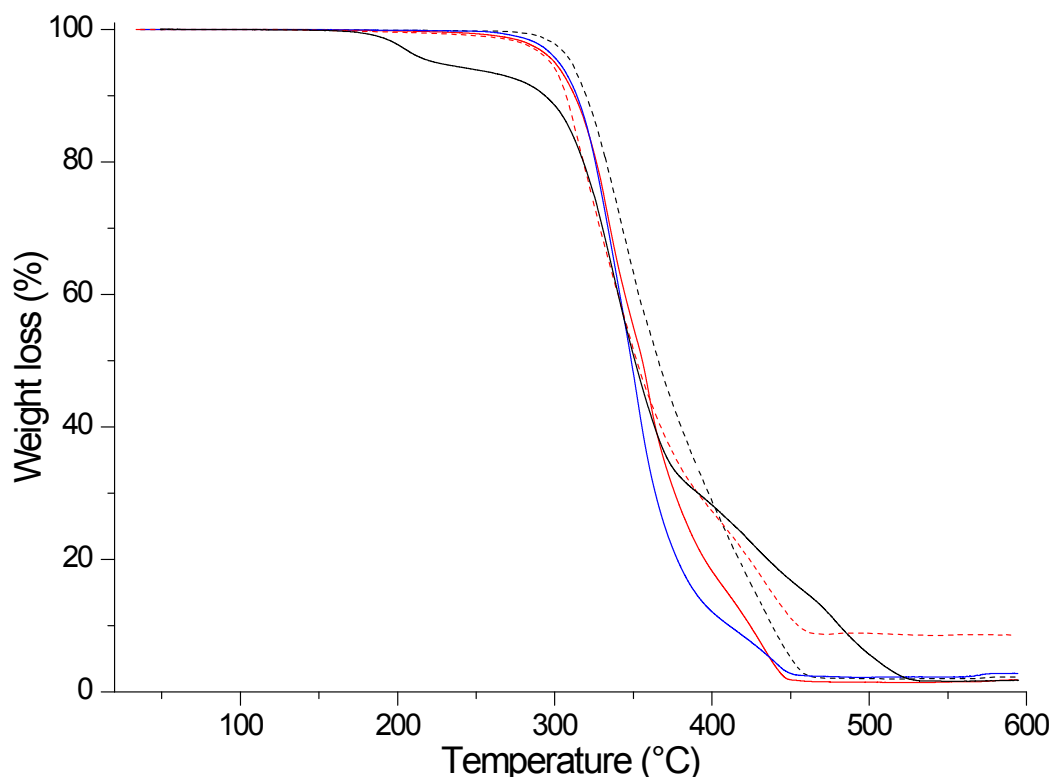


Figure S14. TGA of dihydroxy-functionalized 1,2,3-triazolium **5** (black solid line) and 1,2,3-triazolium-based ionic PUs **6** (black dashed line), **7** (red solid line), **8** (blue solid line) and **9** (red dashed line).

Table S1. Solubility of dihydroxy-functionalized 1,2,3-triazolium **5** and 1,2,3-triazolium-based ionic PUs **6-9**.

Entry	H ₂ O ^[a]	Heptane	MeOH	EtOAc	Acetone	Et ₂ O	THF	CH ₂ Cl ₂	CHCl ₃	CH ₃ CN	PhCH ₃	DMF	DMSO
5	++	–	++	++	++	~	++	++	++	++	++	++	++
6	–	–	++	–	++	–	+	~	+	++	–	++	++
7	–	–	–	–	++	–	+	–	–	++	–	++	++
8	–	–	–	–	+	–	+	+	~	++	–	++	++
9	–	–	–	–	++	–	+	–	–	++	–	++	++

^[a] “++” indicates solubility at 10 mg mL^{–1}, “+” indicates solubility at 1 mg mL^{–1}, “~” indicates partial solubility at 1 mg mL^{–1}, while “–” indicates no detectable solubility even at 1 mg mL^{–1}.