Supplementary information

Poly(2-amino-2-oxazoline)s: A New Class of Thermoresponsive Polymers.

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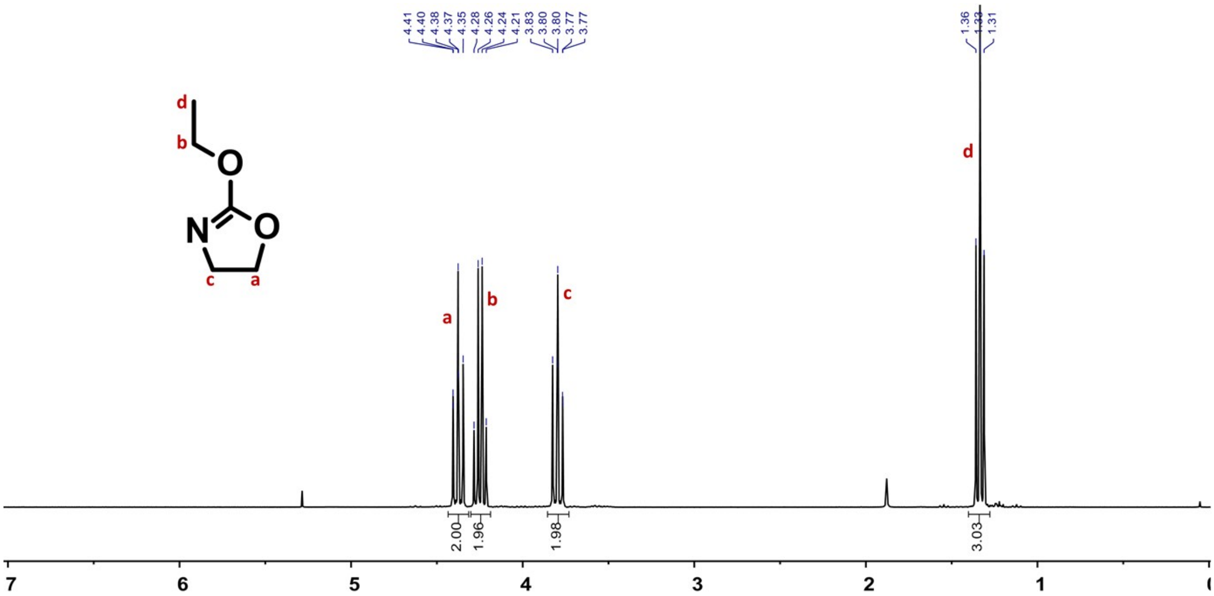


Figure S1. ^{1}H NMR spectrum of 2-ethoxy-2-oxazoline in CD_2Cl_2.

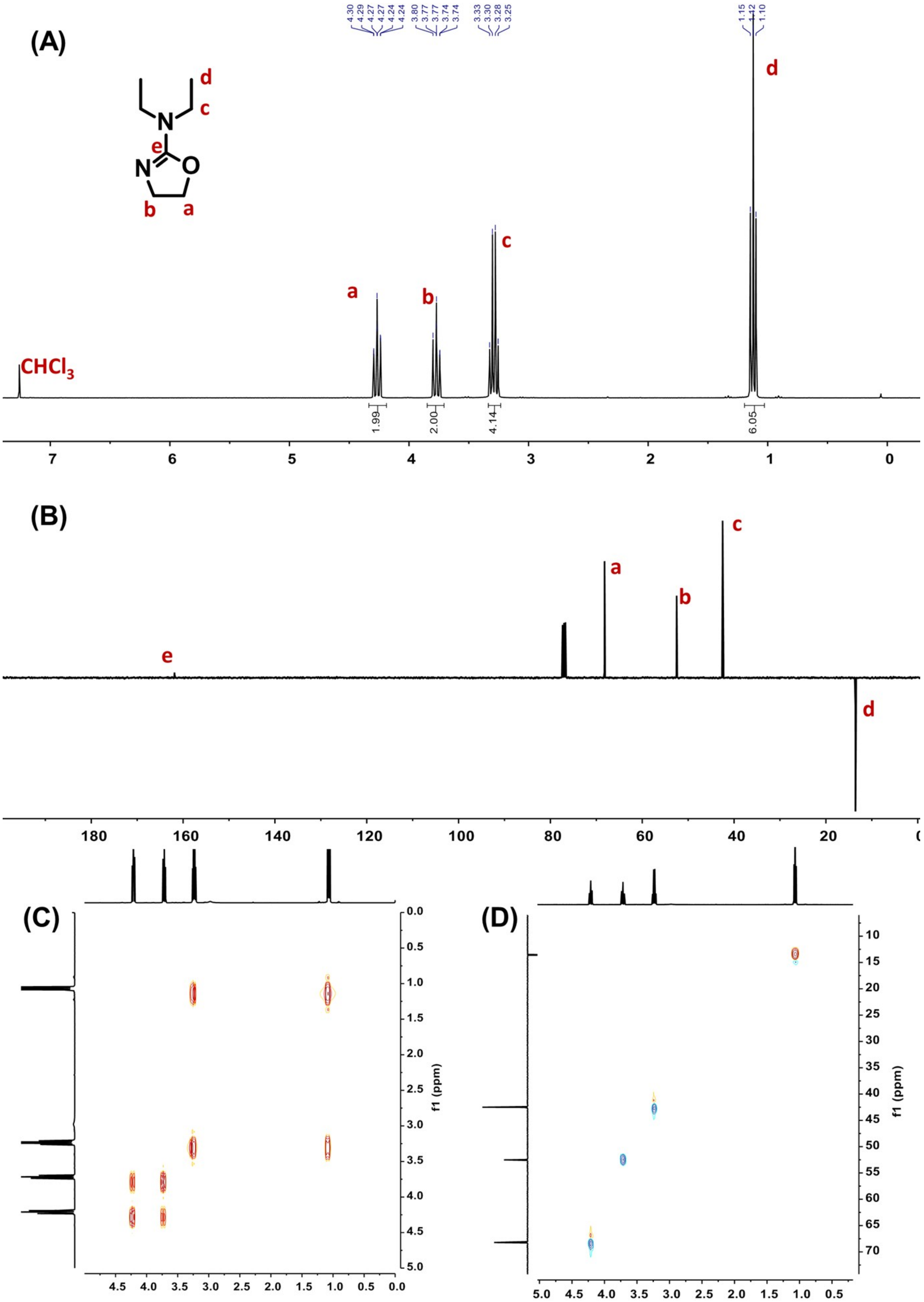


Figure S2. ^{1}H (A), ^{13}C (B), ^{1}H-^{1}H COSY (C) and ^{1}H-^{13}C HSQC (D) NMR spectra of 2-diethylamino-2-oxazoline in $CDCl_3$. All shifts are given in ppm.

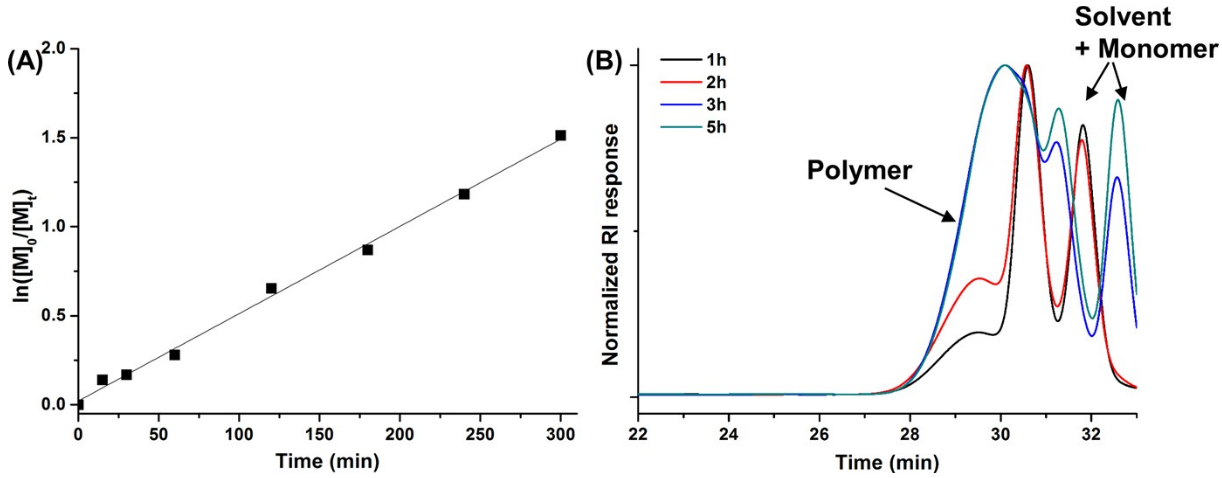


Figure S3. CROP of DEAOx in acetonitrile at 140°C initiated with MeOTs, $[M]_0/[I]_0 = 50$, $[M]_0 = 4$ M: Monomer consumption kinetics (A), SEC traces of crude polymerization mixture after different reaction times (B).

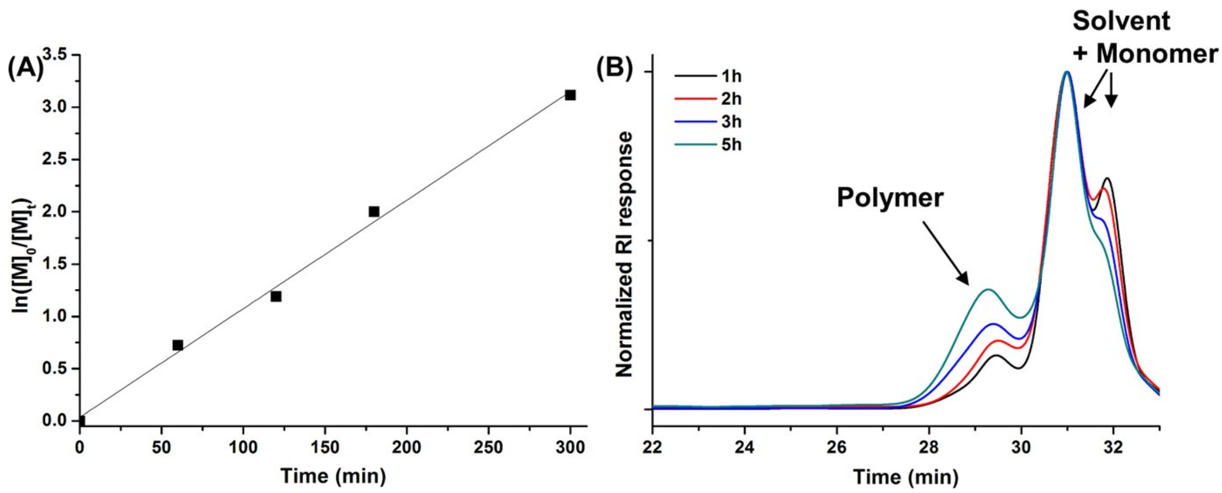


Figure S4. CROP of DEAOx in acetonitrile at 140°C initiated with phenyloxazolinium tetrafluoroborate, $[M]_0/[I]_0 = 30$, $[M]_0 = 4$ M: Monomer consumption kinetics (A), SEC traces of crude polymerization mixture after different reaction times (B).

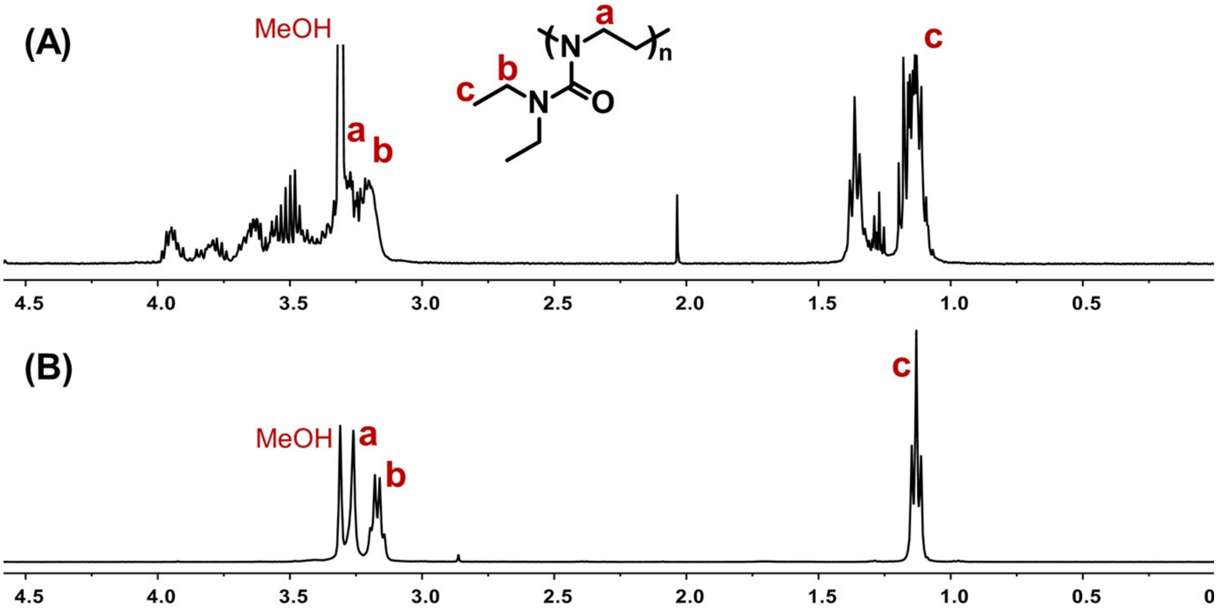
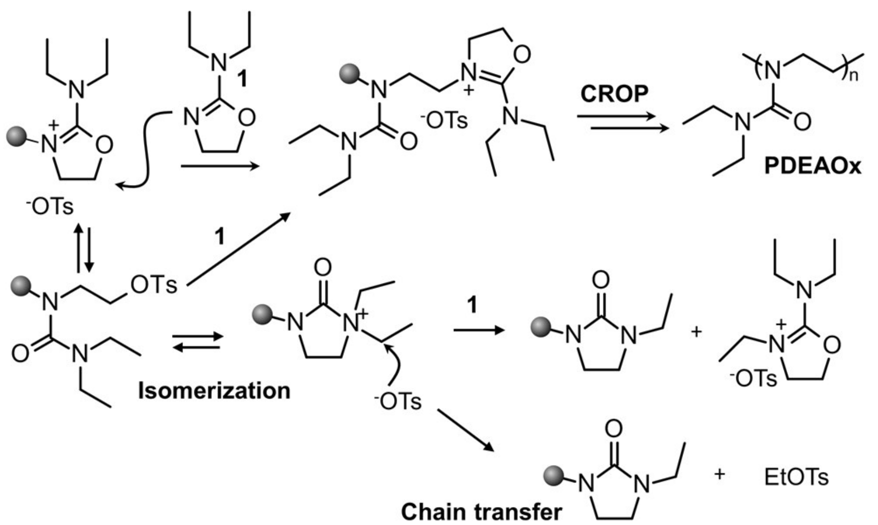


Figure S5. ^{1}H NMR spectra of PDEAOx synthesized by CROP of DEAOx (A), respectively by PEI acylation (B) in CD_3OD. Chemical shifts are given in ppm.



Scheme S1. Proposed mechanism of DEAOx polymerization showing the chain transfer process.

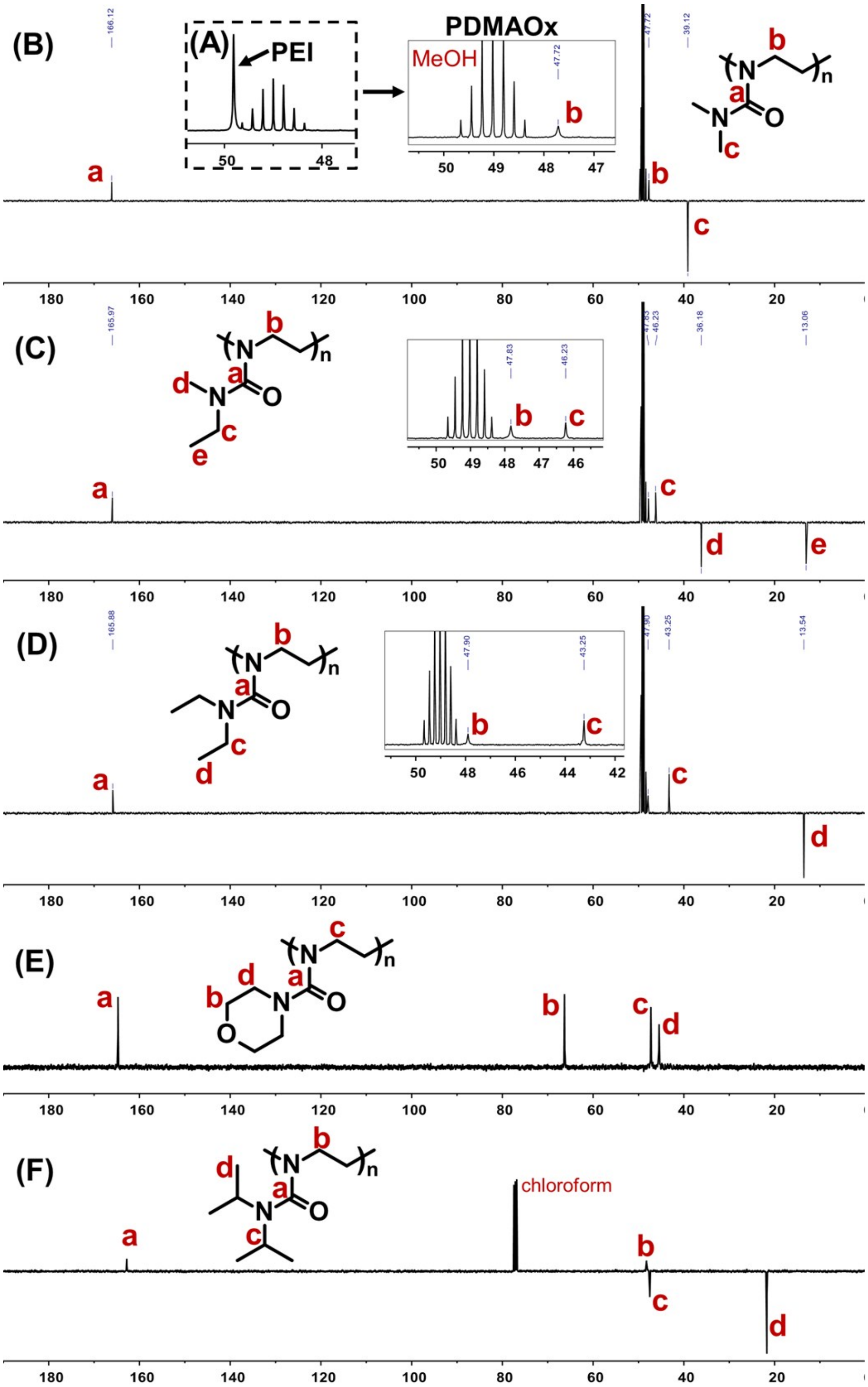


Figure S6. ^{13}C NMR spectra of PEI (A), PDMAOx (B), PEAOx and PDEAOx in CD_3OD, PMoOx in D_2O and PDiPAOx in $CDCl_3$. Insets represent expanded area around the methanol peak. All chemical shifts are given in ppm.

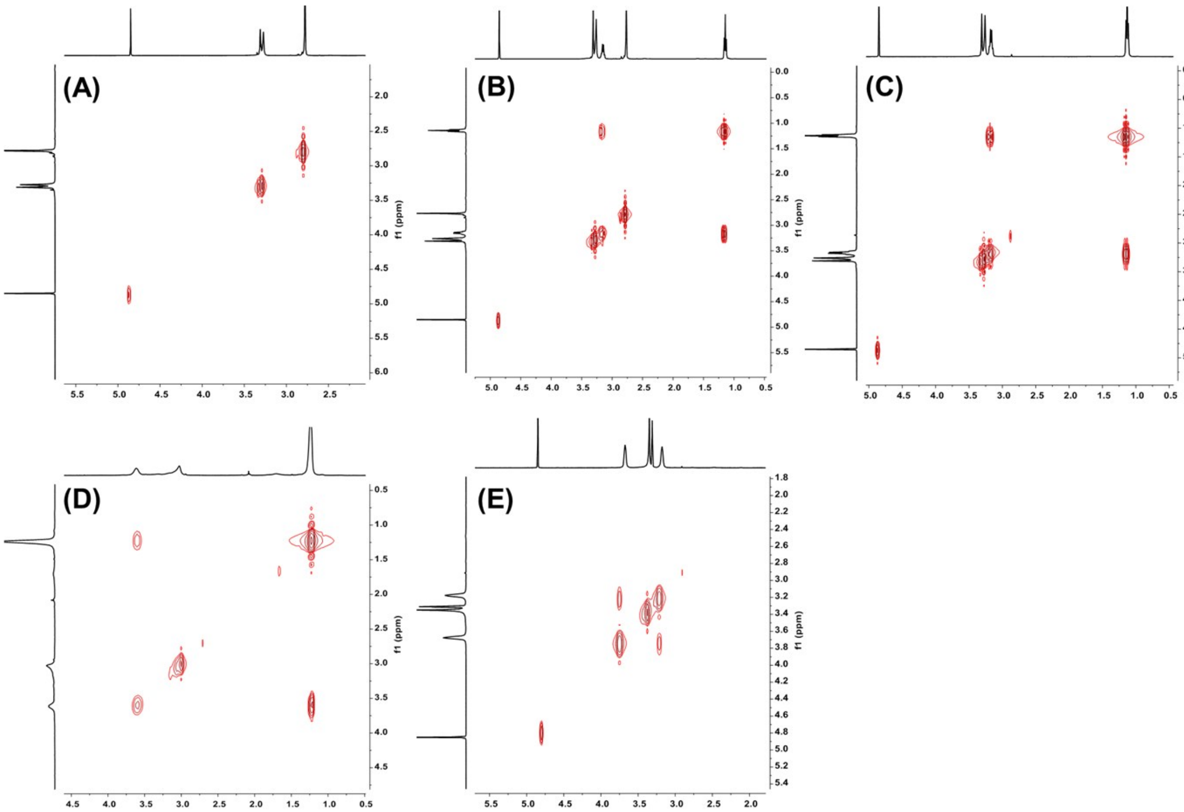


Figure S7. COSY NMR spectra of PDMAOx (A), PEAOx (B) PDEAOx (C), PDiPAOx (D) and PMoOx (E). All chemical shifts are given in ppm.

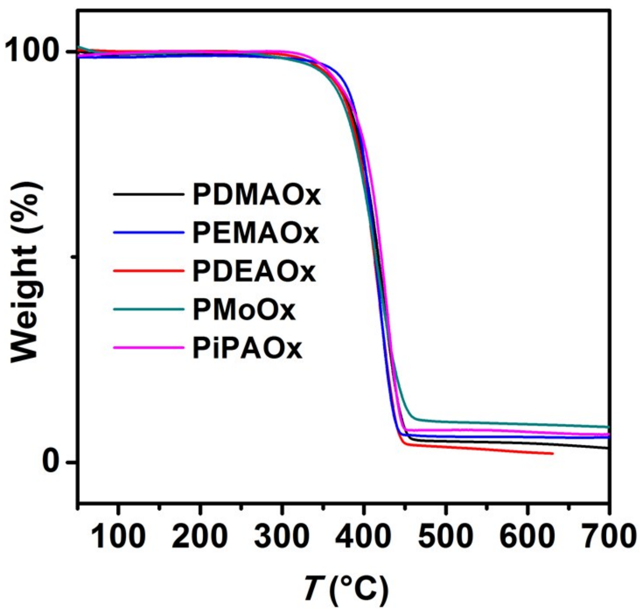


Figure S8. TGA curves of synthesized polymers.