

Synthesis and Characterization of Isocyanate-free Biosourced Polyureas

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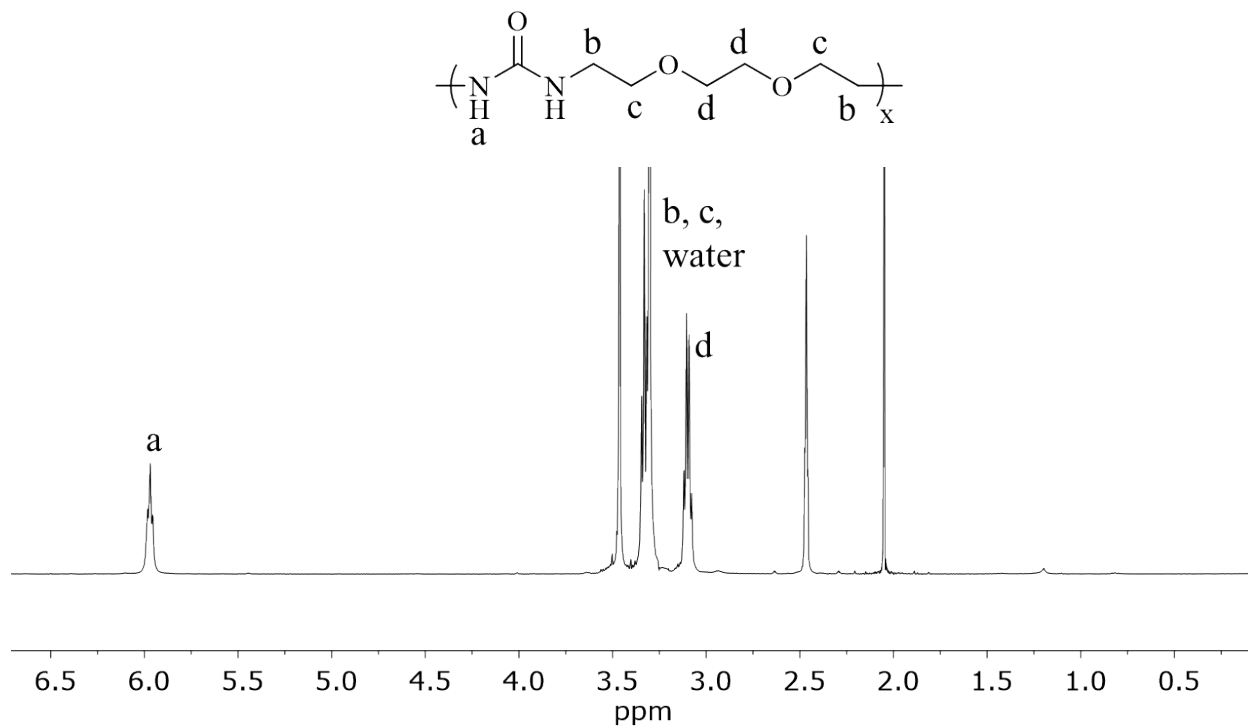


Figure S1: ¹H NMR spectroscopy of poly(DEOEU) in DMSO-d₆ with 0.1 M LiBr.

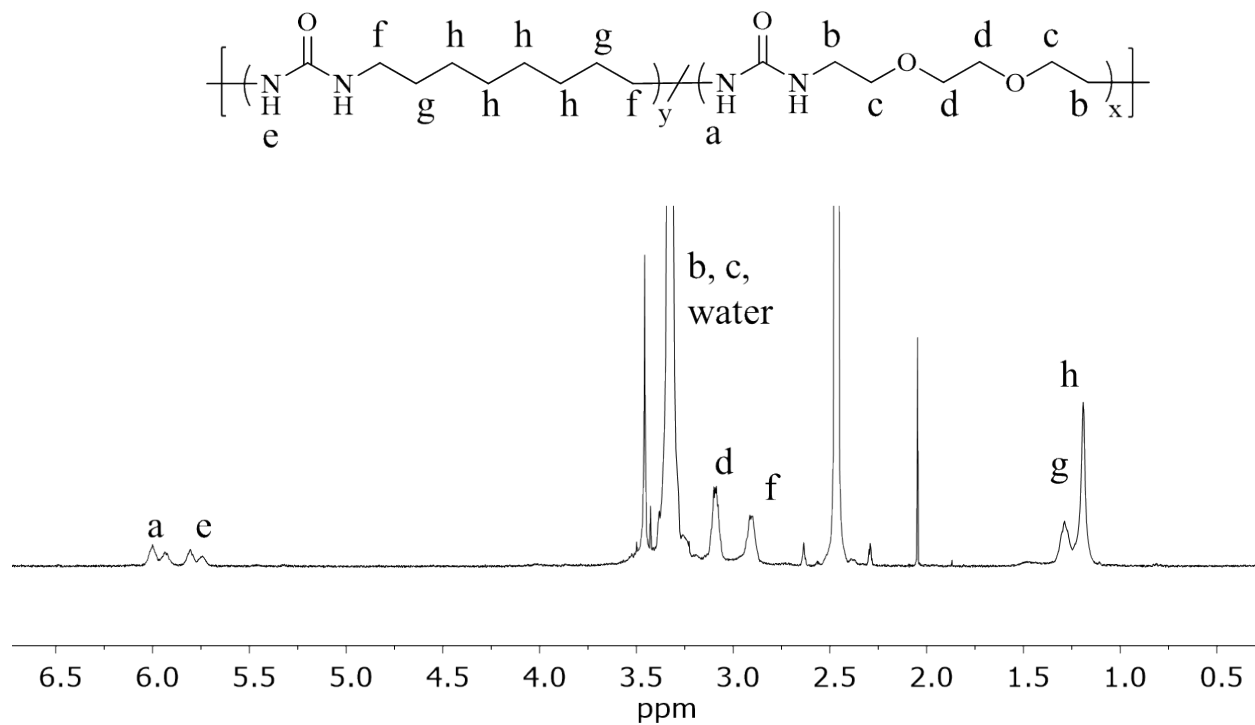


Figure S2: ¹H NMR spectroscopy of poly(OMU)²²-*co*-poly(DEOEU)⁷⁸ in DMSO-d₆ with 0.1 M LiBr.

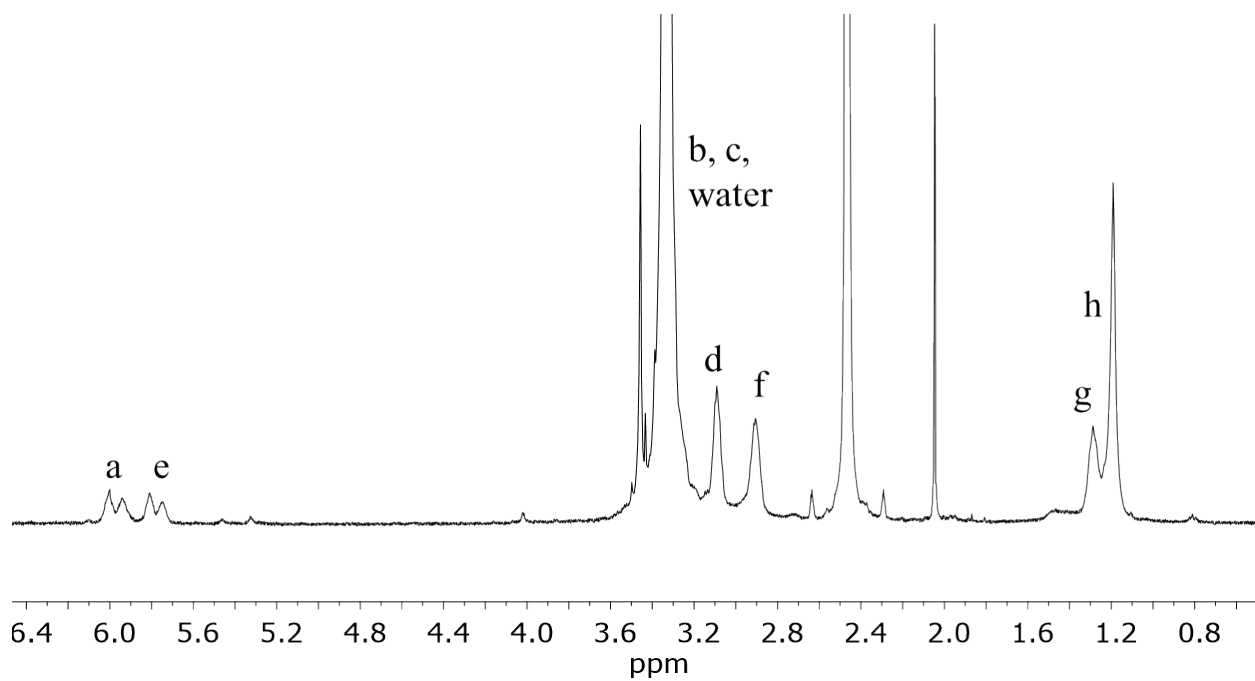
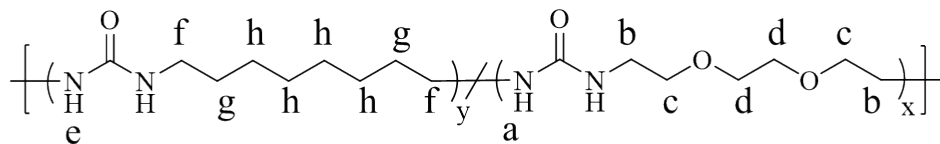


Figure S3: ¹H NMR spectroscopy of poly(OMU)⁴³-*co*-poly(DEOEU)⁵⁷ in DMSO-d₆ with 0.1 M LiBr.

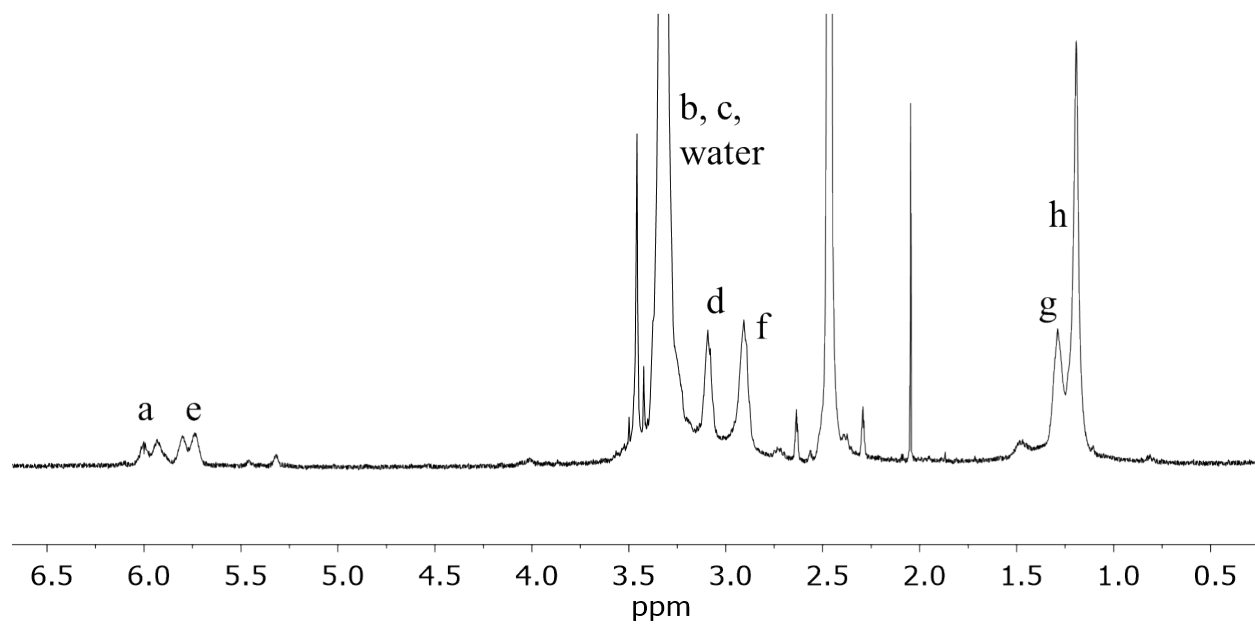
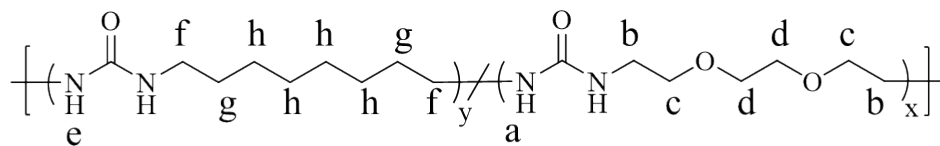


Figure S4: ¹H NMR spectroscopy of poly(OMU)⁵⁷-*co*-poly(DEOEU)⁴³ in DMSO-d₆ with 0.1 M LiBr.

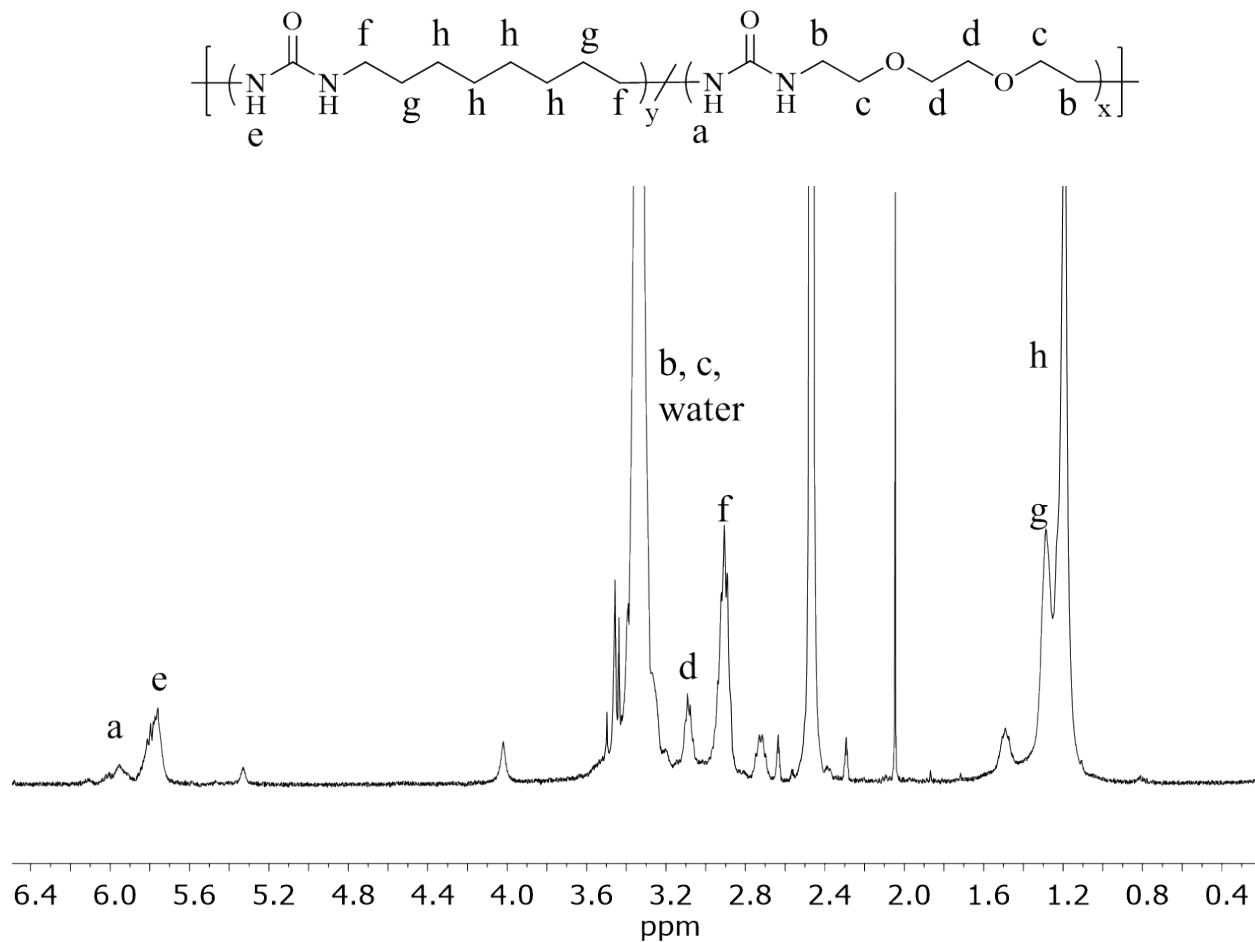


Figure S4: ^1H NMR spectroscopy of poly(OMU)⁷⁸-*co*-poly(DEOEU)²² in DMSO- d_6 with 0.1 M LiBr.

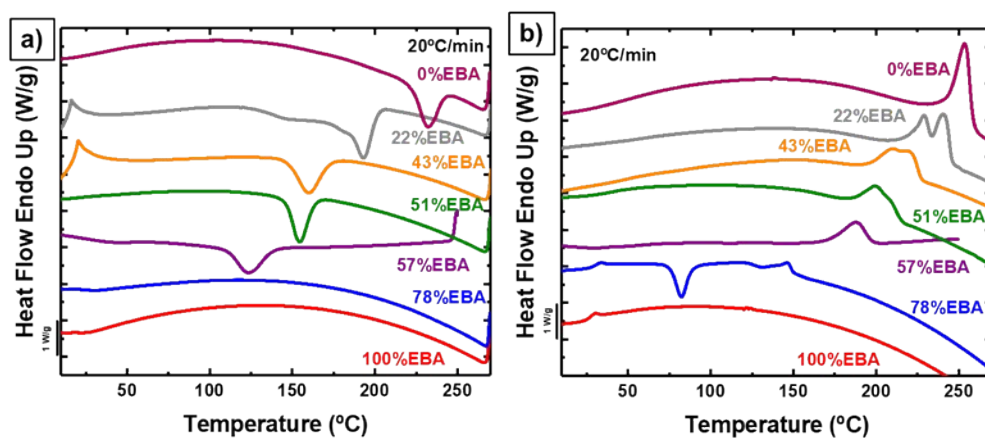


Figure S5. (a) DSC cooling scans from the melt at 20 °C/min and (b) subsequent heating scans at 20 °C/min for the indicated homopolymers and random copolymer samples.

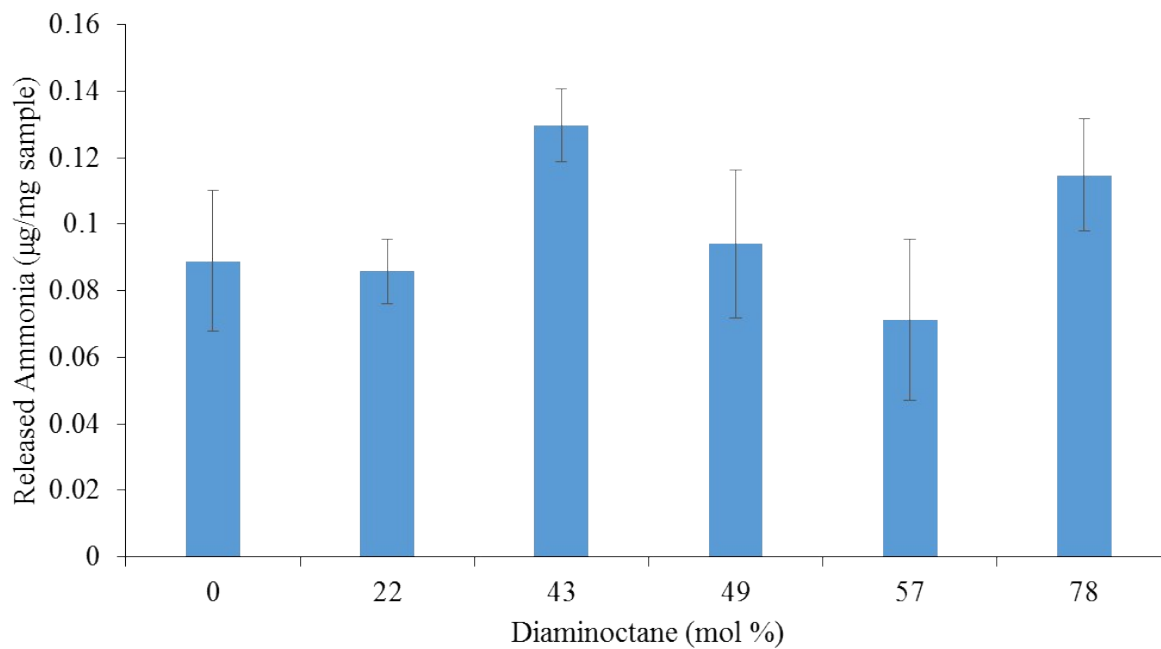


Figure S6: Total ammonia release after 4 weeks, identifying a compositional independence of Urease-derived degradation.

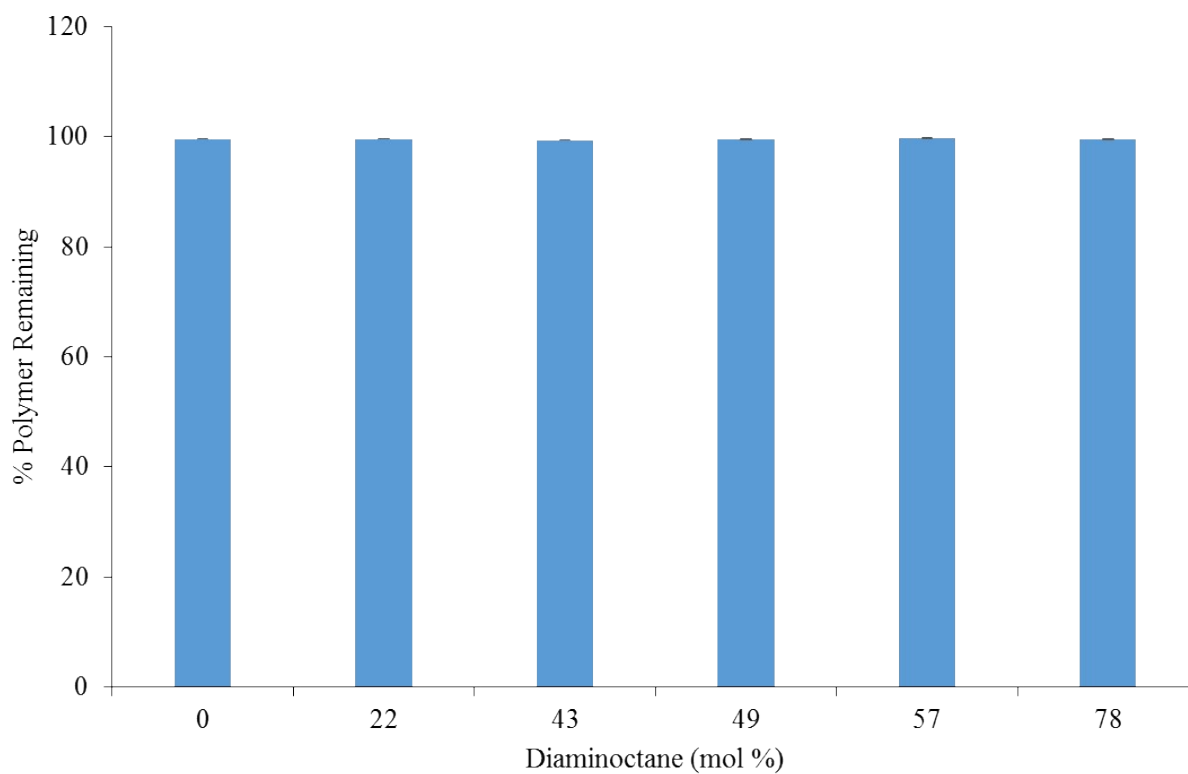


Figure S7: Polyurea percent remaining after 4-week exposure to Urease.

Table S1: Results of Tukey’s HSD for the 4-week profile of ammonia release . Groups not connected by the same letter are significantly different (i.e. Weeks 3 and 4 are statistically different from weeks 1 and 2)

WEEK		LEAST SQ MEAN
3	A	0.042585
4	A	0.033789
1	B	0.013634
2	B	0.007455

Table S2: Results of Tukey’s HSD for the total ammonia release after 4 weeks. All copolymers are statistically similar.

LEVEL		LEAST SQ MEAN
43	A	0.129745
78	A	0.114784
49	A	0.094098
0	A	0.088957
22	A	0.085867
57	A	0.071329

Table S3: Results of Tukey’s HSD for the percent polymer remaining after 4 weeks indicating similar degradation percentages across the composition range.

LEVEL			LEAST SQ MEAN
57	A		99.66497
22	A	B	99.59313
0	A	B	99.58475
49	A	B	99.55715
78	A	B	99.46368
43		B	99.38846