Supplementary Information

Fully Biodegradable and Biocompatible Emulsion Templated Polymer Scaffolds by Thiol-Acrylate Polymerization of Polycaprolactone Macromonomers

D. W. Johnson, C. R. Langford, M. P. Didsbury, B. Lipp, S. A. Przyborski and N. R. Cameron
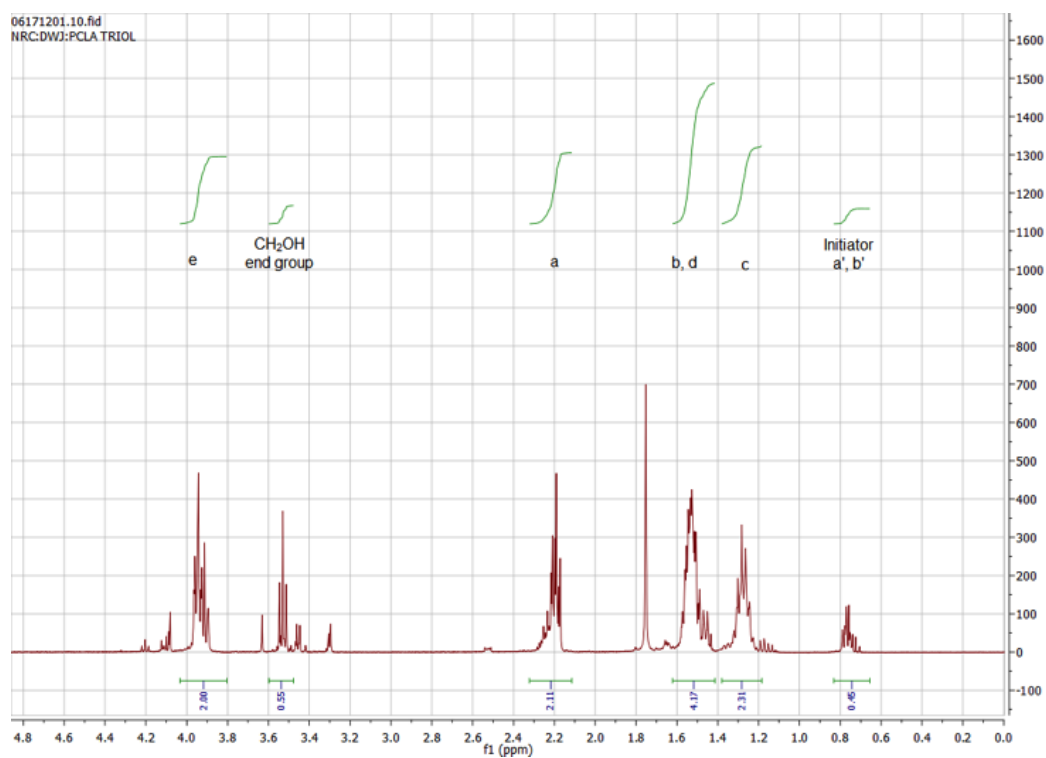
PCL Triacrylate Characterisation

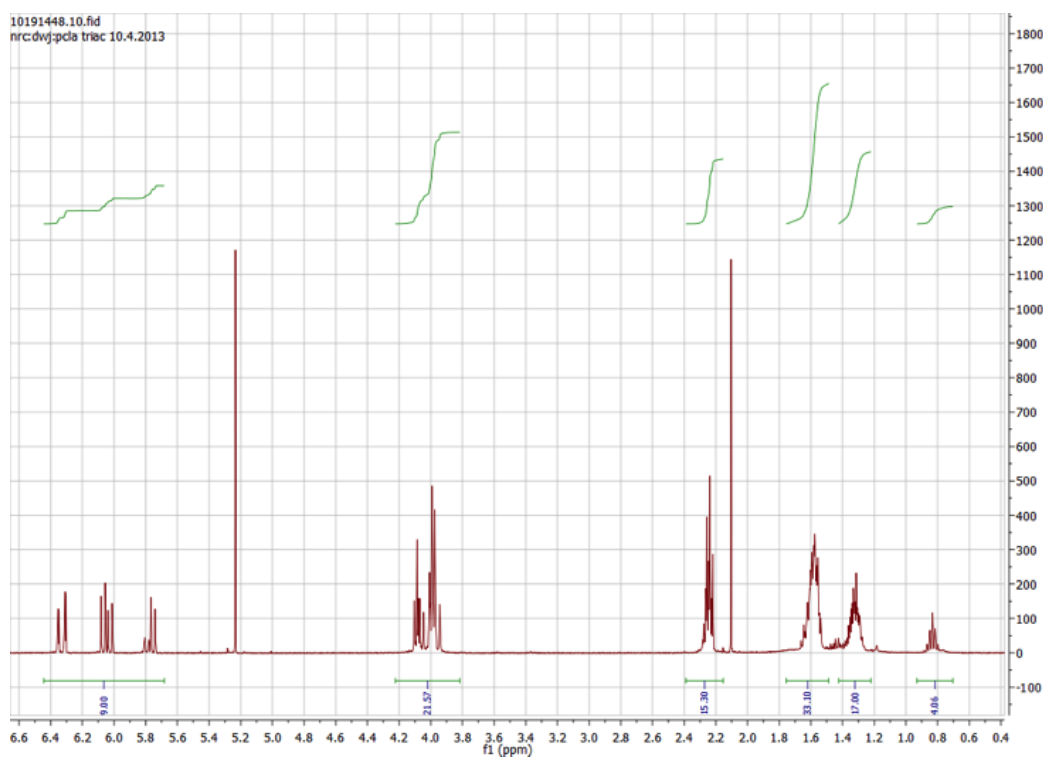**Figure S1**. ¹H NMR spectrum of PCL triol precursor

Figure S2. ¹H NMR spectrum of acrylated PCL triol

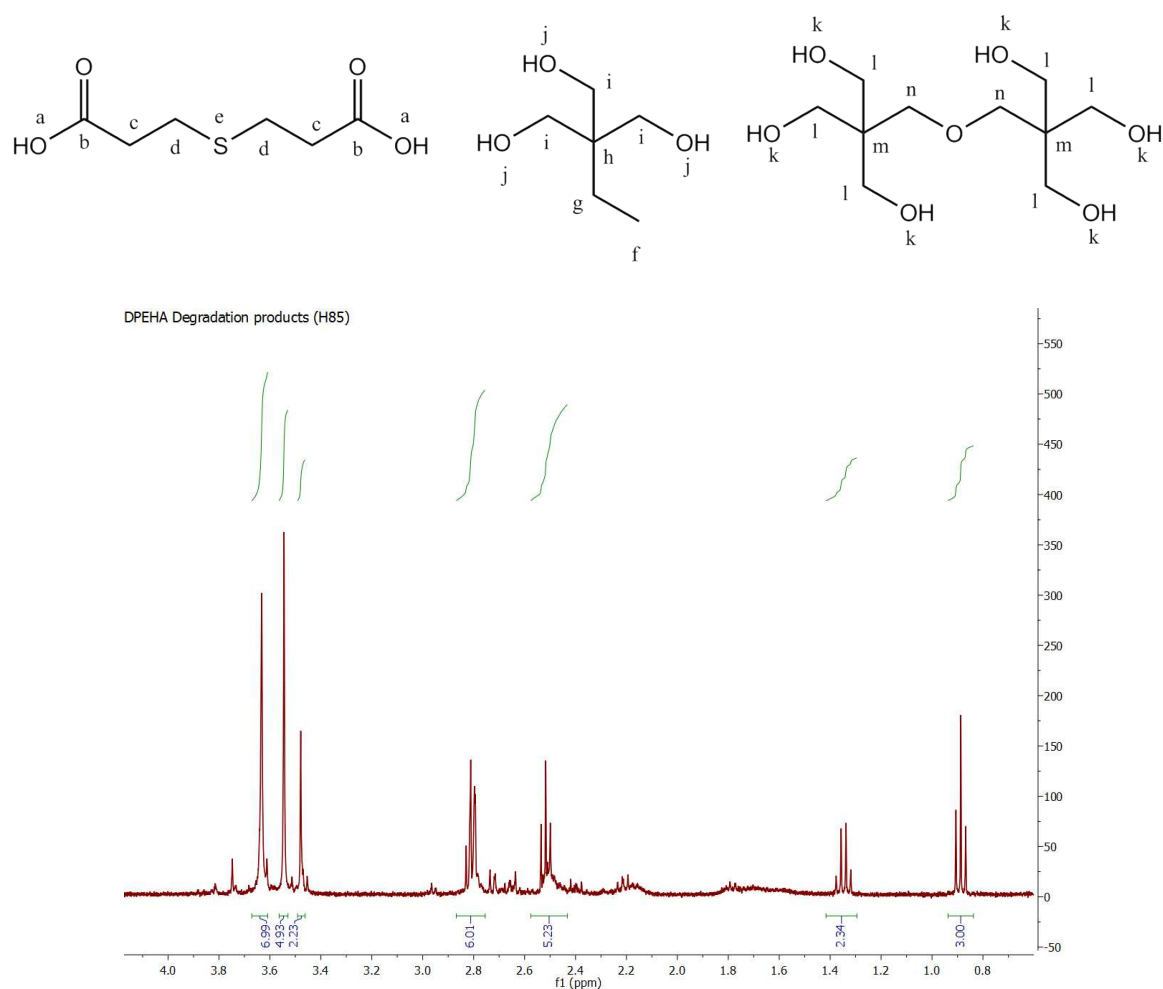# Characterisation of Scaffold Degradation Products

DPEHA scaffold

Figure S3. ^{1}H NMR spectrum of DPEHA scaffold degradation products

Table S1. Assignment of DPEHA scaffold degradation products ^{1}H NMR spectrum

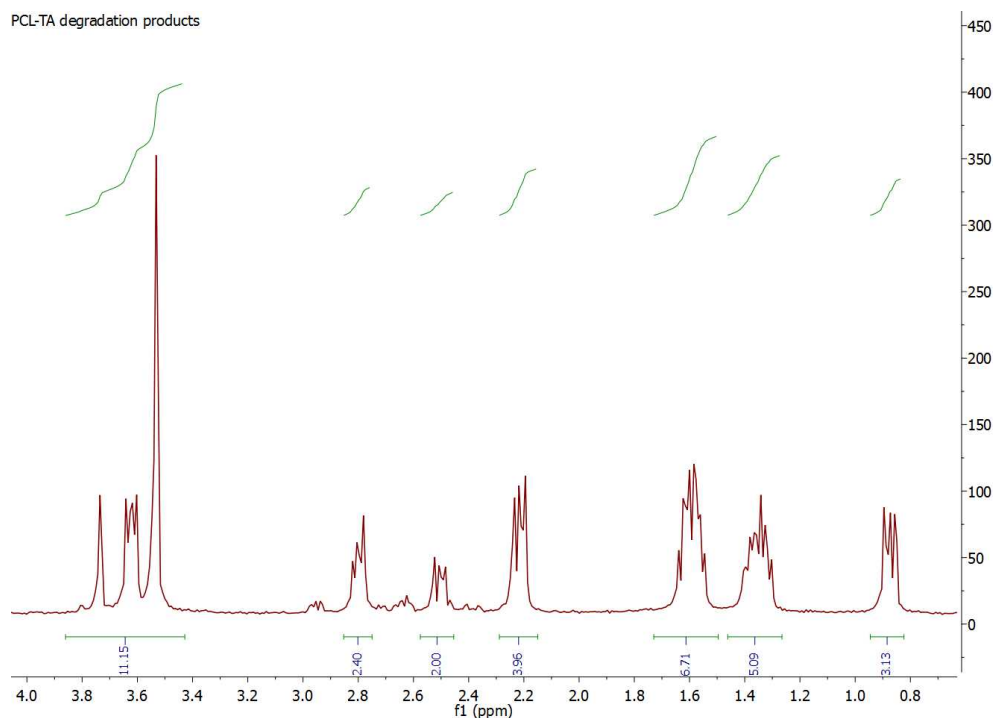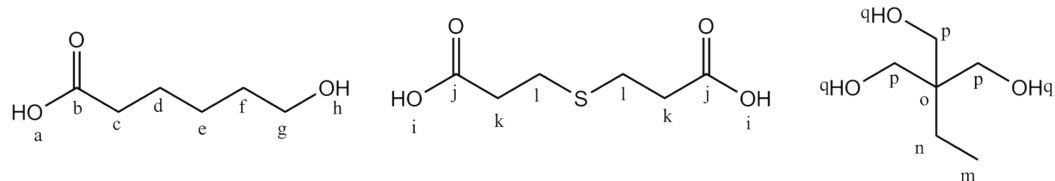| δ (ppm)	Multiplicity	Theor. Integral	Actual Integral	Assignment
0.89	triplet	3	3.0	f
1.34	quadruplet	2	2.3	g
2.52	broad triplet	5	5.2	d
2.8	broad triplet	5	6.0	c
3.48	singlet	2	2.2	n
3.54	singlet	5	4.9	l
3.63	singlet	6	7.0	i

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PCL triacrylate scaffold

Figure S4. ^{1}H NMR spectrum of PCL triacrylate scaffold degradation products

Table S2. Assignment of PCL triacrylate scaffold degradation products ^{1}H NMR spectrum

δ (ppm)	Multiplicity	Theo. integral*	Actual integral	Assignment
0.87	broad triplet	4	4.0	m
1.36 & 1.6	broad multiplets	9	6.5	n, d, e, f
2.2	multiplet	3	5.1	c
2.5	broad multiplet	2	2.6	l
2.8	broad multiplet	2	3.1	k
3.55, 3.62 and 3.74	broad multiplets	8	14.1	p,g

* proper assignment is not possible where peaks of different products overlap as the stoichiometry of the degradation products is not known (PCL has a broad dispersity).
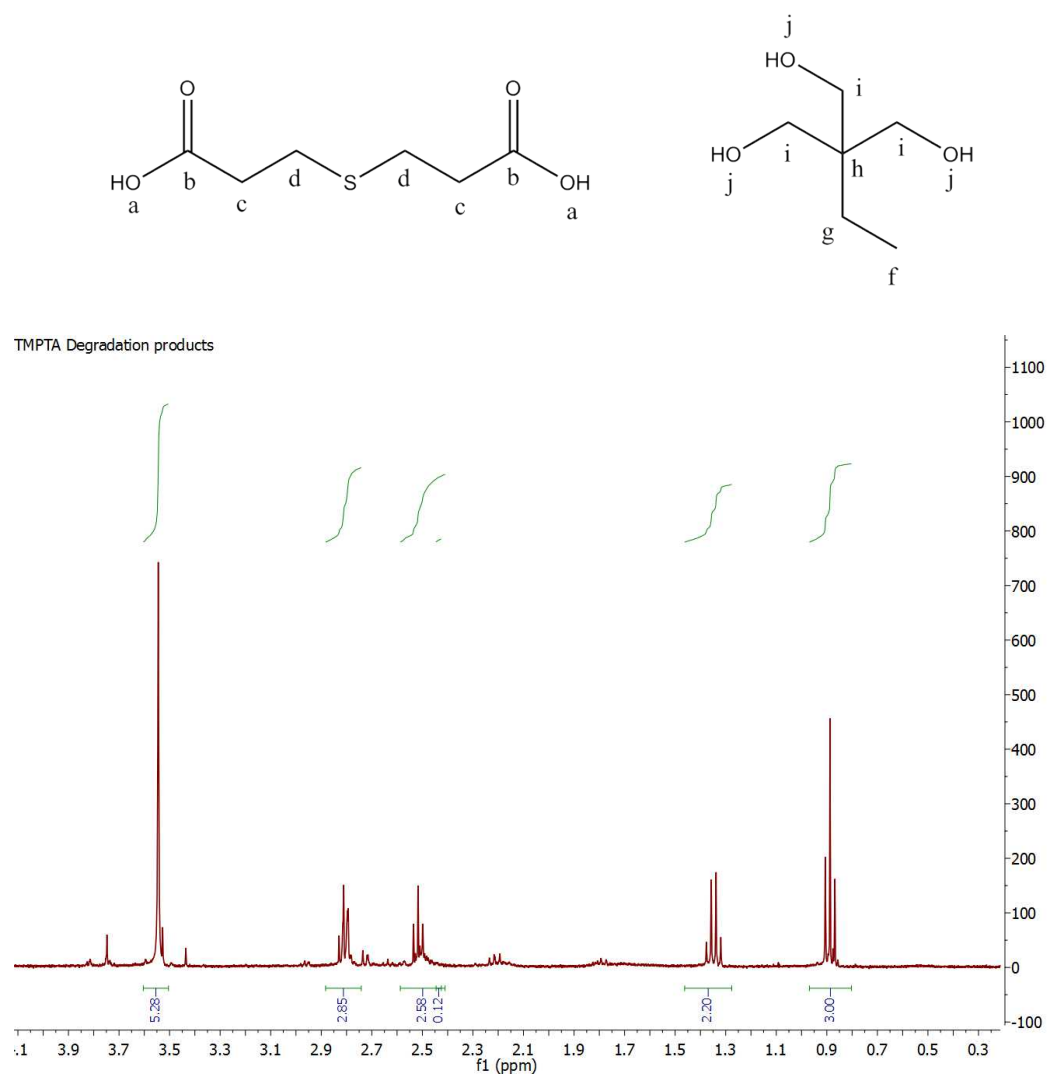
TMPTA scaffold

Figure S5. ^{1}H NMR spectrum of TMPTA scaffold degradation products

Table S3. Assignment of TMPTA scaffold degradation products ^{1}H NMR spectrum

δ (ppm)	Multiplicity	Theo. integral	Actual integral	Assignment
0.87	triplet	3	3.0	f
1.30	quadruplet	2	2.2	g
2.52	broad triplet	3	2.6	c
2.85	broad triplet	3	2.9	d
3.5	singlet	5	5.3	i