Electronic Supplementary Material (ESI) for Polymer Chemistry.
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Supporting Information

Digital light processing 3D printing with thiol-acrylate vitrimers

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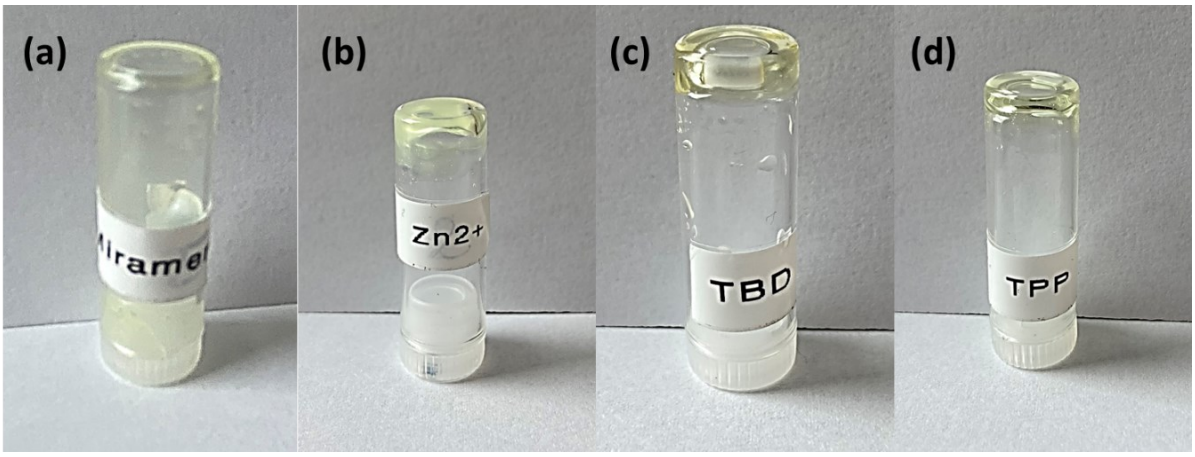

Figure S1 - Monitoring the premature gelation of a thiol-acrylate formulation containing 50% 2-hydroxy-2-phenoxypropyl acrylate, 25 mol% glycerol 1,3-diclycerolate diacrylate, 25 mol% trimethylolpropane tri(3-mercaptopropionate) and 2 wt% phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide after adding a commonly used transesterification catalyst (5 mol% related to –OH groups) versus the behavior of ER-resin-1. Photographs show (a) ER-resin-1 and the thiol-acrylate resin directly after the addition of (b) $Zn(OAc)_2$, (c) triazabicyclodecene and (d) triphenylphosphine.

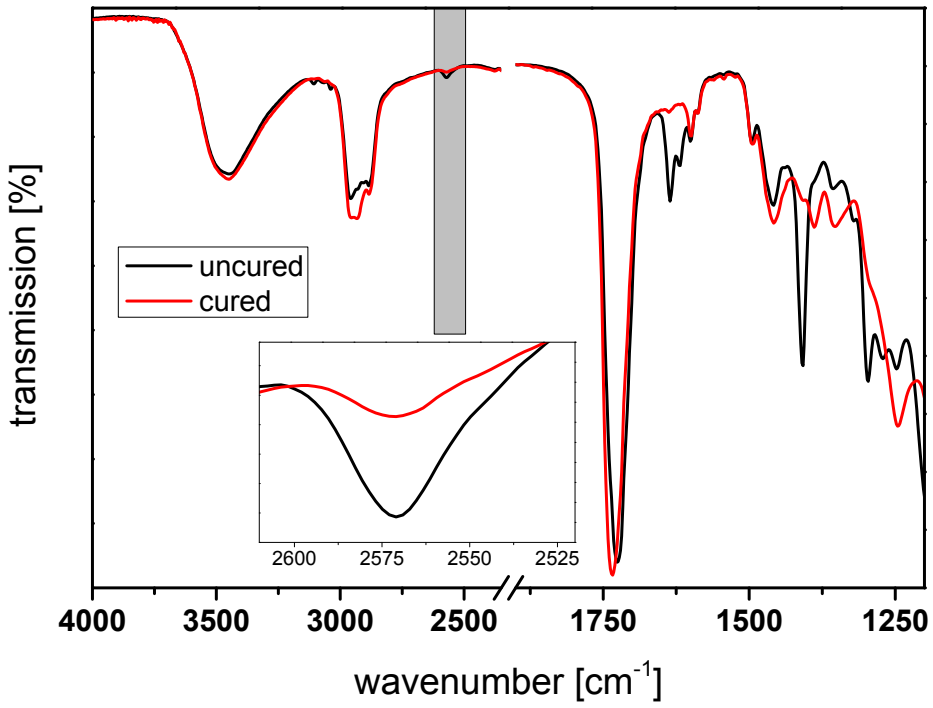

Figure S2 - FTIR spectra of resin-ER-1 prior to and after photocuring with a light emitting diode lamp (zgood® wireless LED curing lamp) comprising a power density of 3.3 mW cm^{-2} (λ = 420 - 450 nm).

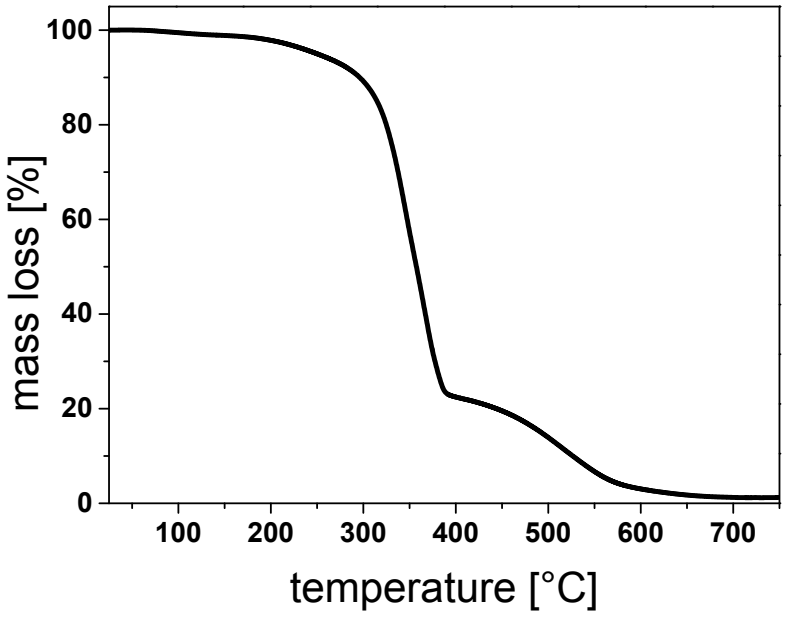

Figure S3 - TGA curve of cured resin-ER-1.

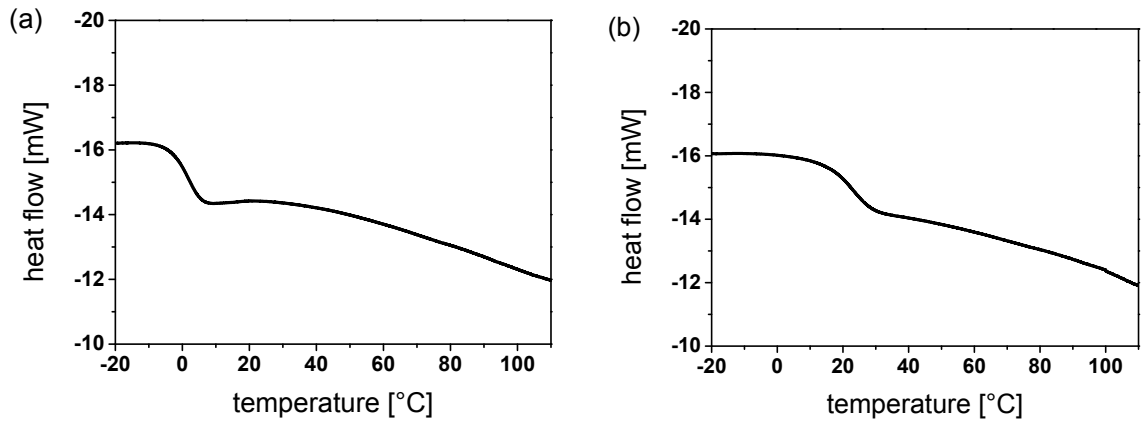

Figure S4 - DSC curves of DLP printed test specimen from catalyzed resin-ER-1 (a) prior to and (b) after thermal treatment at 180 °C for 4 h.

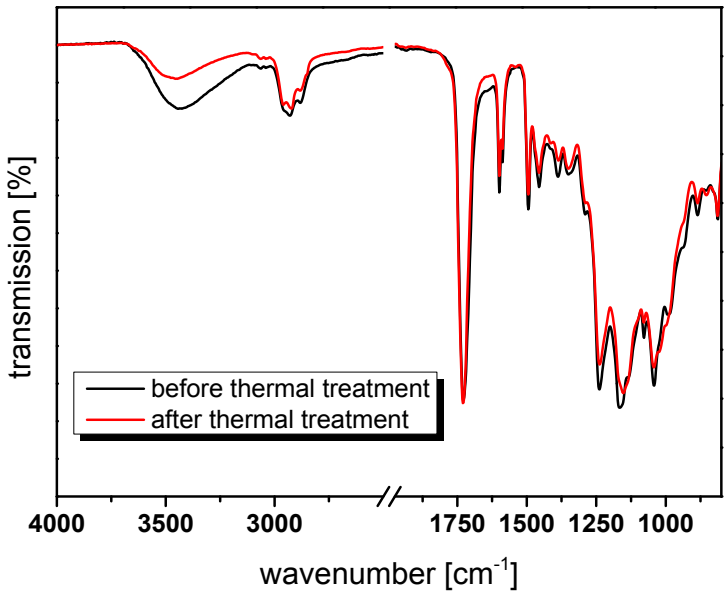

Figure S5 - FTIR spectra of cured resin-ER-1 prior to and after thermal treatment at 180 °C for 4 h.

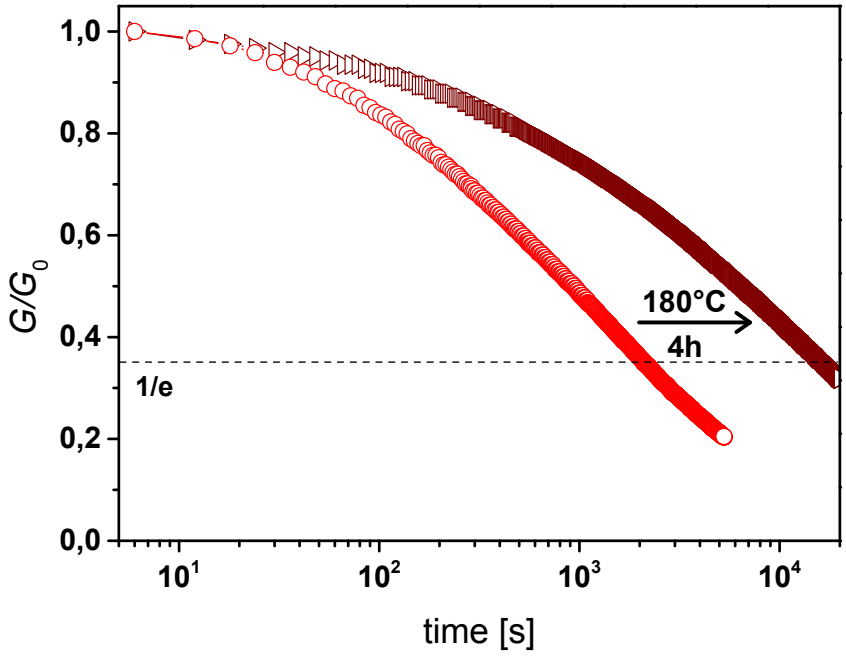

Figure S6 - Normalised stress relaxation curves of DLP printed test specimen from catalyzed resin-ER-1, prior to and after thermal treatment of the samples at 180 °C for 4 h. The stress relaxation experiments were carried out at 180 °C.