Electronic Supplementary Material (ESI) for Polymer Chemistry.

Photo-responsive thiol-ene networks for the design of switchable polymer patterns

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Results

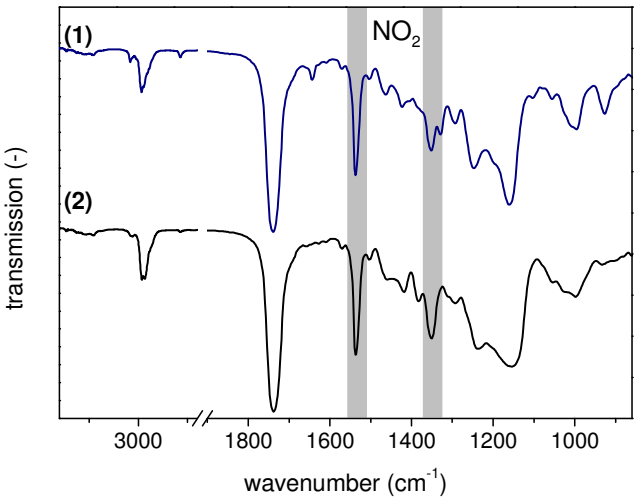

Figure S1 – FT-IR spectra of TMPMP-**2** (1) prior to and (2) after photo-curing with visible light exposure (λ = 420 – 450 nm, 1.45 J/cm^2, N_2).

Table S1 – T_g of photocured thiol-ene networks (λ = 420 – 450 nm, 1.45 J/cm^2, N_2).

sample	type of thiol	content of Irgacure 819 (wt.%)	T_g (°C)
PETMP-**4**	PETMP	4	-9
TMPMP-**2**	TMPMP	2	-12
TMPMP-**4**	TMPMP	4	-13
HDT-4-**0.25**	TMPMP & HDT[1]	4	-17
HDT-4-**0.5**	TMPMP & HDT[2]	4	-20

[1] 3:2 molar ratio of TMPMP and HDT
[2] 1:1 molar ratio of TMPMP and HDT

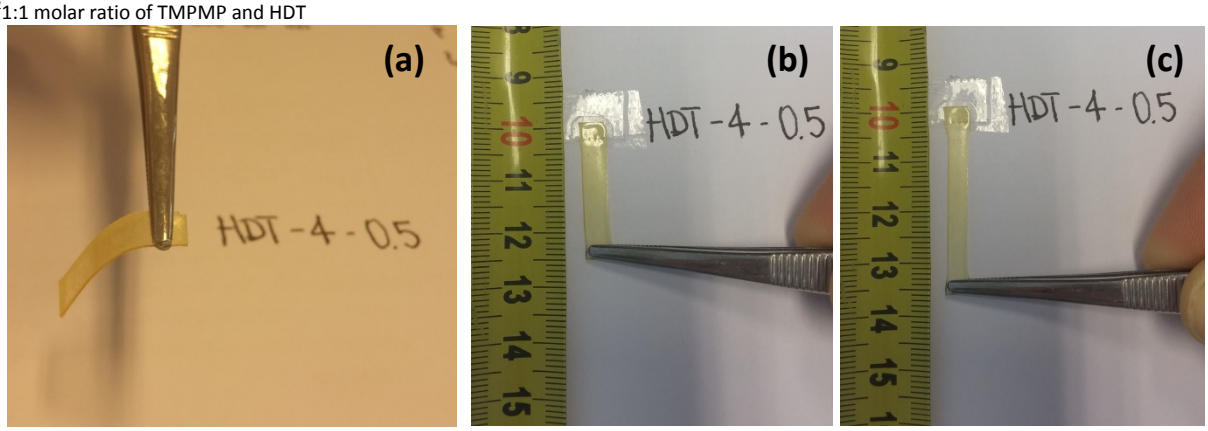

Figure S2 – (a) Free-standing film of a photocured HDT-4-**0.5** resin mixture. (b) and (c) Demonstration of the elasticity and stretchability of a free-standing photo-cured HDT-4-**0.5** film.

Experimental

Differential scanning calorimetry measurements were carried out with a Mettler-Toledo DSC 821e (United States) employing a nitrogen flow of 20 mL min^{-1}. The thiol-ene networks were heated from -60 to 100°C with a heating rate of 20°C min^{-1}. The glass transition temperature (T_g) was obtained from the first heating run and was read as the midpoint in heat capacity.