

Supporting Information

Digital light processing 3D-printing of modified liquid isoprene rubber using thiol-click chemistry

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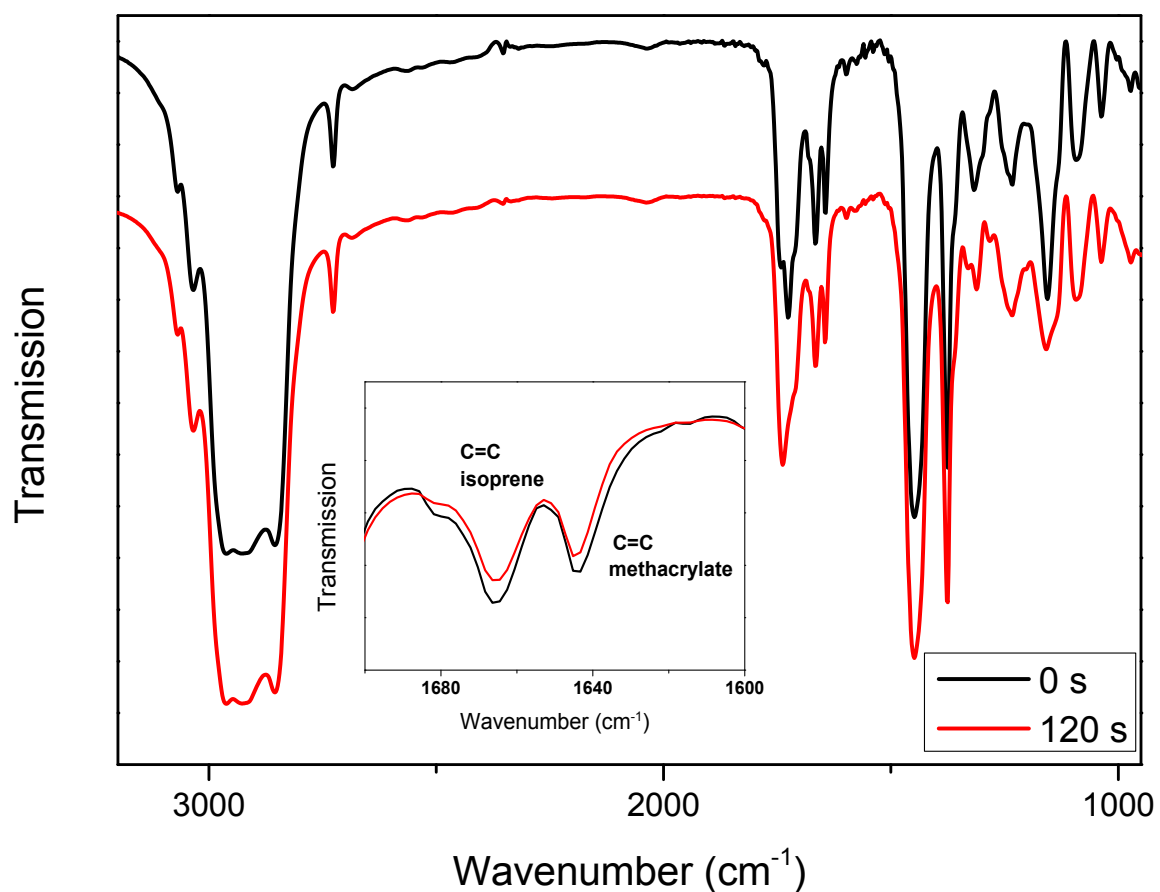
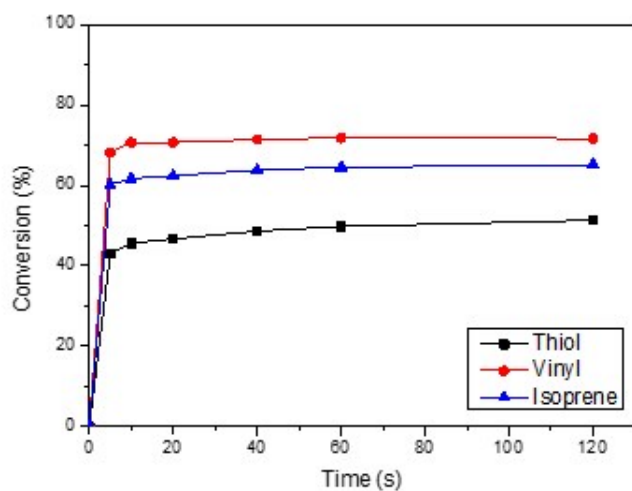
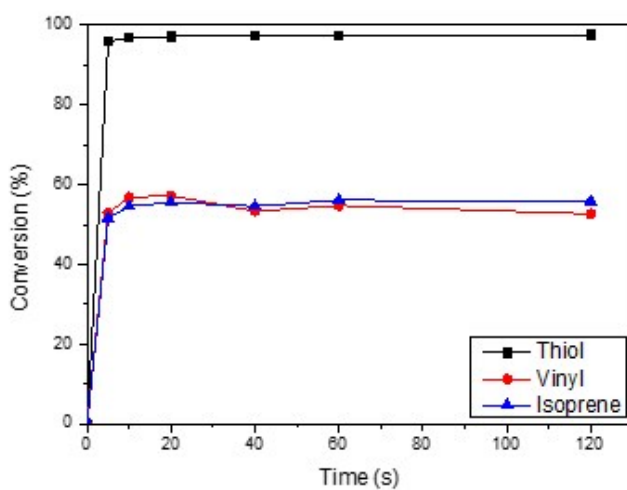


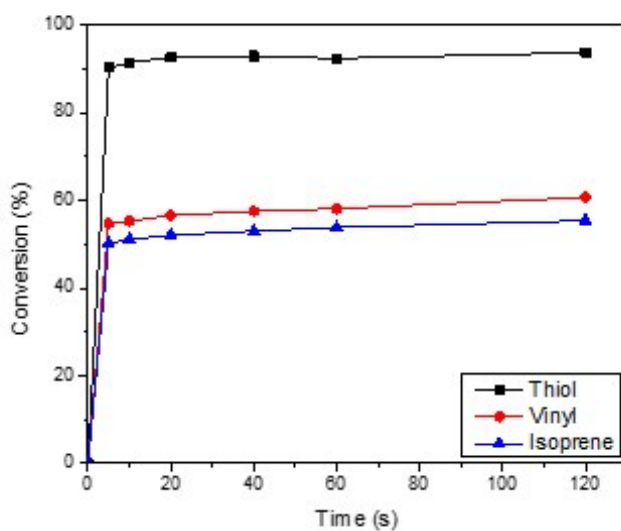
Figure S1 – FT-IR spectra of LIR-REF prior to and after UV exposure. Inset shows the decrease of the characteristic C=C absorption bands for the isoprene and methacrylate groups upon UV exposure.



(a)



(b)



(c)

Figure S2 - Cure kinetics of stabilized DLP 3D printable rubber formulations: (a) **LIR-SH-BD**, (b) **LIR-SH-DEG** and (c) **LIR-SH-TEG**.

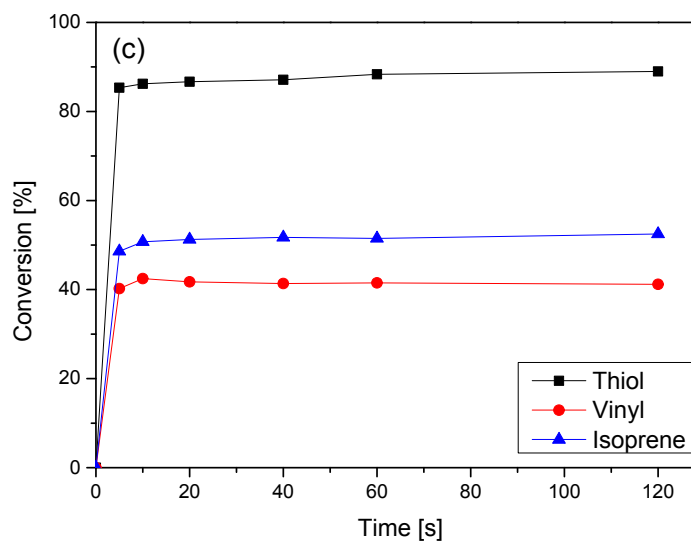
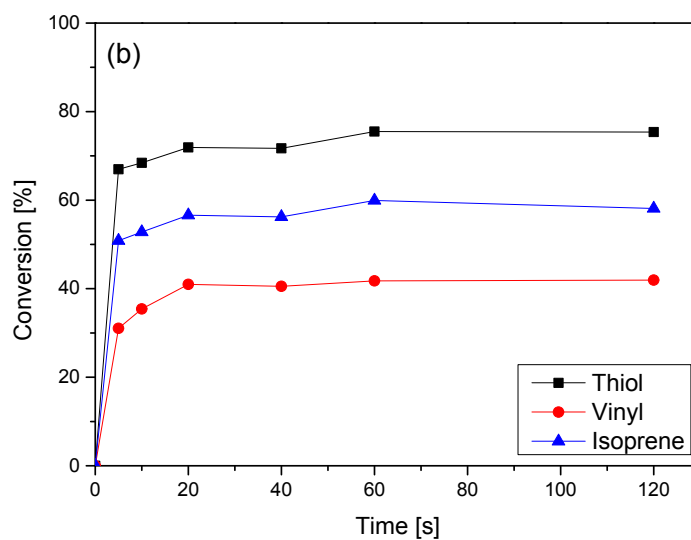
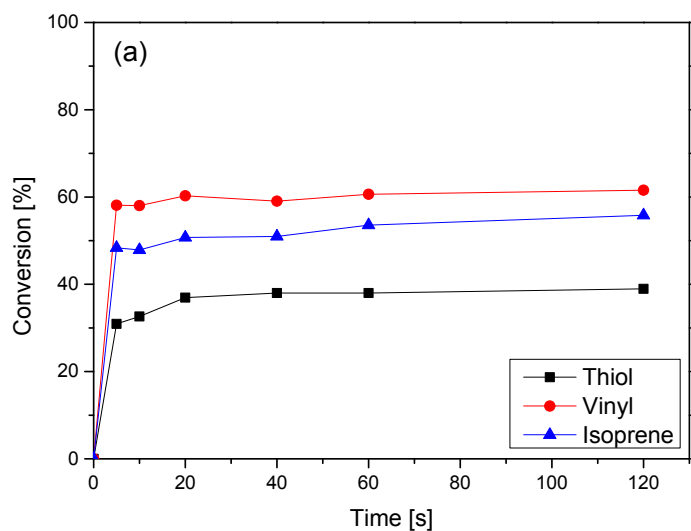


Figure S3 - Cure kinetics of non-stabilized DLP 3D printable rubber formulations: (a) **LIR-SH-BD**, (b) **LIR-SH-DEG** and (c) **LIR-SH-TEG**.

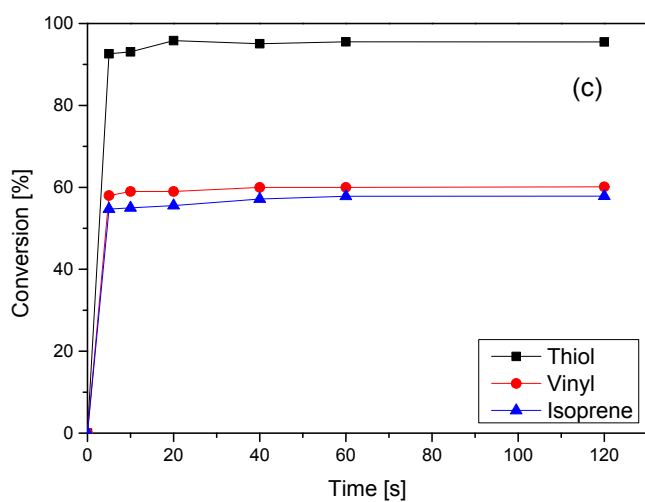
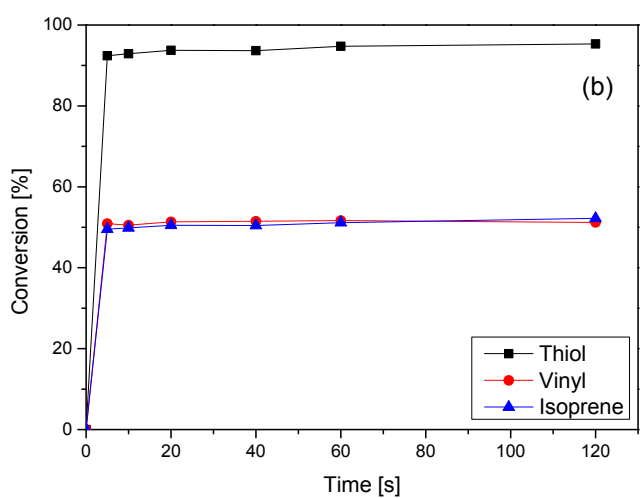
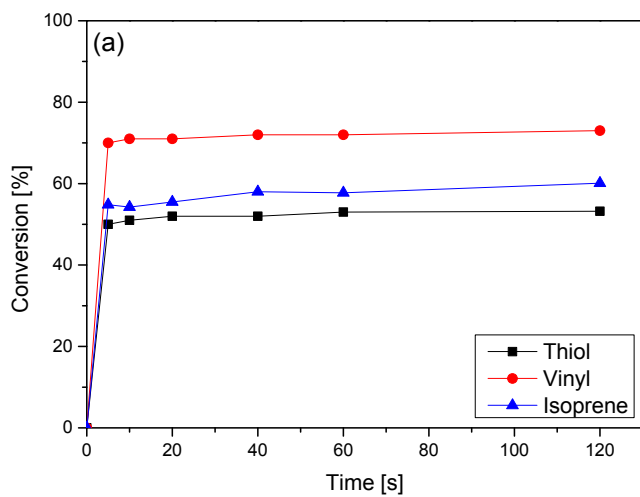


Figure S4 - Cure kinetics of stabilized DLP 3D printable rubber formulations containing 0.01 wt% Sudan II: (a) LIR-SH-BD, (b) LIR-SH-DEG and (c) LIR-SH-TEG.

Table S1 - Monomer conversion of the stabilized and non-stabilized formulations after 120 s of irradiation.

formulation	concentration of pyrogallol / wt%	concentration of Sudan II / wt%	conversion thiol groups (%)	conversion vinyl groups (%)	conversion main chain C=C groups (%)
LIR-SH-BD-ns	-	-	39	62	56
LIR-SH-DEG-ns	-	-	75	42	58
LIR-SH-TEG-ns	-	-	89	41	52
LIR-SH-BD-PyrS	0.1	0.01	53	73	60
LIR-SH-DEG-PyrS	0.1	0.01	95	53	52
LIR-SH-TEG-PyrS	0.1	0.01	95	61	58