

SUPPORTING INFORMATION

Hydrogels Based on Living Ring-Opening Metathesis Polymerization

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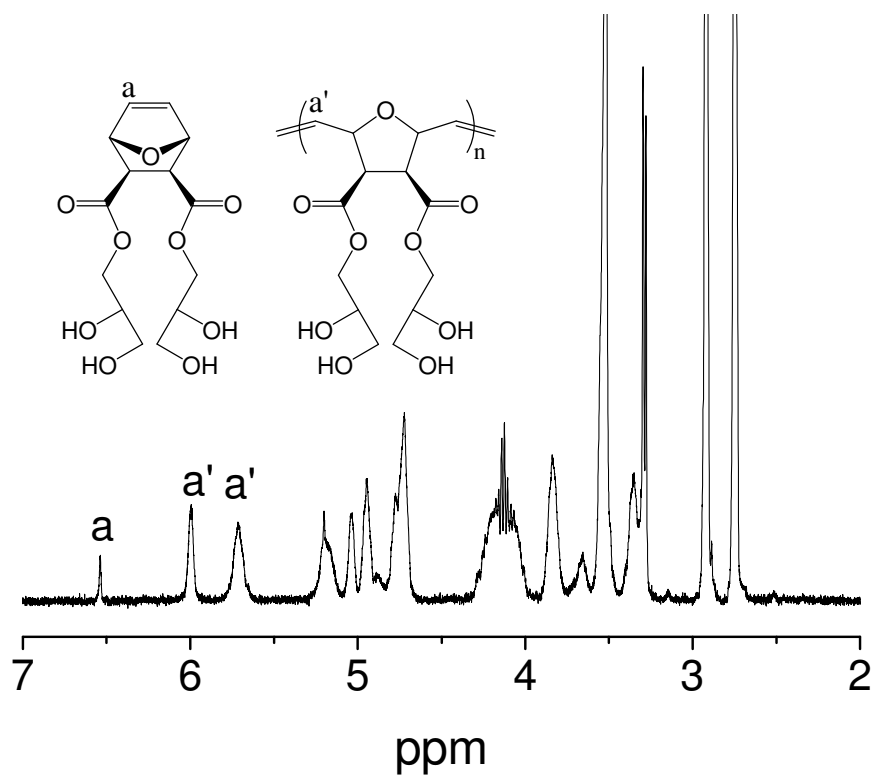


Figure S1. ^1H -NMR spectrum of the reaction mixture for the ROMP of **M4** after a reaction time of 12 h in DMF-d_7 ; $[\text{M4}]_0/[\text{G3}]_0 = 200:1$.

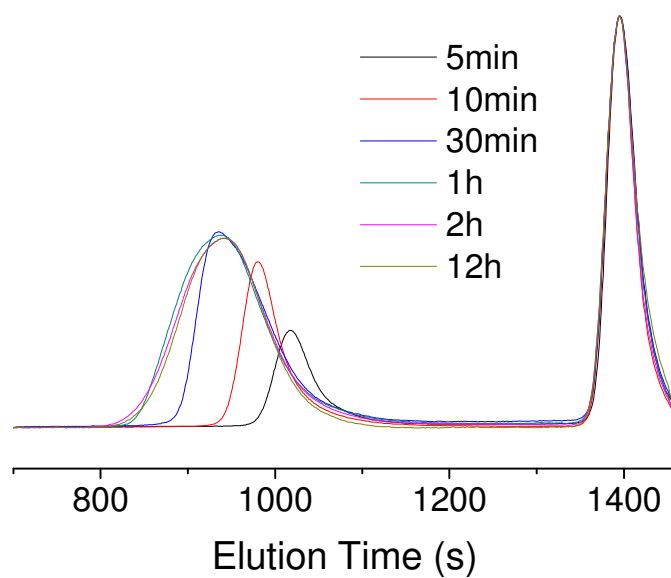


Figure S2. GPC traces of Poly-M4 from ROMP at various times throughout the reaction;

$[M4]_0 = 0.5$ M in DMF, $[M4]_0/[G3]_0 = 400:1$. DMF with 0.01 M LiBr was the eluent.

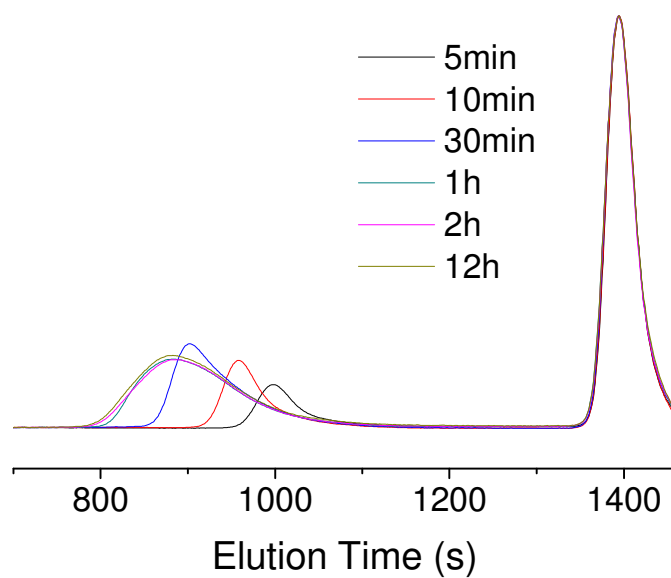


Figure S3. GPC traces of Poly-M4 from ROMP at various times throughout the reaction;

$[M4]_0 = 0.5$ M in DMF, $[M4]_0/[G3]_0 = 800:1$. DMF with 0.01 M LiBr was the eluent.

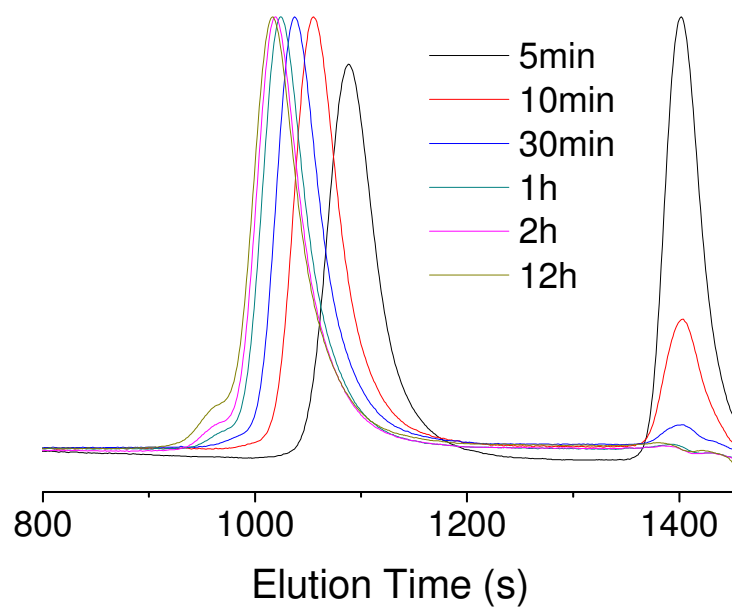


Figure S4. GPC traces of Poly-M4 from ROMP at various times throughout the reaction;

$[M4]_0 = 0.5$ M in DMF, $[M4]_0/[G3]_0 = 100:1$. DMF with 0.01 M LiBr was the eluent.

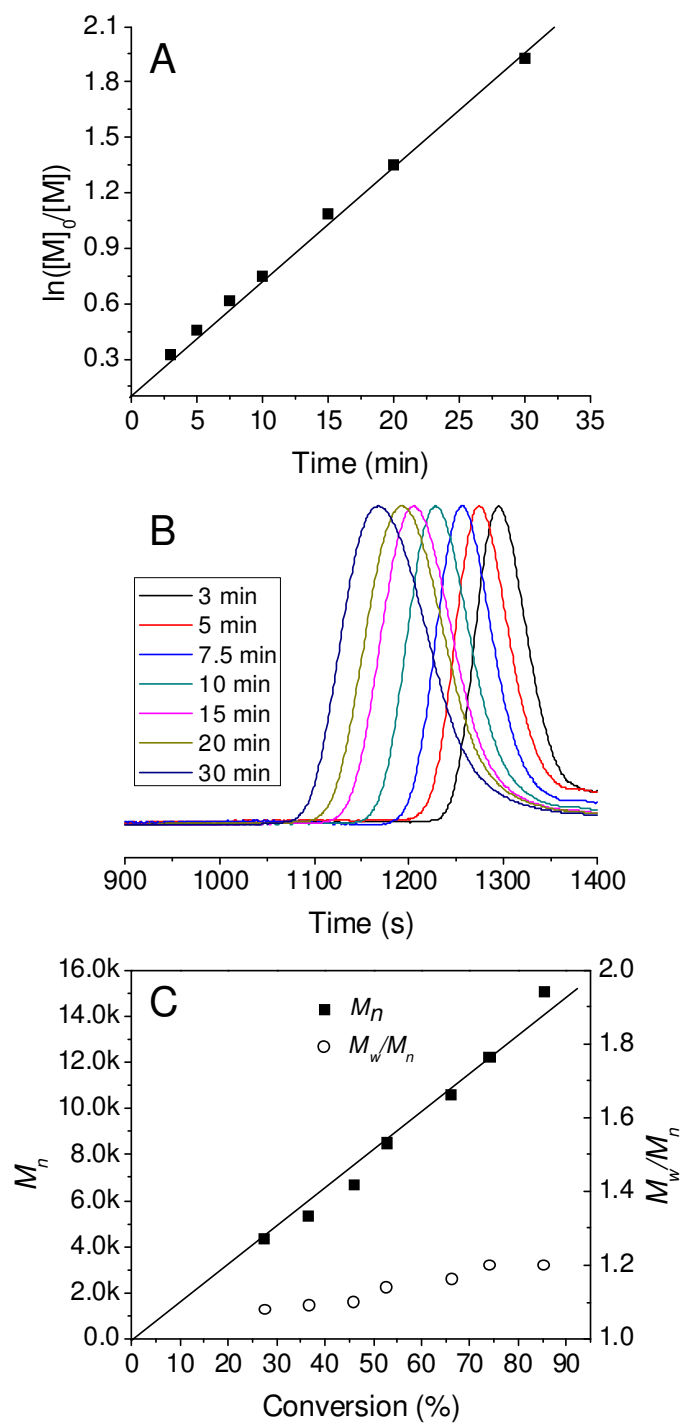


Figure S5. ROMP kinetics for polymerization of **M4** in air at room temperature, $[M4]_0 = 0.125$ M in DMF, $[M4]_0/[G3]_0 = 50:1$.

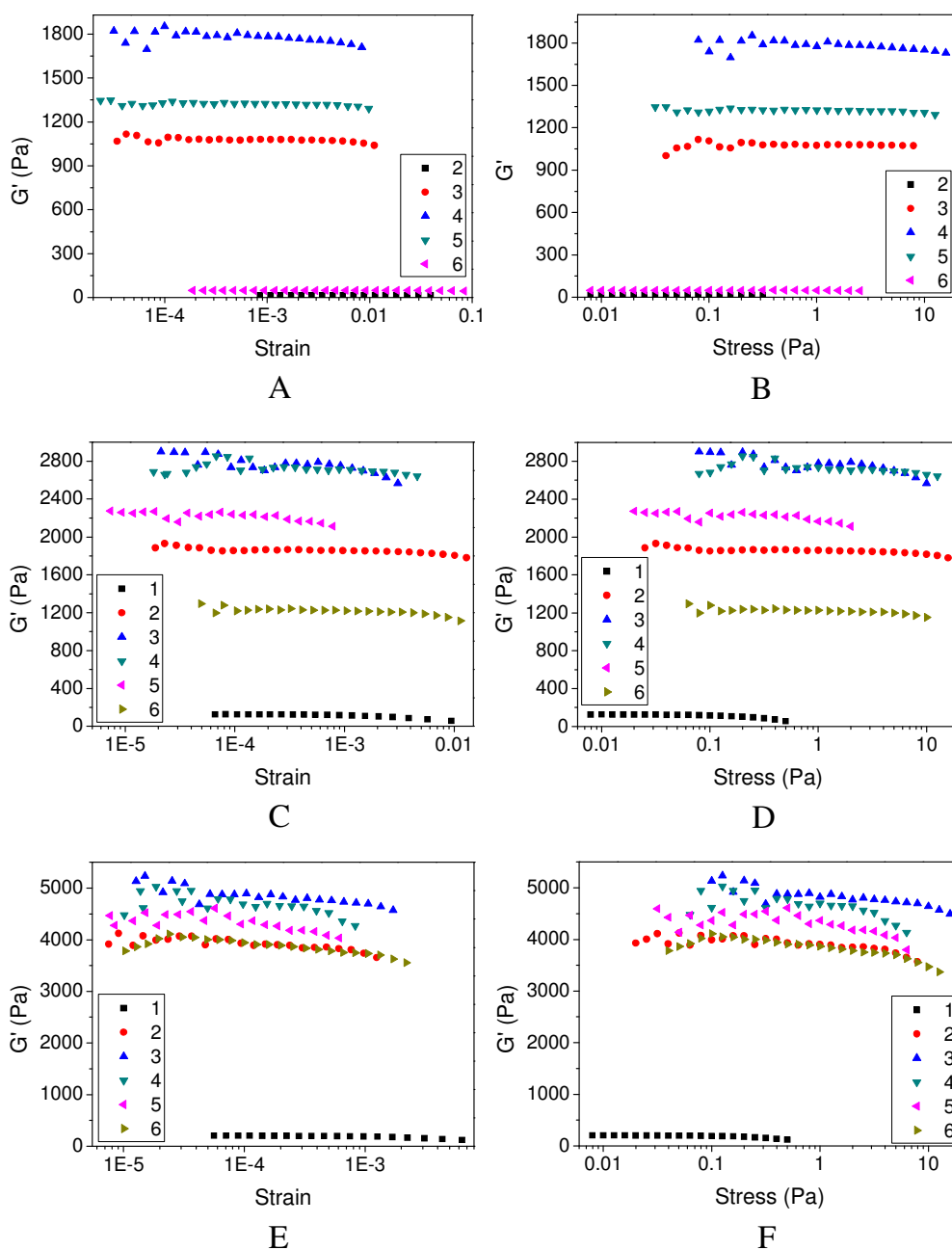


Figure S6. Elastic modulus (G') as a function of strain (A, C, E) and stress (B, D, F) for **C6** (A, B), **C7** (C, D), and **C8** (E, F) as the cross-linker, at a fixed frequency of 1.0 Hz, 25°C. $[\text{Double bonds}]_0/[\text{G3}]_0$ equal to 50:1, 67:1, 100:1, 200:1, 400:1, and 800:1 for curves 1, 2, 3, 4, 5 and 6 respectively.

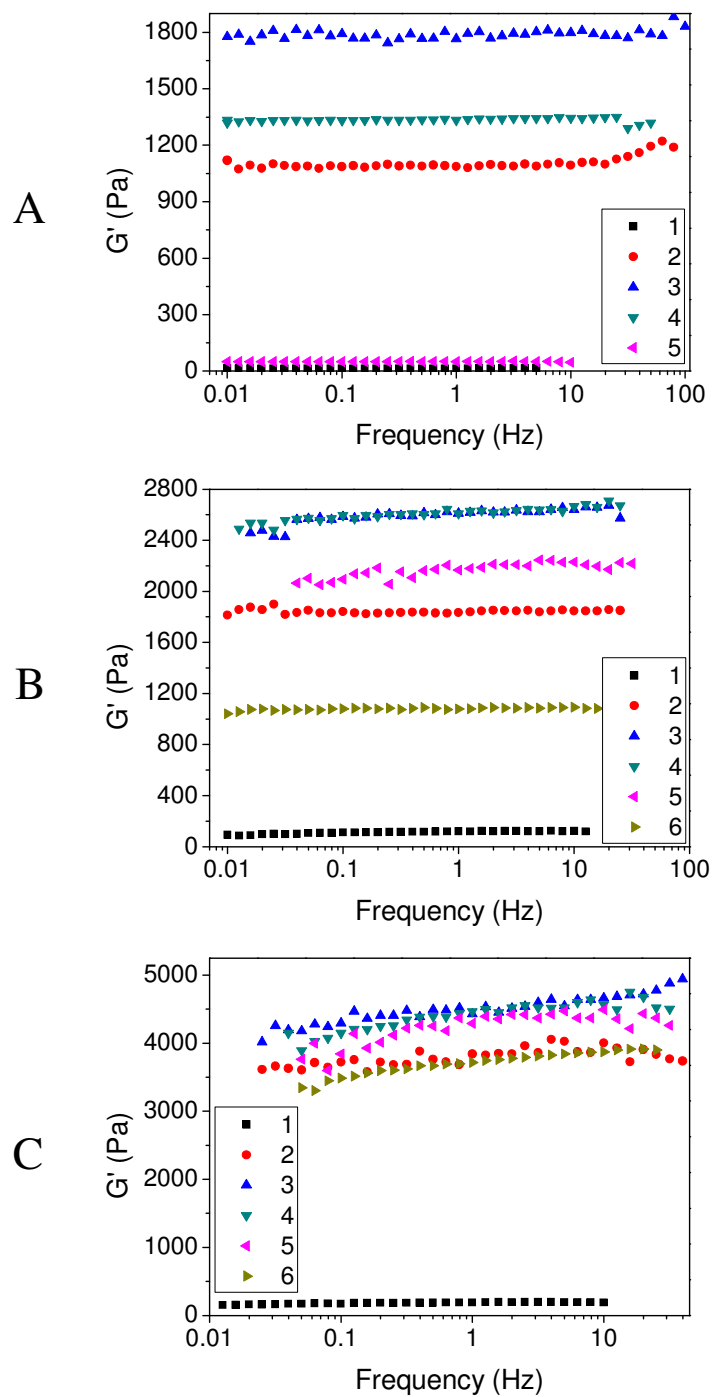


Figure S7. Elastic modulus (G') as a function frequency for **C6** (A), **C7** (B), and **C8** (C) as the cross-linker at 25°C. $[\text{Double bonds}]_0/[\text{G3}]_0$ equal to 50:1, 67:1, 100:1, 200:1, 400:1, and 800:1 for curves 1, 2, 3, 4, 5 and 6 respectively.