

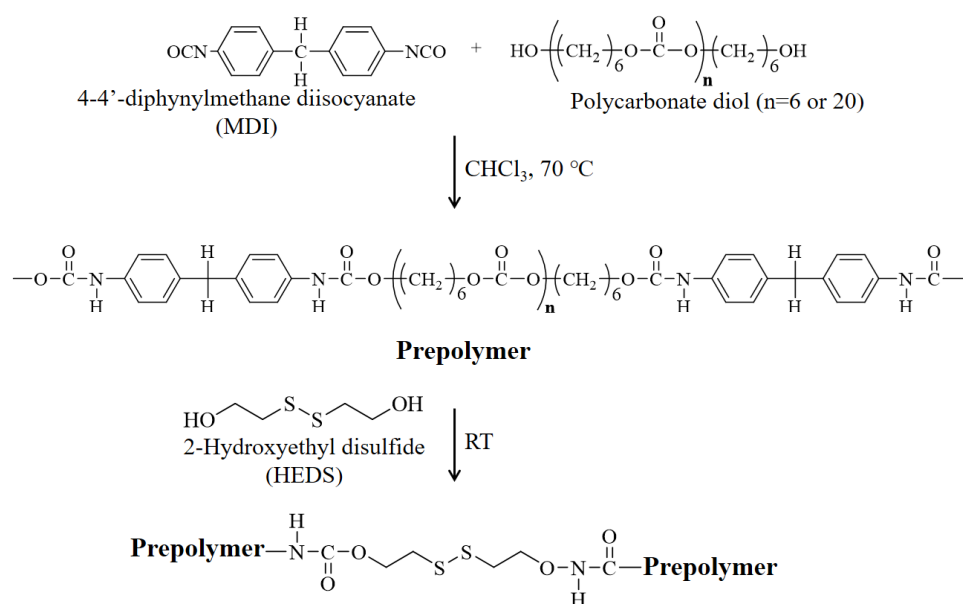
Rapid and Local Self-healing Ability of Polyurethane Nanocomposites using Photothermal Polydopamine-Coated Graphene Oxide Triggered by Near-Infrared Laser

Yu-Mi Ha ^{1,†}, Young Nam Kim ^{1,†} and Yong Chae Jung ^{1,*}

¹ Institute of Advanced Composite Materials, Korea Institute of Science and Technology, 92 Chudong-ro, Bongdong-eup, Wanju-gun, Jeollabuk-Do 55324, Republic of Korea; yumih87@gmail.com

[†] These authors contributed equally.

^{*} Correspondence: ycjung@kist.re.kr; Tel.: +82 (63) 219-8153



Scheme S1. Synthetic procedure of polyurethane with disulfide bonds.

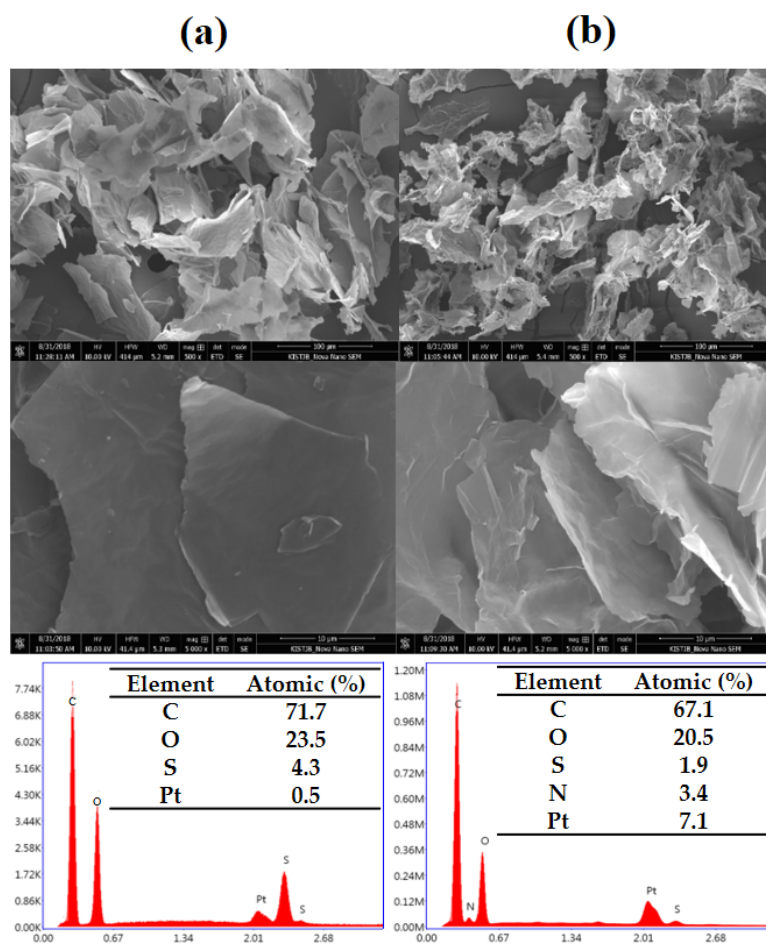
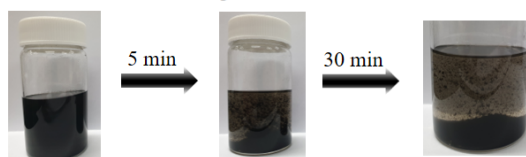


Figure S1. FE-SEM images and EDX of (a) GO, and (b) PDA-rGO powders.

(a) GO in CHCl_3



(b) PDA-rGO in CHCl_3

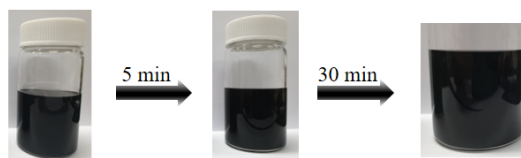


Figure S2. Photo images showing dispersion stability of (a) GO, and (b) PDA-rGO in chloroform.

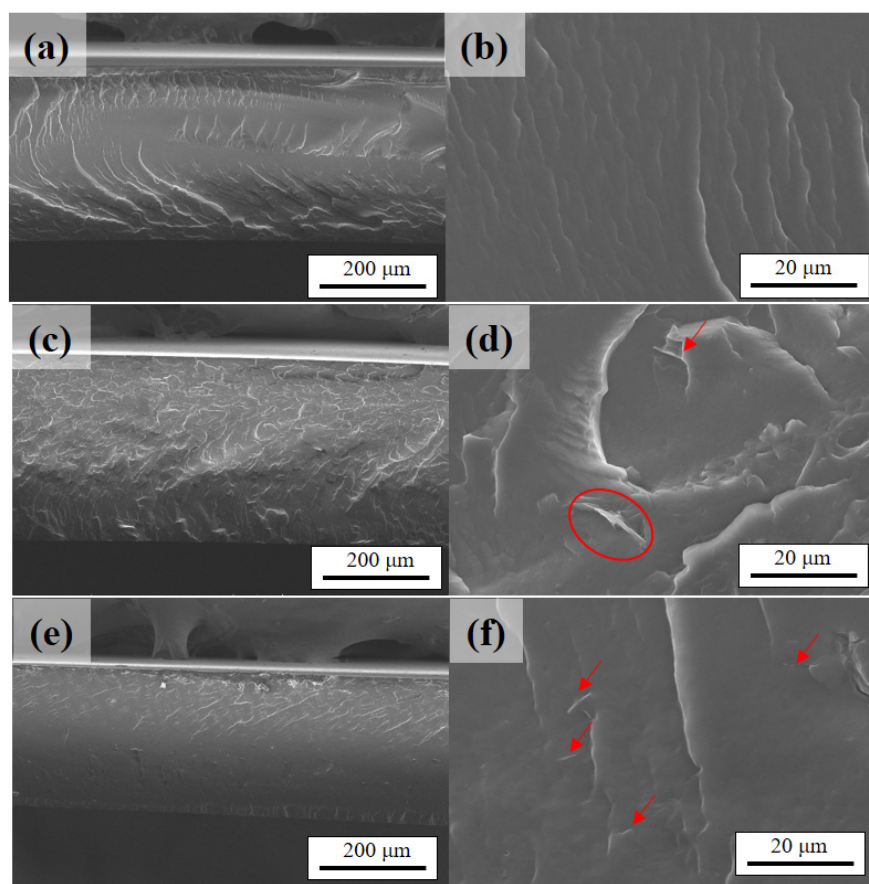


Figure S3. FE-SEM images of (a-b) PU, (c-d) 1 wt% GO/PU, and (e-f) 1 wt% PDA-rGO/PU nano-composites.