Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A. This journal is © The Royal Society of Chemistry 2017

## **Supporting information**

Construction of 3D multiple networks skeleton by Thiol-Michael addition click reaction to fabricate novel polymer/graphene composite with exceptional thermal conductivity and mechanical properties

Shiqiang Song, <sup>a</sup> Yong Zhang <sup>a, \*</sup>

<sup>a</sup> School of Chemistry and Chemical Engineering, State Key Laboratory for Metal Matrix Composite Materials, Shanghai Jiao Tong University, Shanghai 200240, PR China

\* Corresponding author: Prof. Yong Zhang

Email: yong\_zhang@sjtu.edu.cn

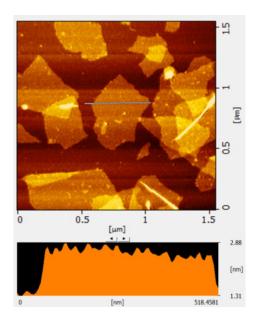


Fig.S1 AFM image of GO

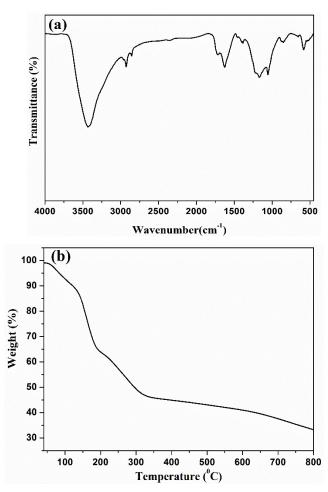


Fig.S2 FTIR spectrum of GO (a), and TGA curve of GO at 20 °C/min in a nitrogen atmosphere (b).

Samples	GO content (%)	Density (g/cm <sup>-3</sup> )	BET surface Area
			$(m^2/g)$
PDG	0	1.14	
PDGR0.5	0.5	0.22	10.9
PDGR1	1	0.14	16.5
PDGR2	2	0.12	34.6

Table S1. The components and properties of PDG and PDGR composites.

Fig.S3 Synthesis of PDMS-PGMA (random copolymer) by radical polymerization

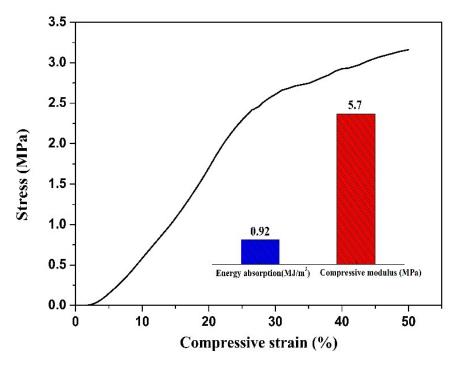


Fig.S4 Compressive stress-strain curve of PDG (inset: the compressive modulus and energy absorption of PDG).