## **SUPPORTING INFORMATION**

## Development of Organo-Dispersible Graphene Oxide *via* Pseudo-Surface Modification for Thermally Conductive Green Polymer Composites

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KEYWORDS: Graphene oxide; polycaprolactone; ring opening polymerization; density functional theory; dispersion; thermal conductivity, green electronics

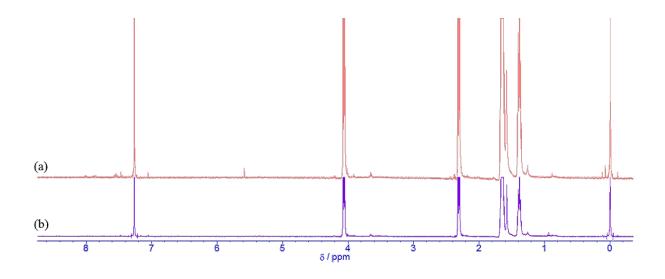


Figure S 1. The <sup>1</sup>H-NMR spectra for PCL (a) with 1-NM, and (b) with butanol.

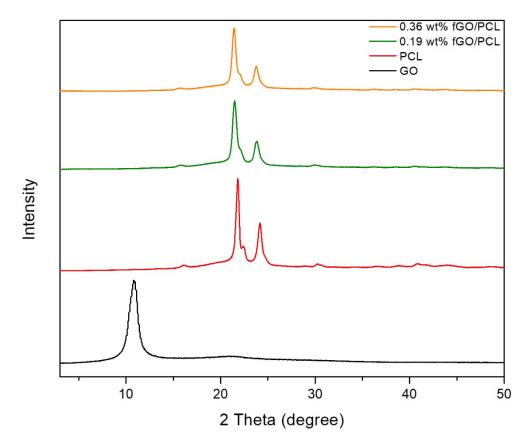


Figure S 2. The WAXD patterns of GO, PCL and fGO/PCL nanocomposites.

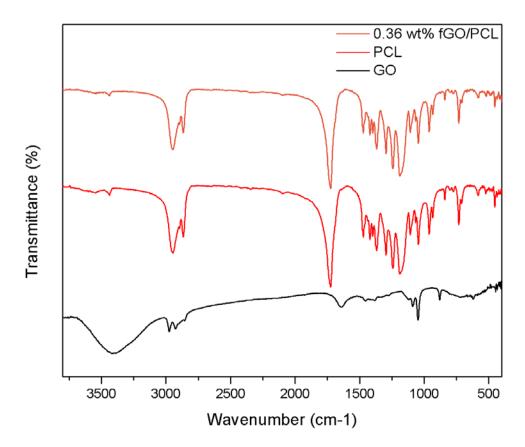


Figure S 3. FTIR spectra of GO, PCL and fGO/PCL nanocomposite.

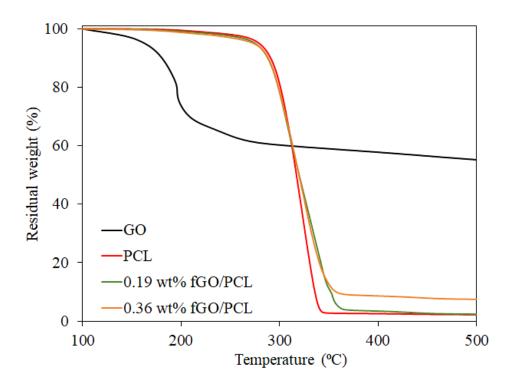
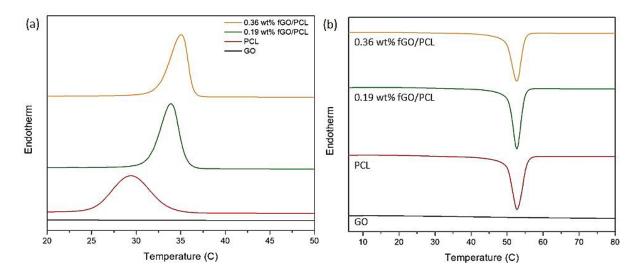
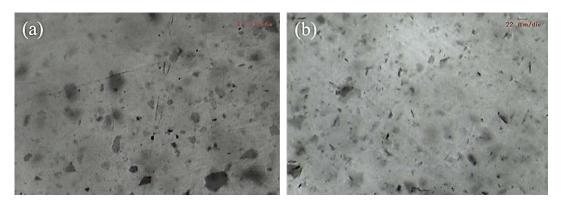


Figure S 4. TG curves for GO, PCL and fGO/PCL nanocomposites.



**Figure S 5.** DSC curves for GO, PCL and fGO/PCL nanocomposites during (a) the cooling scan and (b) the second heating scan.



**Figure S 6.** Optical images of green polymer composites, (a) (0.37 wt% fGO/PCL\*)-PCL and (b) (0.37 wt% fGO/PCL\*)-PHB with magnification of 2,000.