

## **Supporting Information**

# **Cellulose Nanocrystals-Enabled Tailoring Of Interface In Carbon Nanotube- And Graphene Nanoplatelet-Carbon Fiber Polymer Composites: Implications For Structural Applications**

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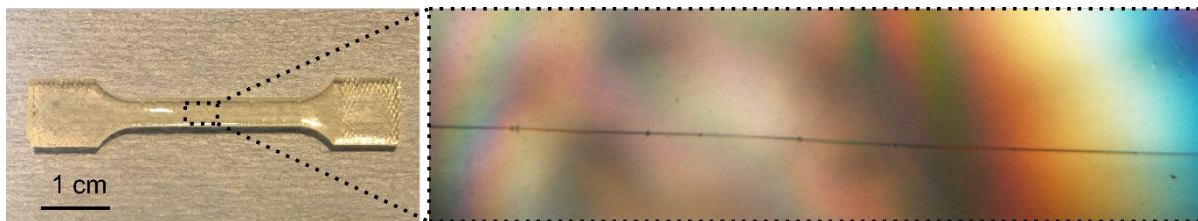
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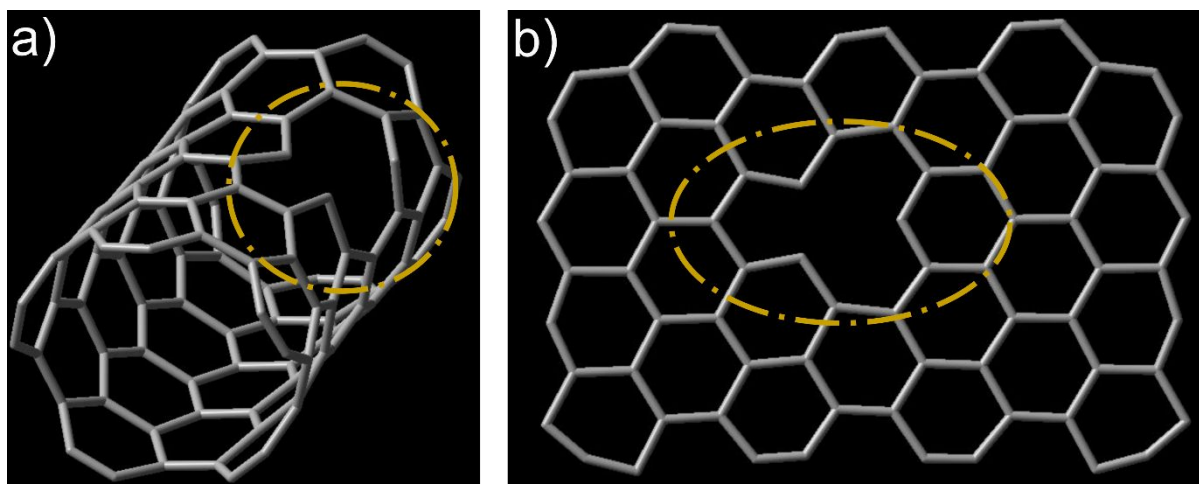
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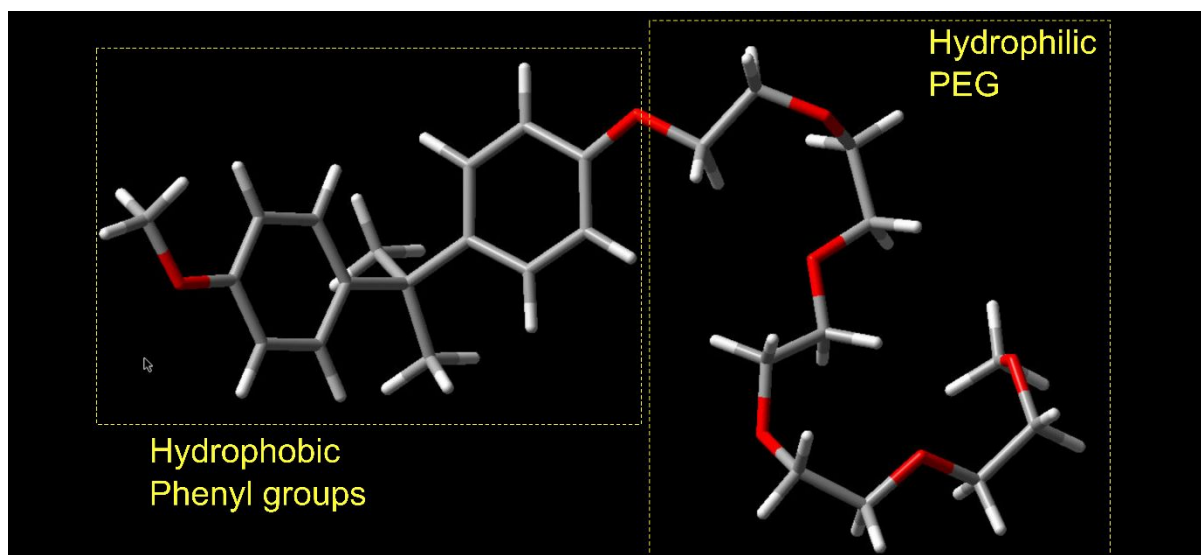
**Figure S1** The single fiber fragmentation test sample

**Table S1** The relative amount of C1s components for uncoated, CNC, CNC-CNT and CNC-GnP coated CF

	C-C (%)	C-O (%)	C=O (%)	$\pi$ - $\pi$ (%)
Uncoated CF	71.55	24.80	2.77	0.87
CNC	65.81	31.54	2.06	0.59
CNC-CNT	69.13	25.01	5.03	0.83
CNC-GnP	72.79	22.97	3.40	0.85



**Figure S2** The single vacancy (sv)- (a) CNT and (b) GnP



**Figure S3** The representative sizing agent adopted from Ref.<sup>1</sup> for DFT calculations. The sizing agent is composed of two regions, which are hydrophobic phenyl groups and hydrophilic Polyethylene glycol (PEG). PEG model consists of 10 repetitive units.

## References

1. Asai, H., & Anai, K. (1987). U.S. Patent No. 4,654,264. Washington, DC: U.S. Patent and Trademark Office.