

# **Influence of non-covalent modification on the state of dispersion of multiwall carbon nanotubes in co-continuous binary polymer blends**

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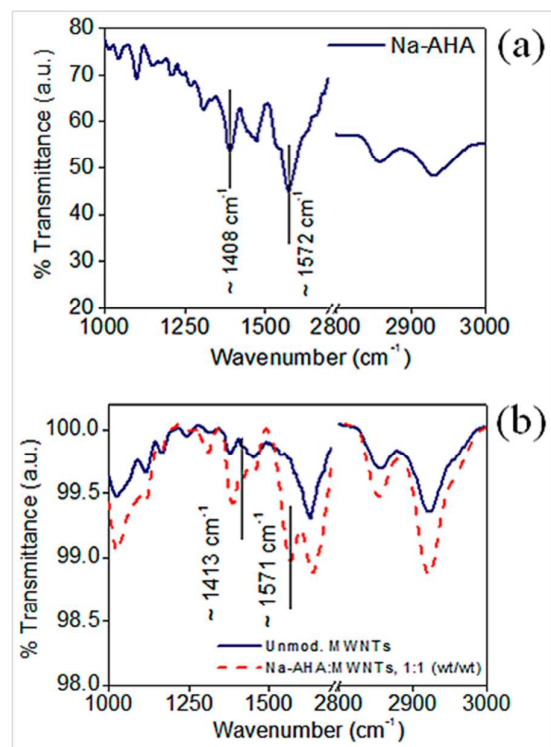


Figure S1. FTIR spectra for (a) Na-AHA, (b) Na-AHA modified MWNTs (1:1, wt/wt).

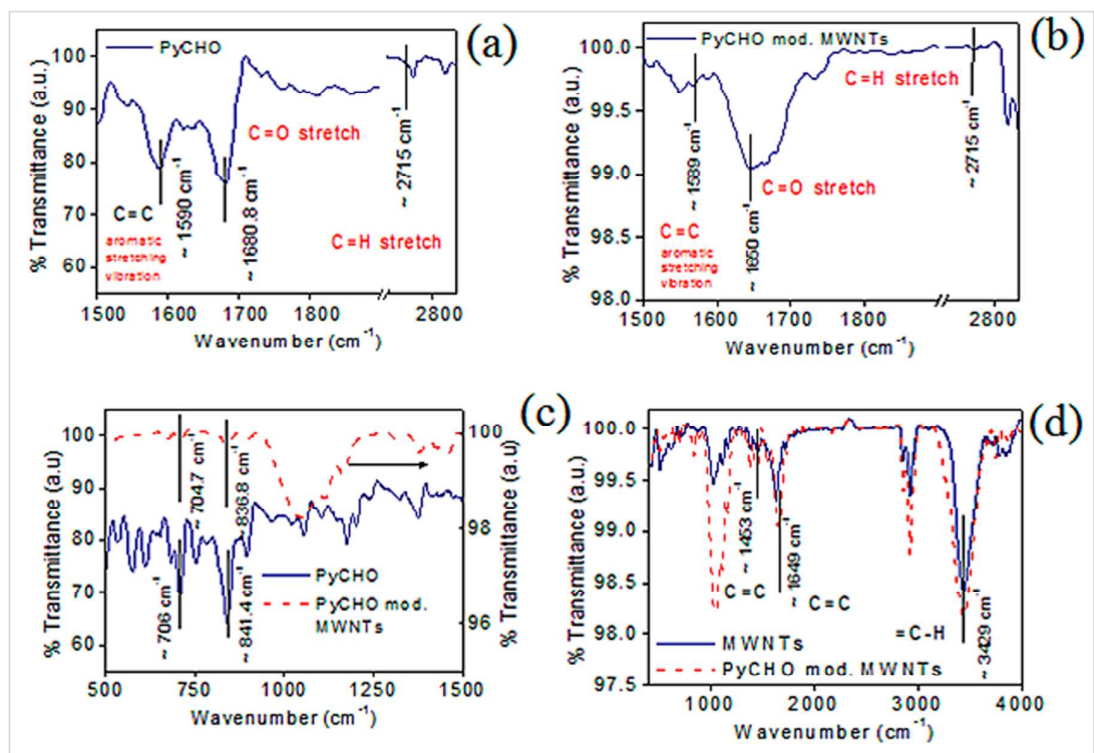


Figure S2. FTIR spectra for (a) PyCHO, (b) PyCHO modified MWNTs; (c) and (d) comparison of FTIR spectra of PyCHO and PyCHO modified MWNTs to show the increase in the extent of conjugation in presence of PyCHO.

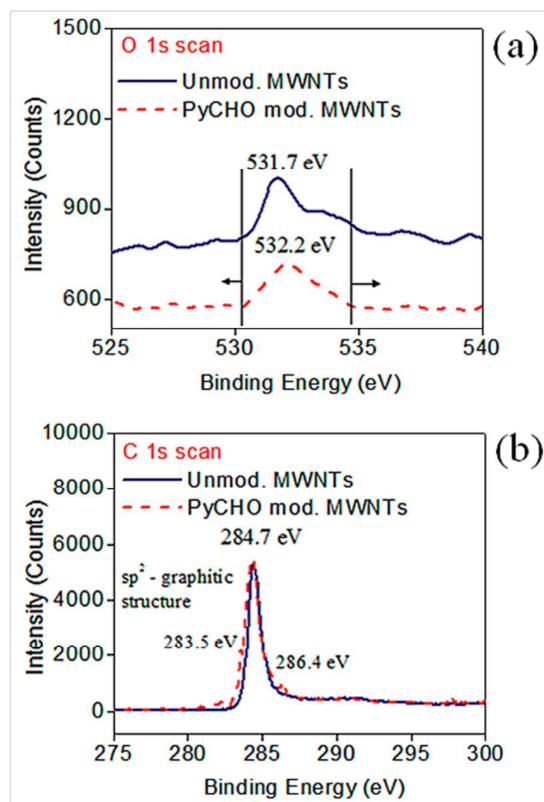


Figure S3. XPS spectra for (a) O 1s scan and (b) C 1s scan for unmodified, pristine MWNTs and PyCHO modified MWNTs.

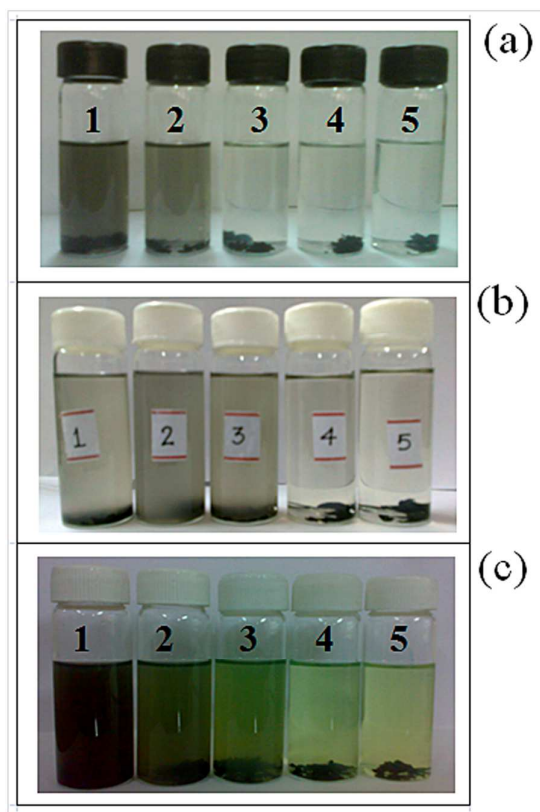


Figure S4: Solution experiment using THF as a solvent for the ABS phase to determine the presence of MWNTs in the ABS phase in case of blends with unmodified MWNTs, respective blends with Na-AHA modified MWNTs and PyCHO modified MWNTs 1:1 (wt/wt) with varying blend composition (Numbering indicates increasing PA6 concentration 40, 45, 50, 55 and 60 wt% respectively from 1 to 5).

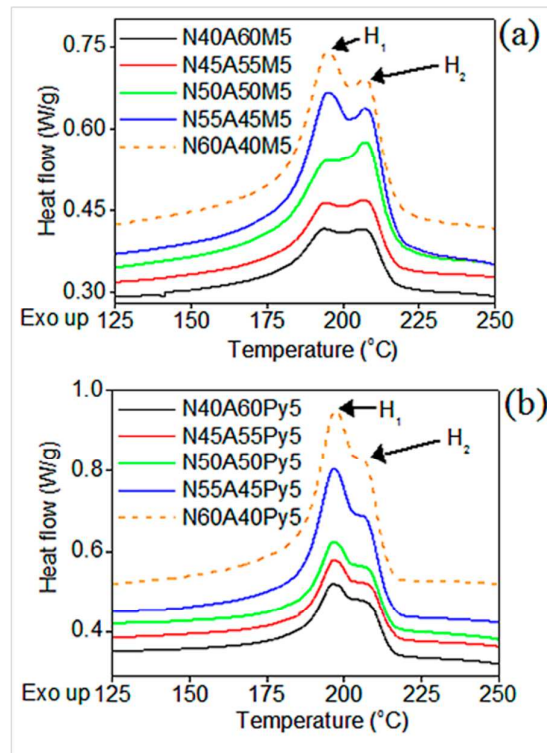


Figure S5. Non-isothermal crystallization exotherms of PA6 phase of PA6/ABS blends of varying blend compositions (40/60, 45/55, 50/50, 55/45 and 60/40, wt/wt) with (a) 5 wt% Na-AHA modified MWNTs (1:1, wt/wt) and (b) 5 wt% PyCHO modified MWNTs (1:1, wt/wt).

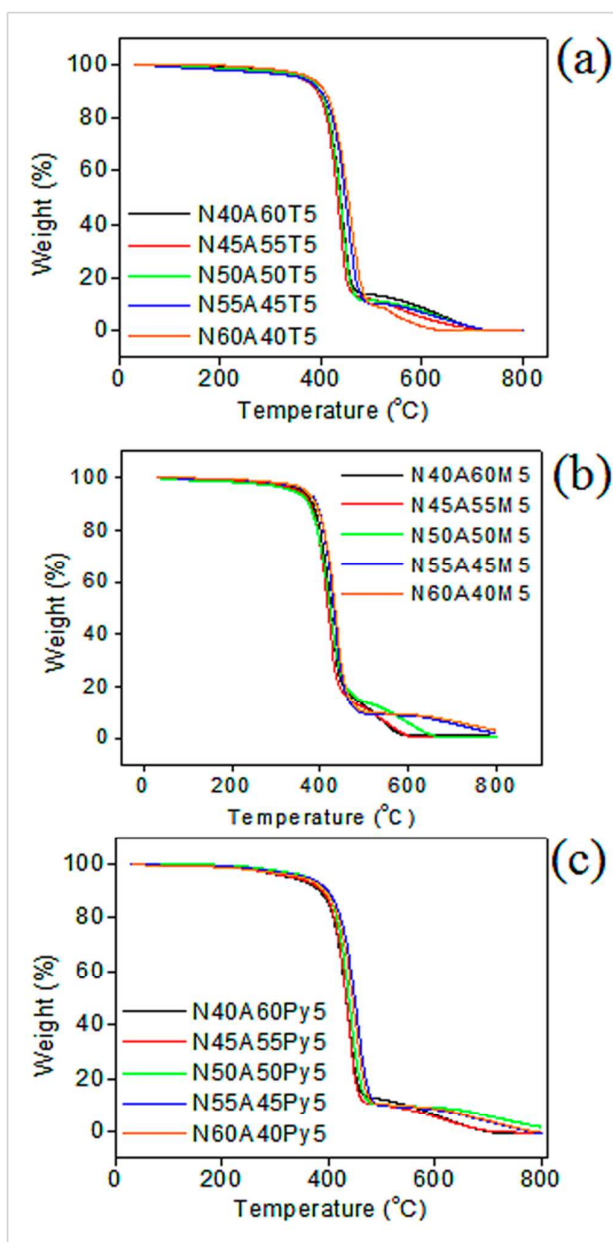


Figure S6. TGA plots of PA6/ABS blends of varying blend compositions (40/60, 45/55, 50/50, 55/45 and 60/40, wt/wt) with: (a) 5 wt% unmodified MWNTs, (b) 5 wt% Na-AHA modified MWNTs (1:1, wt/wt) and (c) 5 wt% PyCHO modified MWNTs (1:1, wt/wt). Heating scan was carried out from room temperature to 800 °C in nitrogen atmosphere.