

## Supporting Information

### Is kinetic polymer arrest very specific to multiwall carbon nanotubes?

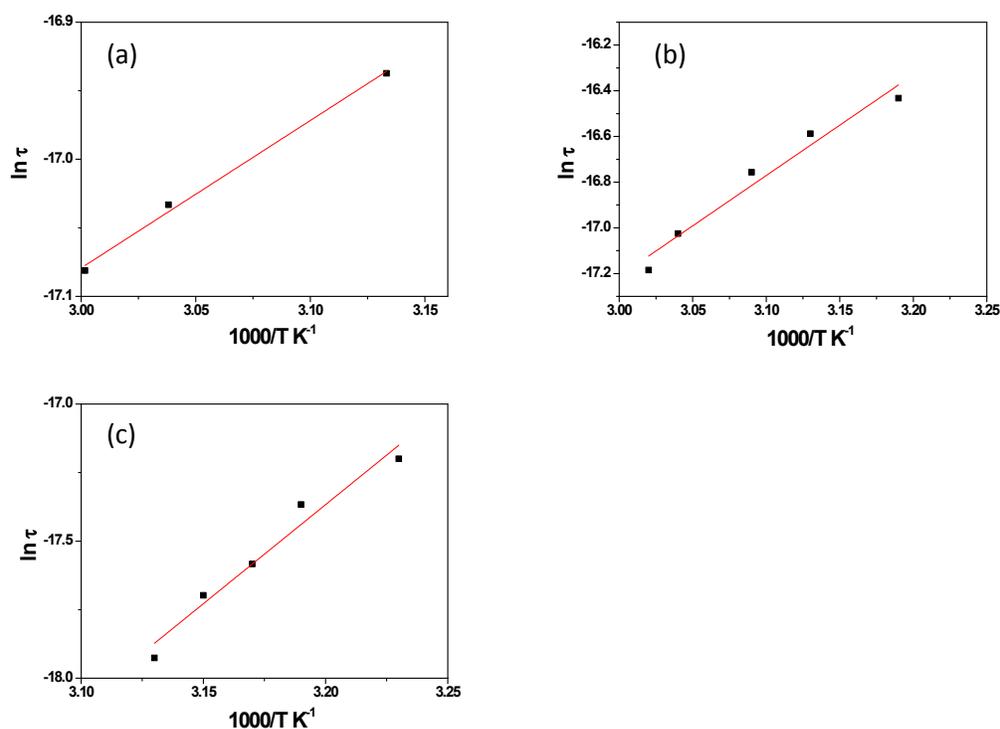
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**Figure S1: Temperature dependence of relaxation time of secondary relaxation (Arrhenius dependence) PS/PVME blend with 0.5 wt% MWNTs (a) 50/50 , (b) 60/40 (c) 70/30**

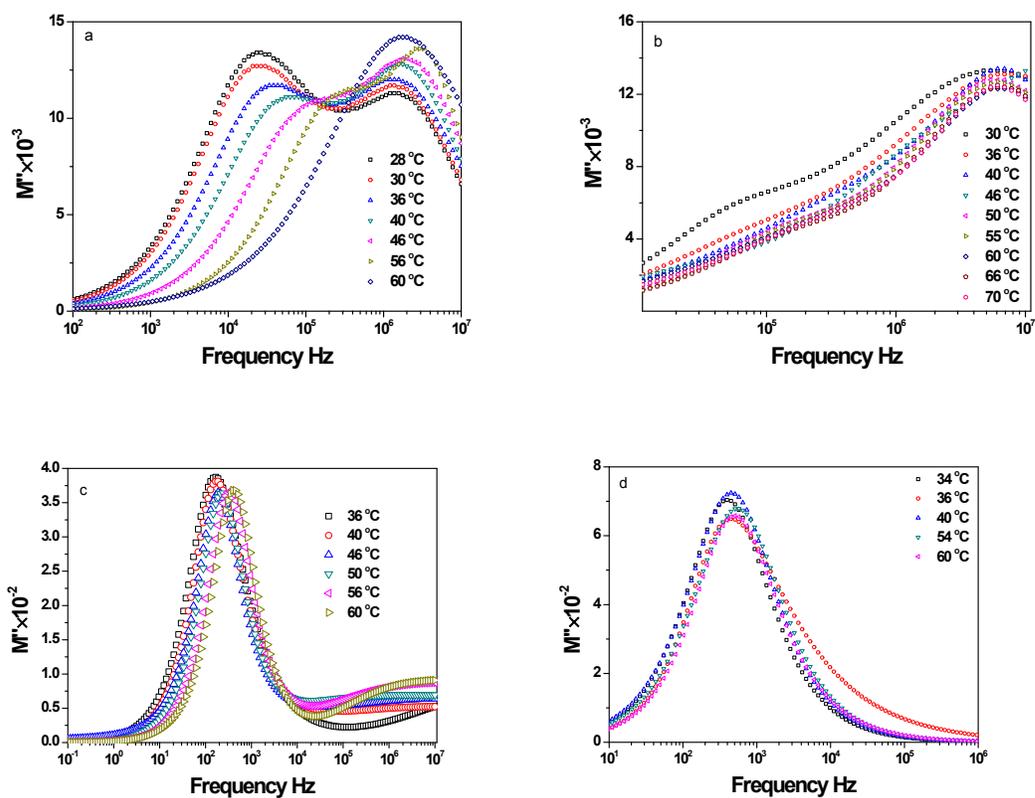
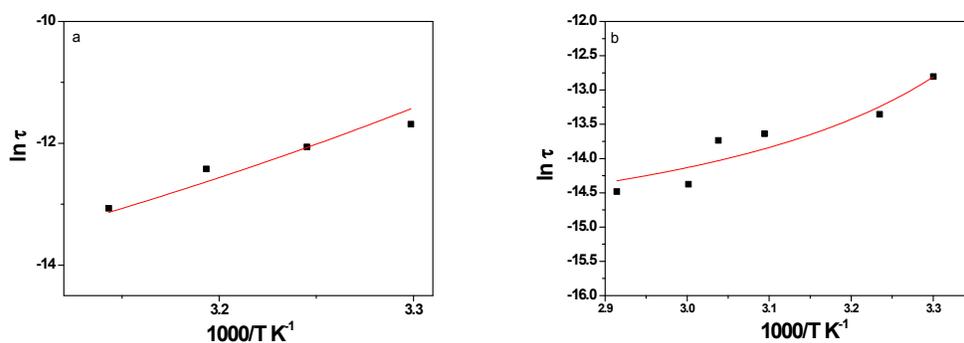
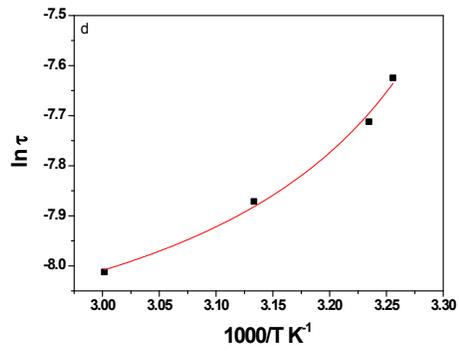
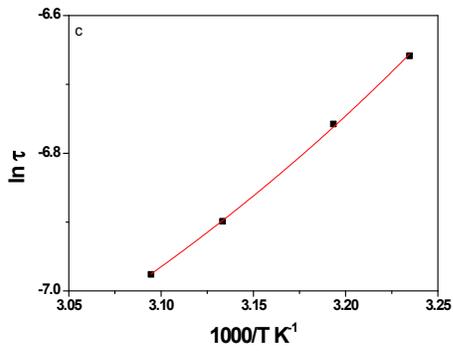
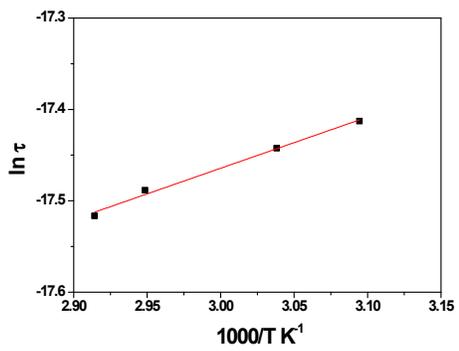
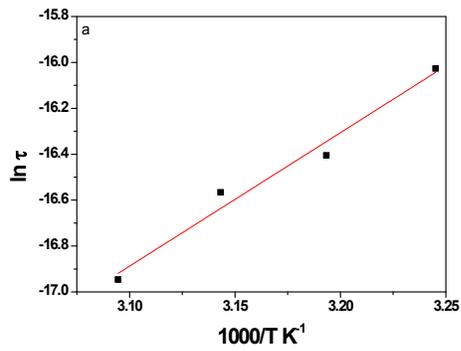


Figure S2: Dielectric modulus loss as a function of frequency at different temperatures for various PS/PVME blend with 0.25 wt% MWNTs (a) 60/40 (b) 70/30 (c) 80/20 (d) 90/10





**Figure S3: Temperature dependence of alpha relaxation of various PS/PVME blend with 0.25 wt% MWNTs (a) 60/40 (b) 70/30 (c) 80/20 (d) 90/10**



**Figure S4: Temperature dependence of relaxation time of secondary relaxation (Arrhenius dependence) PS/PVME blend with 0.25 wt% MWNTs (a) 60/40 (b) 70/30**

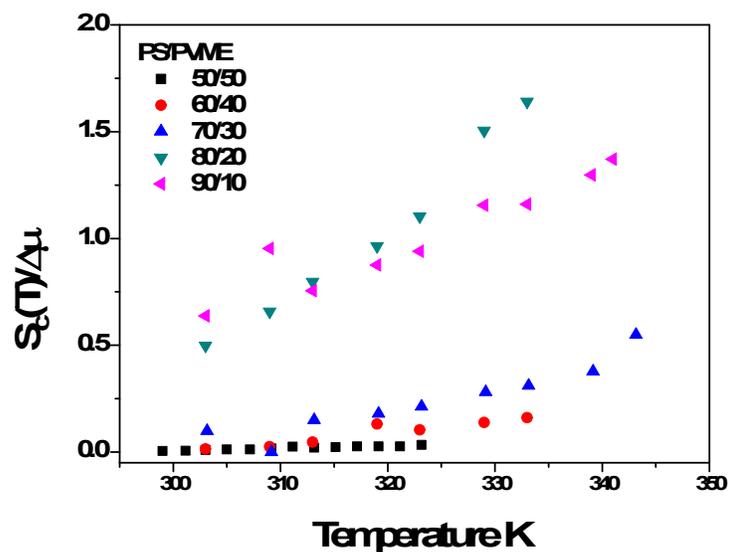
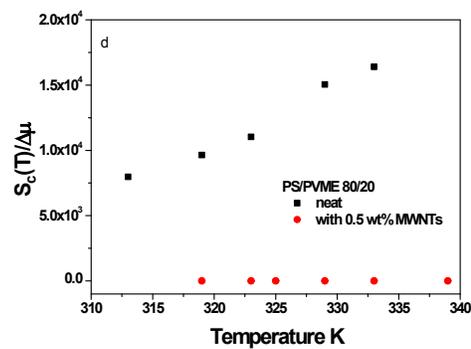
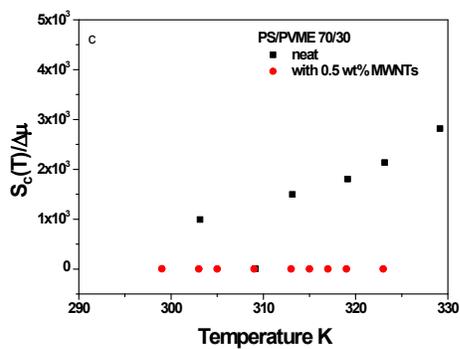
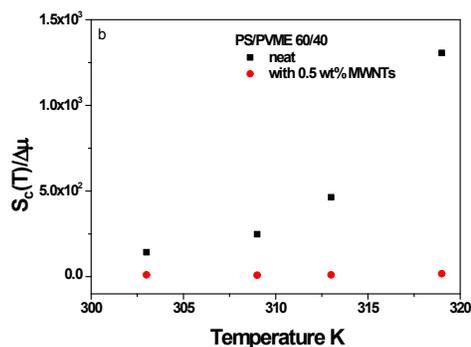
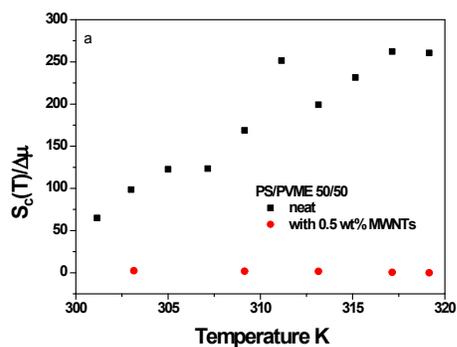
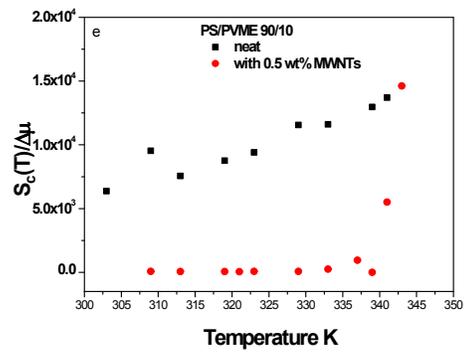


Figure S5: Variation of configurational entropy with respect to temperature in the case of neat blends





**Figure S6: Variation of configurational entropy with respect to temperature in the case of blend (a) PS/PVME 50/50 (b) PS/PVME 60/40 (c) PS/PVME 70/30 (d) PS/PVME 80/20 (e) PS/PVME 90/10 with MWNTs**