

Flame Retardant Electrical Conductive Nano-polymers based on bisphenol F Epoxy Resin Reinforced with Nano Polyanilines

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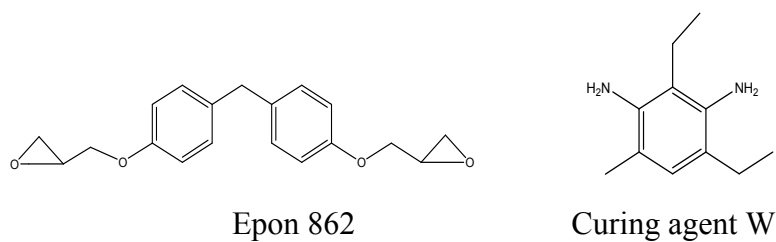
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Scheme S1 Molecular structure of Epon 862 and the used curing agent Epicure W.

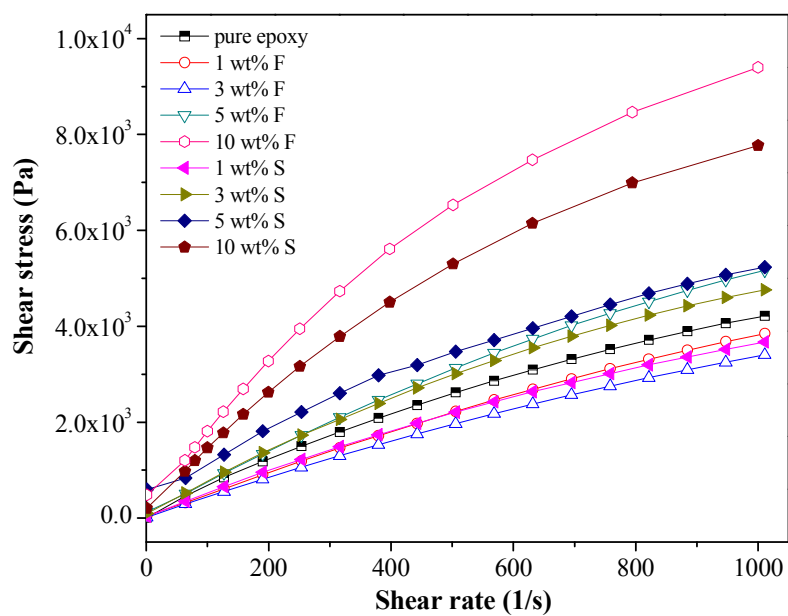


Figure S1 Shear stress vs. shear rate of pure epoxy resin and epoxy resin nanosuspensions with different loadings of PANI nanofibers.

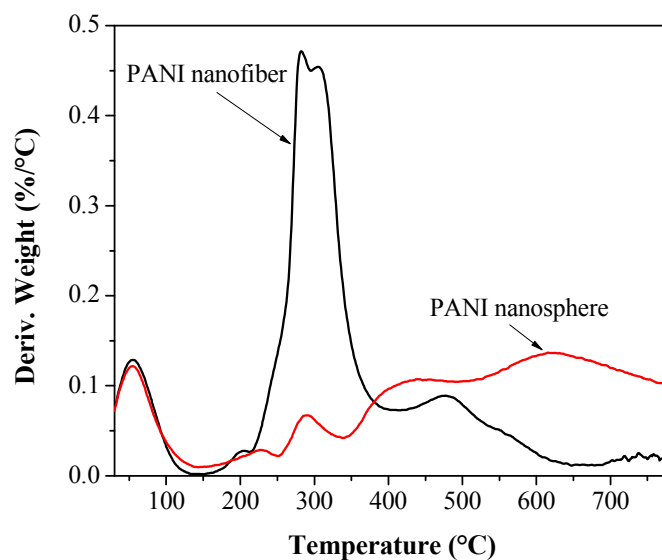


Figure S2 DTG curve of the PANI nanofibers and nanospheres.

Table S1 Heat release capacity (HR capacity), peak heat release rate (pHRR), total heat release and char residue for the PNCs with PANI nanospheres.

	HR capacity(J/g.K)	Peak HRR (W/g)	Total HR (kJ/g)	Char residue (%)
PNCs with 1 wt% PANI nanospheres	454	510.3	27.1	11
PNCs with 3 wt% PANI nanospheres	447	480.6	26.9	11
PNCs with 5 wt% PANI nanospheres	337	420.0	25.8	13