

**Multifunctional integrated carbon nanotubes/polyphenylene sulfide composite:  
Preparation, properties and applications**

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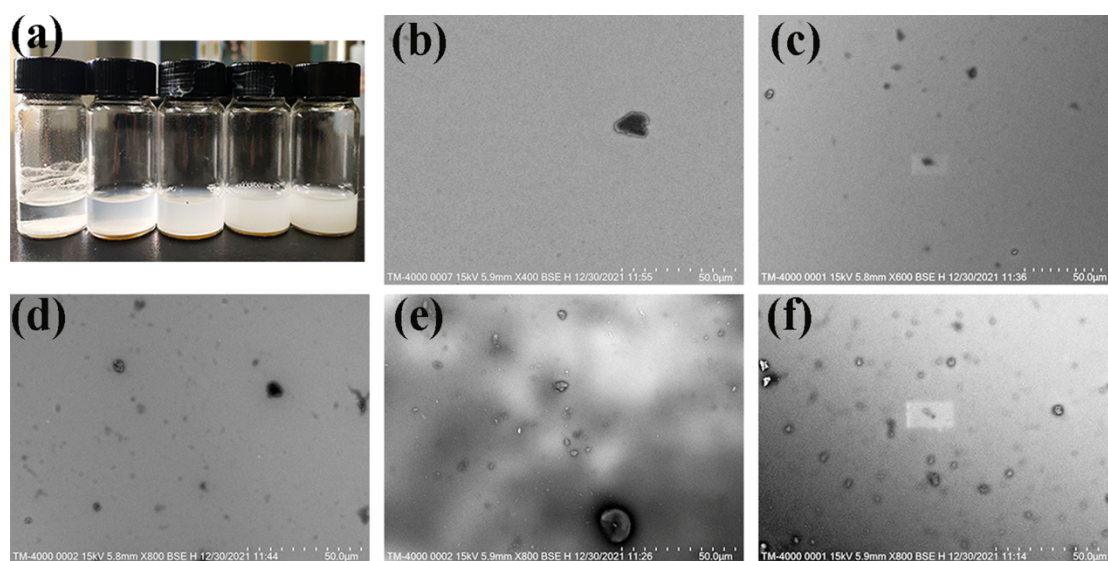


Figure S1. Dispersion photo (a) and SEM (b-f) of 0.1g PPS in 5.00 mL PVA with different concentrations (0.01, 0.05, 0.08, 0.10, 0.12 g mL<sup>-1</sup>) after 12 h.

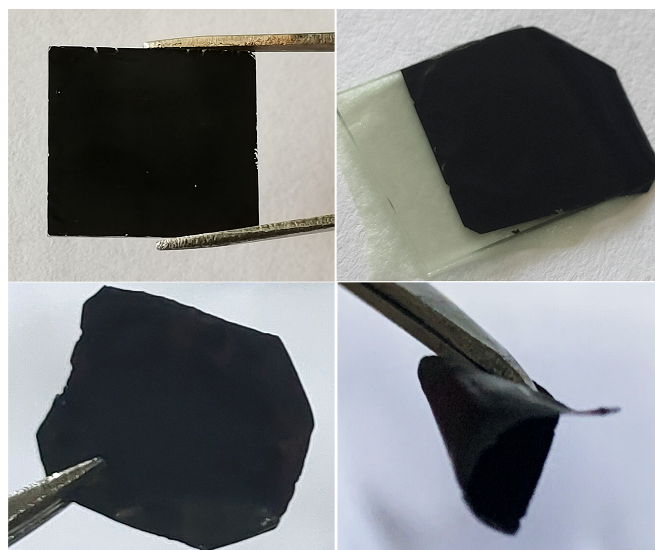


Figure S2. the picture of CNTs-PPS/PVA film.

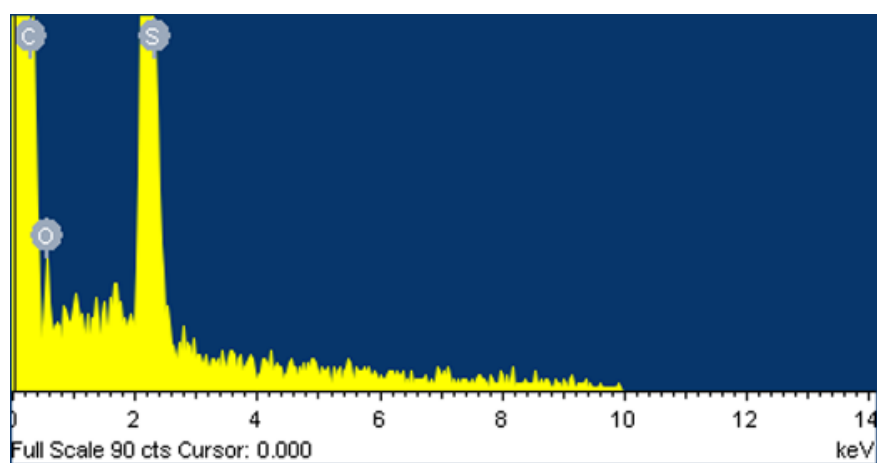


Figure S3 The energy dispersive spectroscopy of CNTs-PPS/PVA film.

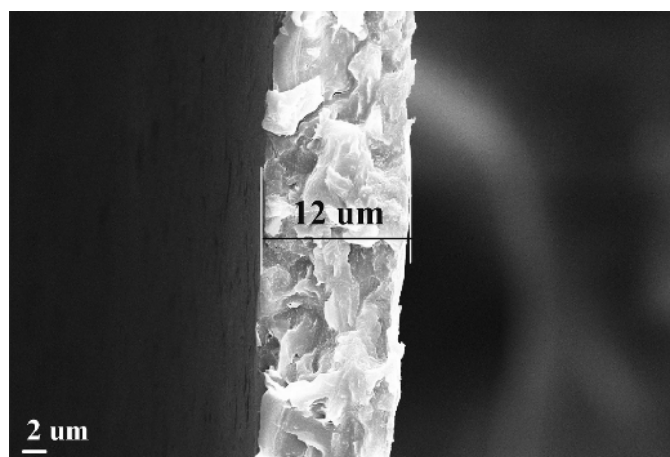


Figure S4 the cross section of CNTs/PPS-PVA film.

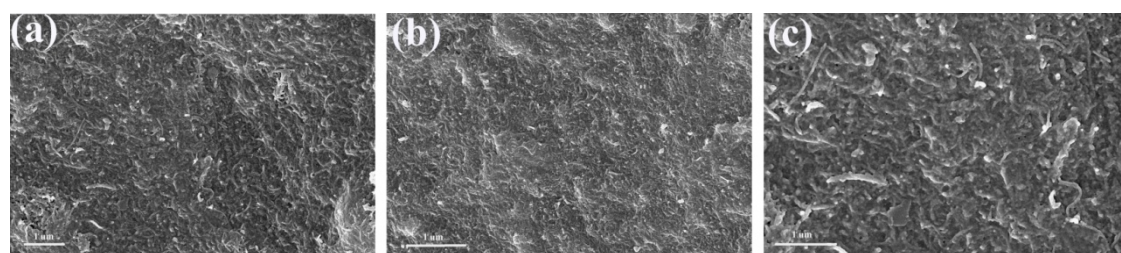


Figure S5 SEM of CNTs-PPS/PVA films after immersed in (a) 6 M  $\text{H}_2\text{SO}_4$ , (b)  $\text{HNO}_3$  and (c) KOH for 30 days