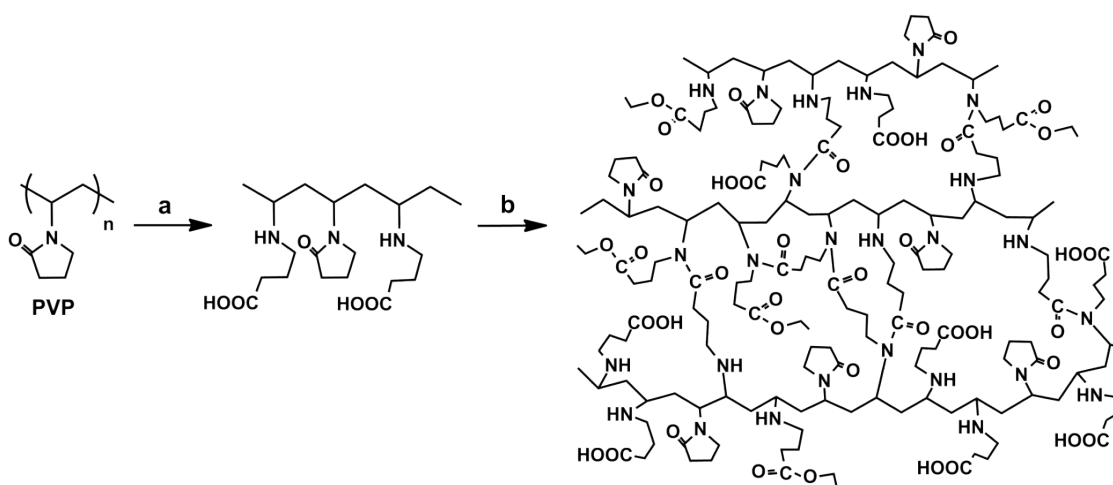


Supporting Information

A Fluorescent Perylene-assembled Polyvinylpyrrolidone Film: Synthesis, Morphology and Nanostructure

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Scheme S1 The ring-opening (a) and self-crosslinking (b) process of PVP at 160 °C.

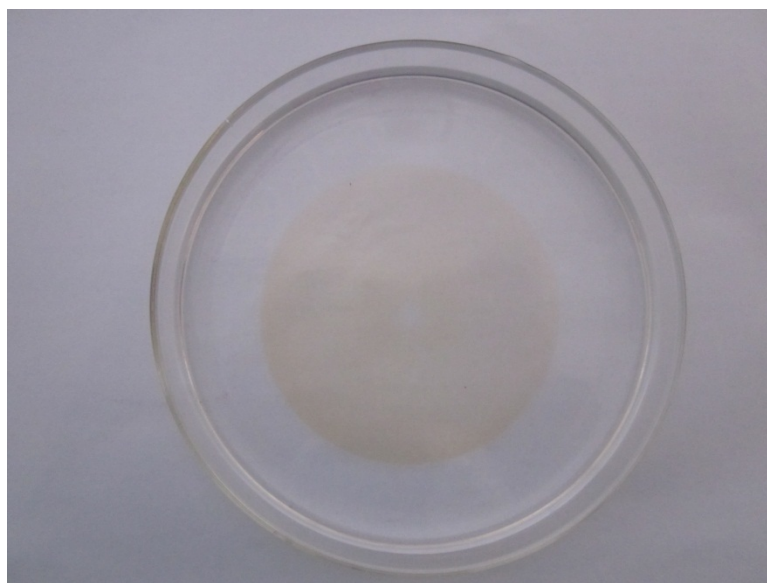
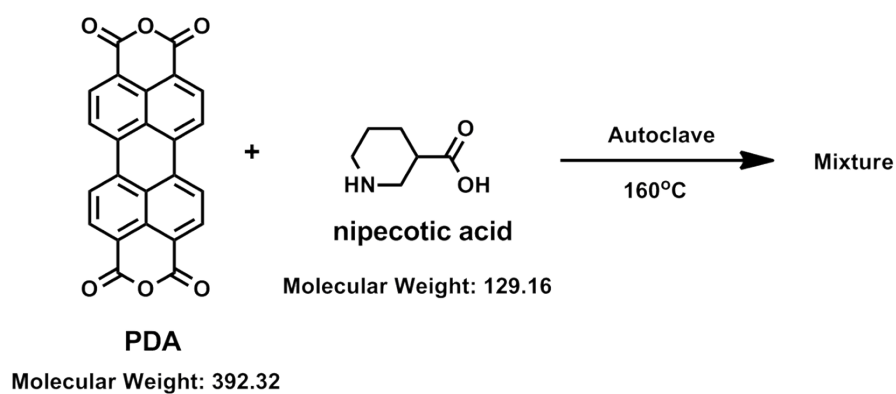


Fig. S1 Digital photograph of the blank PVP film.



Fig. S2 Thin layer chromatography of PDI and the dye washed out from the PVP-based PDI film.



Scheme S2 Reaction of PDA and nipecotic acid at 160 °C in autoclave .

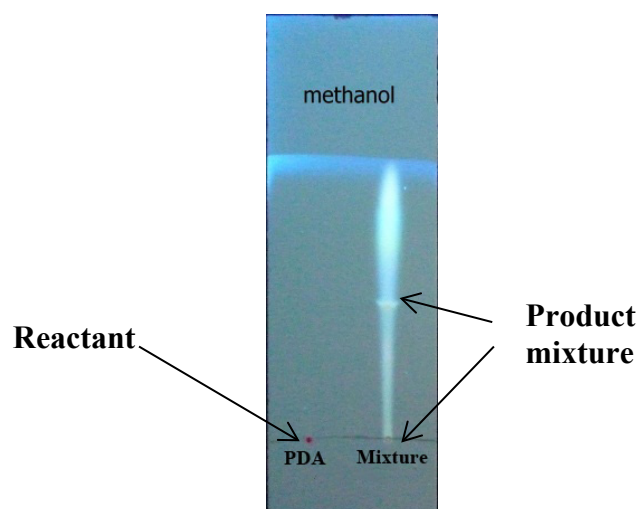


Fig. S3 TLC of PDA and their product mixture (Note: TLC of product mixture was different from that of reactant of PDA, indicating a reaction of PDA and nipecotic acid occurred).

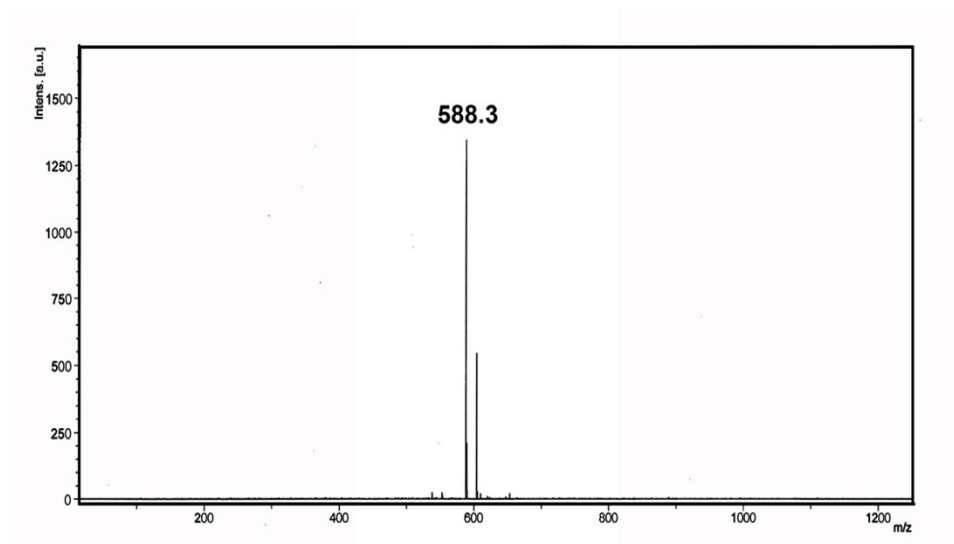


Fig. S4 MALDI-TOF MS of above product mixture originated from the reaction of PDA and nipecotic acid. (Note: No signal at mass 392.32 derived from PDA could be found, indicating PDA was used up during the reaction.)

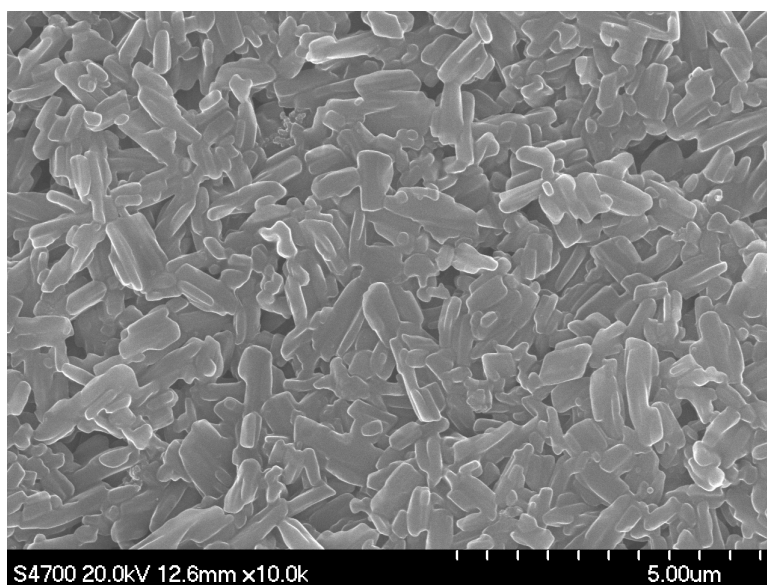


Fig. S5 SEM image of the fluorescent PDA-assembled PVP film ($W_{\text{PVP}}/W_{\text{PDA}} = 10/1$).

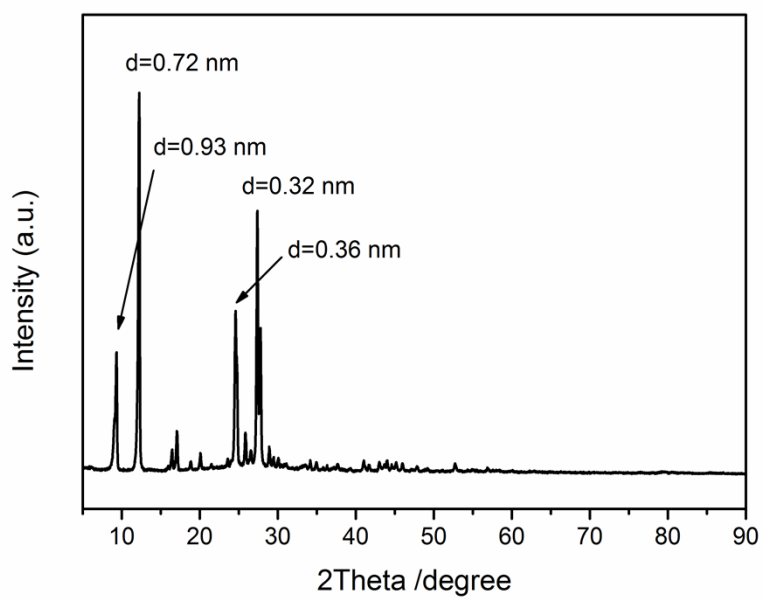


Fig. S6 XRD pattern of pure PDA.

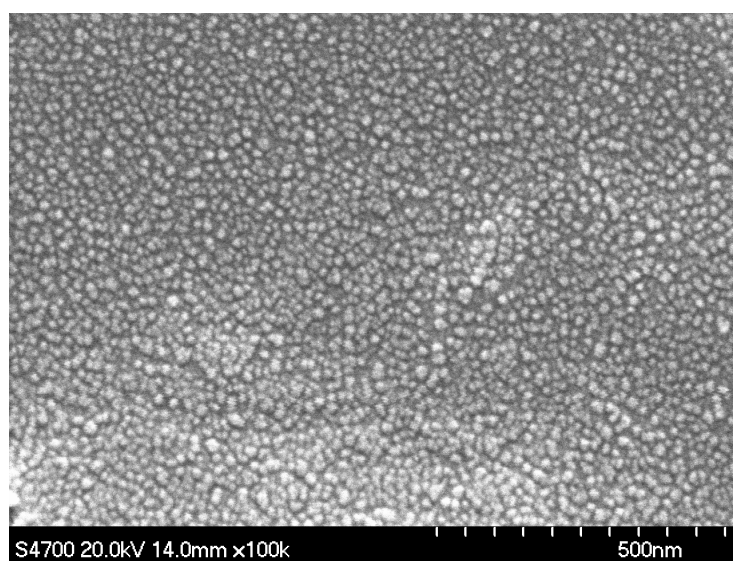


Fig. S7 SEM image of the PDI film.