Electronic Supplementary Material (ESI) for Soft Matter.

Supporting information for

Structural Colored Aramid Fabric Construction and Its Application as Recyclable Photonic Catalysis

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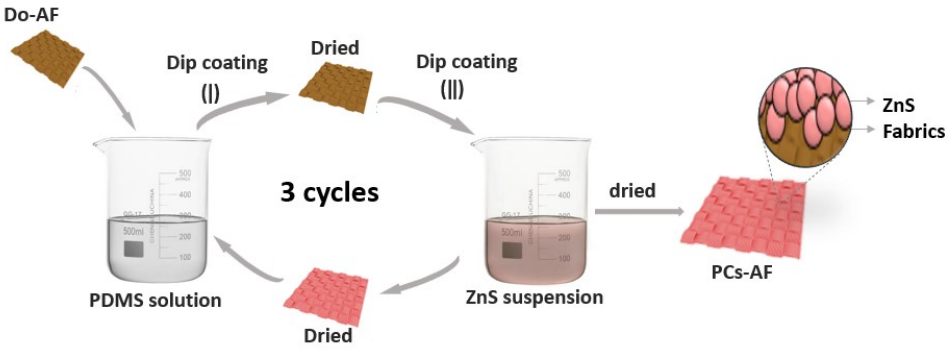

Scheme S1 Schematically shows the dip-coating process the PCs coatings on the aramid fabrics.

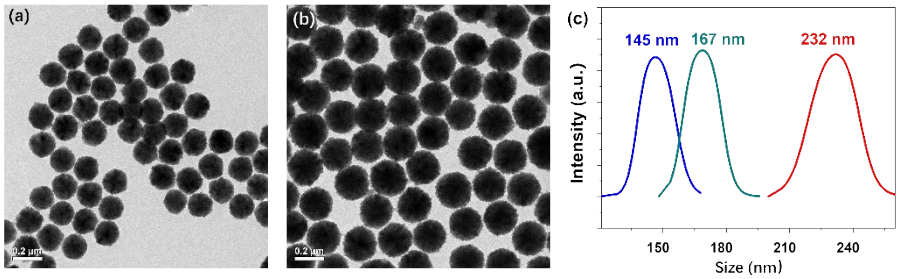

Figure S1 Characterization of the synthesized ZnS nanoparticles. (a) SEM image of the green colored ZnS. (b) SEM image of the red colored ZnS. (c) Size distribution of ZnS nanoparticles for the blue, green and red colored PCs coated AF construction.

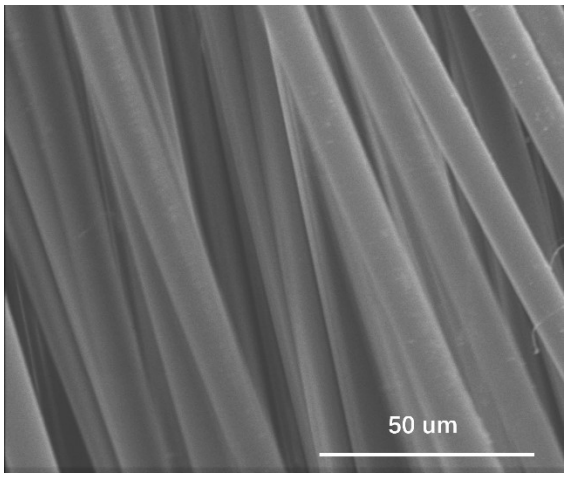

Figure S2 SEM image of unmodified aramid fabrics.

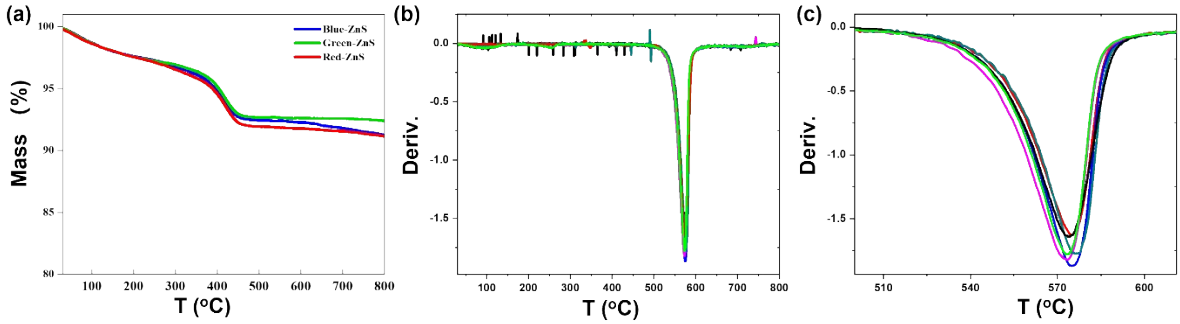

Figure S3 TG and derivation of TG curve. (a) Thermal analysis curve of ZnS nanoparticles for the blue, green and red colored PCs coated AF construction. (b) Derivation of the weight loss in Figure 4d. (c) Enlarge of Figure S3b range from 500 °C to 610 °C.

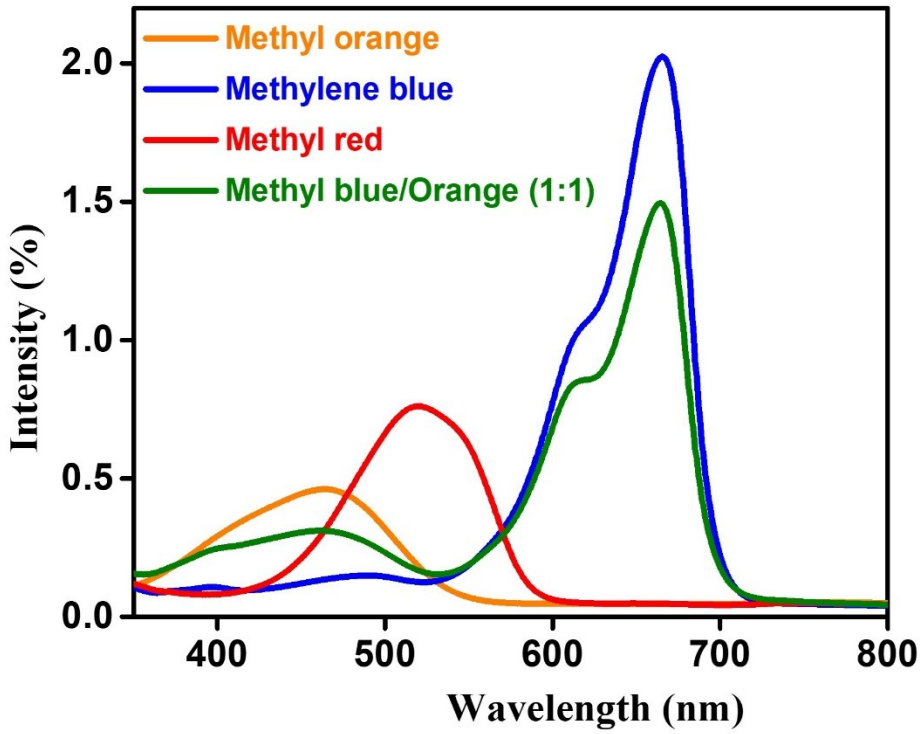

Figure S4 UV absorption spectra of methyl orange (10 mg/L), methylene blue (10 mg/L), methyl red (10 mg/L) and mixture of methylene blue with methyl orange (weight ratio=1:1, 10 mg/L).

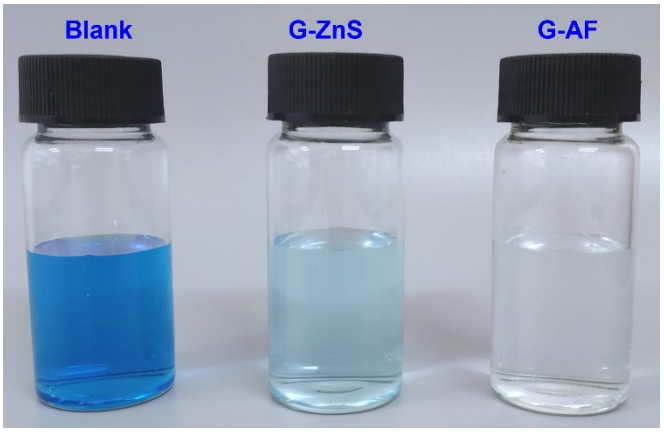

Figure S5 Digital image of methyl blue before degradation, degradation for 10 hours under the catalysis of ZnS, （d）degradation for 10 hours under the catalysis of ZnS with AF as the catalysis carriers.