

Supporting Information

for

Conjugated polymer dots-on-electrospun fibers as a fluorescent nanofibrous sensor for nerve gas stimulant

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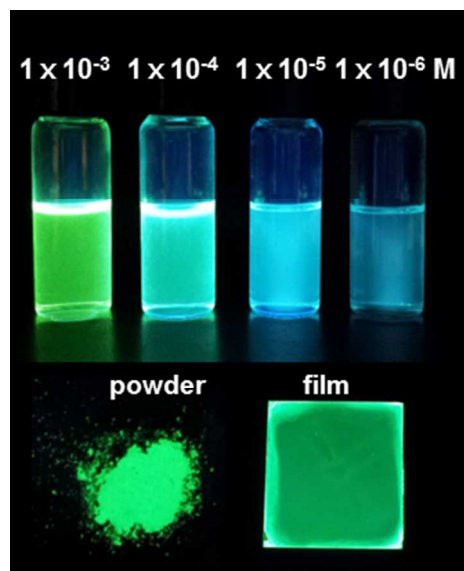


Figure S1. Fluorescence images of **PQ** in chloroform solutions and in the solid under UV irradiation (365 nm).

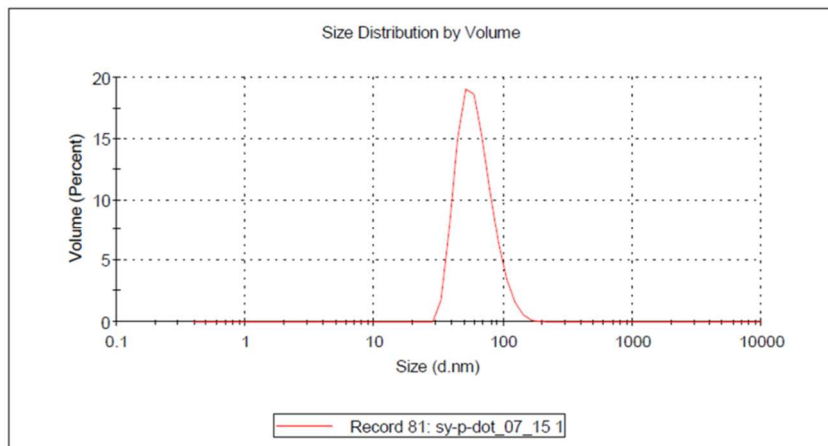


Figure S2. Size distribution of CPdots from **PQ** determined by DLS.

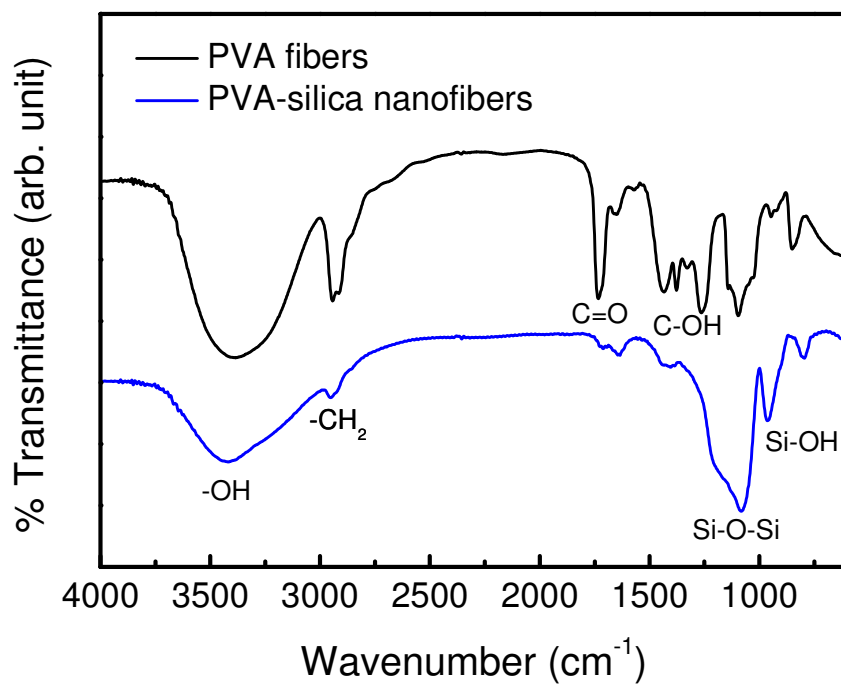


Figure S3. FT-IR spectra of PVA and PVA-silica nanofibers.

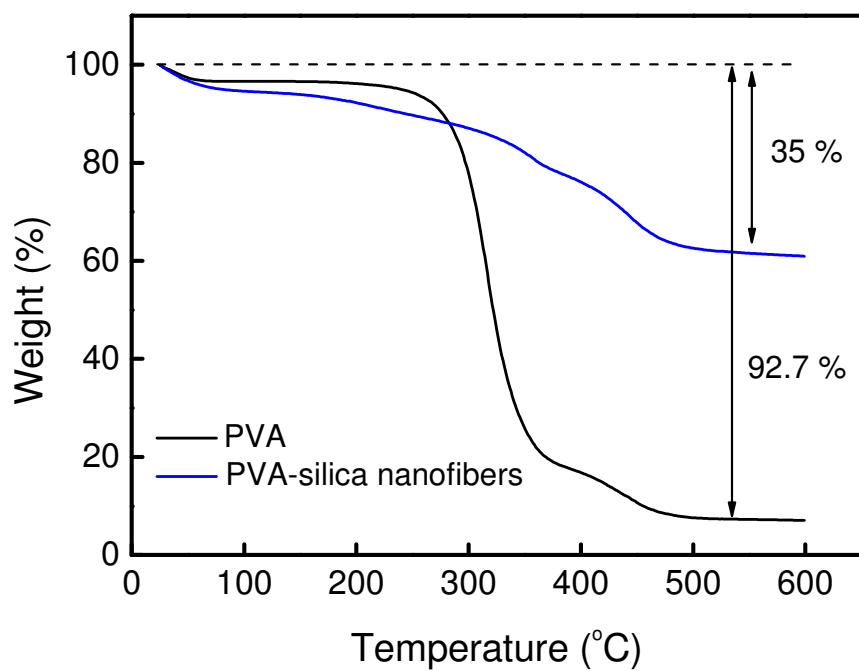


Figure S4. TG thermograms of PVA and PVA-silica nanofibers (heating rate: 10 °C/min under nitrogen atmosphere).

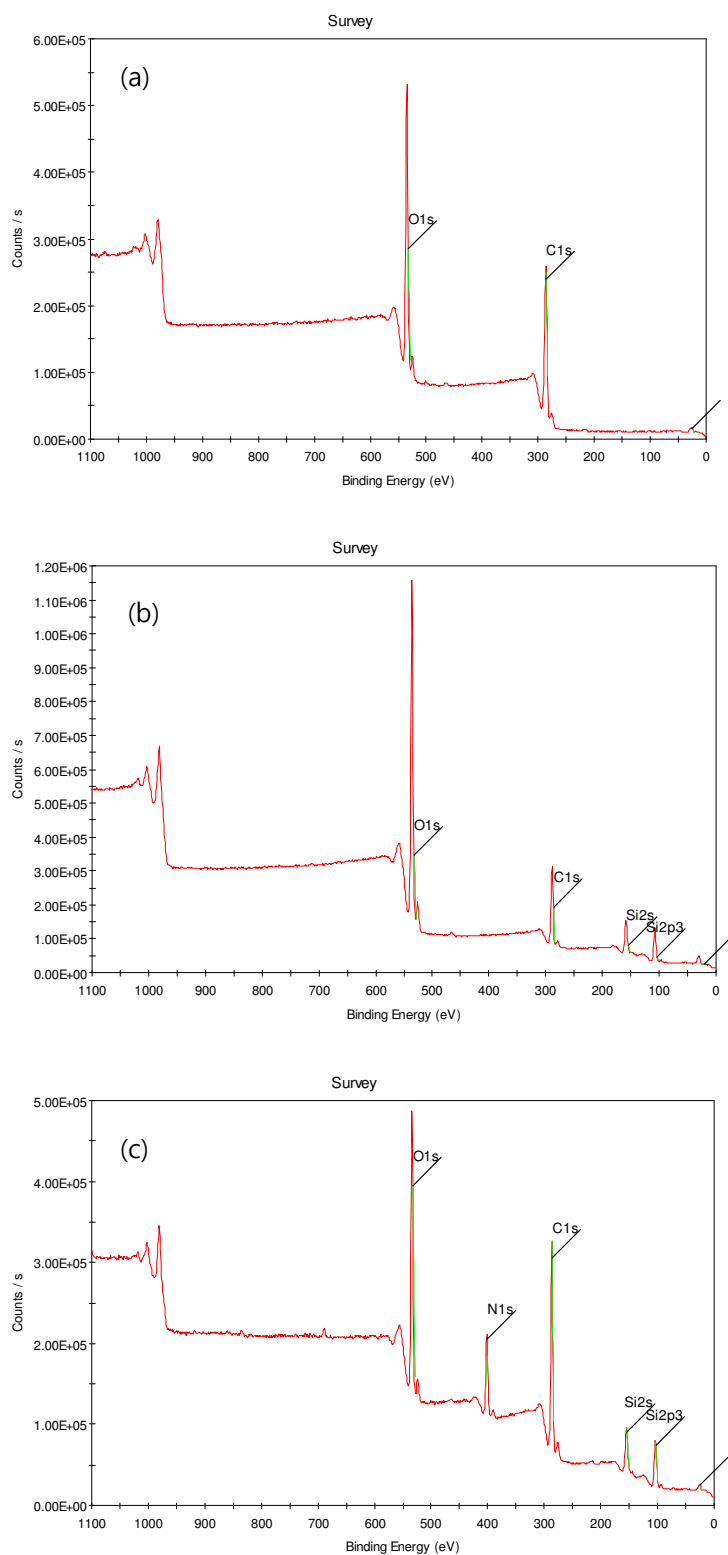


Figure S5. XPS spectra of (a) PVA, (b) PVA-silica nanofibers, and (c) amine-functionalized PVA-silica nanofibers.

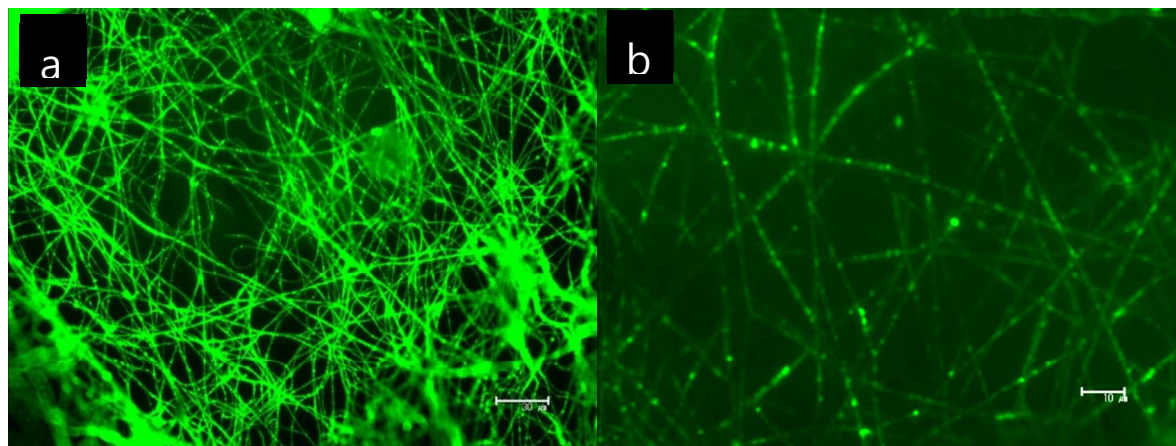


Figure S6. Fluorescence images of DoF. Green fluorescence indicates the presence of green-emitting CPdots on the PVA-silica hybrid nanofibers. Scale bars: 30 μm (a) and 10 μm (b).

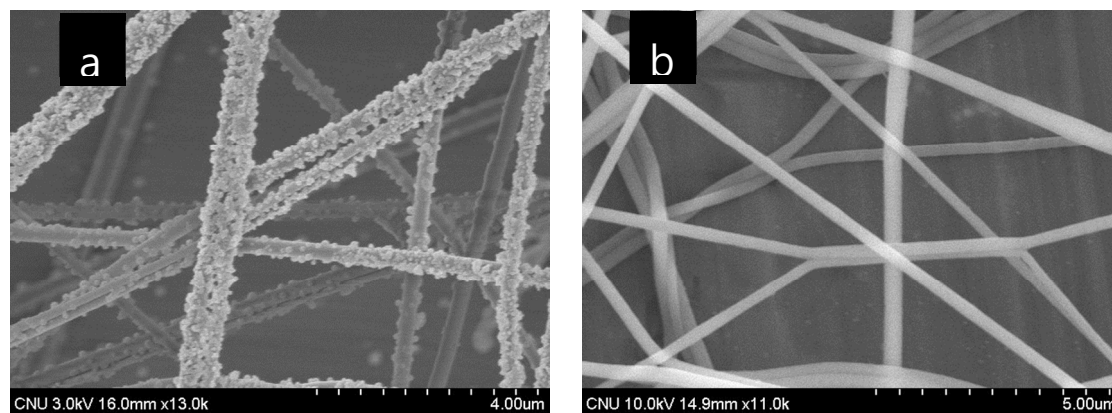
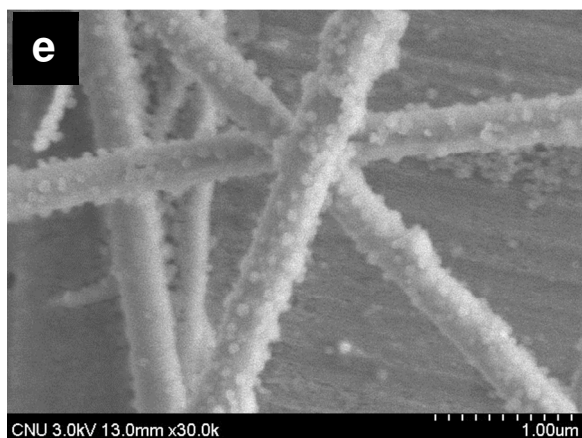
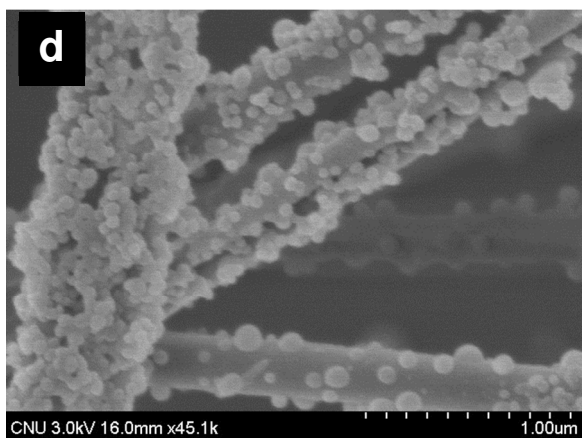
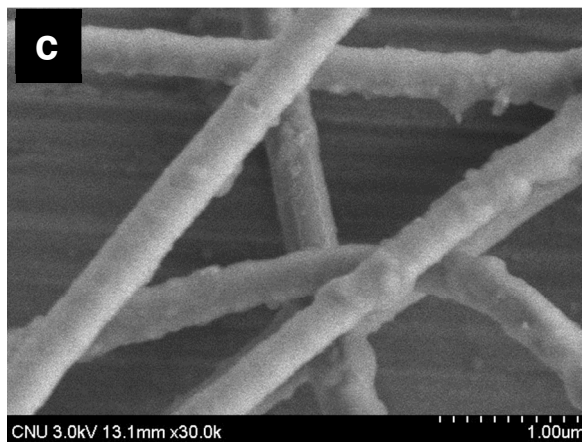
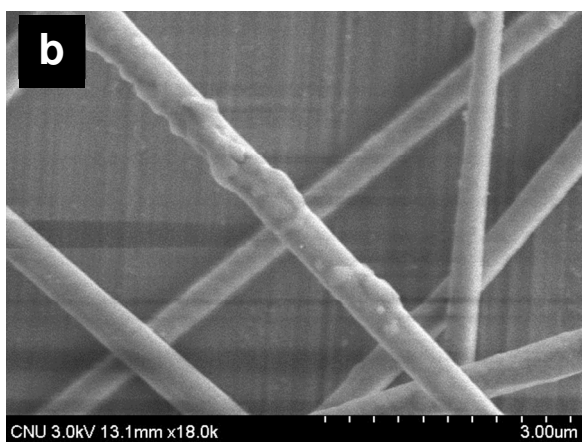
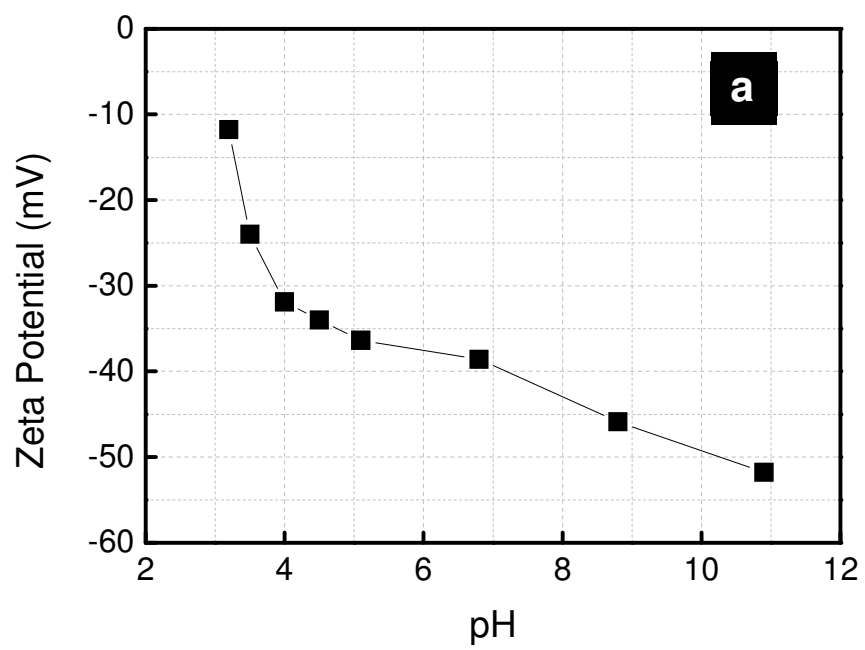


Figure S7. SEM images of CPdots-immobilized PVA-silica nanofibers fabricated (a) with and (b) without APTES treatment.



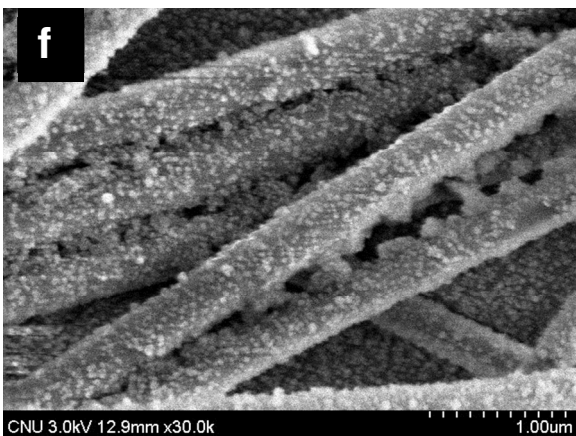


Figure S8. (a) Change in zeta potentials of CPdots in aqueous solutions of various pHs. SEM images of DoFs fabricated in different pHs of (b) 3.2, (c) 5.1, (d) 6.8, (e) 8.8, and (f) 11.8.

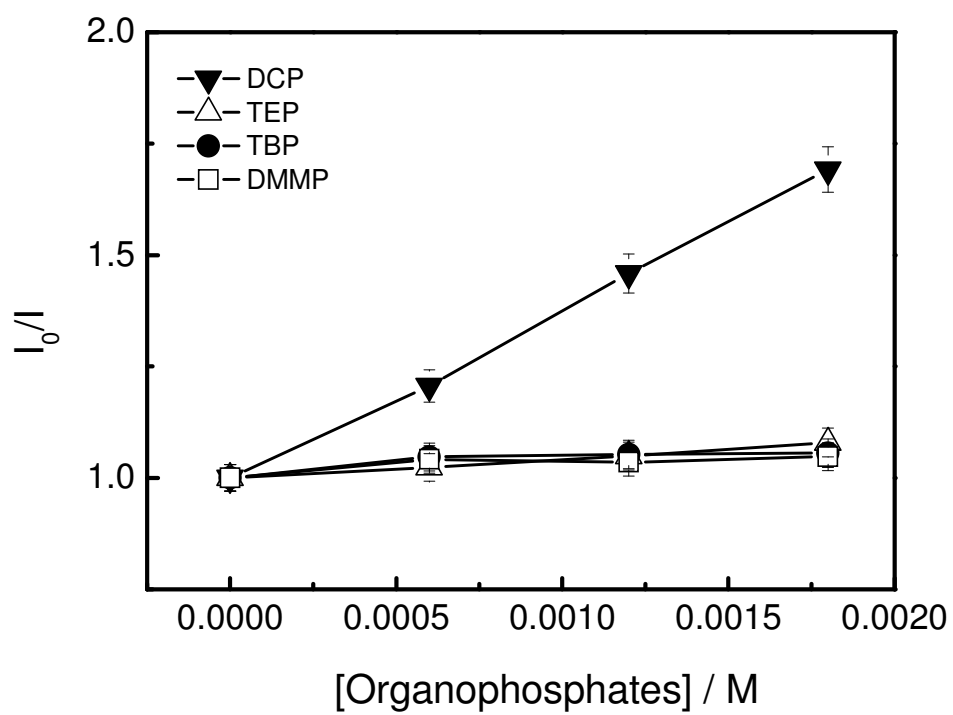


Figure S9. Stern-Volmer plot of DoF in response to various organophosphate compounds.

Table S1. Characterization of CPdots from **PQ**

Particle size (nm) ^a	66.28 ± 1.84	
Zeta potential (mV) ^b	-38.6 ± 0.7	
Quantum yields (%)	13 ^c (CPdots in aqueous solution)	12 ^d (solid CPdots)

^a,^b) determined by DLS.

^c) calculated using rhodamine 6G as a standard in water (QY: 95%).

^d) determined with a calibrated integrating sphere (excitation source: 325 nm laser).