Electronic Supporting Information

for

Polymethacrylic acid–facilitated nanofiber matrix loading Ag nanoparticles for SERS measurements

Hui Yang, [a] and Chengzhi Huang* [a,b]

[a] Key Laboratory of Luminescence and Real-Time Analytical Chemistry (Southwest University), Ministry of Education, College of Chemistry and Chemical Engineering, Southwest University, Chongqing 400715, China

[b] College of Pharmaceutical Science, Southwest University, Chongqing 400715, China

E-mail: chengzhi@swu.edu.cn (C. Z. H.)
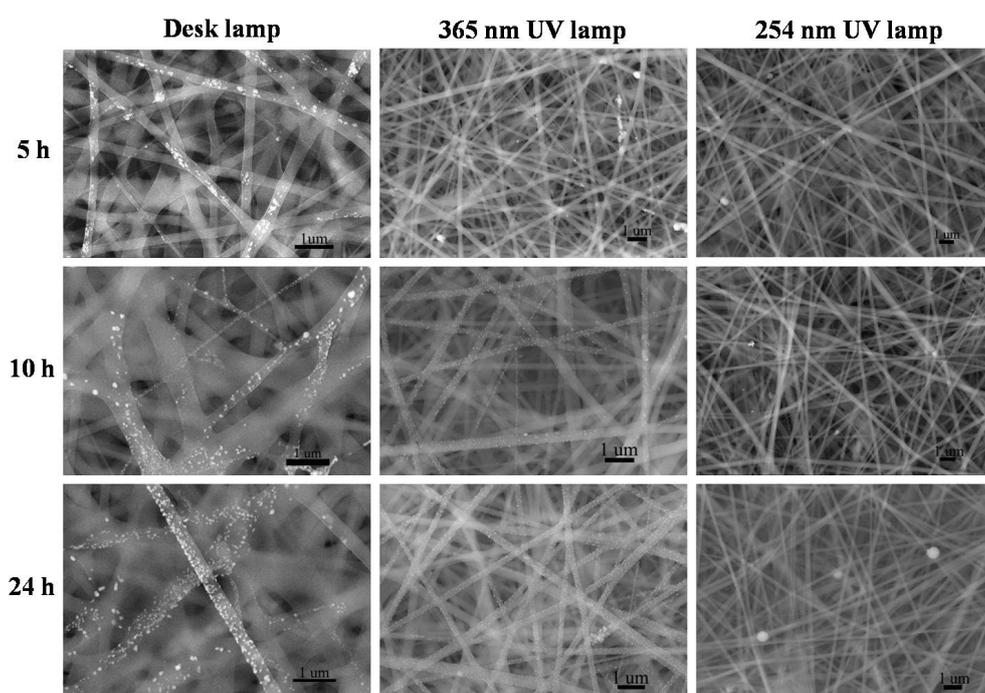
Fig. S1 SEM images of electrospun fiber mats from the AgNO$_3$/PMAA/PVP solution that had

been illuminated by different light sources for different illuminated time.
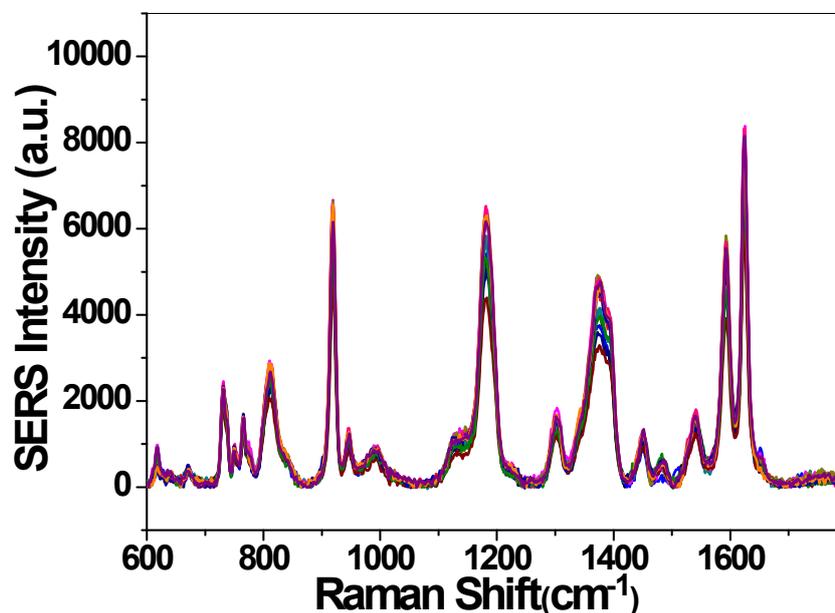
Fig. S2 RSD-SERS spectra of 10^{-6} M CV solutions collected on the randomly selected thirteen places of the optimized substrate. Ag: MAA concerntration is 400:1, the as-prepared elecspun reduced by desk lamp, and the acquisition time is 1 s.

Table S1 RSD values for the major peaks of the CV SERS spectrum

Peak position (cm $^{-1}$)	799	912	1174	1382	1620
RSD value	0.1152	0.1186	0.1198	0.1167	0.1175

Table S2 Results for the determination of MG in fishery water.

Sample	Found (μmol/L)	Added (μmol/L)	Total (μmol/L)	Recovery (%)	RSD (%, n=4)
Fishery water 1	2.1	20	20.9	94	8.5
Fishery water 2	1.9	20	22.4	102.5	3.0