Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Figures

Fig. S1A Schematic presentation of COO− groups in PMMA chemisorbed on ZnO nanoparticles particles by hydrolysis of the ester group of PMMA.

Fig. S2. Effect of the absorbent (ZnO@PMMA) on the separation using (a) 0.05, (b) 0.1, (c) 0.2, and (d) 0.5 mg/mL (e) 1.0 mg/mL

Fig. S3 Comparing the ZnO@PMMA-DLLME the present and absence of bacteria in water. (a) without any bacteria (b) *S. aureus* (d) *P. aeruginosa*

Fig. S4 Method for limit of detection of *S. aureus* with ZnONPs@PMMA -DLLME (a) 4.8×10^{8} (b) 9.7×10^{6} (c) 3.2×10^{5} (d) 1.8×10^{4} (e) 9.7×10^{3} and (f) 8.9×10^{2} cfu/mL.

Fig. S5 Method for limit of detection of *P. aeruginosa* with ZnONPs@PMMA-DLLME (a) 6.2×10^{8} (b) 4.5×10^{7} (c) 1.2×10^{6} (d) 3.2×10^{5} (e) 1.7×10^{4} and (f) 3.8×10^{3} cfu/mL.

Fig.S1

Fig.S2A

(a)

(b)

(c)

(d)

(e)

Fig.S2B

(a)

(b)

(c)

(d)

(e)

Fig.S3

Absolute intensity

Fig.S4

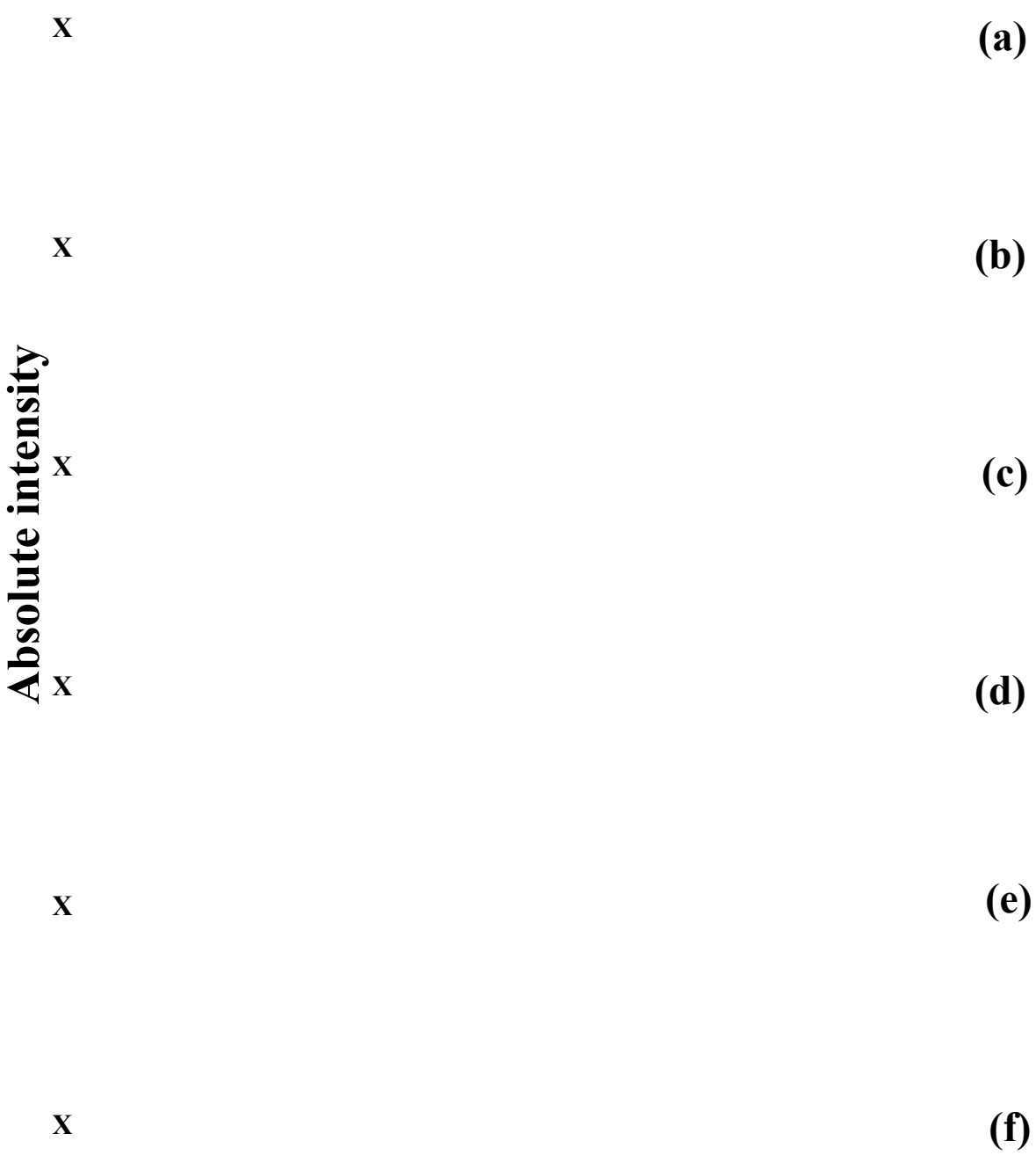

Fig.S5

(a)

(b)

Absolute intensity

(c)

(d)

(e)

(f)