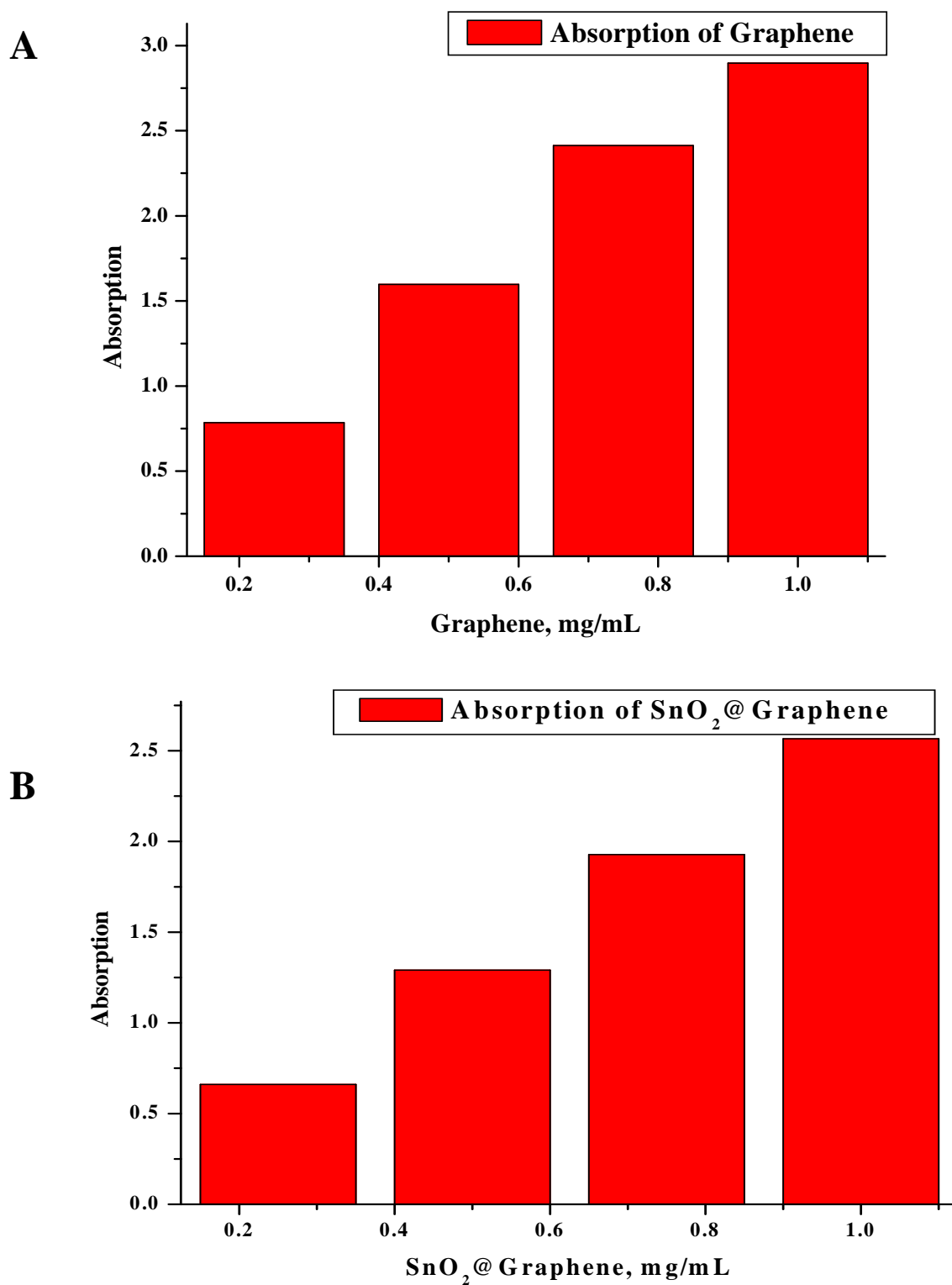
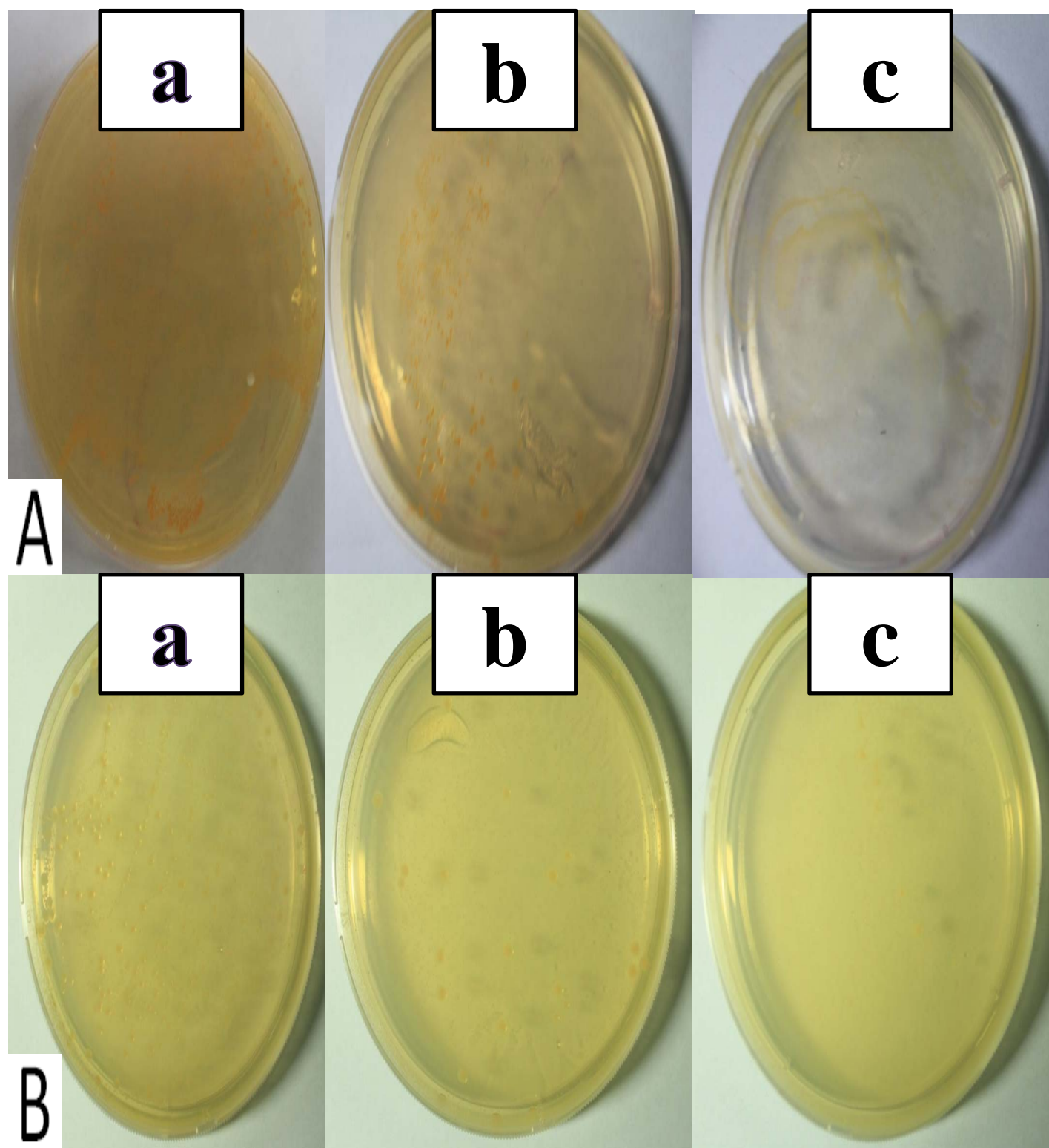


Fig.S1

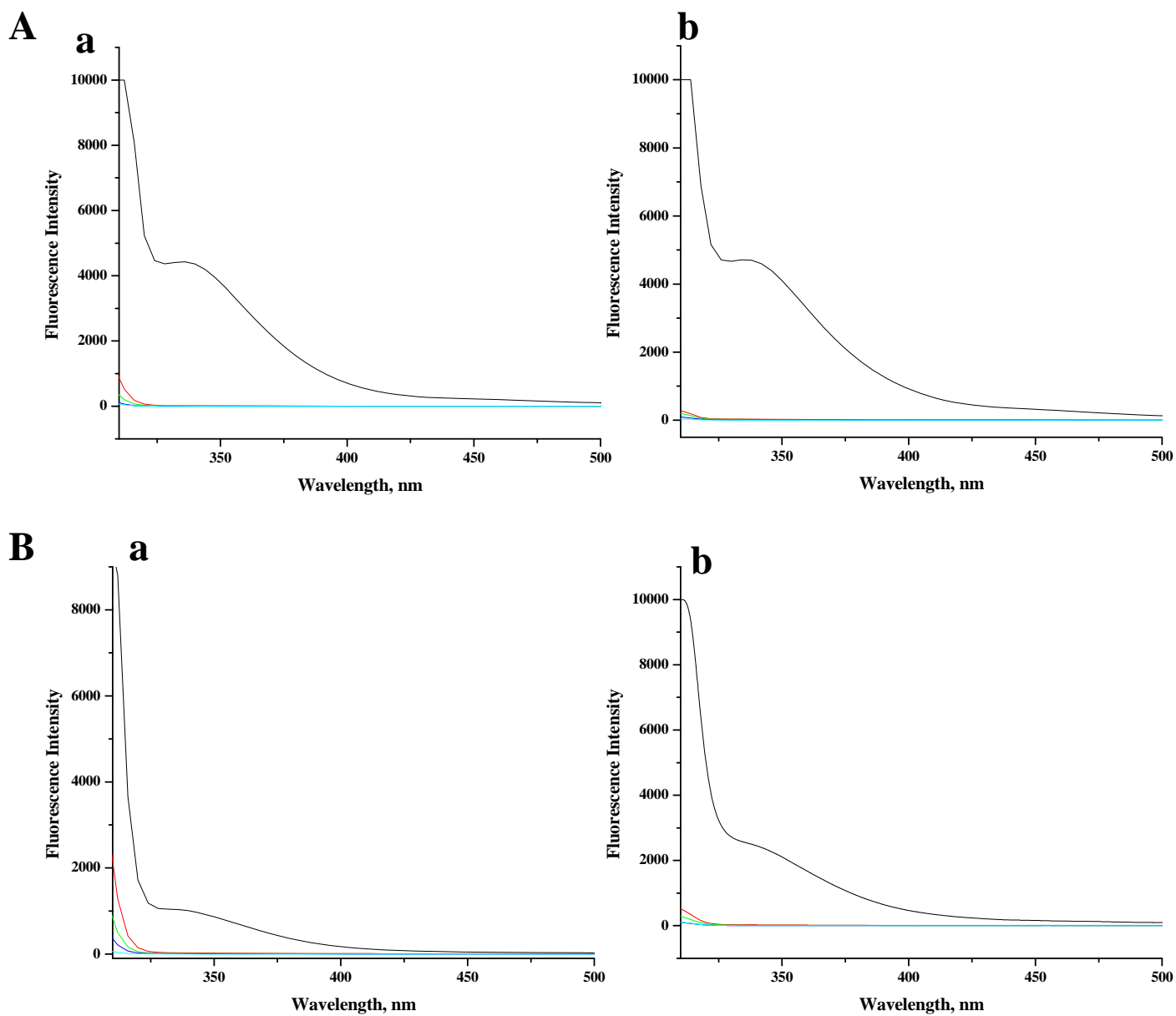


**Figure.S1.** Absorption of (A) graphene and (B) SnO<sub>2</sub>@Graphene with different concentrations.



**Figure.S2.** Photos showing samples of bacteria growth plated after 24 h of incubation with or without the nanoparticles:(A) *S. aureus* and (B) *P.aeruginosa*, (a) in a water solution, (b) graphene solution ,and (c) a solution containing SnO<sub>2</sub>@Graphene nanoparticles.

**Fig.S3**



**Fig.S3:** Tryptophan emission of (A) *P. aeruginosa* and (B) *S. aureus* after incubation with (a) G and (b) SnO<sub>2</sub>@G.