Electronic Supplementary Material (ESI) for RSC Advances.

Fluorescent Organic Nanoparticles (FONs) for Selective Recognition of Al^{3+}: Application to bio-imaging for bacterial sample

Supplementary Information

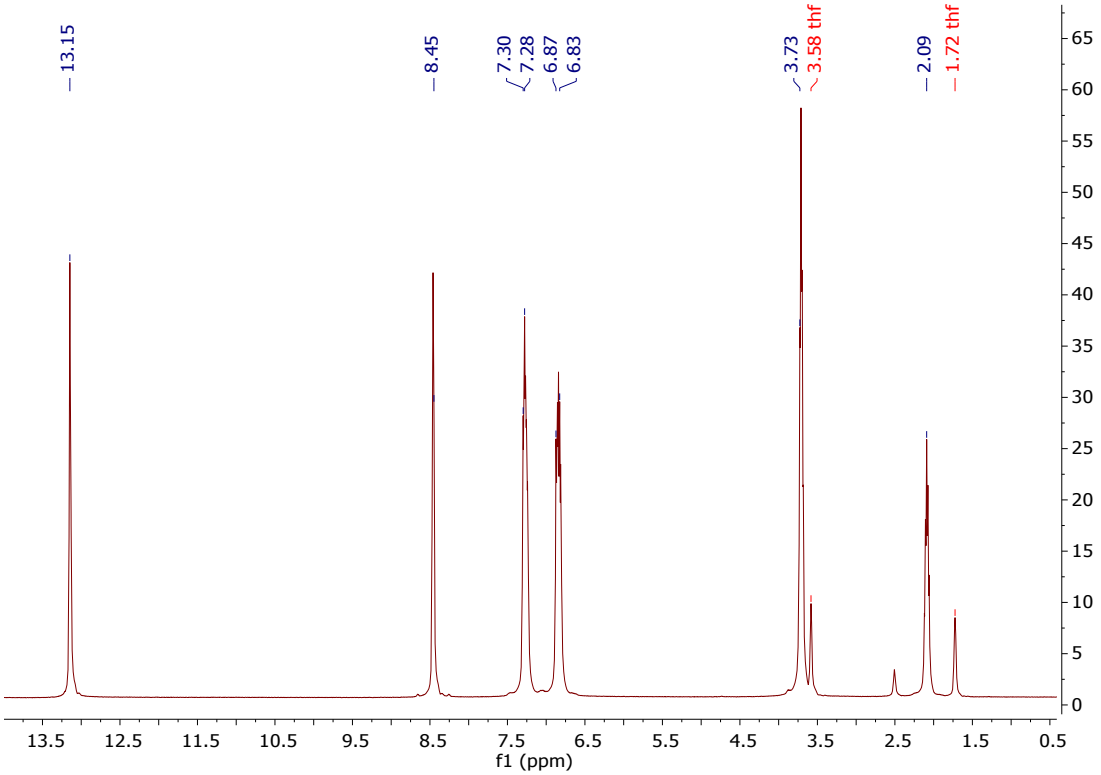

Fig. S1. ^1H NMR of PBS Ligand in THF (d_8)

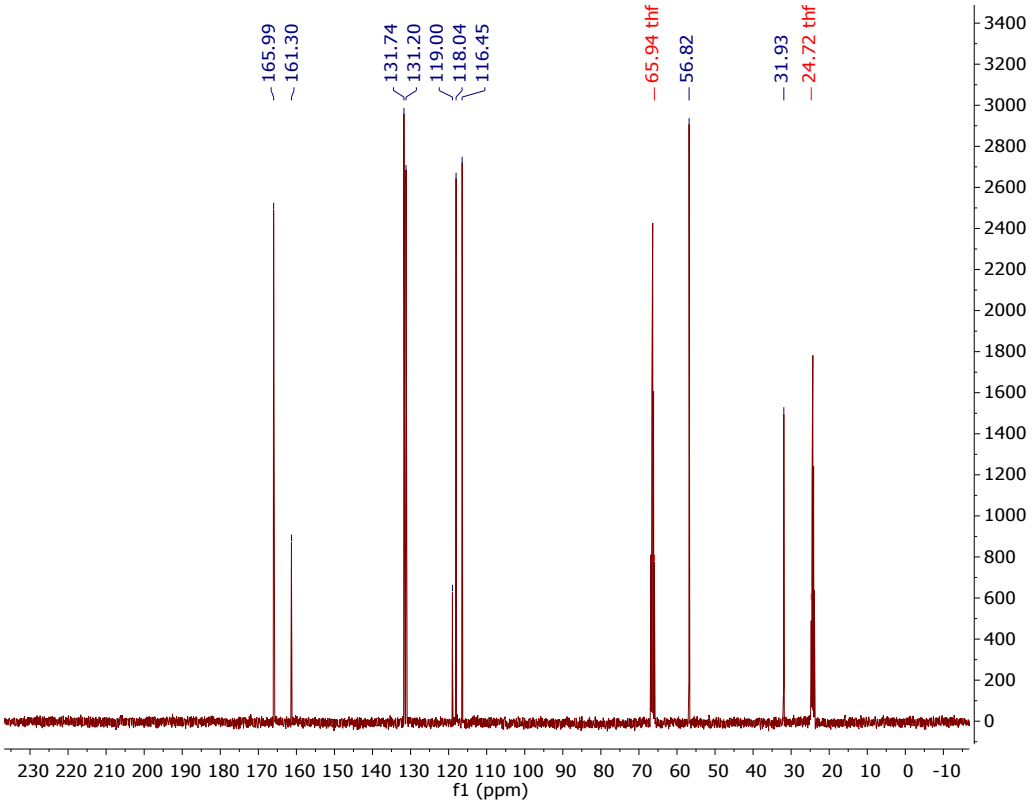

Fig. S2. ^{13}C NMR of the prepared salpn ligand in THF (d_8)

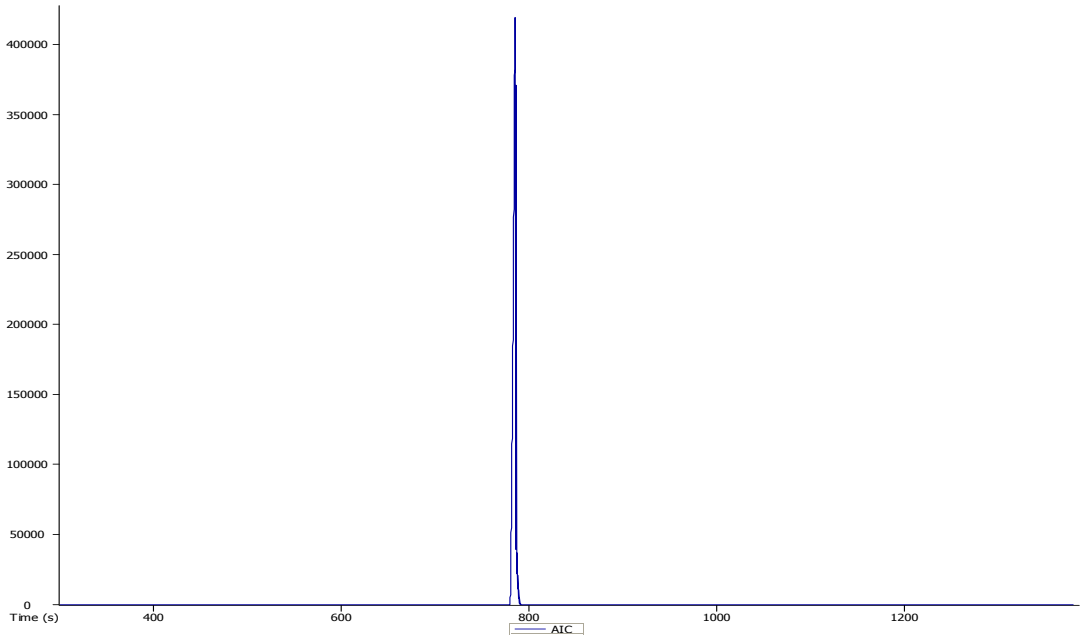

Fig. S3. GC of the synthesized salpn.

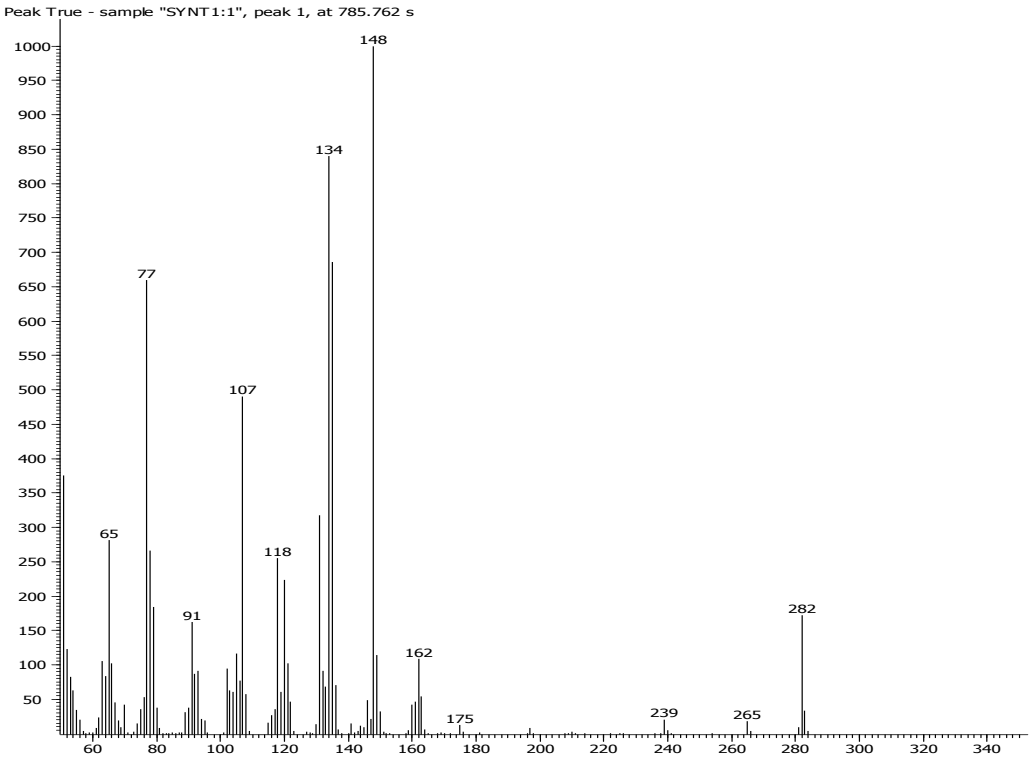

Fig. S4. Mass spectra of salpn

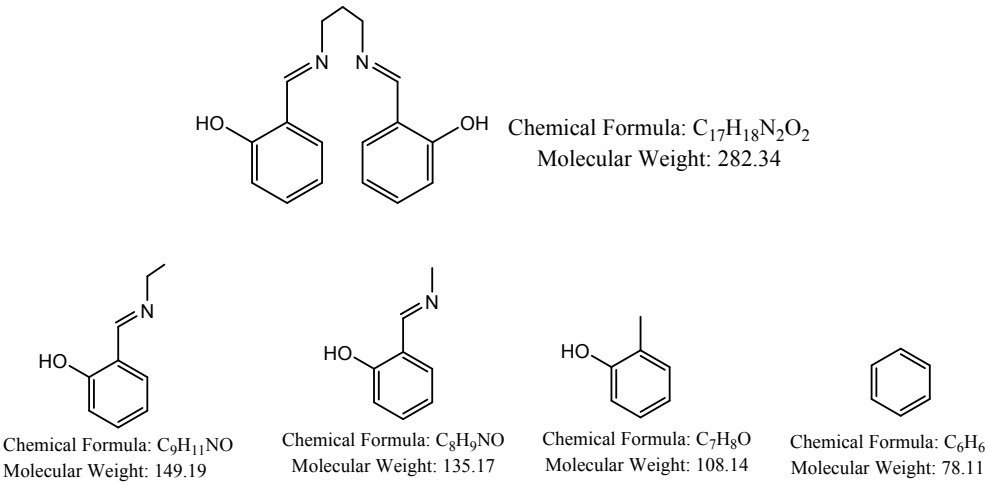

Fig. S5. Main fragmentation of salpn

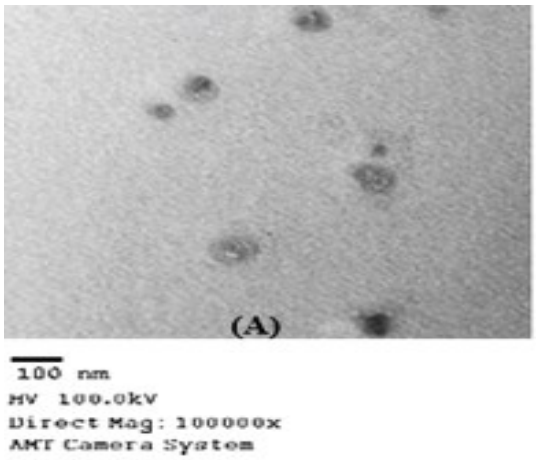

Fig. S6. TEM image of organic nanoparticle (100 nm).

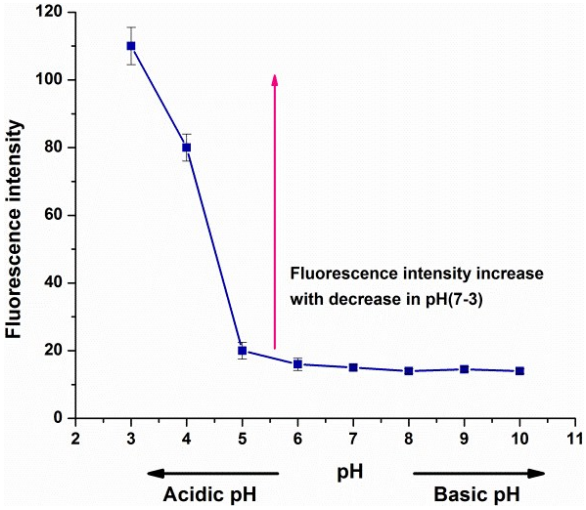

Fig. S7. The effect of pH on the fluorescence intensity of the salpn-ONPS.

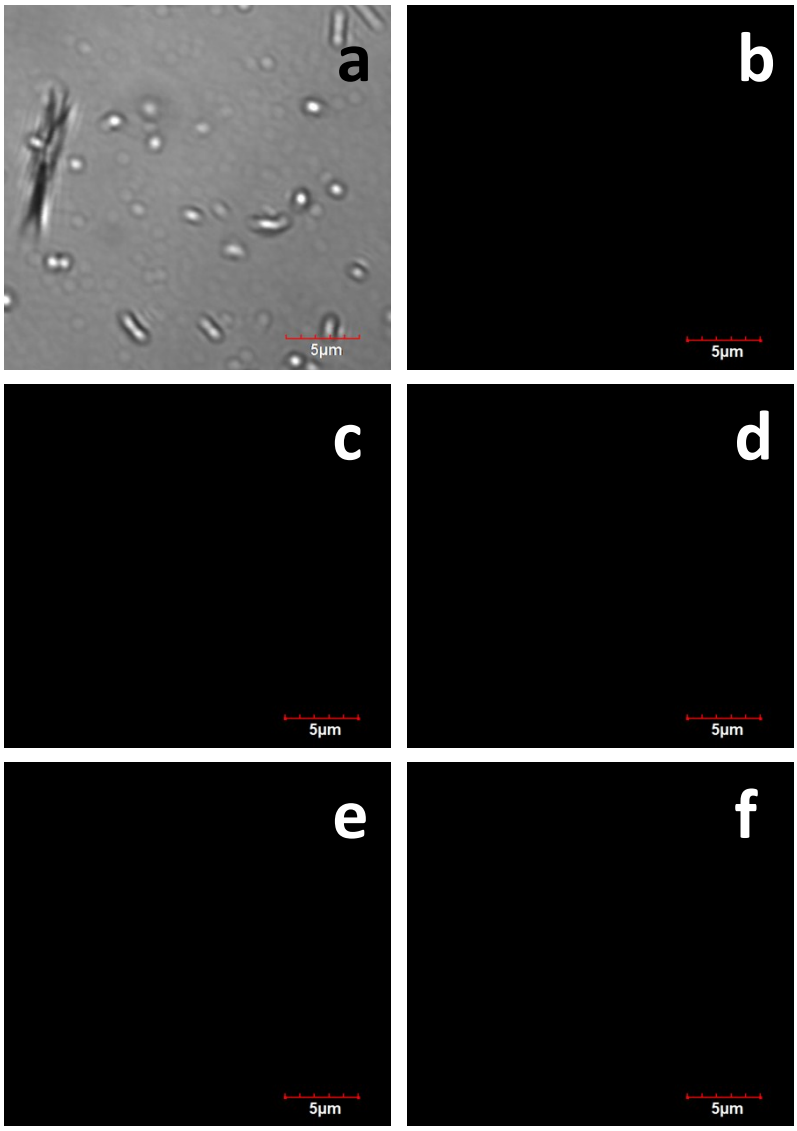

Fig. S8. Recognition of Al^{3+} through bio-fluorescence *Salmonella typhi* treated with different combinations: a) *S. thyphi* under visible light; b) control growth; c) *S. thyphi* treated with salpn-ONPs (1.0 mM); d) *S. thyphi* treated with salpn-ONPs (1.0 mM) and Al^{3+} (0.01mM); e) *S. thyphi* treated with salpn (1.0 mM); f) *S. thyphi* treated with salpn (1.0 mM) and Al^{3+} (0.01mM).

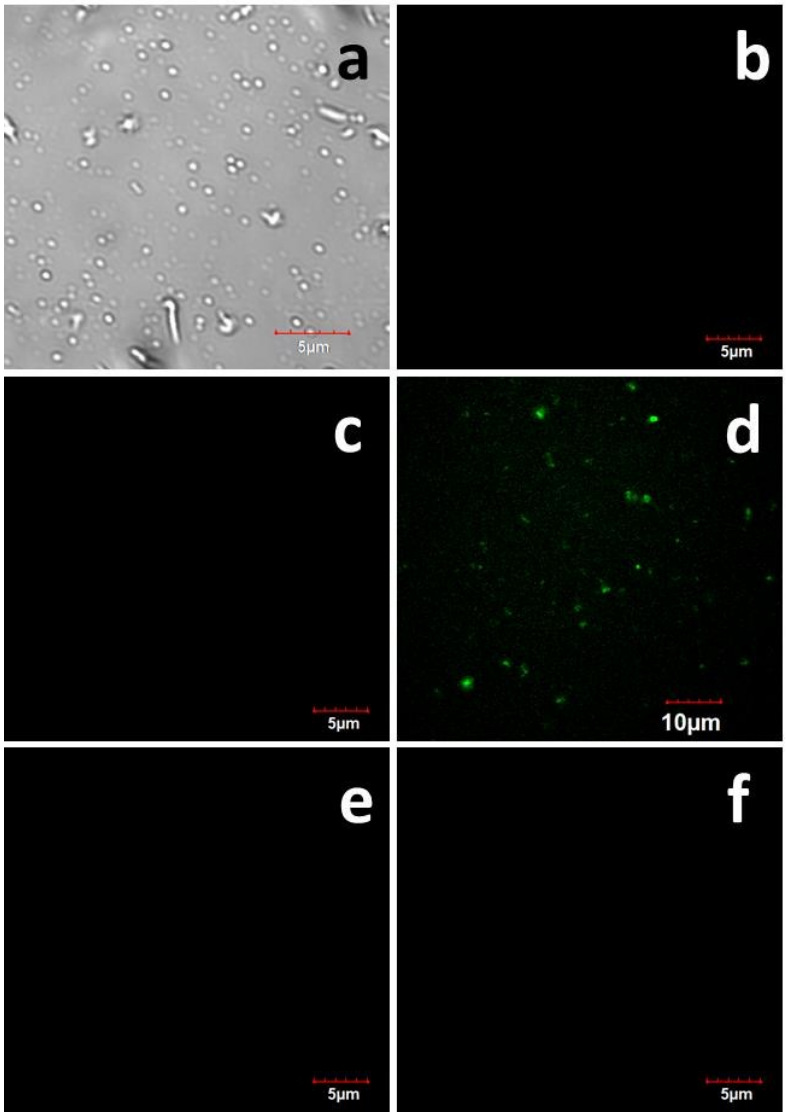

Fig. S9. Recognition of Al^{3+} through bio-fluorescence *Staphylococcus aureus* treated with different combinations: a) *S. aureus* under visible light; b) control growth; c) *S. aureus* treated with salpn-ONPs (0.1 mM); d) *S. aureus* treated with salpn-ONPs (0.1 mM) and Al^{3+} (0.01mM); e) *S. aureus* treated with salpn (0.1 mM); f) *S. aureus* treated with salpn (0.1 mM) and Al^{3+} (0.01 mM).

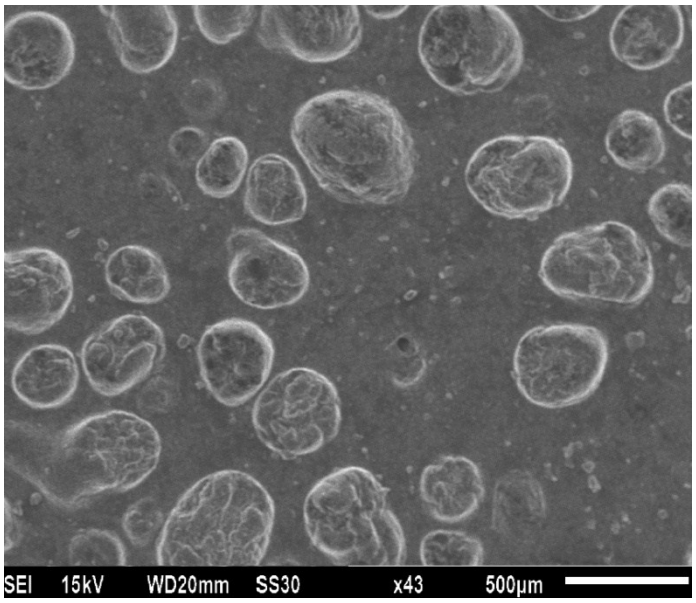

Fig. S10. SEM analysis of Staphylococcus aureus incubated with salpn-ONPs along with Al^{3+}