

Supporting Information

Squaramide-based lab-on-a-molecule for the detection of silver ion and nitroaromatic explosives

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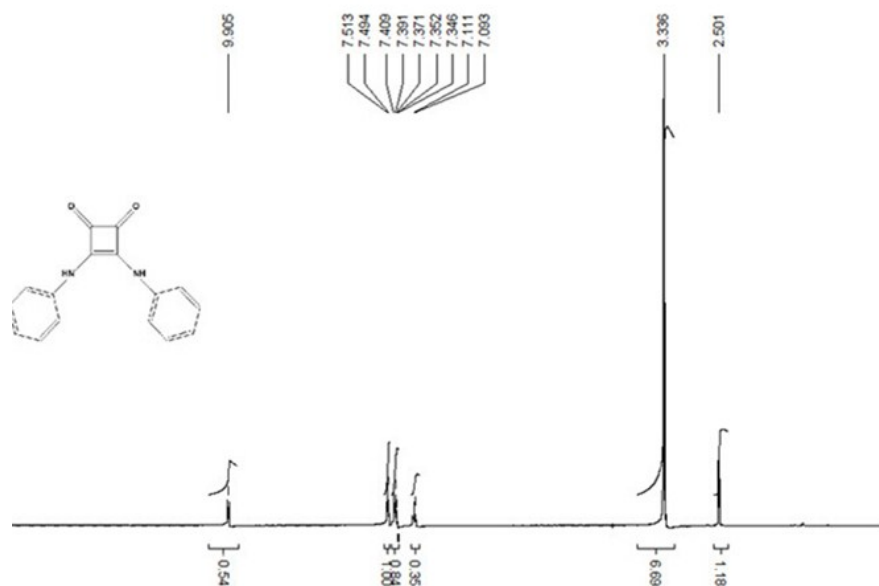


Fig. S1 $^1\text{H NMR}$ spectra of probe SA in DMSO-d_6 .

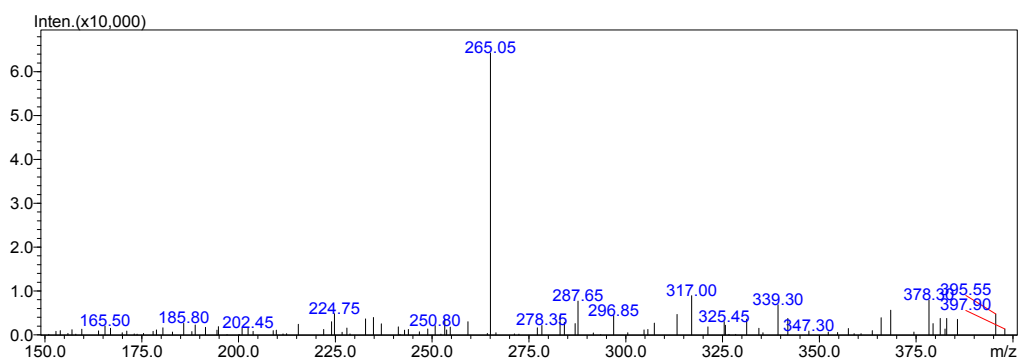


Fig. S2 The mass spectrum of SA.

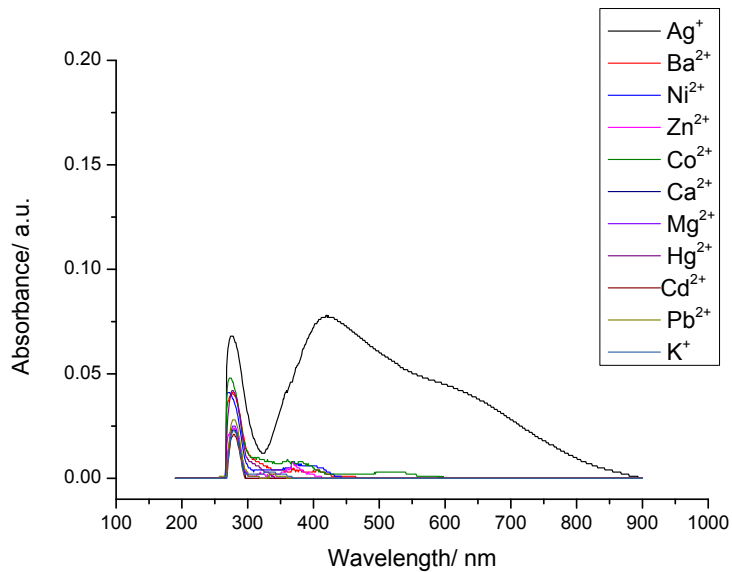


Fig. S3 The UV-vis absorption of SA (10 μ M) in the presence of 50 equiv of different metal ions in DMSO buffered solution (pH = 7.24, DMSO: H₂O = 90:10, v/v).

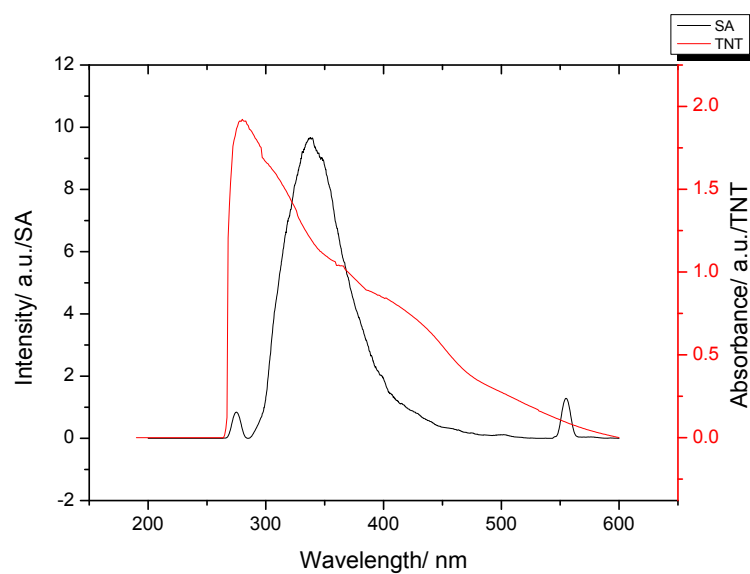


Fig. S4 Emission of SA and absorption of TNT in DMSO buffered solution (pH = 7.24, DMSO: H₂O = 90:10, v/v).

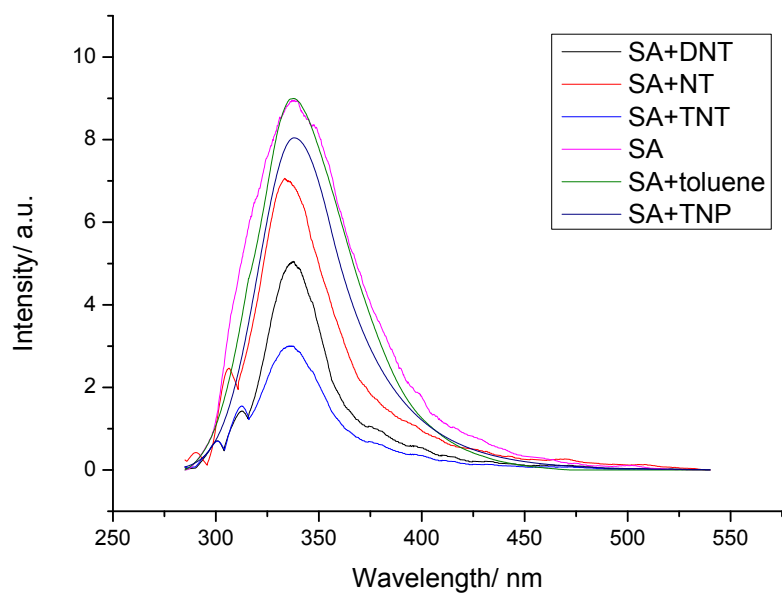


Fig. S5 Emission spectra of SA in the presence of 1 equiv of different analytes in DMSO buffered solution (pH = 7.24, DMSO: H₂O = 90:10, v/v).

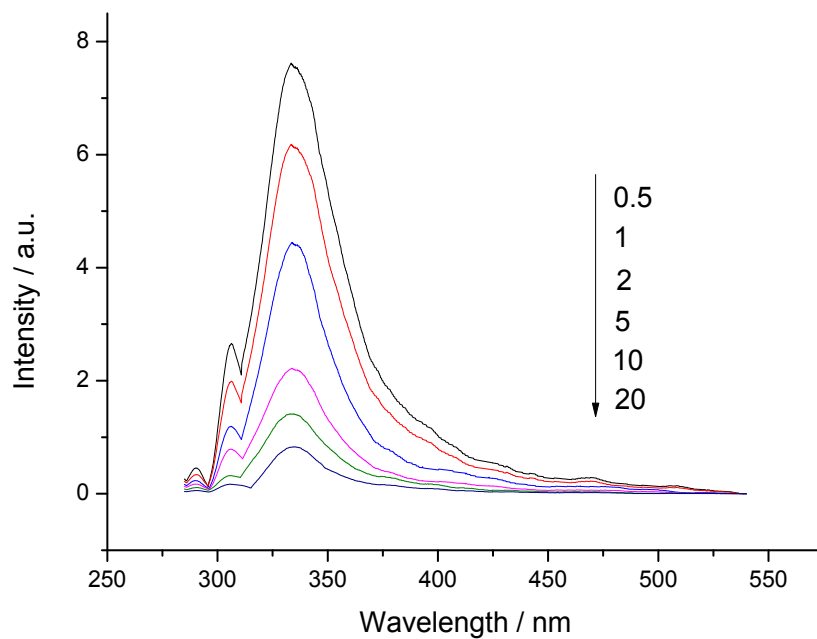


Fig. S6 Emission spectra of SA upon addition of 0.5, 1, 2, 5, 10, 20 μM of NT in DMSO buffered solution (pH = 7.24, DMSO: H₂O = 90:10, v/v).

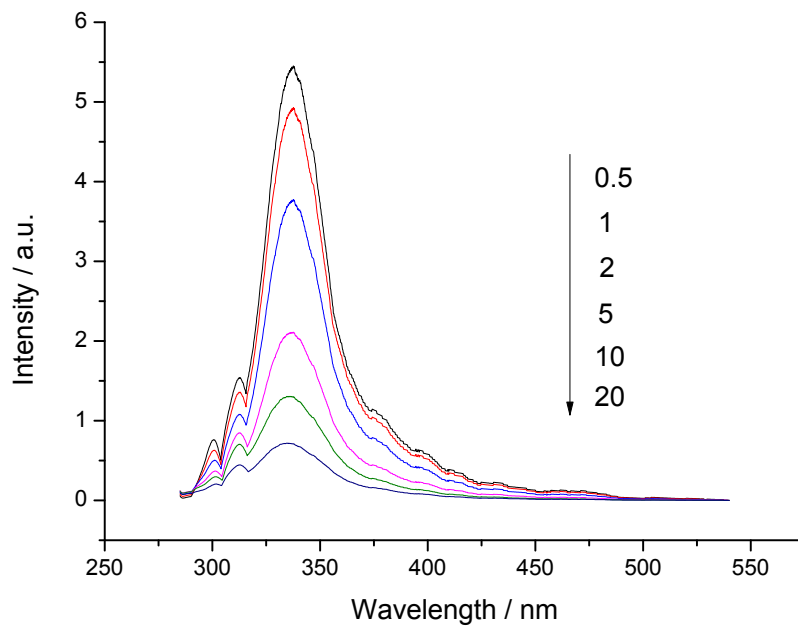


Fig. S7 Emission spectra of SA upon addition of 0.5, 1, 2, 5, 10, 20 μM of DNT in DMSO buffered solution (pH = 7.24, DMSO: H₂O = 90:10, v/v).

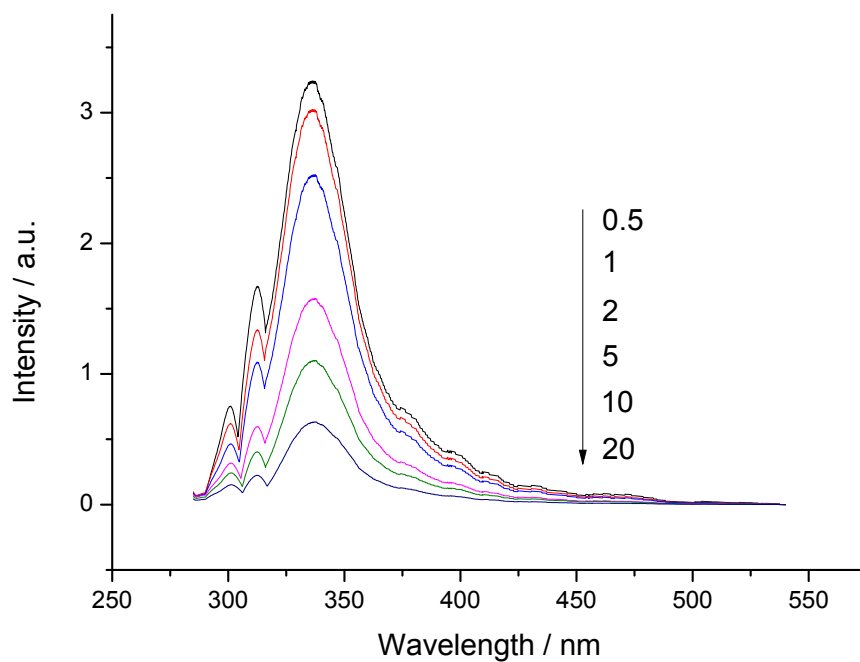


Fig. S8 Emission spectra of SA upon addition of 0.5, 1, 2, 5, 10, 20 μM of TNP in DMSO buffered solution (pH = 7.24, DMSO: H₂O = 90:10, v/v).

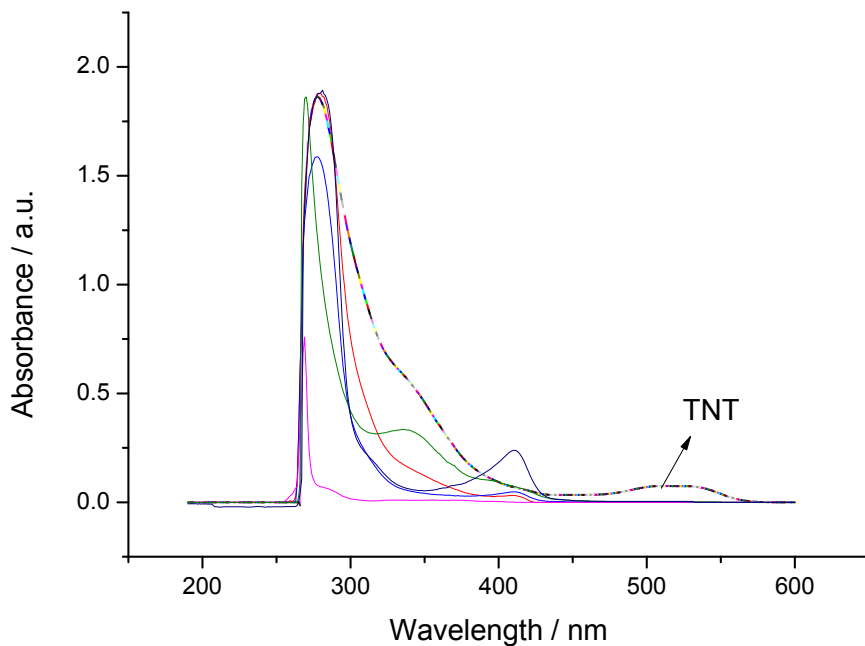


Fig. S9 The UV-vis absorption of SA in the presence of 50 equiv of different explosives in DMSO buffered solution (pH = 7.24, DMSO: H₂O = 90:10, v/v).

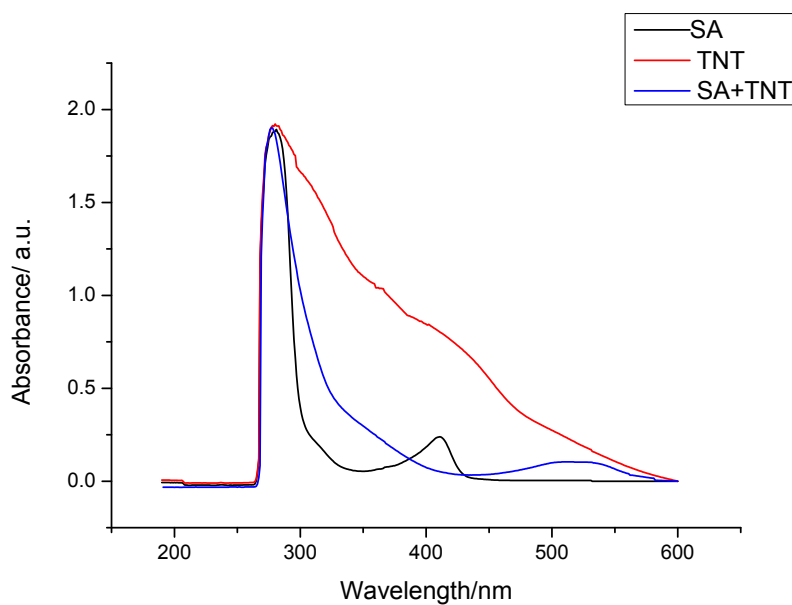


Fig. S10 UV-Vis absorption of SA (black), TNT (red), SA and TNT mixture solution (blue) in DMSO buffered solution (pH = 7.24, DMSO: H₂O = 90:10, v/v).

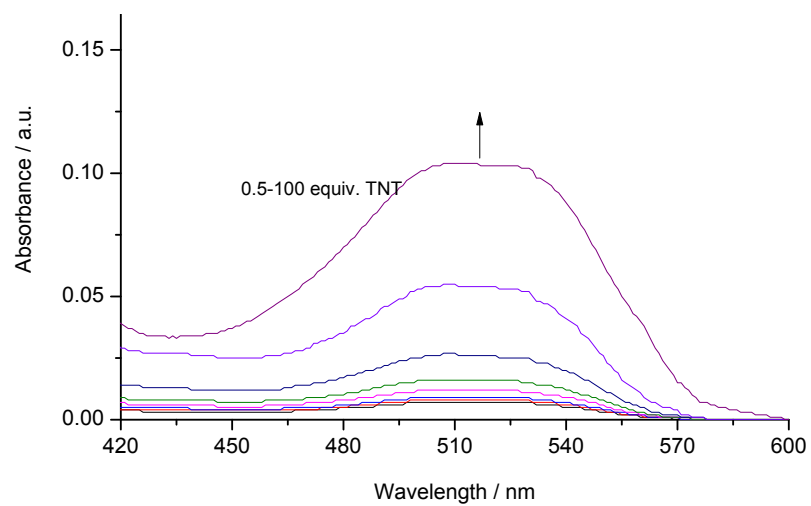


Fig. S11 UV-vis absorption titration of SA (10 μM) upon addition of 0.5, 1, 2, 5, 10, 20, 50, 100 μM of TNT in DMSO.