Electronic Supplementary Information (ESI)

Imine (-CH=N-) Brings Selectivity for Silver Enhanced Fluorescence

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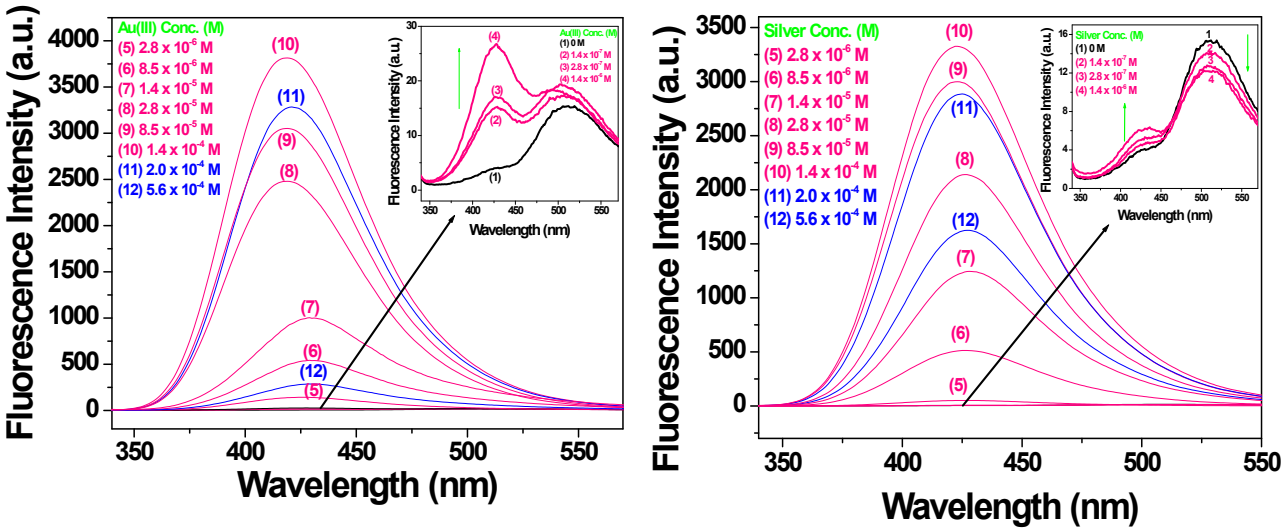

Figure S1: Fluorescence spectral profile showing the effect of Au(III) [left] and Ag(I) [right] concentration on SL mediated GEF and SEF.

Condition: [SL] = 1.4×10^{-4} M; Ageing = 2 days; λ_{ex} = 300 nm.

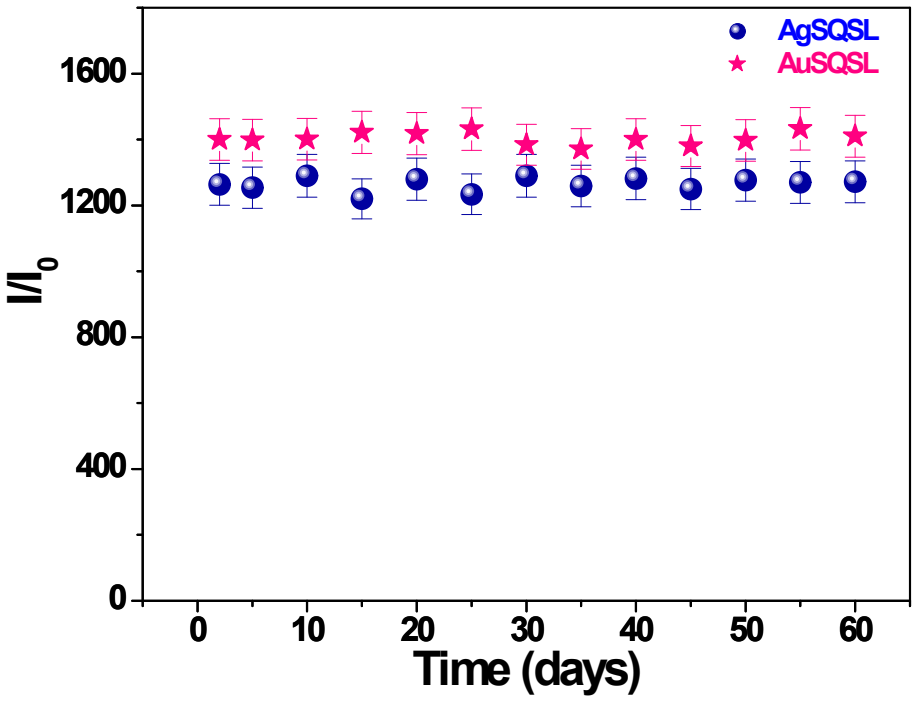

Figure S2: Effect of ageing on the fluorescence of AgSQSL and AuSQSL.

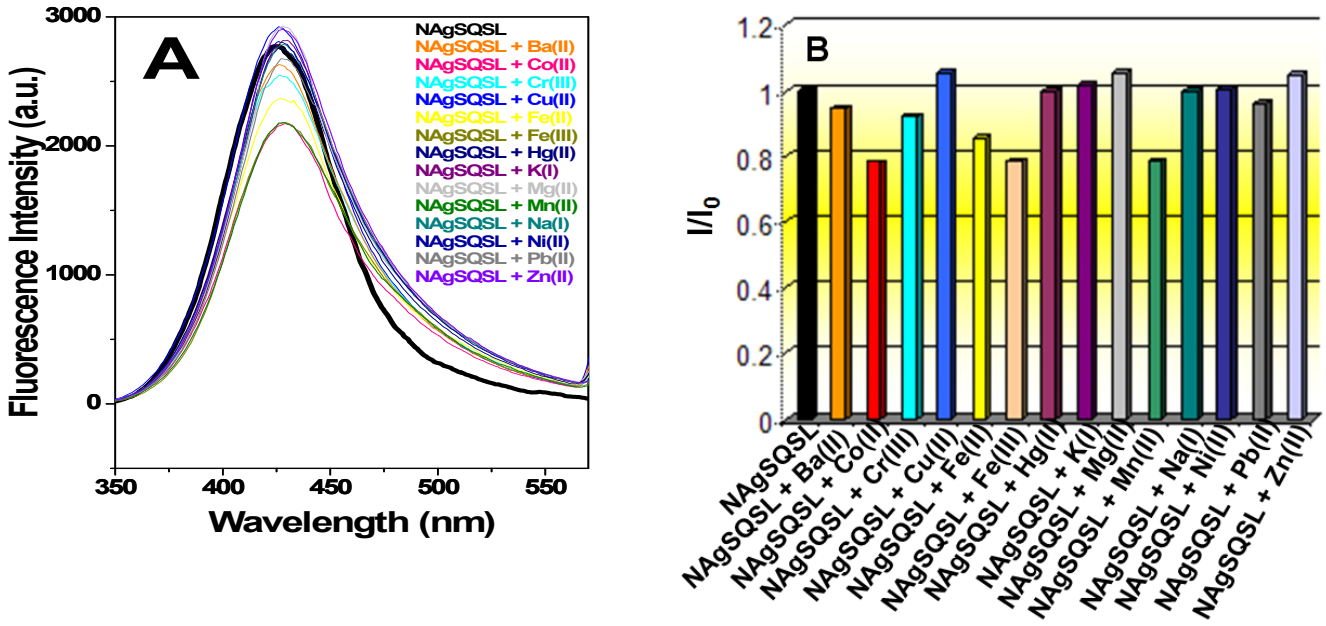

Figure S3: (A) Fluorescence spectral profile and (B) bar diagram showing the effect different metal ions on NAgSQSL solution. Condition: [NAgSQSL] = 3 mL; $[M^{n+}]$= $1.4x10^{-4}$ M; Ageing = 2 days; λ_{ex} = 300 nm.

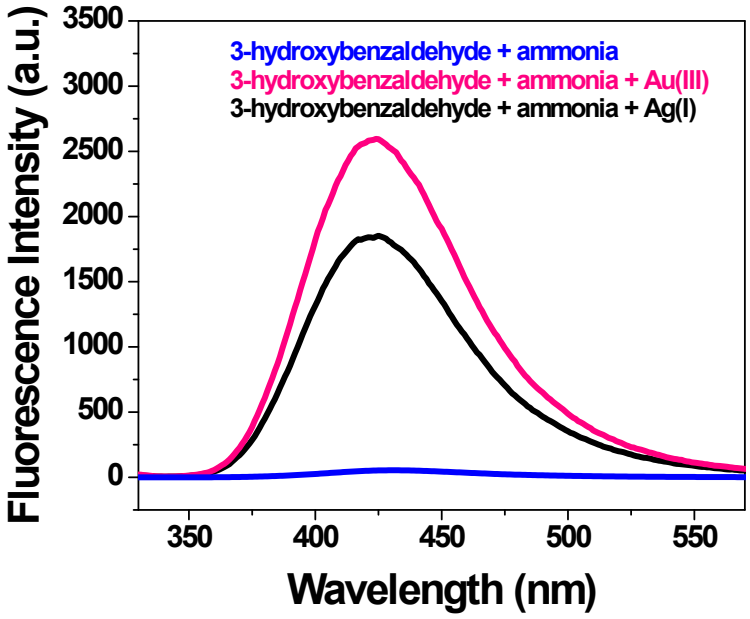

Figure S4: Fluorescence spectral profile showing effect of NH_3 on GEF and SEF of 3-hydoxy benzaldehyde.
Condition: [3-hydoxy benzaldehyde] = $1.4x10^{-4}$ M; [Au(III)/Ag(I)]= $1.4x10^{-4}$ M; [NH_3] = $1.4x10^{-4}$ M; Ageing = 2 days; λ_{ex} = 300 nm.

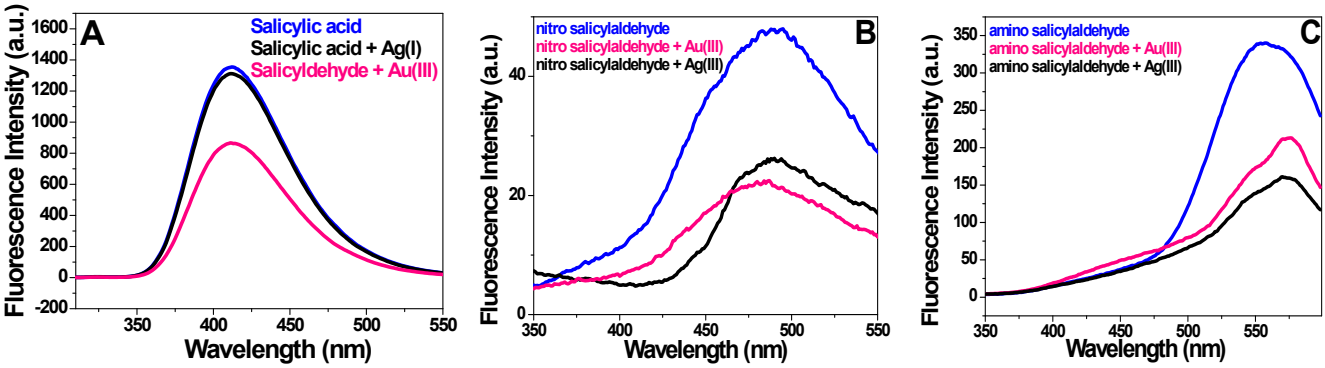

Figure S5: Fluorescence spectral profile showing the effect of Ag(I) and Au(III) on the fluorescence of alkaline salicylic acid, nitrosalicylaldehyde and aminosalicylaldehyde.

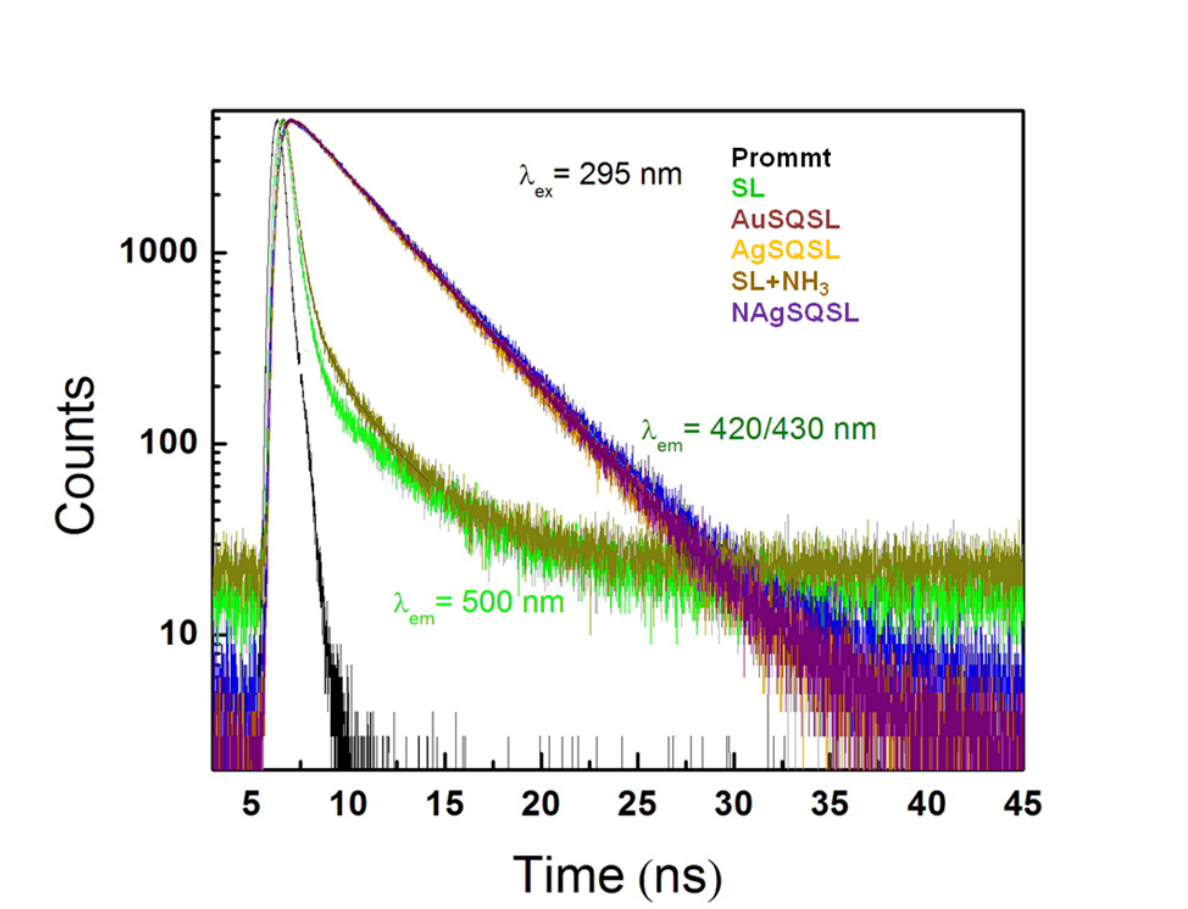

Figure S6: Fluorescence dacay profile for SL, AuSQSL, AgSQSL, NSL, NAgSQSL.

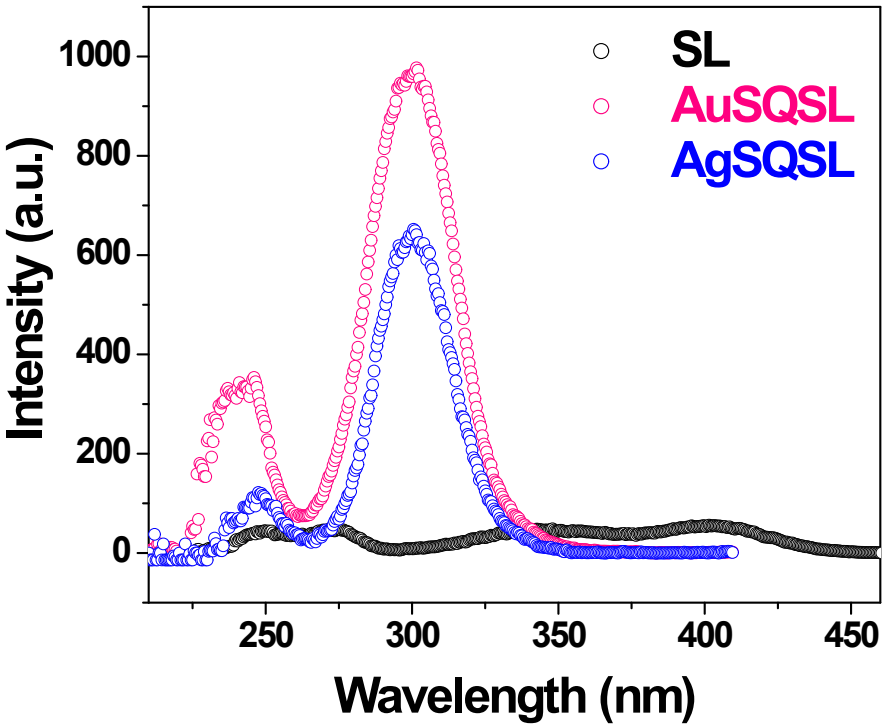

Figure S7: Excitation spectra for SL, AuSQSL, AgSQSL.

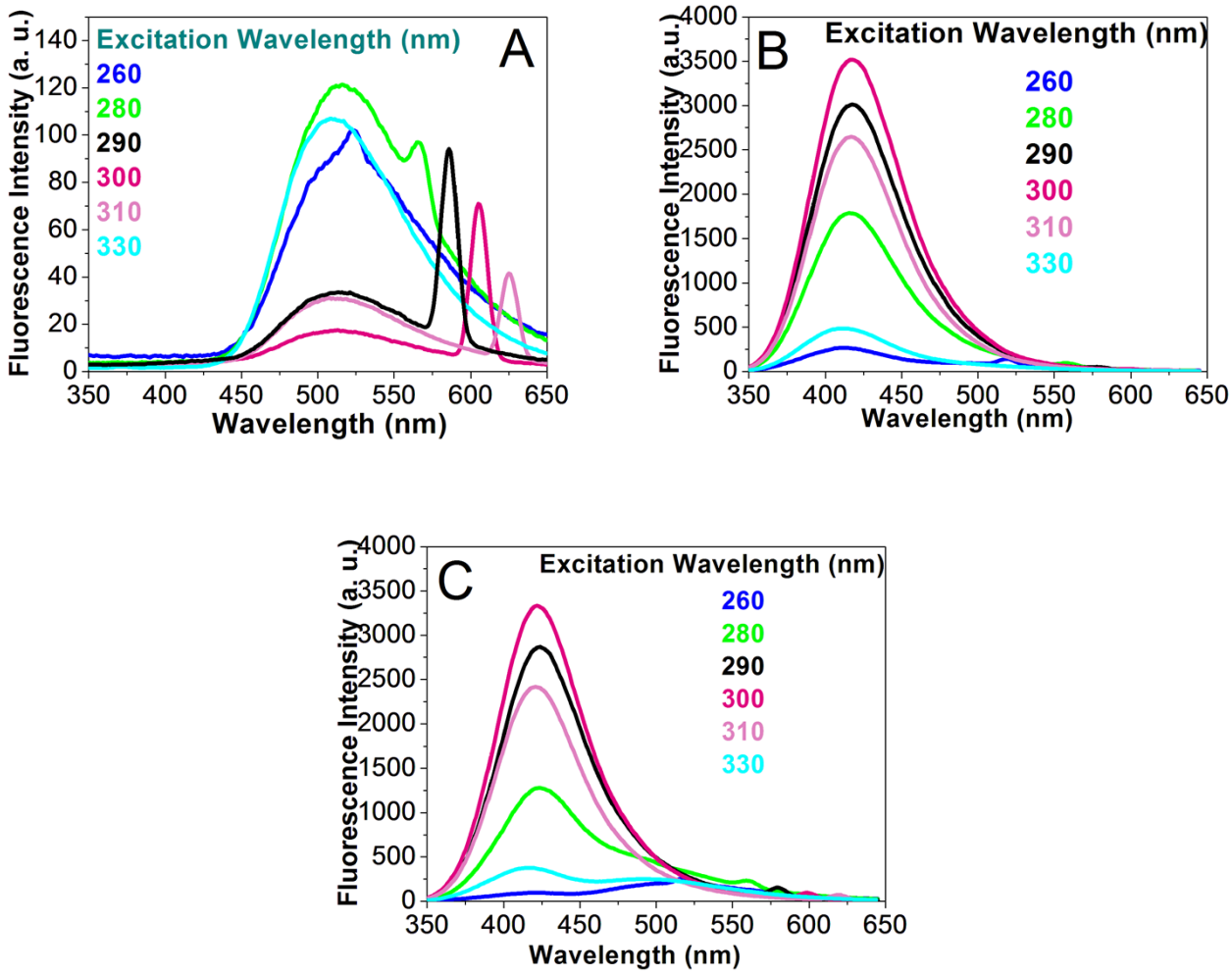

Figure S8: Fluorescence spectral profile showing the effect of excitation energy on fluorescence of (A) SL, (B) AuSQSL and (C) AgSQSL.

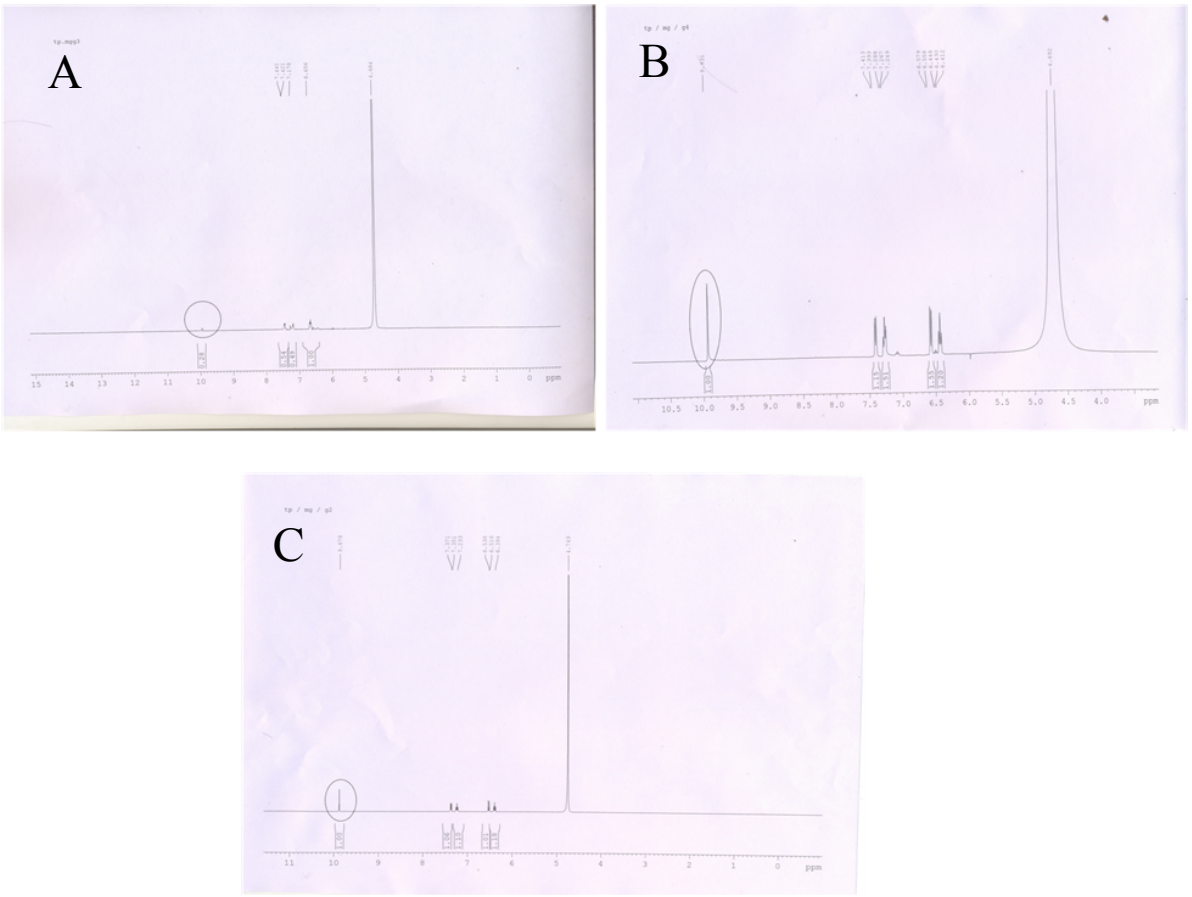

Figure S9: ^{1}H-NMR spectra for (A) AgSQSL, (B) AuSQSL and (C) SL in alkaline D_2O solution.

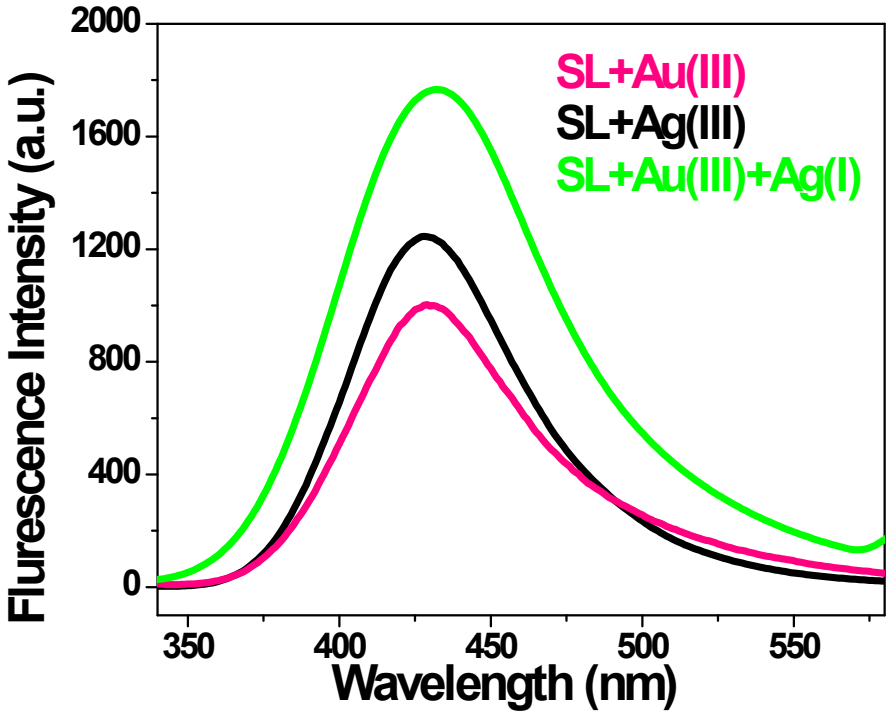

Figure S10: Fluorescence spectral profile showing the effect of simultaneous presence of Au(III) and Ag(I) on alkaline SL.
Condition: [SL] = 1.4×10^{-4} ; [Ag(I)] = 0.7×10^{-4} M; [Au(III)] = 0.7×10^{-4} M; Ageing = 2 days; λ_{ex} = 300 nm.

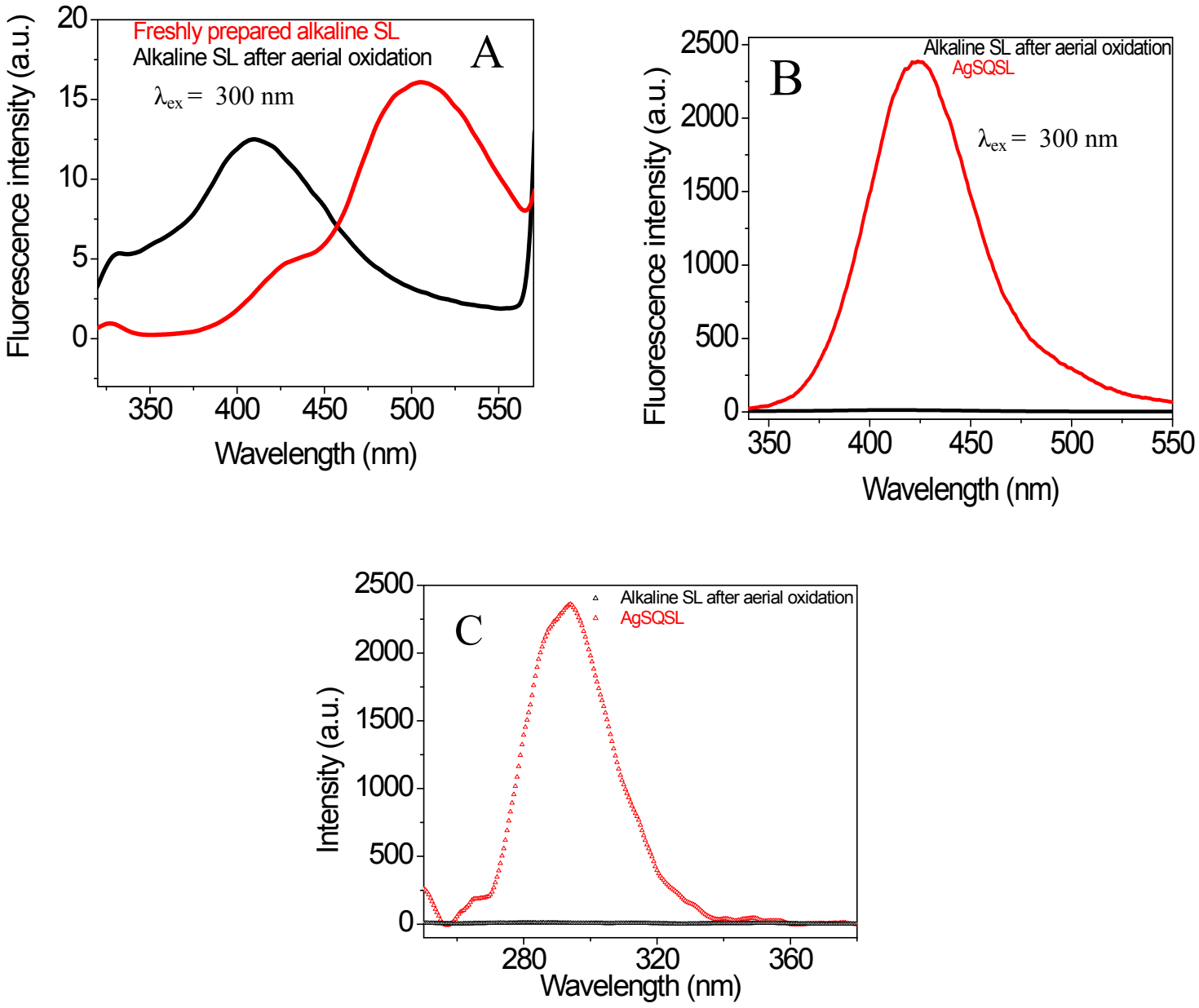

Figure S11: (A) Fluorescence spectral profile of freshly prepared alkaline SL and alkaline SL after aerial oxidation; (B) Fluorescence spectral profile of alkaline SL after aerial oxidation and AgSQSL ; (C) Excitation spectral profile of alkaline SL after aerial oxidation and AgSQSL.

Condition: [SL] = 1.4×10^{-4}; [Ag(I)] = 0.7×10^{-4} M.