Electronic supplementary information (ESI)

Effect of compartmentalization of donor and acceptor on the ultrafast resonance energy transfer from DAPI to silver nanoclusters

Roopali Prajapati,[a] Surajit Chatterjee,[a] Krishna K. Kannaujiya[b] and Tushar Kanti Mukherjee[*a]

[a] Discipline of Chemistry, Indian Institute of Technology Indore, Simrol Campus, Khandwa Road, Indore-453552, M.P., India.

[b] Department of Chemistry, Indian Institute of Technology Bombay, Powai, Mumbai 400076, India

[*] Corresponding author. E-mail: tusharm@iiti.ac.in; Tel: +91-7312438738.

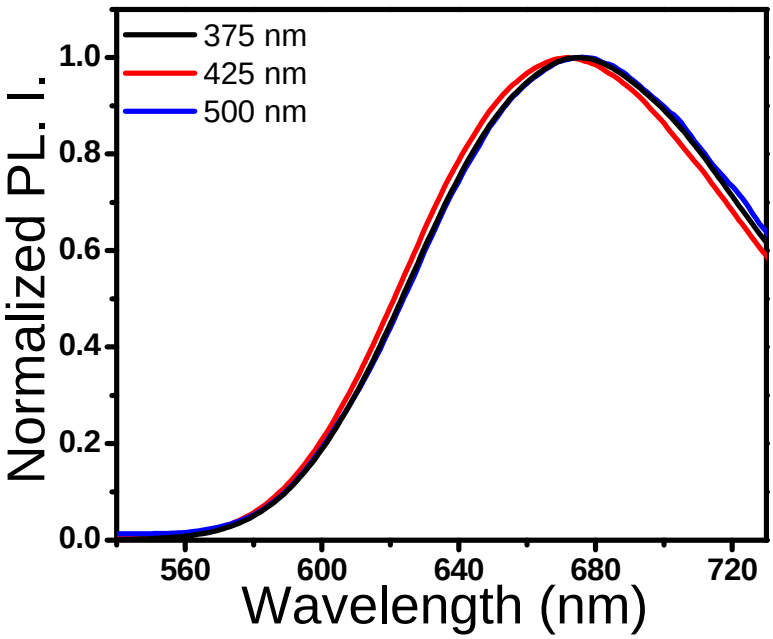

Fig. S1 Normalized PL spectra of Ag NCs at different excitation wavelengths.

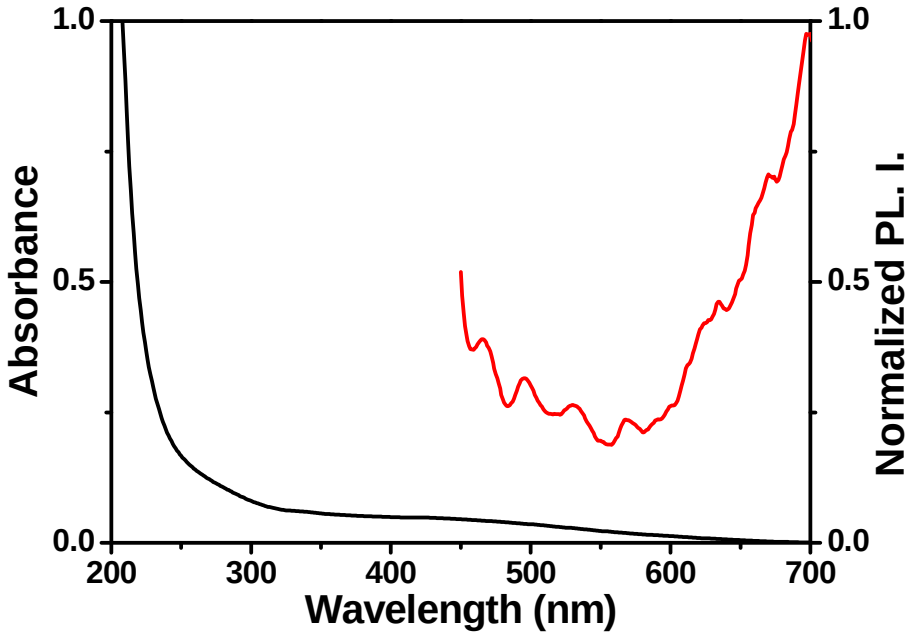

Fig. S2 Absorption and normalized PL spectrum (λ_{ex}= 375 nm) of Ag(I)-DHLA complex.

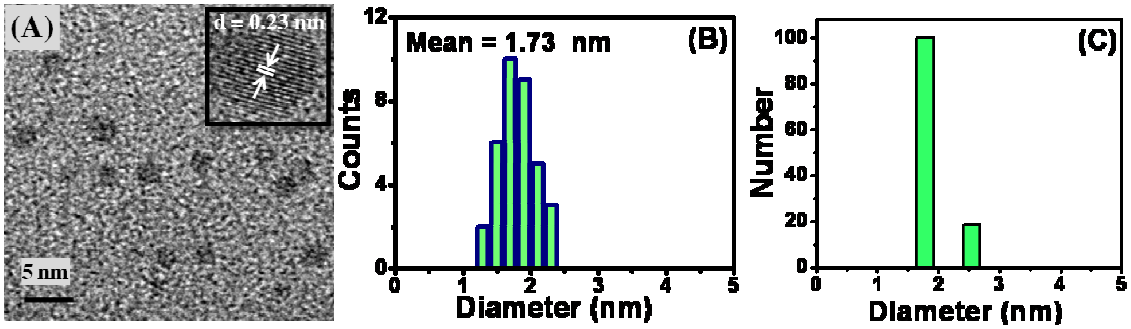

Fig. S3 (A) HRTEM image of Ag NCs. The inset shows the presence of lattice planes with interfringe distance of 0.23 nm. Size distribution histogram of Ag NCs estimated from (B) TEM and (C) DLS measurements.

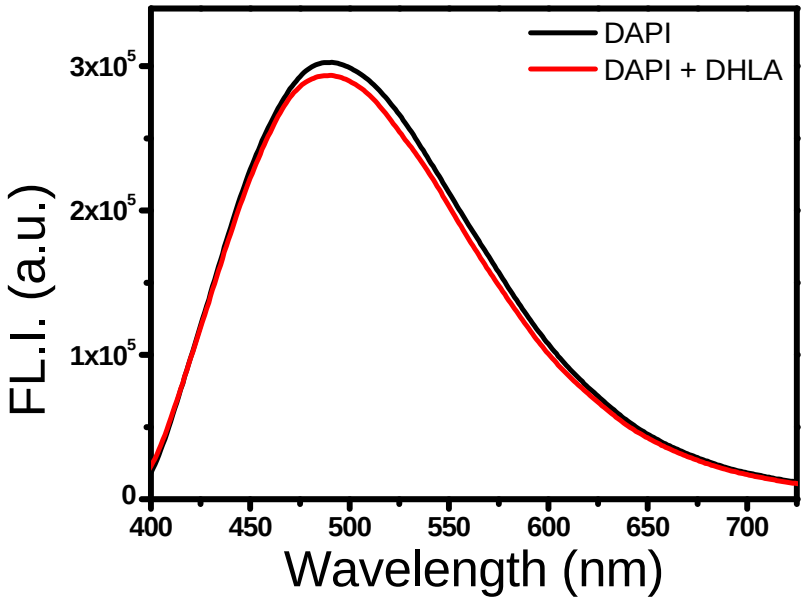

Fig. S4 Changes in the fluorescence spectra of DAPI (black line) on the addition of DHLA (red line).

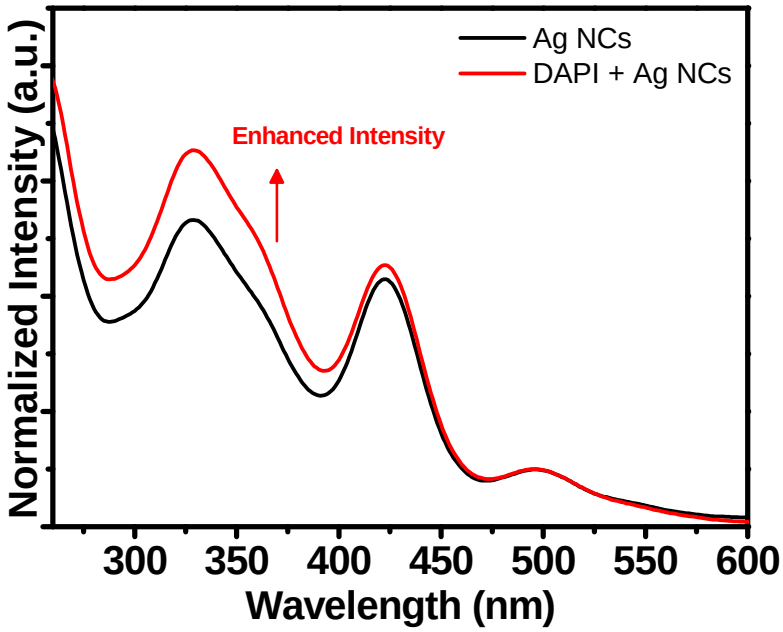

Fig. S5 Normalized (at 500 nm) excitation spectra of Ag NCs (λ_{em}= 675 nm) in the absence (black line) and presence (red line) of DAPI recorded with 399 nm filter.

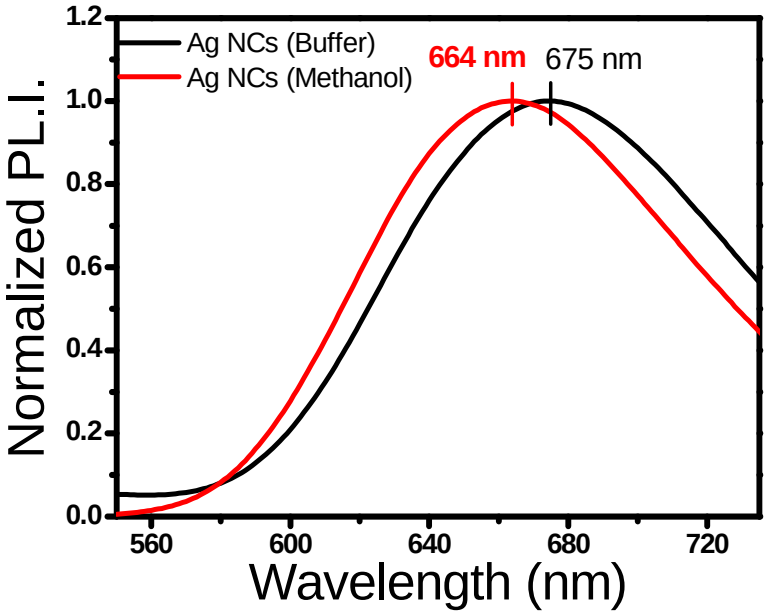

Fig. S6 Normalized PL spectra of Ag NCs in buffer (black line) and methanol (red line).

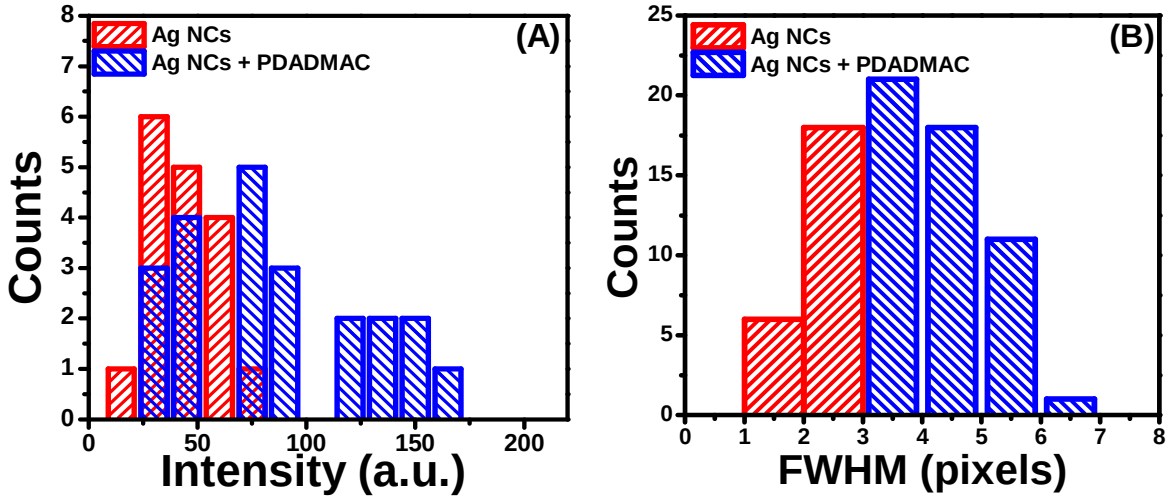

Fig. S7 Distribution histogram of (A) intensity and (B) FWHM of Ag NCs in the absence and presence of 0.2 wt % PDADMAC.

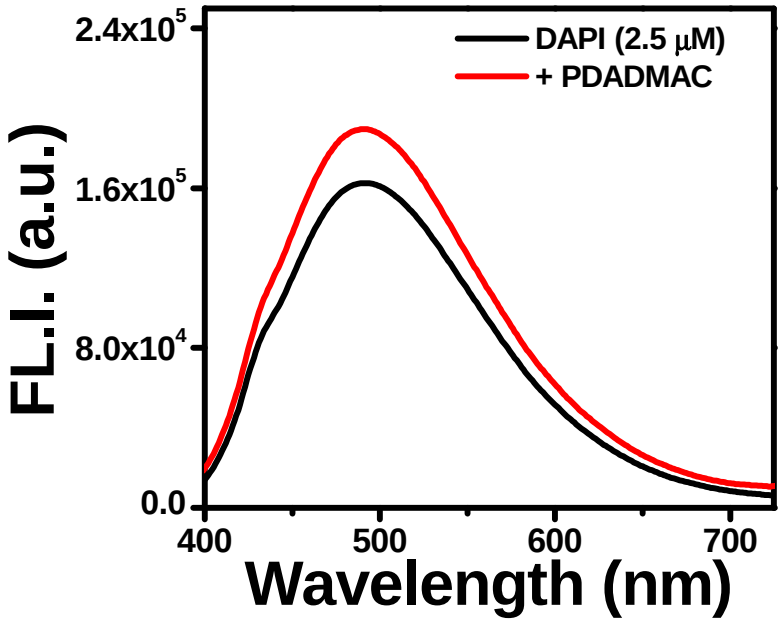

Fig. S8 Changes in the fluorescence spectra of DAPI (λ_{ex}= 375 nm) upon addition of 0.2 wt % PDADMAC.

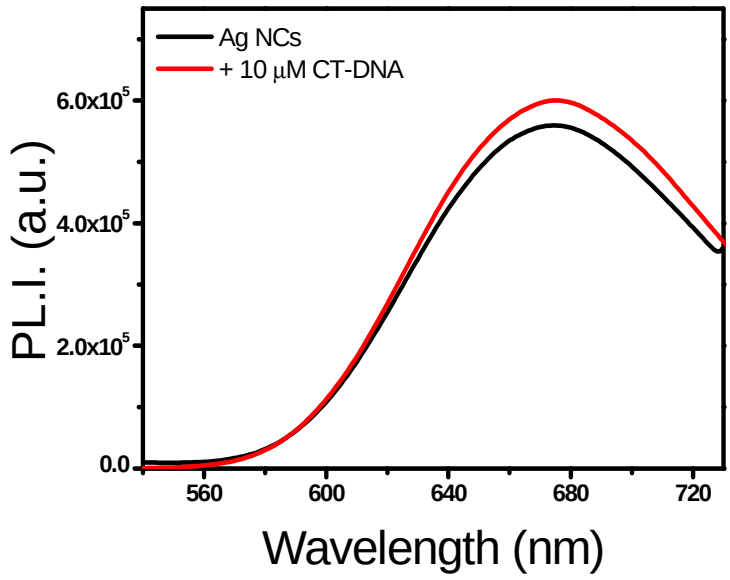

Fig. S9 Changes in the PL spectra of Ag NCs upon addition of CT-DNA.