

Supporting information

Luminescence polarization of gold nanoclusters reveals directional self-assembly

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Spectroscopy

Steady state anisotropy measurements were carried out in FLS980 instrument equipped with Xe1 Continuous xenon lamp. UV-Vis absorption spectra were recorded on a Shimadzu UV-3600 spectrometer. Circular dichroism and linear dichroism measurements were performed in JASCO 815 CD spectrometer. Time resolved fluorescence and time resolved anisotropy measurements in microsecond time range were recorded in an Edinburgh FLS980 instrument with a μ F2 Xenon flash lamp with Multi-Channel Scaling (MCS). Time resolved anisotropy measurements in nanosecond time range were carried out in Horiba Jobin Yvon Fluorocube-01-NL Fluorescence Life time System equipped with 345 nm diode laser. The raw nanocluster samples were diluted by four times for all the anisotropy related measurements except the dilution dependent anisotropy studies. Quartz cuvette of 3mm path length square with volume capacity of 360 μ L was used all fluorescence studies. For CD and LD measurements 3mm quartz cuvette was used.

Figures

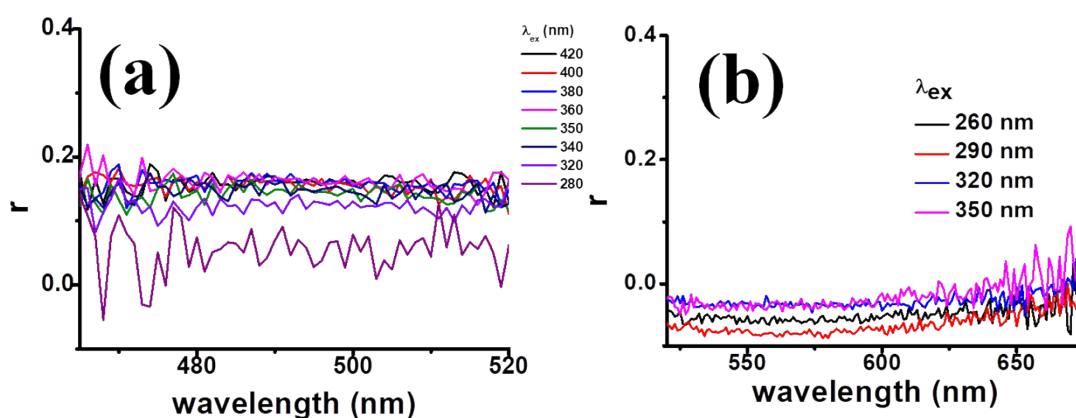


Figure S1. Excitation wavelength dependent emission anisotropy spectra of (a) G-NC and (b) Y-NC.

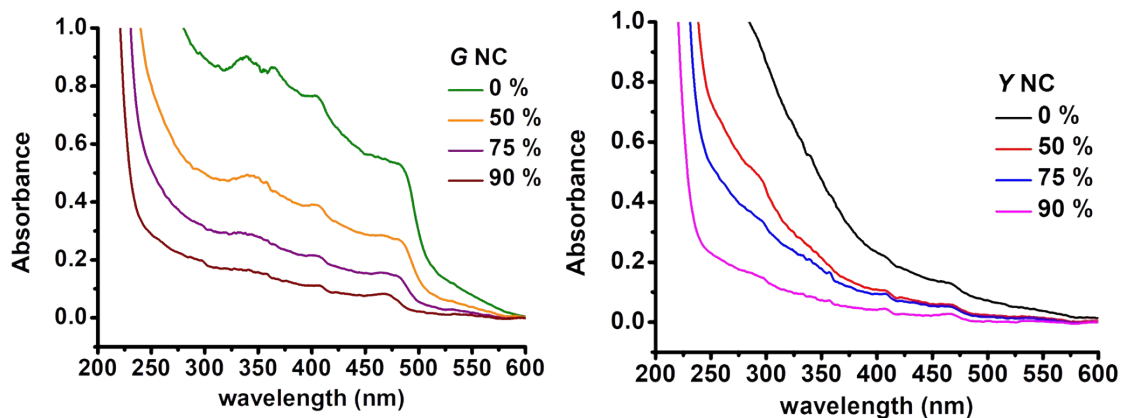


Figure S2. Absorbance spectra of (a) *G*-NC and (b) *Y*-NC as a function of dilution.

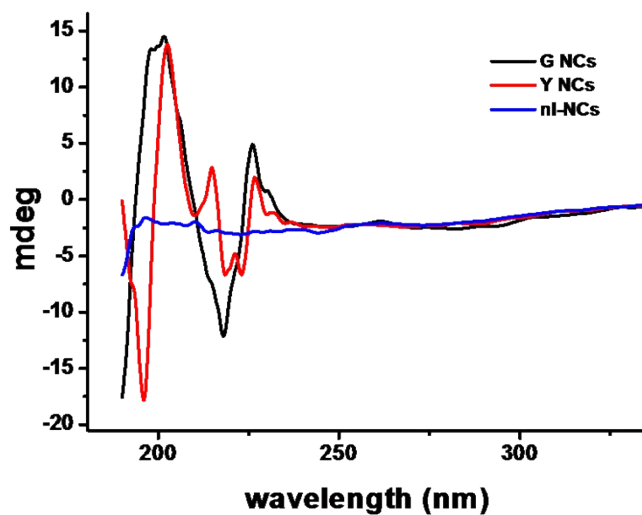


Figure S3. Circular dichroism spectra of *nl*-NC, *Y*-NC and *G*-NC.

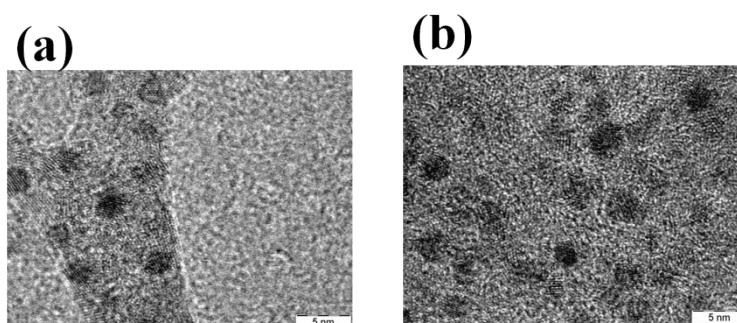


Figure S4. HRTEM images of (a) *G*-NCs and (b) *Y*-NCs.