

Supporting Information

Selective detection of *Escherichia coli* DNA by fluorescent carbon spindles

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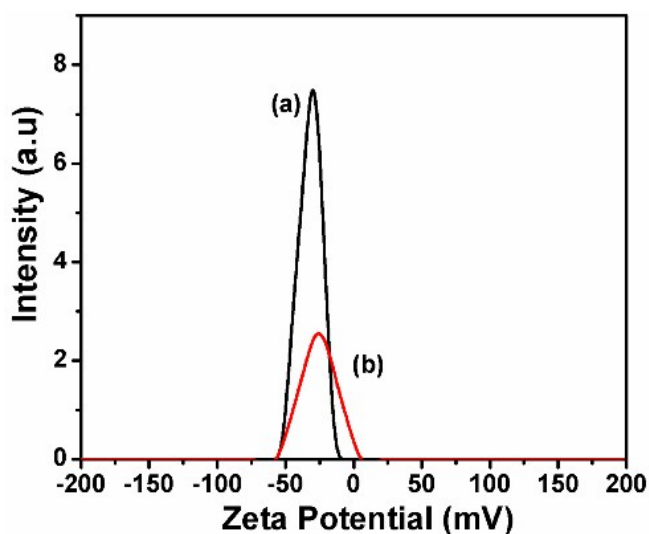


Fig. S1 Zeta potential curves of (a) bare FCS (-31.1 mV) and (b) FCS EC DNA (-29.0 mV) complex.

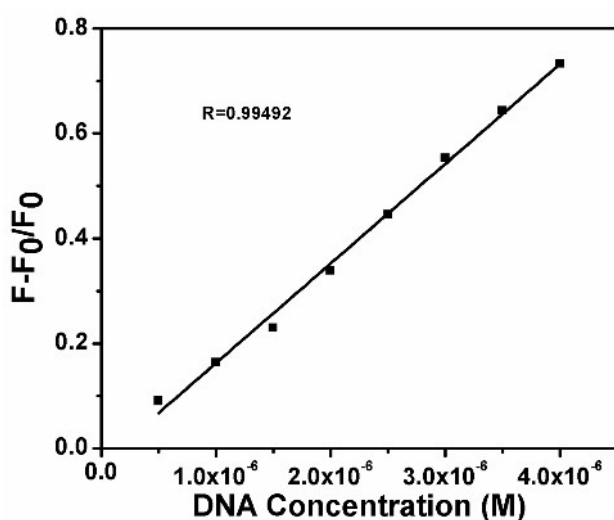


Fig.S2 A plot $F-F_0/F_0$ versus concentration of EC DNA

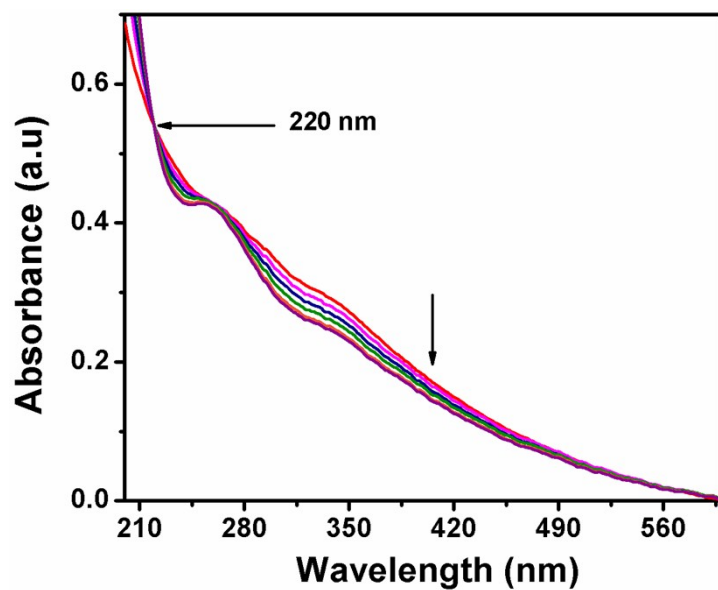


Fig. S3 Absorbance spectrum of carbon spindles in the presence of different concentrations of EC DNA (0-6 μM)

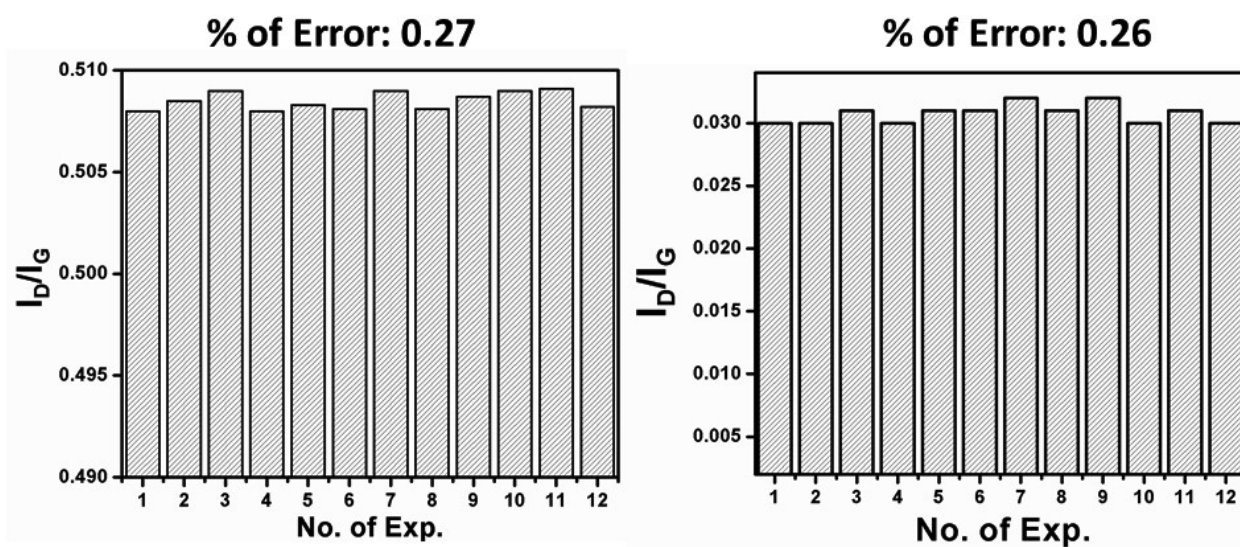


Fig.S4 Bar diagram showing I_D/I_G ratios of FCS versus number of experiments in the presence of 1 μM and 6 μM EC DNA for 12 sets of measurements, respectively, along with the percentage error calculated.

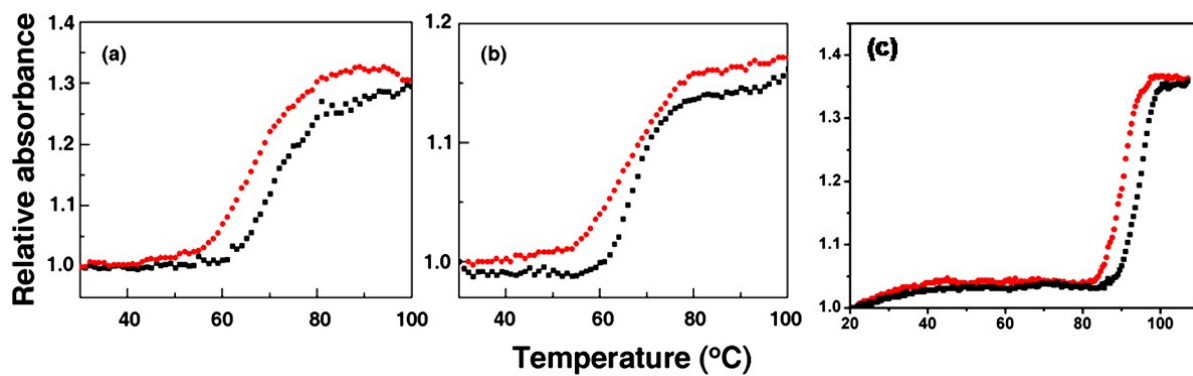


Fig.S5 Thermal melting profiles of HT, CT and ML DNA and complexes with FCS. In Figs. (a-c) the symbol (○) indicates the melting curve of the DNA alone and (●) represents the DNA-FCS complex.

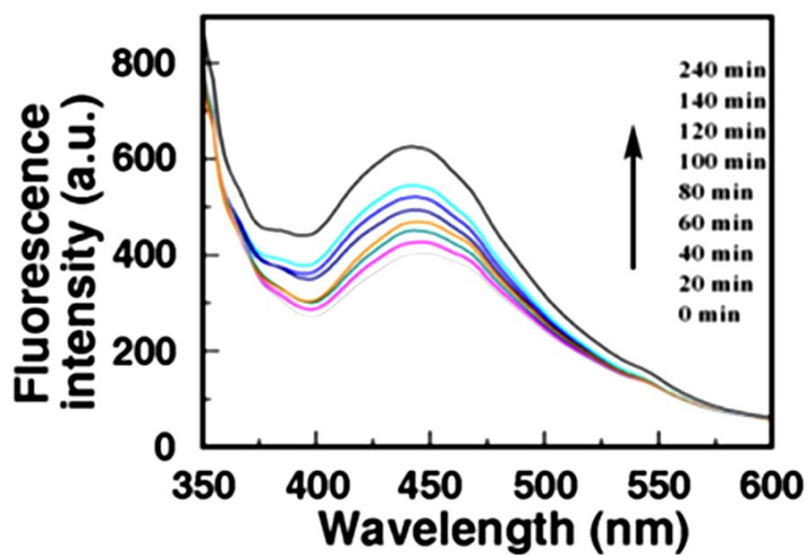


Fig.S6 Time dependent emission spectra of FCS in the presence of EC DNA.

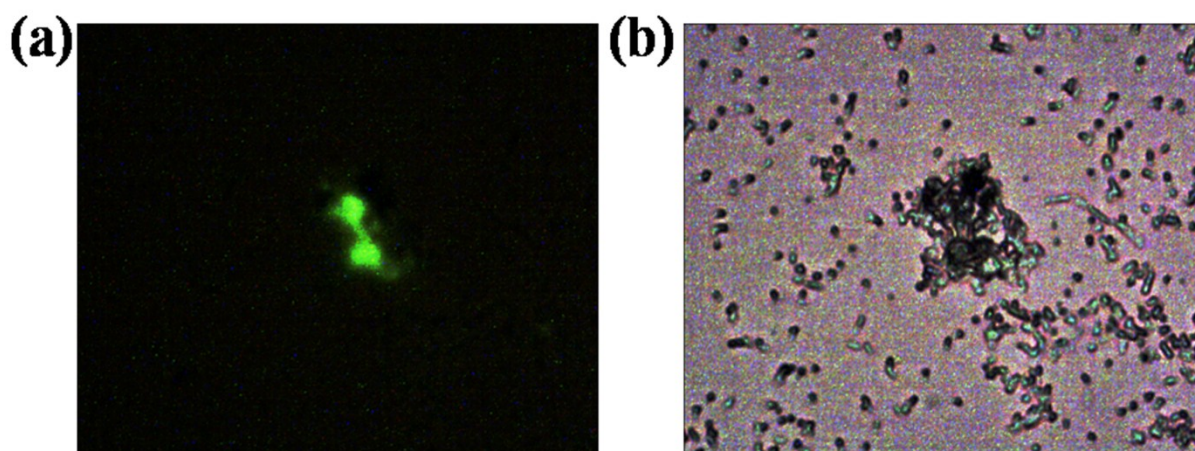


Fig. S7 Fluorescence microscopic pictures (a) and phase contrast image of the FCS with E-coli bacterial aggregation (b) incubated for 4 hours at 37°C.

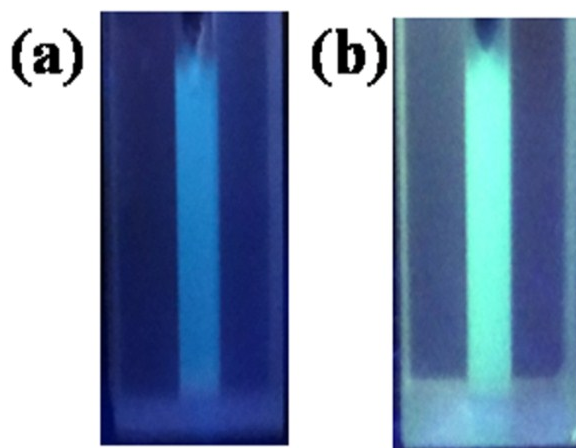
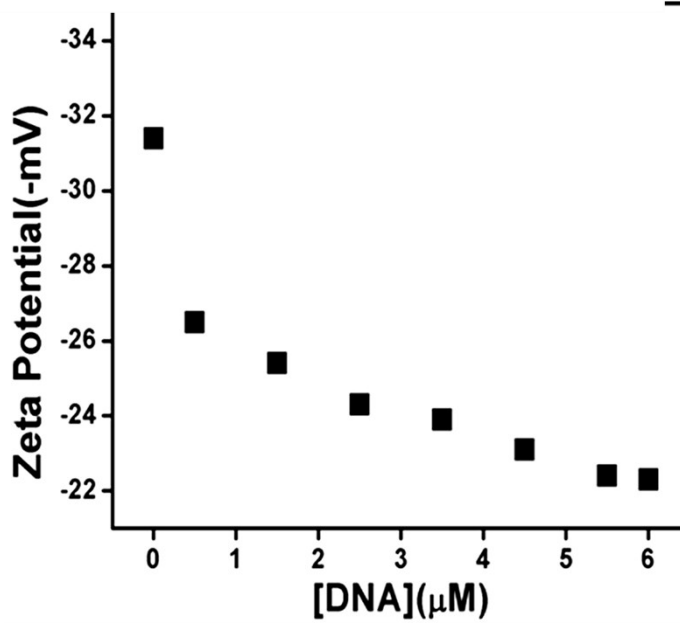


Fig.S8 Digital FCS and FCS (incubated for under 365 nm excitation.



photographs of E. coli complex 4 hours at 37 °C UVA light

Fig.S9 Variation of zeta potential on the addition of EC DNA.

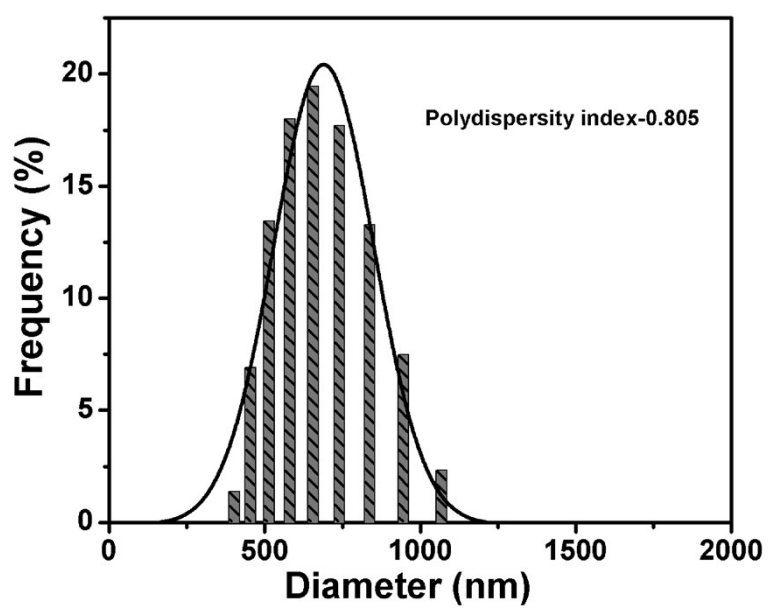


Fig. S10 Particles size distribution showing the polydispersity index.