Supporting Information

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

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![Zeta potential curves](image)

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

![Graph](image)

**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 ID/IG ratios of FCS versus number of experiments in the presence of 1µM and 6µM 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 photographs of FCS and FCS E. coli complex (incubated for 4 hours at 37°C) under 365 nm UVA light excitation.
**Fig. S9** Variation of zeta potential on the addition of EC DNA.

**Fig. S10** Particles size distribution showing the polydispersity index.