Electronic Supplementary Material (ESI) for New Journal of Chemistry

Facile Preparation of fluorescent Ag-clusters/chitosan-hybrid nanocomposites for bio-applications

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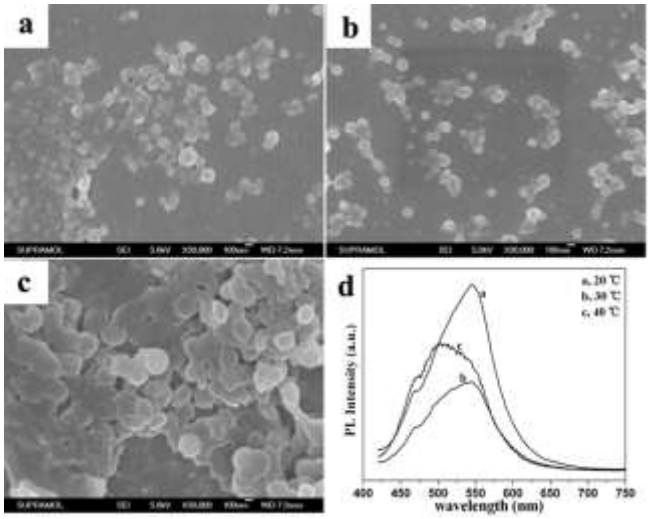

Fig. S1. a, b and c, SEM images showed the temperature affected the morphologies of nanocomposites, a 20 ^{0}C, b, 30 ^{0}C, c, 40 ^{0}C; d, PL spectra of resultant nanocomposites in different temperatures.

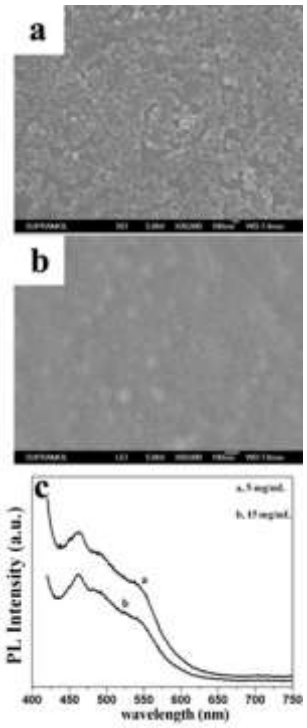

Fig. S2. a, and b, SEM images showed the amount of chitosan affected the morphologies of nanocomposites, a, 5 mg/ml, b, 15 mg/ml; c, PL spectra of resultant nanocomposites with various amount of chitosan.

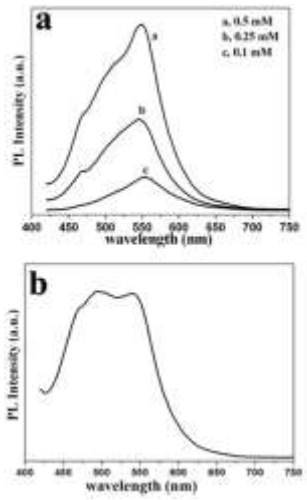

Fig. S3. a, PL spectra of resultant nanocomposites with different concentration of Ag^{+} ions ; b, PL spectrum of resultant nanocomposites with increasing $NaBH_4$ up to 1ml 10 mM.

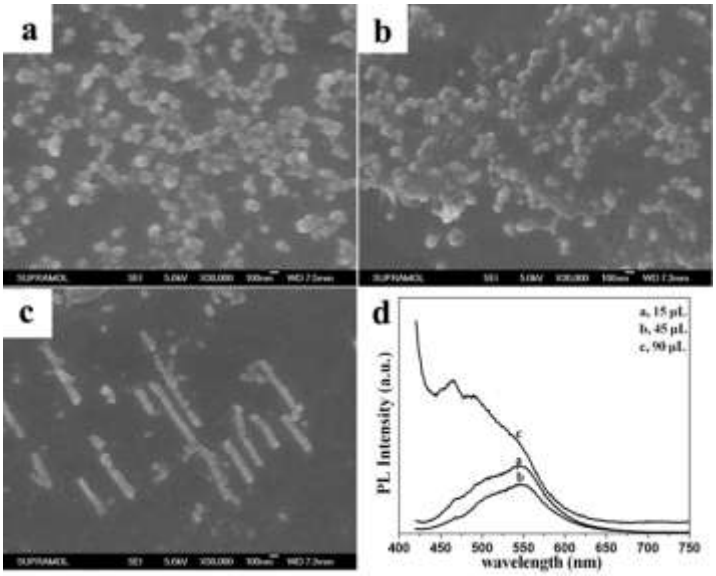

Fig. S4. a, b and c, SEM images showed the various amount of GA affected the morphologies of nanocomposites, a, 15 μL, b, 45 μL, c, 90 μL; d, PL spectra of resultant nanocomposites with various amount of GA.

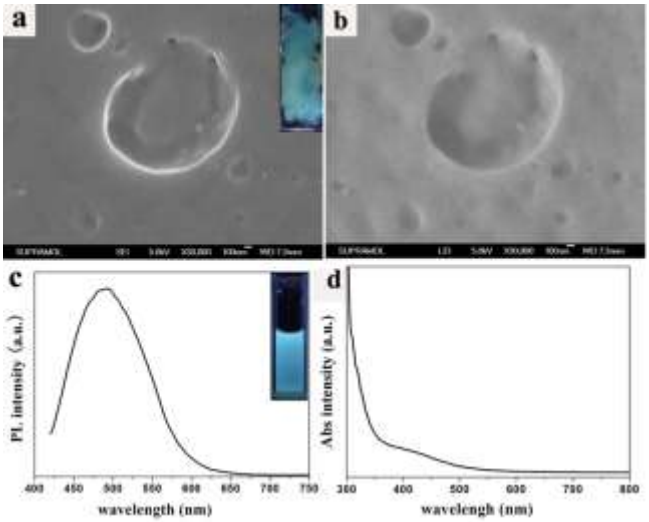

Fig. S5. a and b, SEM images of chitosan-Ag NCs hybrid gel, a, SEI image, b, LEI image; c, PL and d, UV–vis spectra of resultant chitosan-Ag NCs hybrid gel; inset images in a and c show the photographs of chitosan-Ag NCs hybrid gel with 365 nm lamp excitation sources.

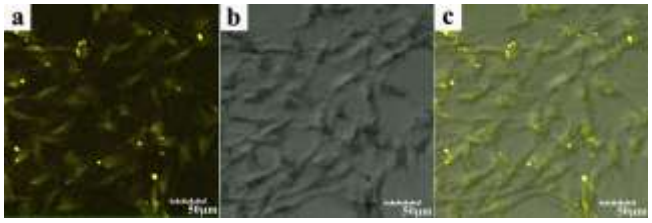

Fig. S6. (a) confocal fluorescent, (b) bright field and (c) overlay images of MC3T3–EI cells incubating with 25 μg/mL chitosan-Ag NCs hybrid nanospheres.

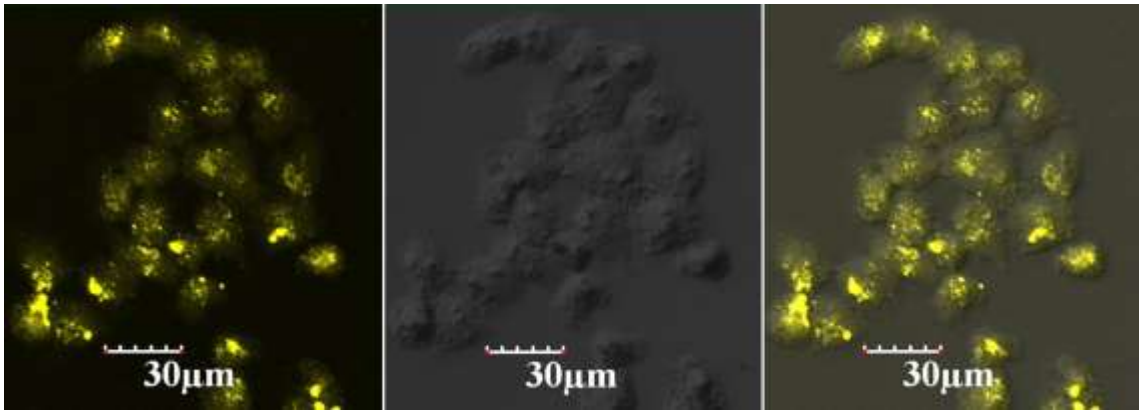

Fig. S7. Photos of immunofluorescent CAL-27 cellular imaging captured by laser scanning confocal microscopy.