Electronic Supplementary Material (ESI) for Materials Chemistry Frontiers.

Supporting Information:

A Dual Solvent Evaporation Route for Preserving Carbon Nanoparticle Fluorescence in Silica Gel and Producing White Light-Emitting Diode

Yan Cui,[a] Xinyuan Bu,[b] Haoyang Zou,[b] Xiaowei Xu,[a] Ding Zhou,[b] Huiwen Liu,[b] Xun Zhang,[d] Yi Liu,[b] Hongchen Sun,*[a] Jinlan Jiang*[c] and Hao Zhang*[b]

[a] School of Stomatology, Jilin University, Changchun 130041, P. R. China. E-mail: hcsun@mail.jlu.edu.cn.

[b] State Key Laboratory of Supramolecular Structure and Materials, College of Chemistry, Jilin University, Changchun 130012, P. R. China. E-mail: hao_zhang@jlu.edu.cn.

[c] Scientific Research Center, China-Japan Union Hospital of Jilin University, Changchun 130033, P. R. China. E-mail: jiangjl2003@hotmail.com.

[d] Jilin Entry-Exit Inspection and Quarantine Bureau, Changchun 130062 P. R. China.

Table S1. Comparison of the photoluminescence quantum yields of C-NPs solution.

solvents	quantum yields (%)
$CH_3COOC_2H_5$	3.2
$CHCl_3$	2.3
CCl_4	2.2
C_2H_5OH	2.1
CH_3COCH_3	2.7

Table S2. Comparison of the photoluminescence quantum yields of C-NPs/silica gel composites those are prepared with different ethyl acetate-to-CCl_4 volume ratio.

acetate-to-CCl_4 volume ratio	quantum yields (%)
7:1	0.5
3:1	1.1
1:1	2.0
1:3	0.9
1:7	0.7

Table S3. Comparison of the photoluminescence quantum yields of C-NPs solution with different ethyl acetate-to-CCl_4 volume ratio.

acetate-to-CCl_4 volume ratio	quantum yields (%)
3:1	3.1
1:1	3.2
1:3	3.1

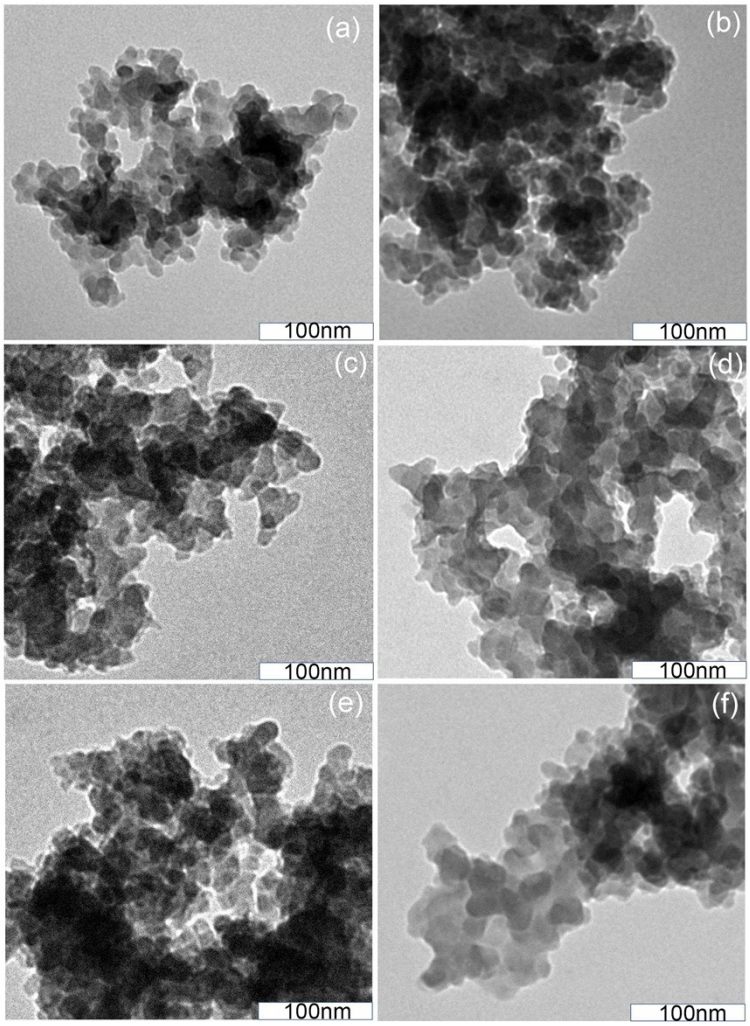

Figure S1. TEM images of C-NPs/silica gel composites those are prepared using (a) pure $CH_3COOC_2H_5$, (b) 3:1 $CH_3COOC_2H_5$:CCl_4, (c) 1:1 $CH_3COOC_2H_5$:CCl_4, (d) 1:3 $CH_3COOC_2H_5$:CCl_4, (e) 1:7 $CH_3COOC_2H_5$:CCl_4, and (f) pure CCl_4.

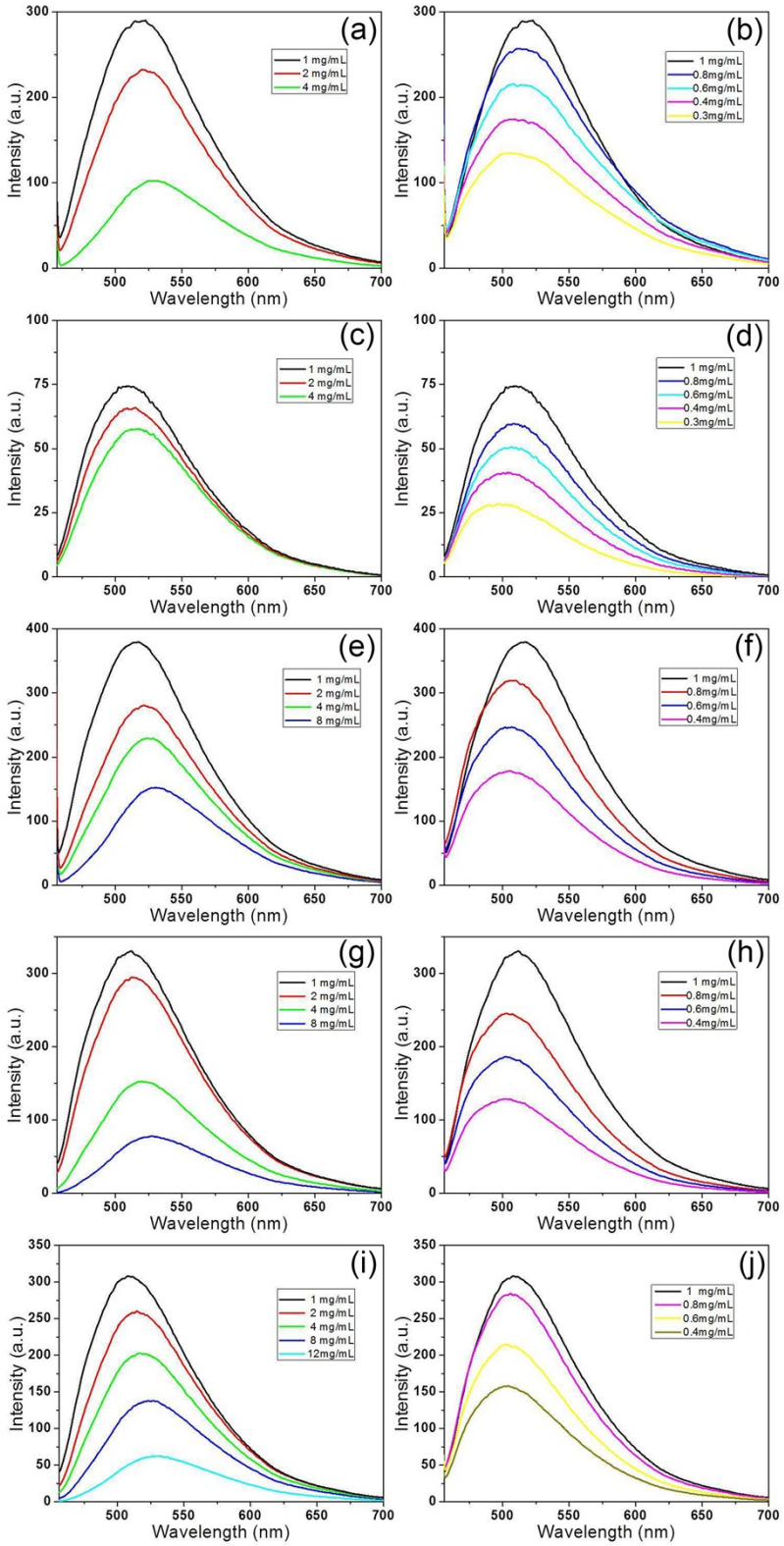

Figure S2. PL emission spectra of C-NPs in (a, b) CCl_4, (c, d) $CH_3COOC_2H_5$, (e, f) $CHCl_3$, (g, h) C_2H_5OH, and (i, j) CH_3COCH_3 with different concentrations.