Electronic Supplementary Material (ESI) for Nanoscale Advances.

Supplementary Information

p-Phenylenediamine derived carbon nanodots for probing solvent interactions

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Table S1 Fluorescence emission maximum of PD-CNDs, λ_{max}(em) in different primary alcohols and the dielectric constant values of respective primary alcohols.

Sl. No.	Name	λ_{max}(em) (nm)	Dielectric Constant (ε)
1	Methanol	606.16	32.60
2	Ethanol	596.68	24.55
3	1-Propanol	592.89	20.10
4	1-Butanol	593.10	17.80
5	1-Pentanol	590.2	15.30
6	1-Hexanol	591.46	13.03
7	1-Heptanol	590.54	11.75

Table S2 The methanol content (%), fluorescence emission maximum of PD-CNDs, λ_{max}(em) and dielectric constant of methanol-1,4-dioxane mixture.

Sl. No.	Methanol Content (%)	λ_{max}(em) (nm)	Dielectric Constant (ε)
1	0	565.00	2.209
2	10	584.07	3.500
3	20	588.44	5.215
4	30	594.5	7.622
5	40	597.52	10.408
6	50	599.65	13.560
7	60	600.57	16.945
8	70	601.77	20.672
9	80	603.59	24.440
10	90	605.41	28.516
11	100	606.00	32.634

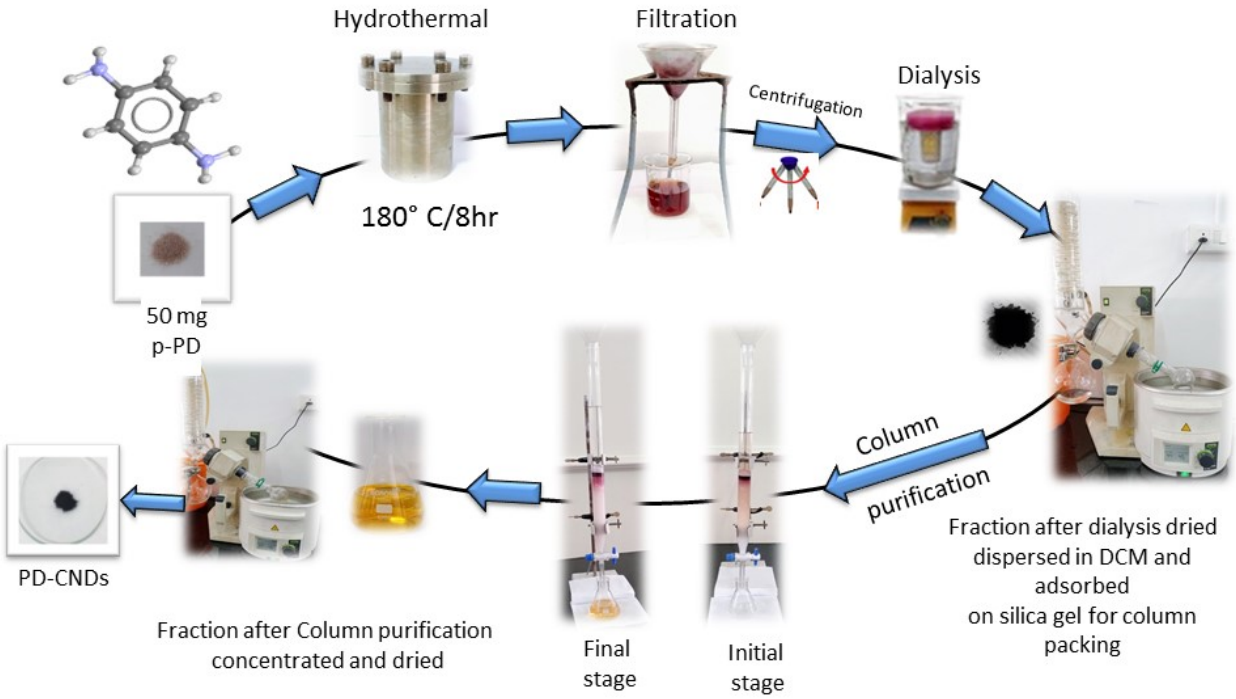

Fig. S1 Schematic representation of PD-CNDs synthesis.

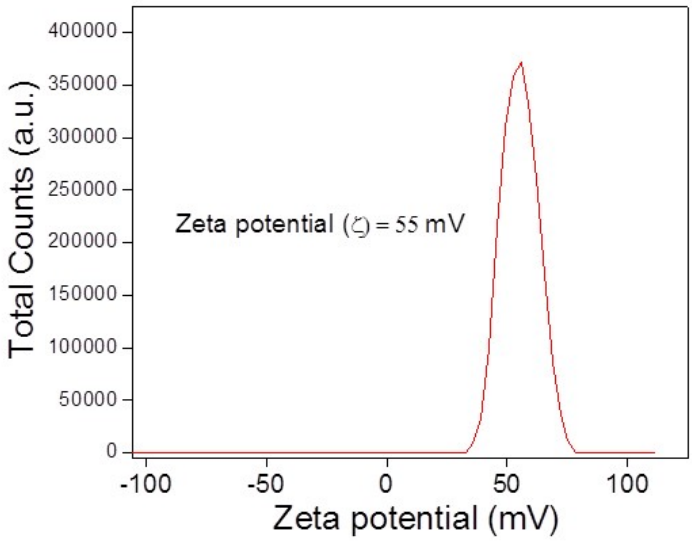

Fig. S2 Zeta potential analysis of PD-CNDs.

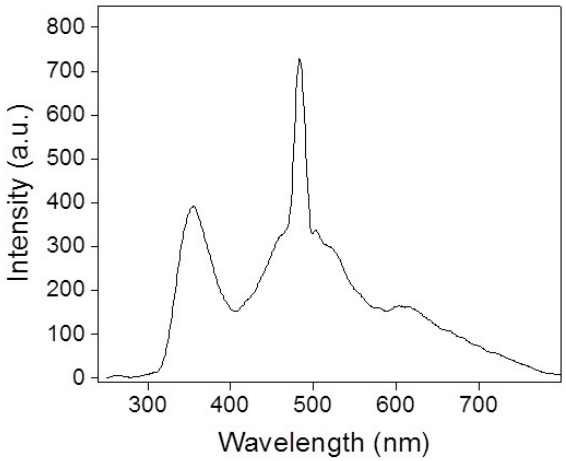

Fig. S3 Fluorescence emission spectrum of PD-CNDs dispersion in water at an excitation of 240 nm.

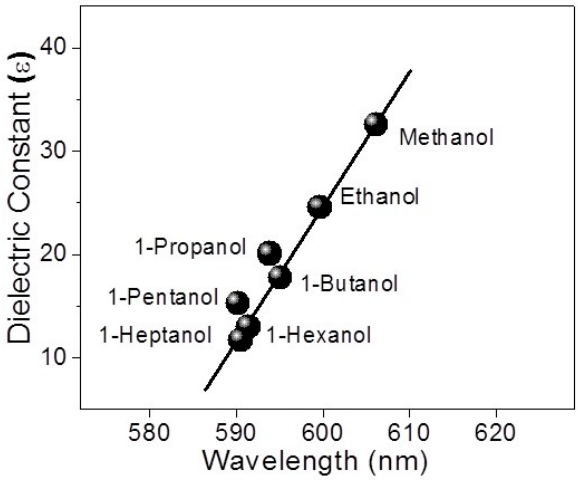

Fig. S4 Plot of fluorescence emission maximum values of PD-CNDs dispersions in *n*-alcohols versus dielectric constant (ε).

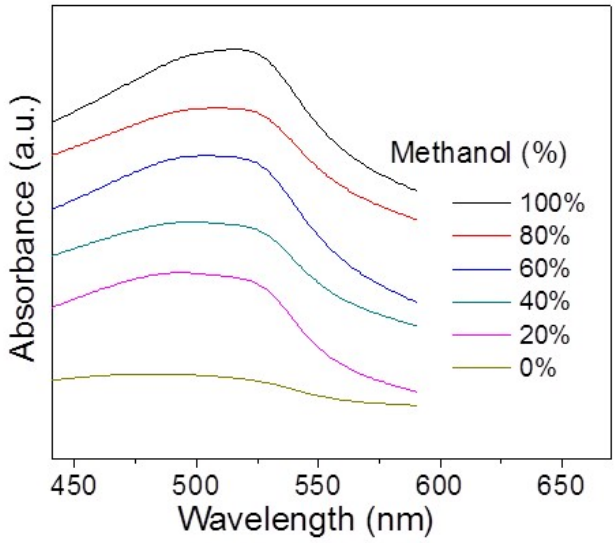

Fig. S5 UV-visible absorption spectra of PD-CNDs dispersions in methanol-1,4-dioxane mixtures.

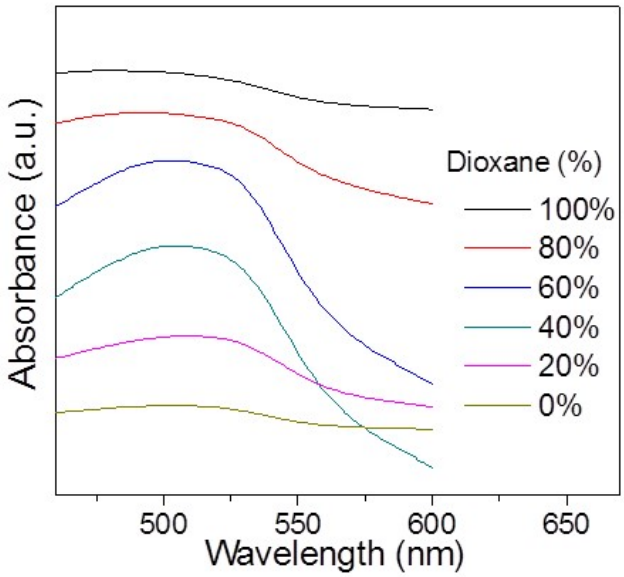

Fig. S6 UV-visible absorption spectra of PD-CNDs dispersions in 1,4-dioxane-water mixtures.