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Supporting Information

for

pH-Responsive fluorescent supramolecular nanoparticles based on tetraphenylethylene-labelled chitosan and a six-fold carboxylated tribenzotriquinacene

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Solid-state CP/MAS ^{13}C NMR spectra of CS-TPE, optical transmittance and concentration-dependent transmittance of CS-TPE, Tyndall effect of CS-TPE and TBTQ-C_6/CS-TPE and pH-responsive properties of TBTQ-C_6/CS-TPE

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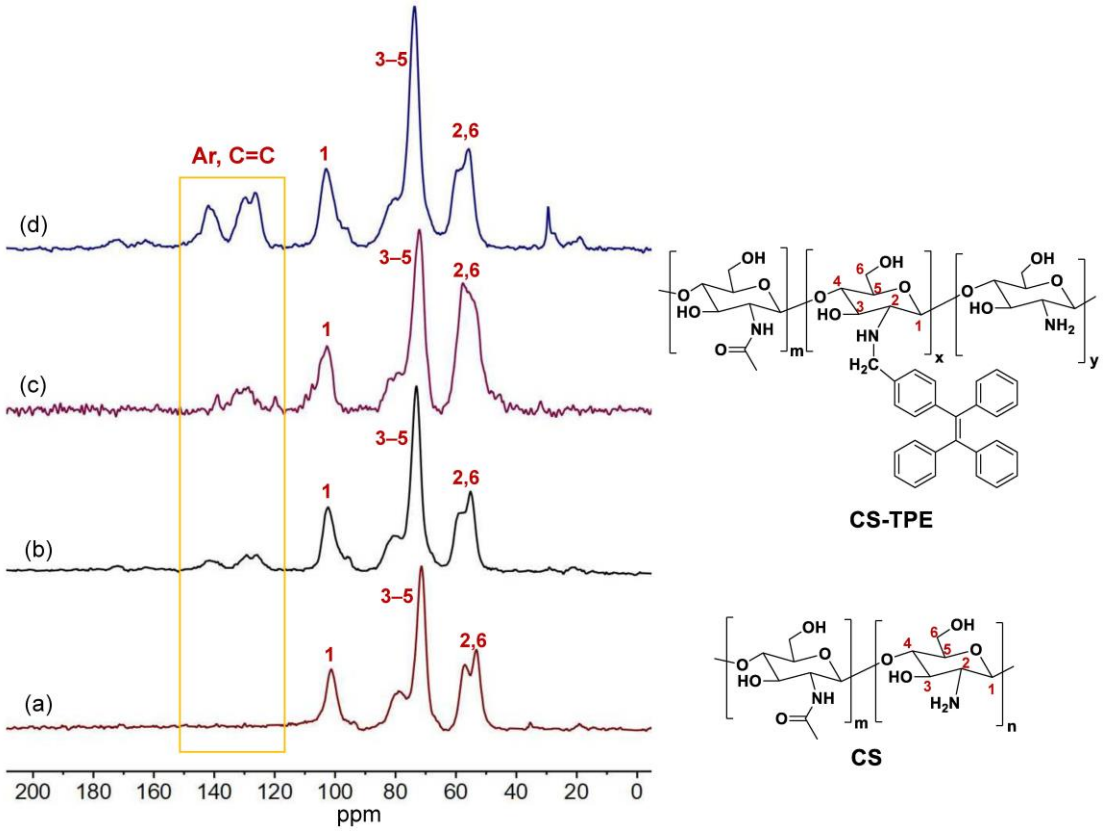

Figure S1: Solid-state CP/MAS ^{13}C NMR spectra of (a) CS, (b) **CS-TPE-2%**, (c) **CS-TPE-10%** and (d) **CS-TPE-20%**.

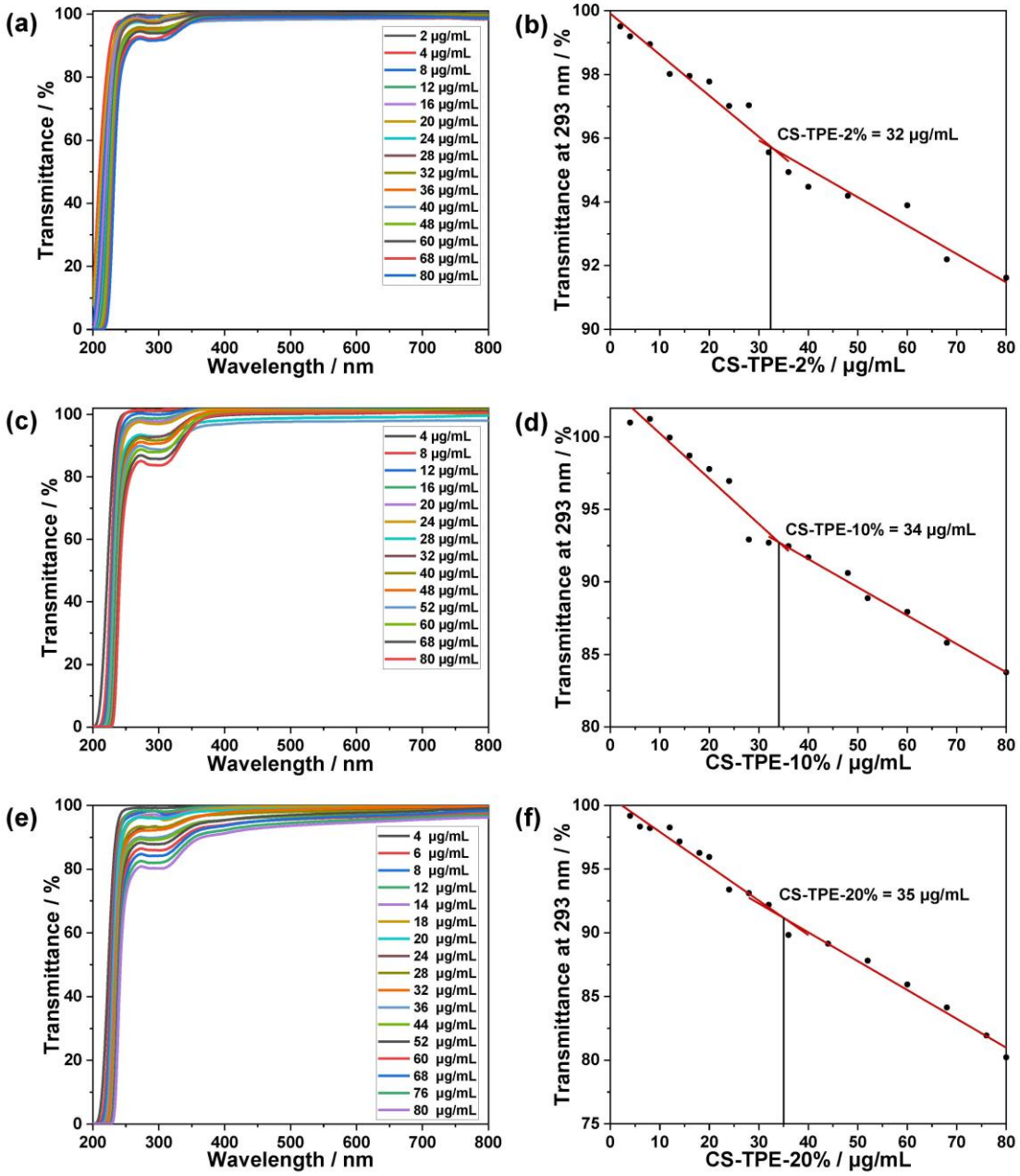

Figure S2: (a) Optical transmittance and (b) concentration-dependent transmittance at 293 nm of **CS-TPE-2%**; (c) Optical transmittance and (d) concentration-dependent transmittance at 293 nm of **CS-TPE-10%**; (e) Optical transmittance and (f) concentration-dependent transmittance at 293 nm of **CS-TPE-20%** in aqueous solutions (pH 5.3).

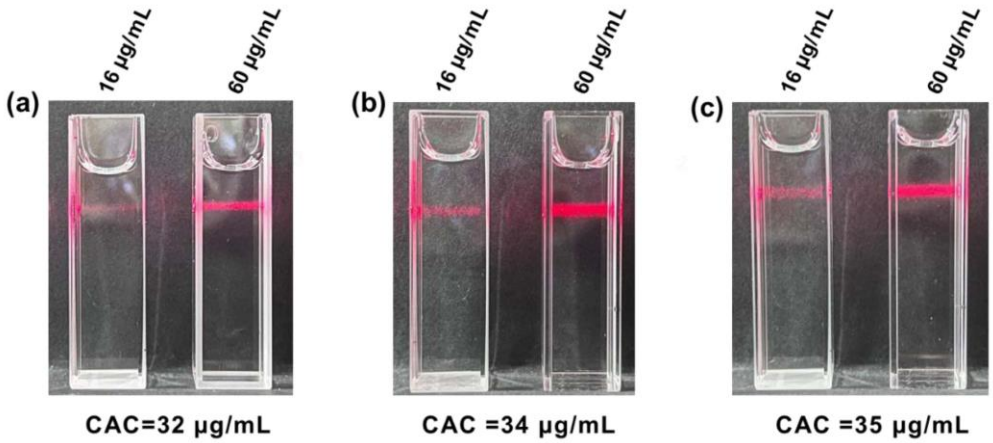

Figure S3: Tyndall effect of (a) **CS-TPE-2%**, (b) **CS-TPE-10%** and (c) **CS-TPE-20%** at concentrations below and above the CACs in aqueous solutions (pH 5.3).

Figure S4: Tyndall effect of (a) **TBTQ-C$_6$**, (b) **TBTQ-C$_6$/CS-TPE-2%**, (c) **TBTQ-C$_6$/CS-TPE-10%** and (d) **TBTQ-C$_6$/CS-TPE-20%** in aqueous solution at pH 5.3 ([**TBTQ-C$_6$**] = 0.10 mM, [**CS-TPE**] = 10 µg/mL).

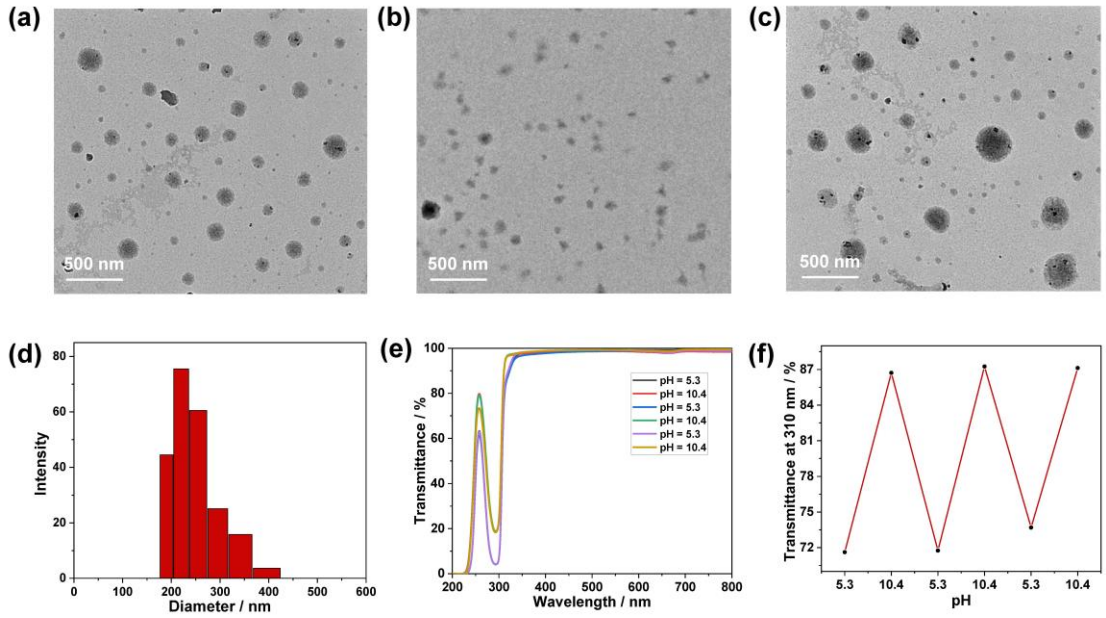

Figure S5*:* TEM images of (a) **TBTQ-C$_6$/CS-TPE-2%** in aqueous solution at pH 5.3; (b) after adjustment of the solution (a) to pH 10.4; (c) after readjustment of solution (b) to pH 5.3; (d) DLS data of **TBTQ-C$_6$/CS-TPE-2%** assembly; (e) Optical transmittance and (f) dependence of the optical transmittance at 310 nm of the **TBTQ-C$_6$/CS-TPE-2%** assembly under acidic and alkaline conditions over several cycles ([**TBTQ-C$_6$**] = 0.10 mM, [**CS-TPE-2%**] = 48 μg/mL).

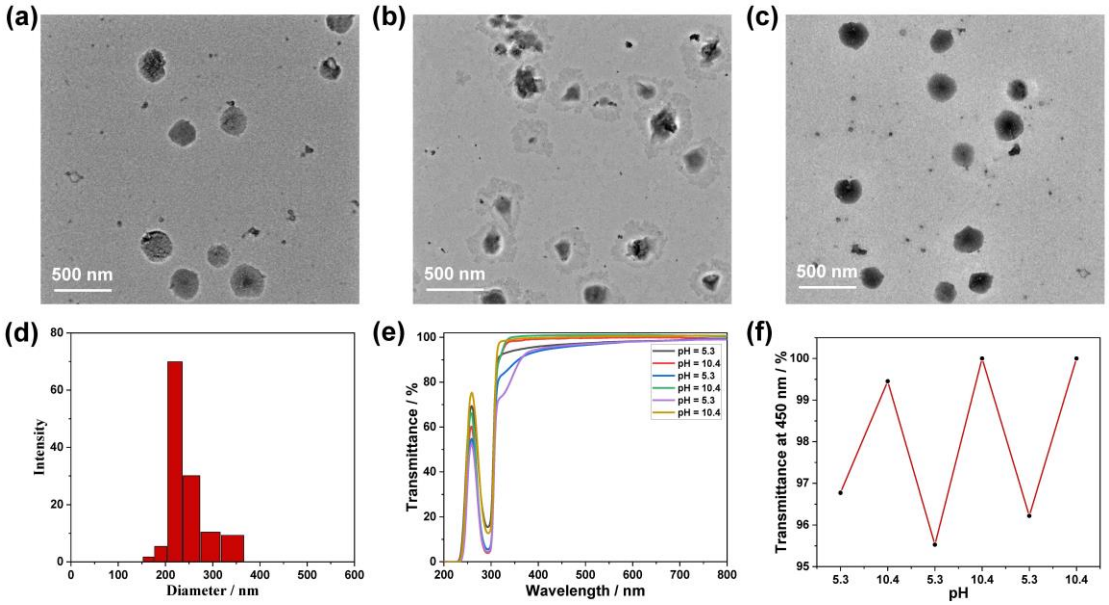

Figure S6: TEM images of (a) **TBTQ-C$_6$/CS-TPE-20%** in aqueous solution at pH 5.3; (b) after adjustment of the solution (a) to pH 10.4; (c) after readjustment of solution (b) to pH 5.3; (d) DLS data of **TBTQ-C$_6$/CS-TPE-20%** assembly; (e) optical transmittance and (f) dependence of the optical transmittance at 450 nm of the **TBTQ-C$_6$/CS-TPE-20%** assembly under acidic and alkaline conditions over several cycles ([**TBTQ-C$_6$**] = 0.10 mM, [**CS-TPE-20%**] = 60 μg/mL).