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Supplementary information

New insights on the blue intrinsic fluorescence of oxidized PAMAM dendrimers considering their use as bionanomaterials

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Contents

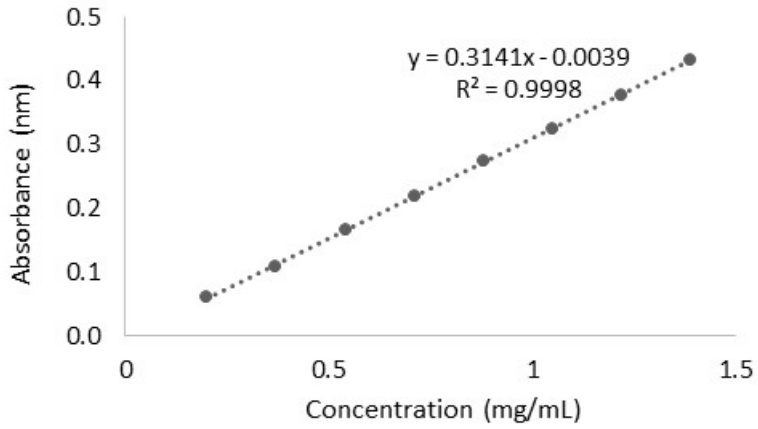

Figure S1: Standard curve for hemoglobin using several concentrations: 0.2; 0.37; 0.54; 0.71; 0.88; 1.05; 1.22 and 1.39mg/ml. The absorbance was measured at 550nm.

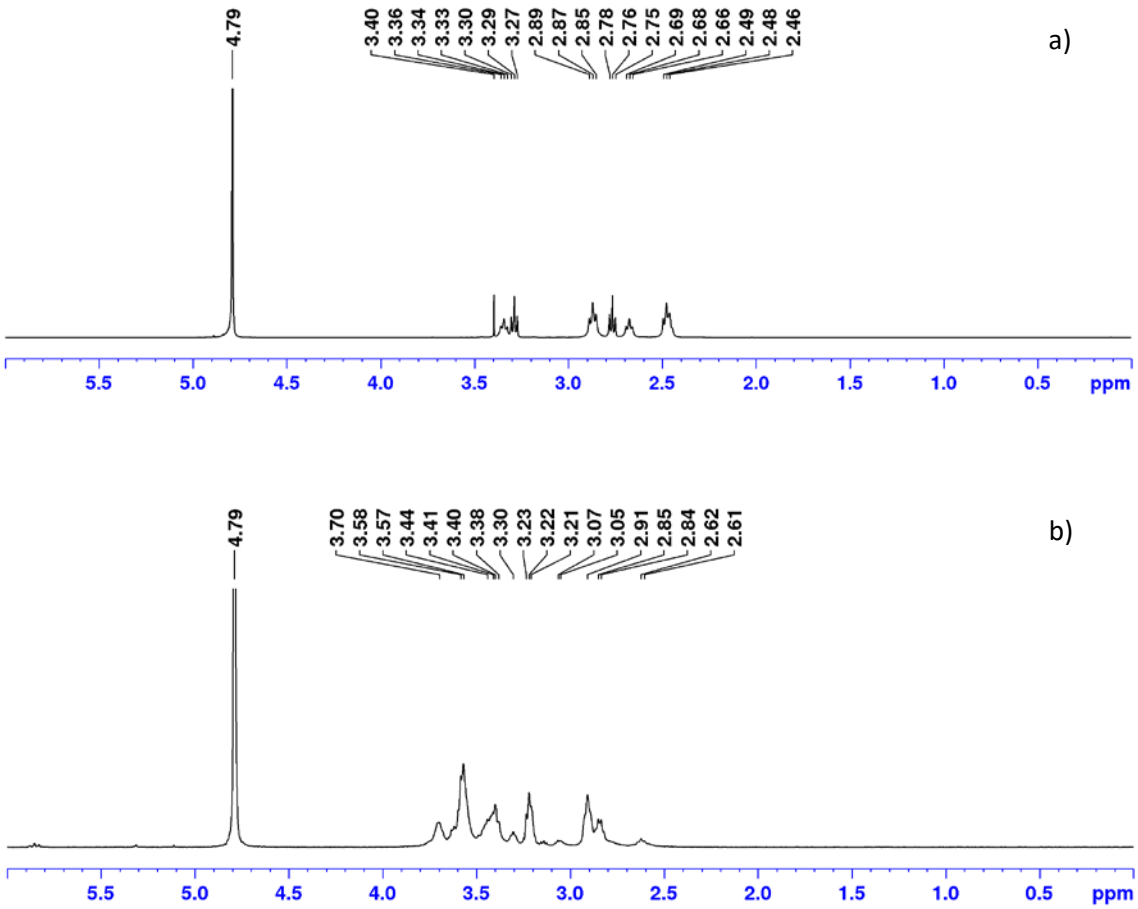

Figure S2: ^{1}H-NMR spectra of a) G3.NH_2 PAMAM dendrimer and b) APS-treated G3 in D_2O.

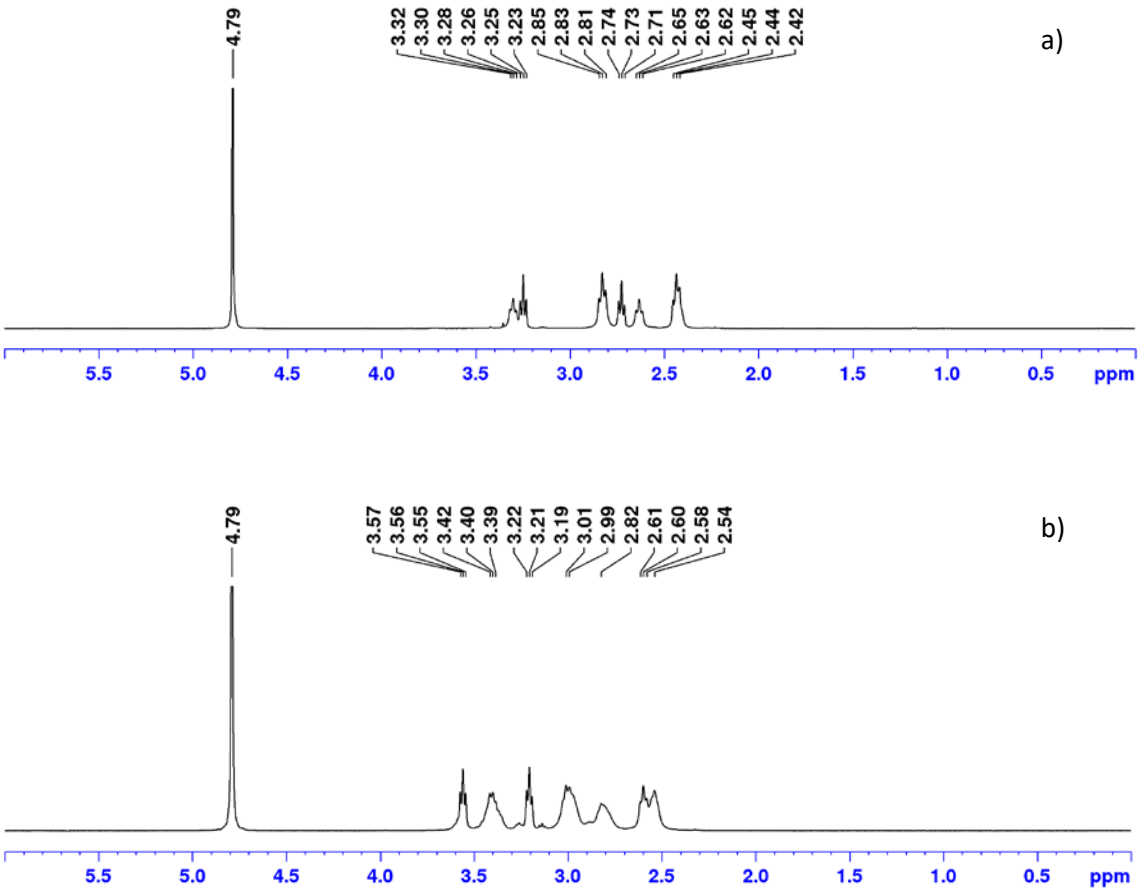

Figure S3: ^{1}H-NMR spectra of a) G4.NH_2 PAMAM dendrimer and b) APS-treated G4 in D_2O.

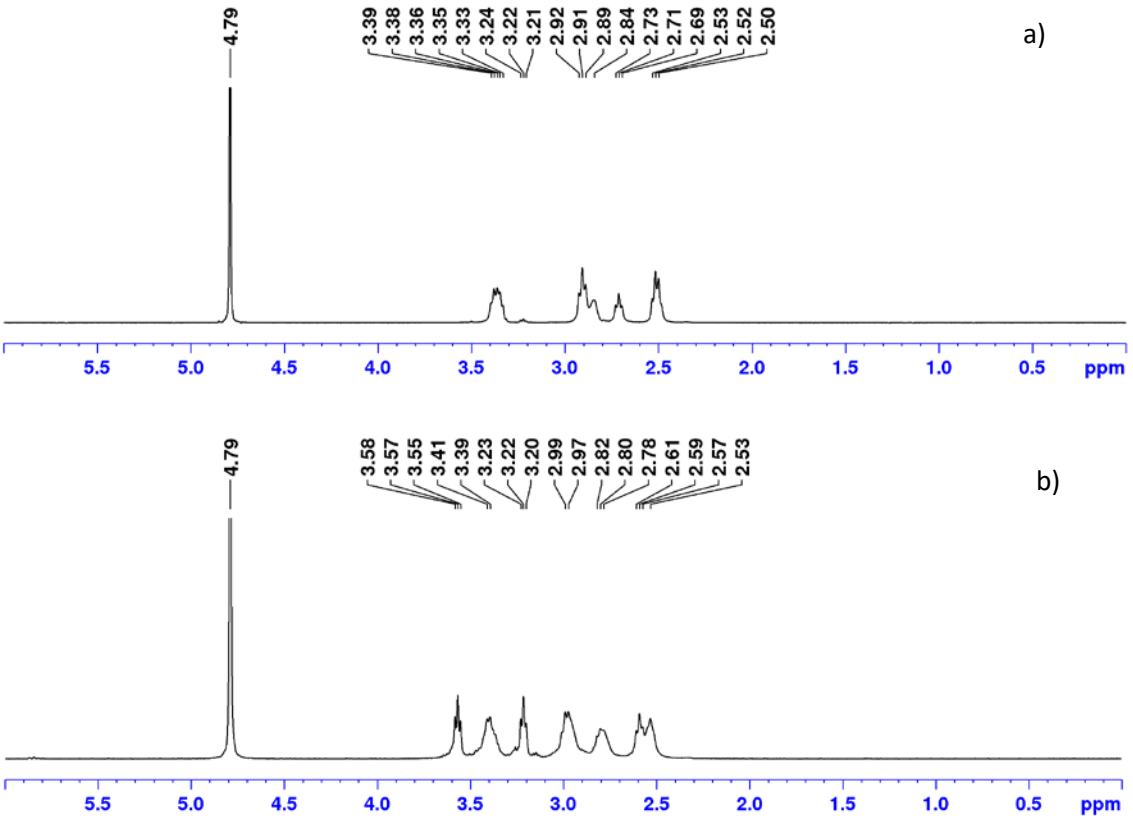

Figure S4: ^{1}H-NMR spectra of a) G5.NH_2 PAMAM dendrimer and b) APS-treated G5 in D_2O.

Table S1: Chemical structure of the APS-treated/pristine PAMAM dendrimers and the corresponding chemical shifts (in ppm) obtained by ^{1}H-NMR (in D_2O).

Chemical structure	***G3.NH_2***	***APS-treated G3.NH_2***	***G4.NH_2***	***APS-treated G4.NH_2***	***G5.NH_2***	***APS-treated G5.NH_2***
-$NCH_2C\mathbf{H_2}CONH$-	2.47	2.85	2.43	2.59	2.51	2.57
-$CONHCH2C\mathbf{H_2}N$-	2.67	3.22	2.63	2.87	2.71	2.80
-$CONHCH_2C\mathbf{H_2}NH_2$	2.76	**3.40**	2.73	**3.20**	2.84	**3.21**
-$NC\mathbf{H_2}CH_2CONH$-	2.87	**3.30**	2.83	**3.04**	2.90	**2.97**
-$CONHC\mathbf{H_2}CH_2NH_2$	3.28	**3.69**	3.25	**3.56**	3.36*	**3.58**
-$CONHC\mathbf{H_2}CH_2N$-	3.36	**3.57**	3.28	**3.40**	3.36*	**3.39**

*Signals are overlapping.

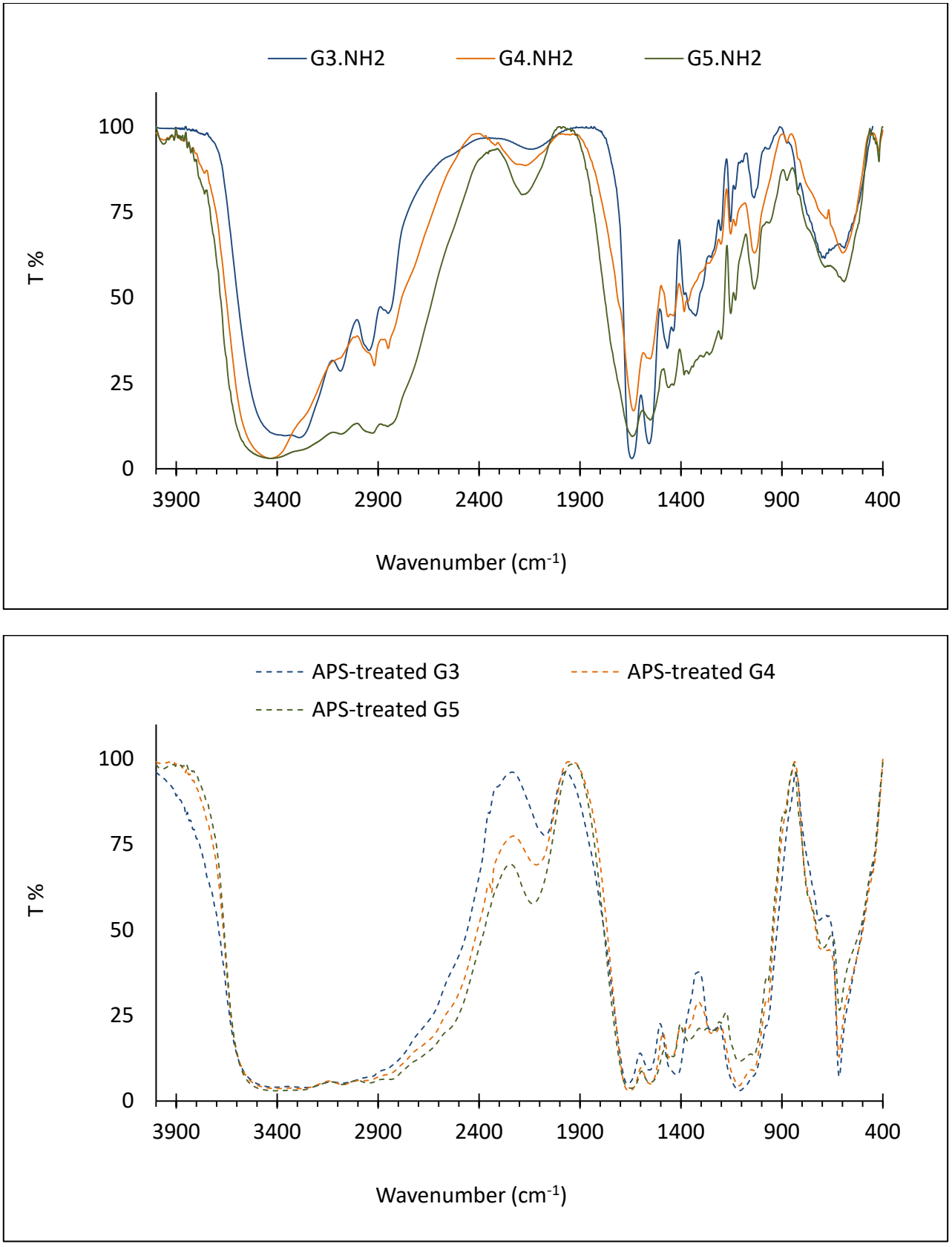

Figure S5-A: FT-IR spectra of generations 3, 4, and 5 of the pristine/APS-treated PAMAM dendrimers (recorded in KBr pellets) – full scale.

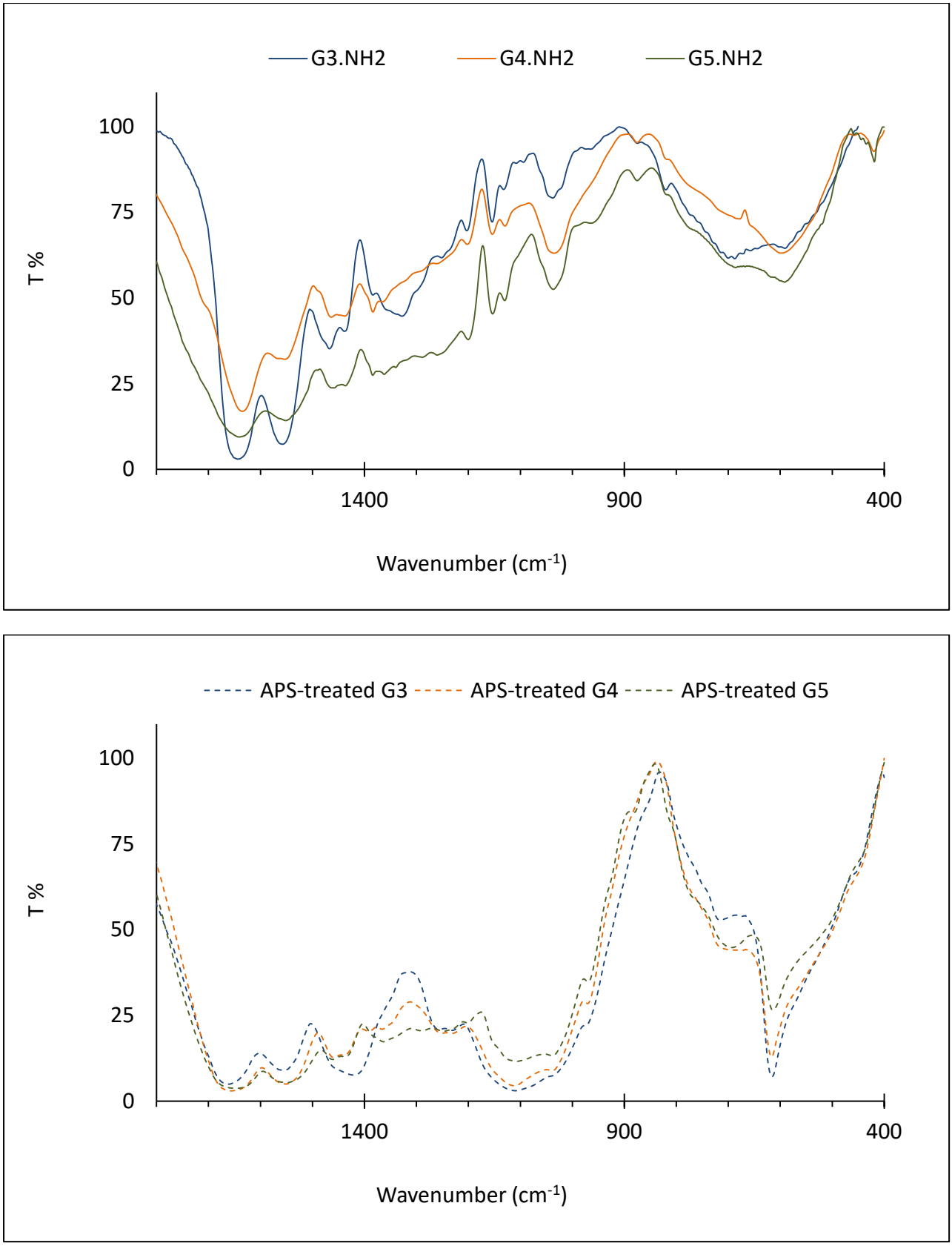

Figure S5-B: FT-IR spectra of generations 3, 4, and 5 of the pristine/APS-treated PAMAM dendrimers (recorded in KBr pellets) – enlarged scale.

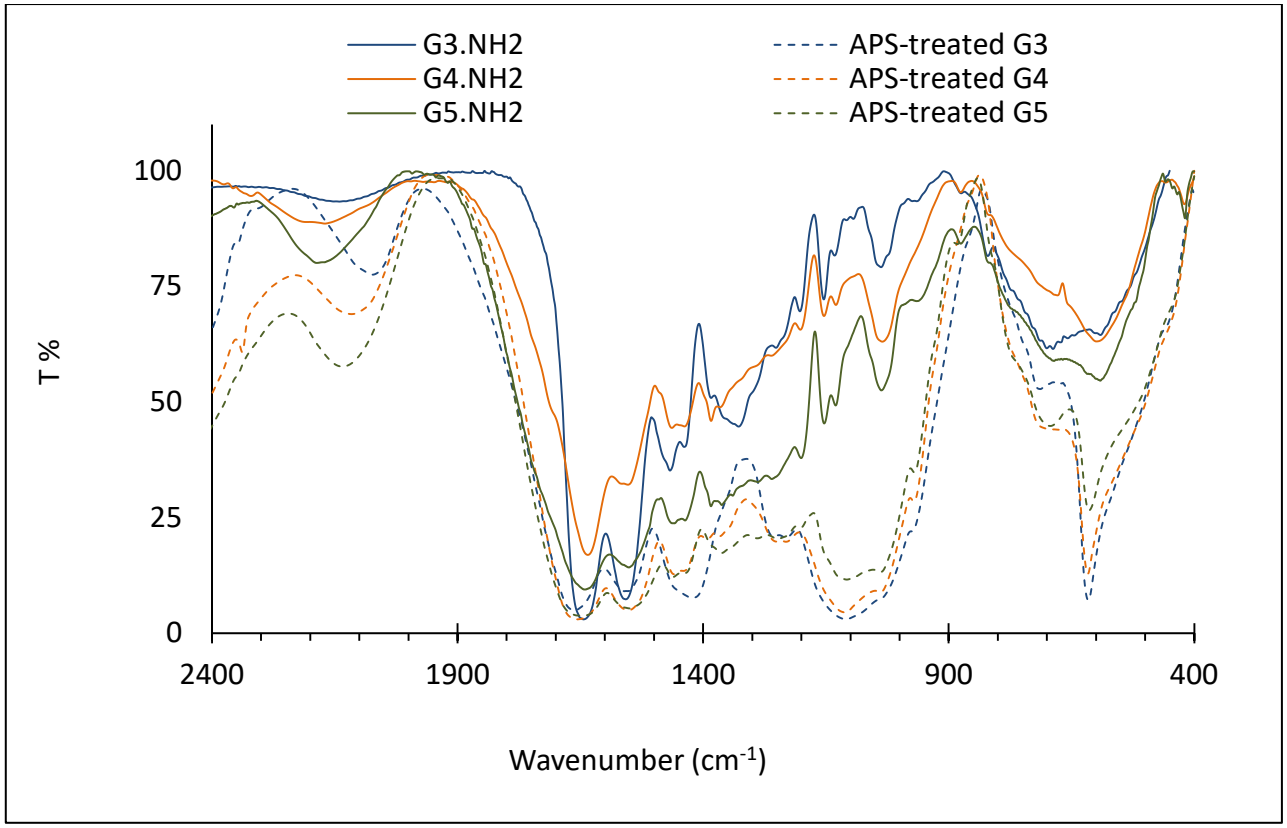

Figure S5-C: FT-IR spectra of generations 3, 4, and 5 of the pristine/APS-treated PAMAM dendrimers (recorded in KBr pellets) – enlarged scale (comparison among spectra).

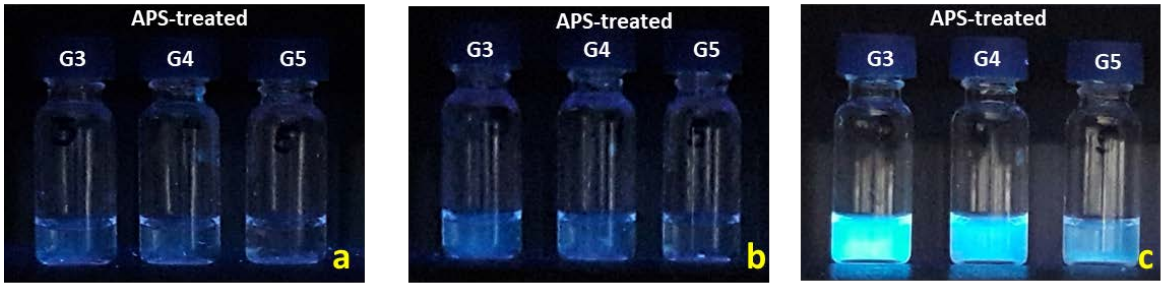

Figure S6: APS-treated PAMAM dendrimers under UV irradiation at 366nm with a concentration of a) $1x10^{-6}$ M, b) $1x10^{-5}$M, and c) 4.3mg/600µl (APS-treated G3: $1x10^{-3}$M, APS-treated G4: $5x10^{-4}$M and APS-treated G5: $2.5x10^{-4}$M) in ultrapure water.

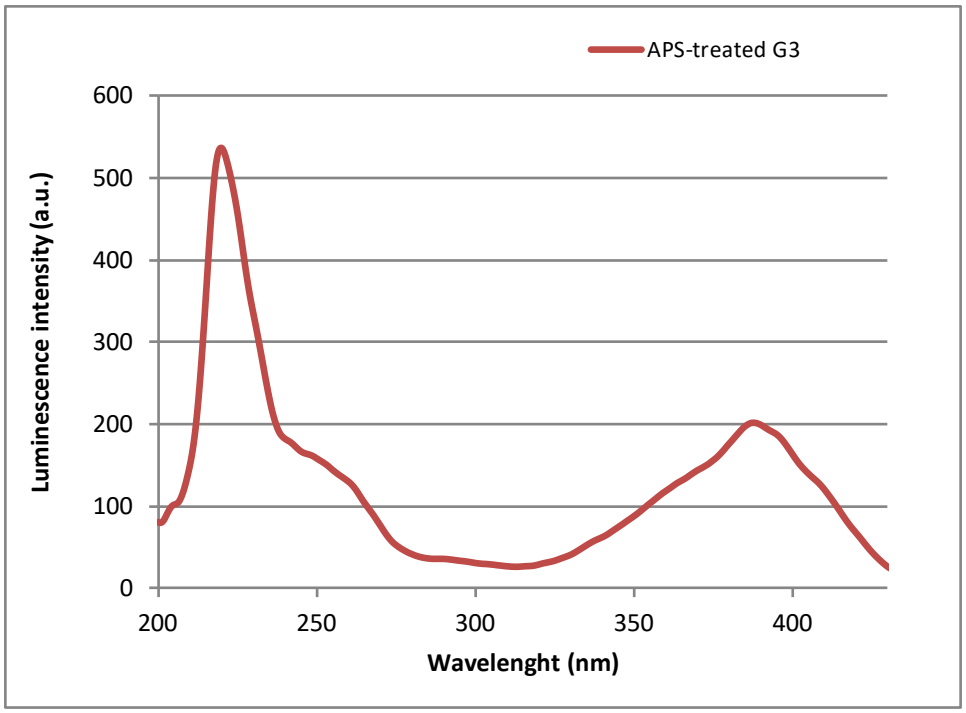

Figure S7: Enlarged excitation spectrum of generation 3 APS-treated dendrimers (λ_{em}= 450nm) showing a band ca. 250nm. The spectrum was recorded at a concentration of 1x 10^{-5}M in ultrapure water. The sharp band at 225nm is due to second-order scattering.