Supplementary Information

Stimuli-Responsive Gelation of Fmoc-L-Tyrosine Derivatives to Supramolecular Architectures Via Cold Atmospheric Plasma

Priya Bhatt [a, b], *Pranadhika Das* [a], *Kamatchi Sankaranarayanan* [a,b]*

[a] Physical Sciences Division, Institute of Advanced Study in Science and Technology, (An Autonomous Institute Under DST, Govt. of India), Vigyan Path, Paschim Boragaon, Garchuk, Guwahati, Assam 781035, India.

[b] Academy of Scientific and Innovative Research (AcSIR), Campus Postal Staff College Area, Sector 19, Kamla Nehru Nagar, Ghaziabad 201002, Uttar Pradesh, India

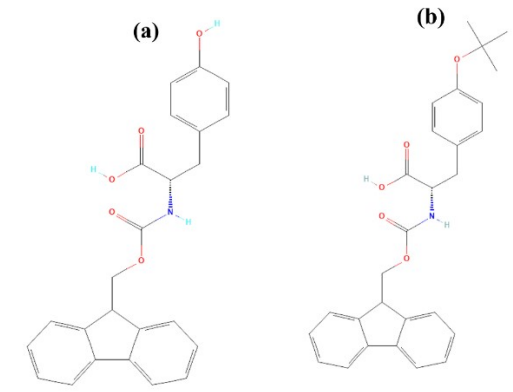

Figure S1: (a) 2D chemical structure of (a) Fmoc-L-tyrosine (b) Fmoc-Tyr(tBu)-OH

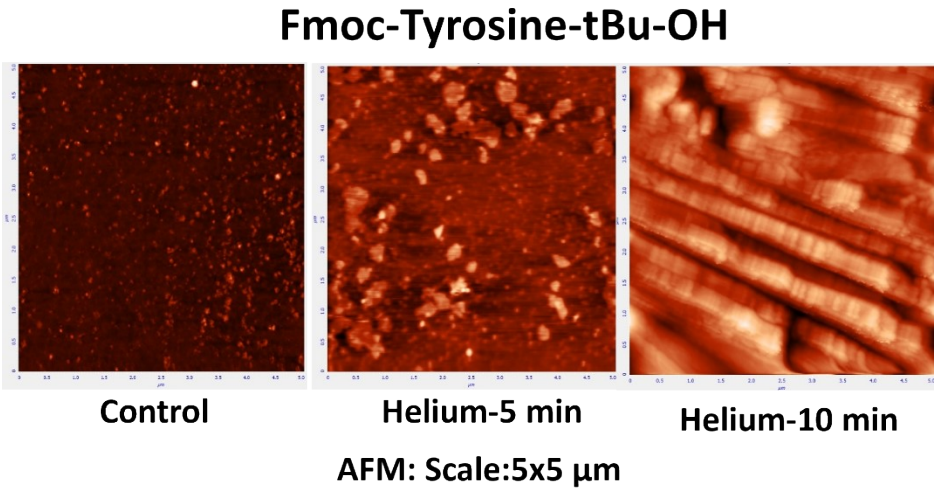

Figure S2: AFM images of Fmoc-Tyr(tBu)-OH

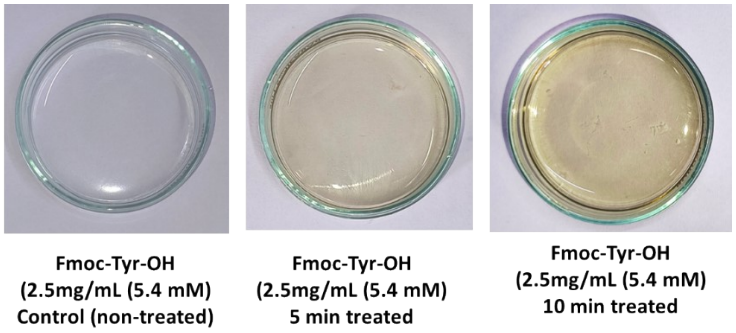

Figure S3: Pictures of assemblies created by Fmoc-Tyr-OH at higher concentration (>5mM)

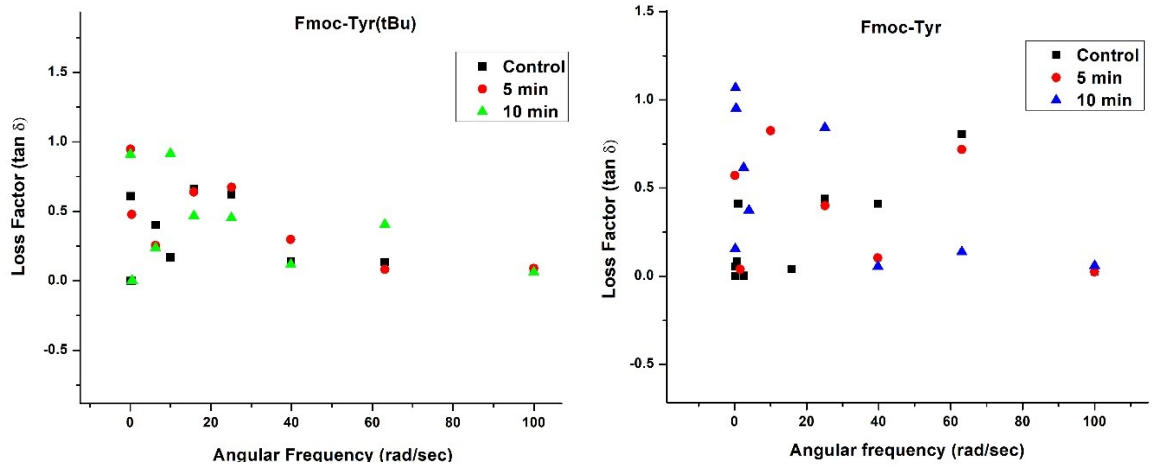

Figure S4: Loss factor with respect to angular frequency, showing the independence of loss factor with angular frequency, a criterion indicating the formation of gels

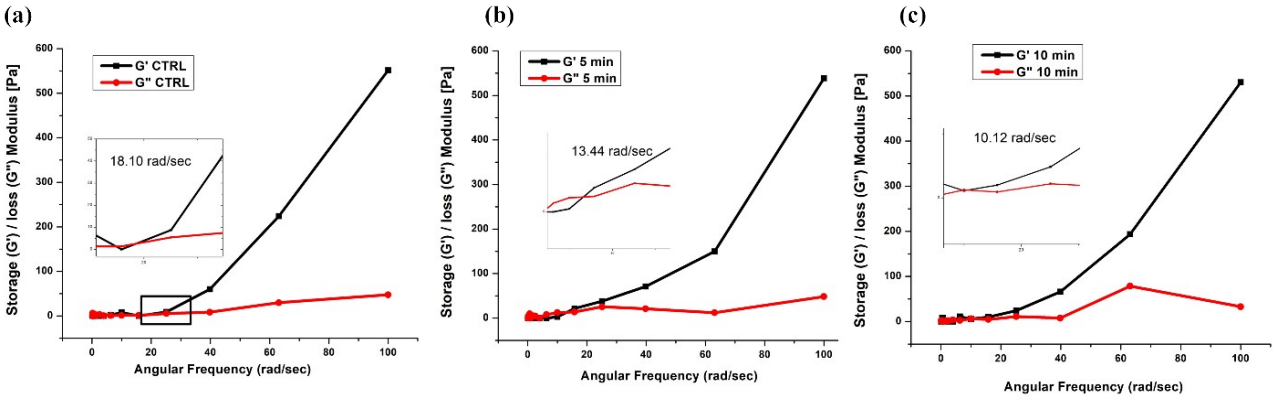

Figure S5: Crossover frequencies decreasing with increasing CAP treatment time in the case of Fmoc-Tyr(tBu)-OH

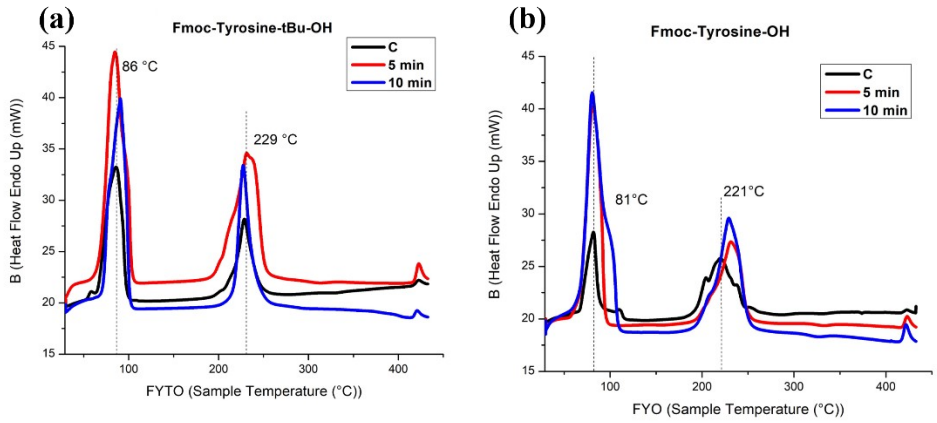

Figure S6: DSC thermogram of the (a) Fmoc-tyrosine (b) Fmoc-Tyr(tBu)-OH

Table S1: Area under the curve found by the DSC thermogram

Sample/ time	0 min	5 min	10 min
FYtO	243.73	525.62	352.12
FYO	84.28	352.14	513.40

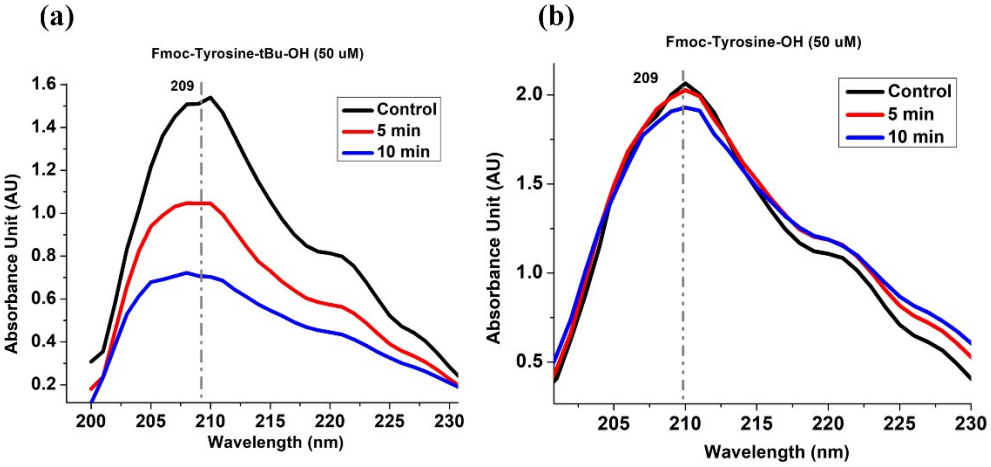

Figure S7: Blue shifting of the UV-Vis absorbance peak (a) Fmoc-Tyr(tBu)-OH (b) Fmoc-tyrosine

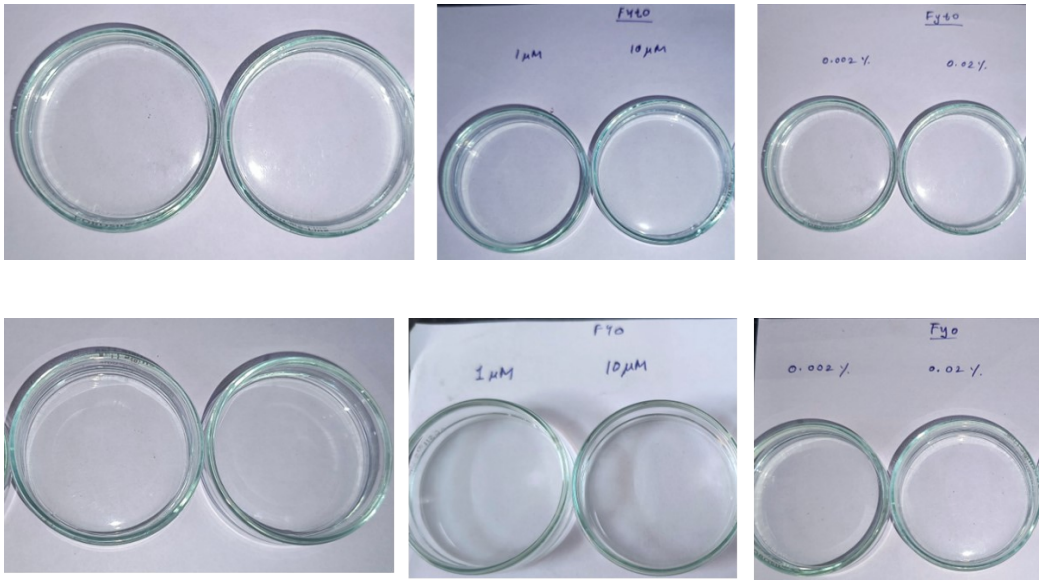

Figure S8: No visual gelation found upon addition of H_2O_2 and NO_3^- on Fmoc-Tyr(tBu)-OH (upper) and Fmoc-Tyr-OH (lower) control samples

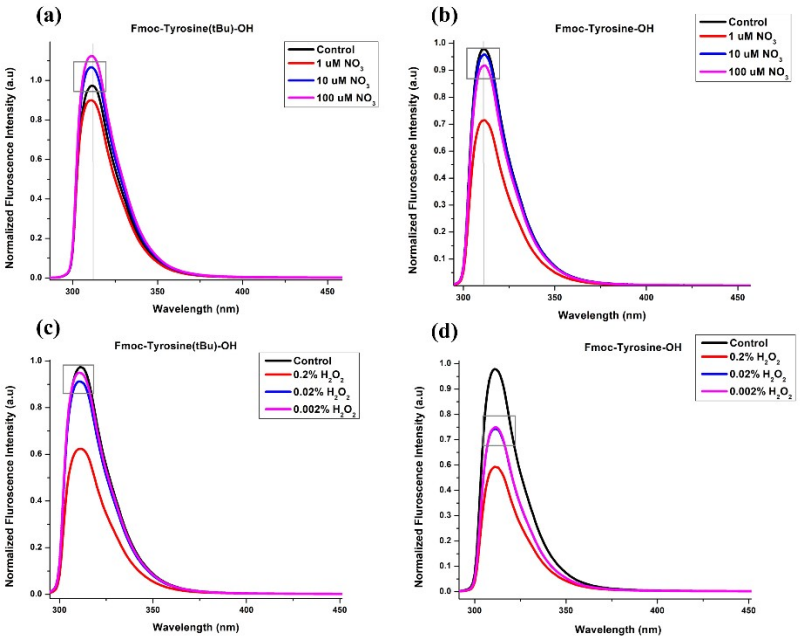

Figure S9: Fluorescence quenching showing the effect of NO_3 (a, b) and H_2O_2 (c, d) in Fmoc-Tyr(tBu)-OH and Fmoc-Tyrosine