

-Supplementary Information-

Near Infrared-Emitting Carbon Dots for the Detection of Glial Fibrillary Acidic Protein (GFAP): A Non-Enzymatic Approach for the Early Identification of Stroke and Glioblastoma

Susan Varghese¹, Merin K. Abraham¹, Ali Ibrahim Shkhair¹, Geneva Indongo¹, Greeshma Rajeevan¹, Arathy B. K¹, Anju S. Madanan¹, Dr. Sony George^{2##*}

¹Department of Chemistry, School of Physical and Mathematical Sciences, University of Kerala, Kariavattom campus, Thiruvananthapuram-695581, Kerala, India.

²Associate Professor, Department of Chemistry, School of Physical and Mathematical Sciences, University of Kerala, Kariavattom campus, Thiruvananthapuram-695581, Kerala, India.

#Coordinator, International Inter University Centre for Sensing and Imaging (IIUCSI), Department of Chemistry, University of Kerala, Kariavattom campus, Thiruvananthapuram-695581, Kerala, India.

*Corresponding Author

Mob: +91-9446462933

Email: emailtosony@gmail.com

ORCID Sony George <https://orcid.org/0000-0002-9848-0465>

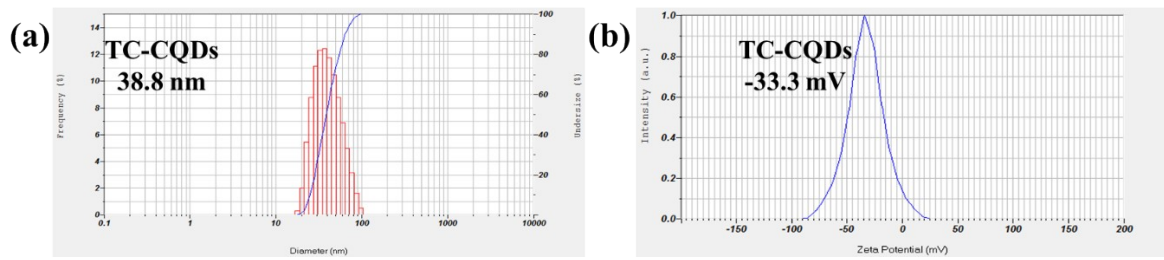


Figure S1. (a) DLS spectrum of TC-CQDs; (b) zeta potential graph of TC-CQDs

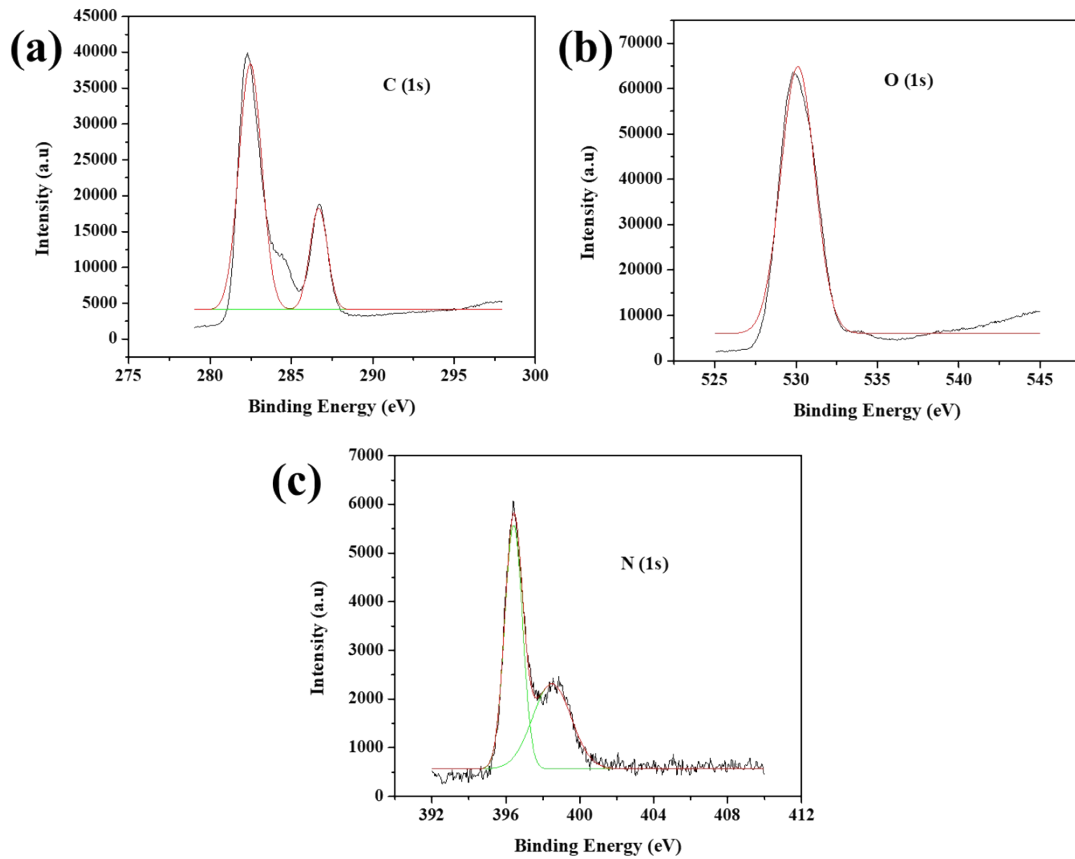


Figure S2. XPS deconvoluted spectra of (a) C (1s); (b) O (1s) and (c) N (1s)

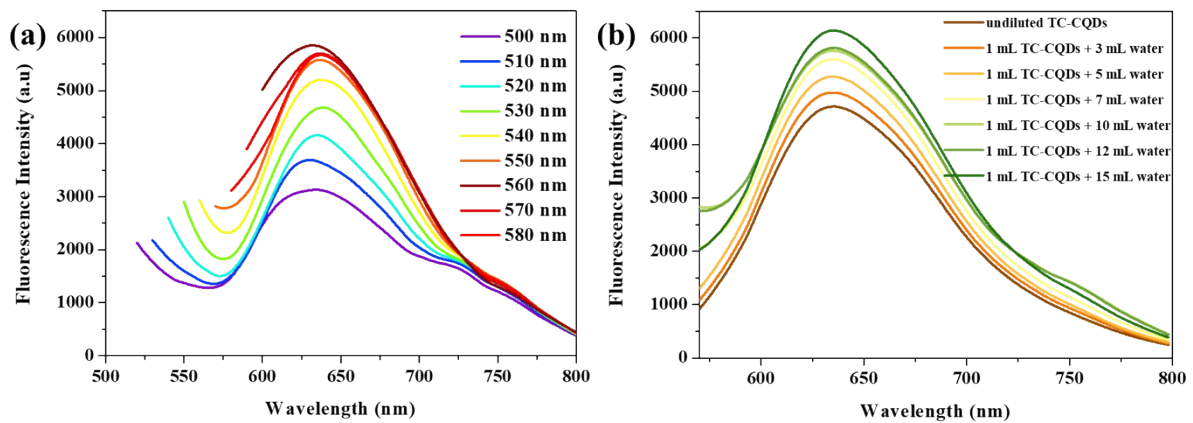


Figure S3. (a) Fluorescence emission spectrum of TC-CQDs at various excitation wavelengths; (b) Fluorescence emission spectrum of TC-CQDs upon dilution

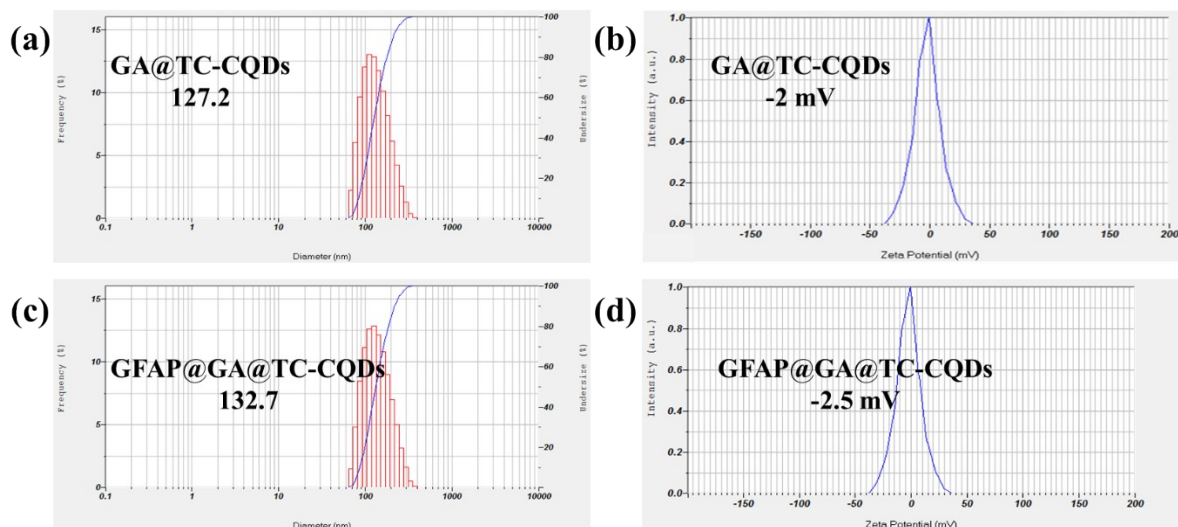


Figure S4. (a) DLS spectrum of GA@TC-CQDs; (b) zeta potential graph of GA@TC-CQDs; (c) DLS spectrum of GFAP@GA@TC-CQDs; (d) zeta potential graph of GFAP@GA@TC-CQDs

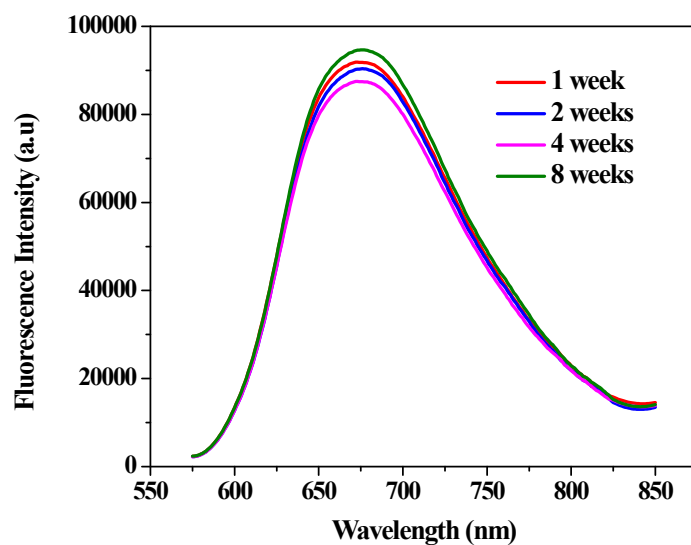


Figure S5. Fluorescence emission spectrum of GA@TC-CQDs after storing at 4°C