

Supplementary information

Ultrasensitive Electroanalytical Sensing Platform using Aptamer-Conjugated V_2CT_x MXene for the Detection of HER-2 Biomarker

Reema Rawat^a, Sonam Singh^b, Souradeep Roy^a, Samarika Dubey^c, Tapas Goswami^b, Ashish Mathur^{d*}, James McLaughlin^e

^aHealth Technology Cluster, School of Health Sciences and Technology, UPES, Dehradun, India

^bDepartment of Chemistry, School of Advanced Engineering, UPES, Dehradun, India

^cThe Tons Bridge School, Nanda ki Chowki, Premnagar, Dehradun, India

^dCentre for Interdisciplinary Research and Innovation (CIDRI), UPES, Dehradun, India

^eSchool of Engineering, Ulster University, Belfast, UK

*email: ashish.mathur@ddn.upes.ac.in / nanoashish@gmail.com

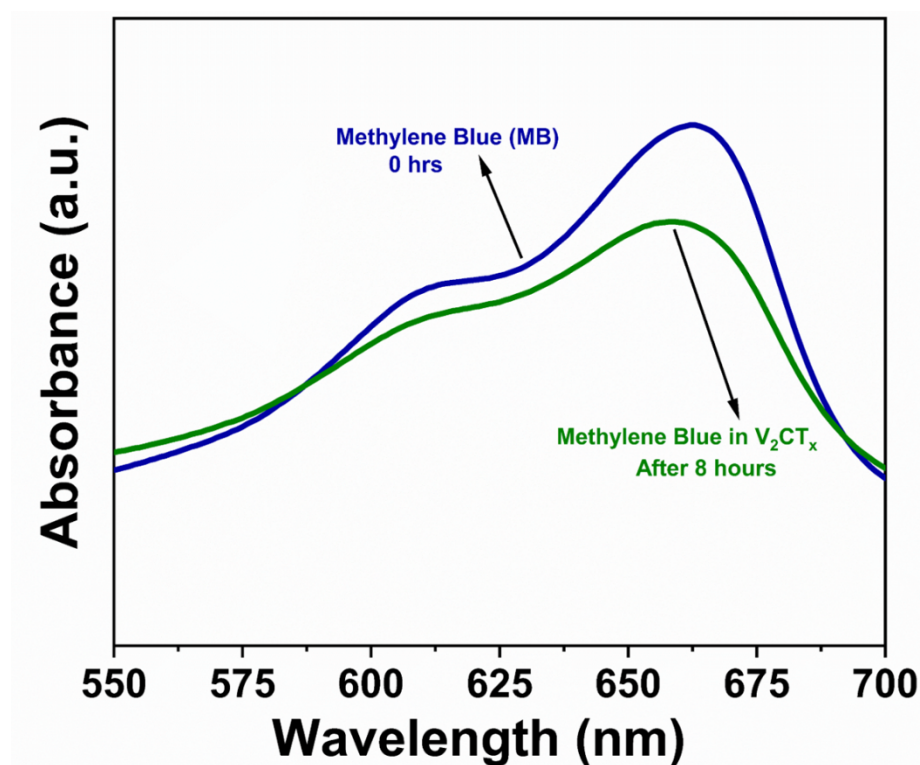


Fig S1. UV-Vis absorption spectrum of V_2CT_x MXene and methylene blue.

Peak (C1s)	Position (eV)	Area	FWHM (eV)	%GL
0	284.700	2655.981	1.571	63

1	285.400	1330.369	1.950	46
2	288.600	419.482	1.700	42

Peak (V2p)	Position (eV)	Area	FWHM (eV)	% GL
0	513.000	406.683	1.000	100
1	515.600	1749.880	1.940	0
2	517.000	3080.844	1.870	0
3	523.000	643.333	2.017	0
4	524.500	760.190	1.592	0

Peak (O1s)	Position (eV)	Area	FWHM (eV)	%GL
0	530.900	3631.989	1.989	23
1	531.800	3648.207	1.600	6
2	533.100	1424.551	1.717	0

Tables S1, S2, and S3. represent the C1s, V2p, and O1s peak parameters, respectively, showing peak positions (eV), areas, FWHM (eV), and %GL for three identified peaks in each case.