

Electronic Supplementary Information (ESI)

MnO_{1.88}/R-MnO₂/Ti₃C₂(OH/F)_x Composite Electrode for High Performance

Pseudo-Supercapacitor Prepared from Reduced MXene

Xinhua Huang^{a,d}, XingxingZhu^a, Shaohong Luo^b, Nitul Rajput^c, Matteo Chiesa^c, Liao Kin^{b*}, and
Vincent Chan^{d,*}

^aSchool of Materials Science and Engineering, *Anhui University of Science and Technology*, Huainan, Anhui, 232001, P. R. *China*

^bDepartment of Aerospace Engineering, *Khalifa University of Science and Technology*, P O Box 127788, Abu Dhabi, UAE

^cDepartment of Mechanical and Materials Engineering, *Khalifa University of Science and Technology*, Masdar Campus, PO Box 54224, Abu Dhabi, UAE

^dDepartment of Biomedical Engineering, *Khalifa University of Science and Technology*, P O Box 127788, Abu Dhabi, UAE

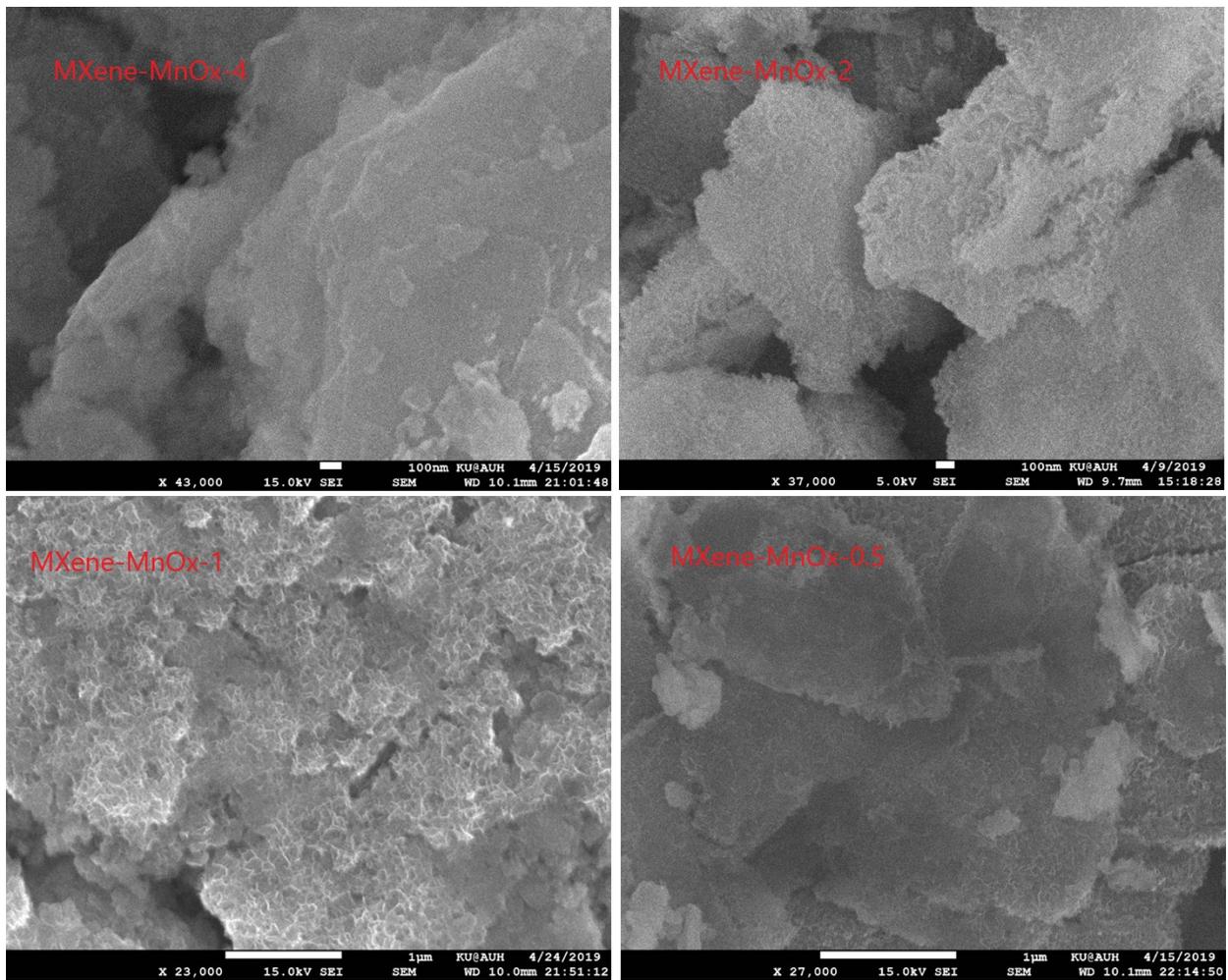


Figure S1. SEM images of the MXene-MnOx composites.

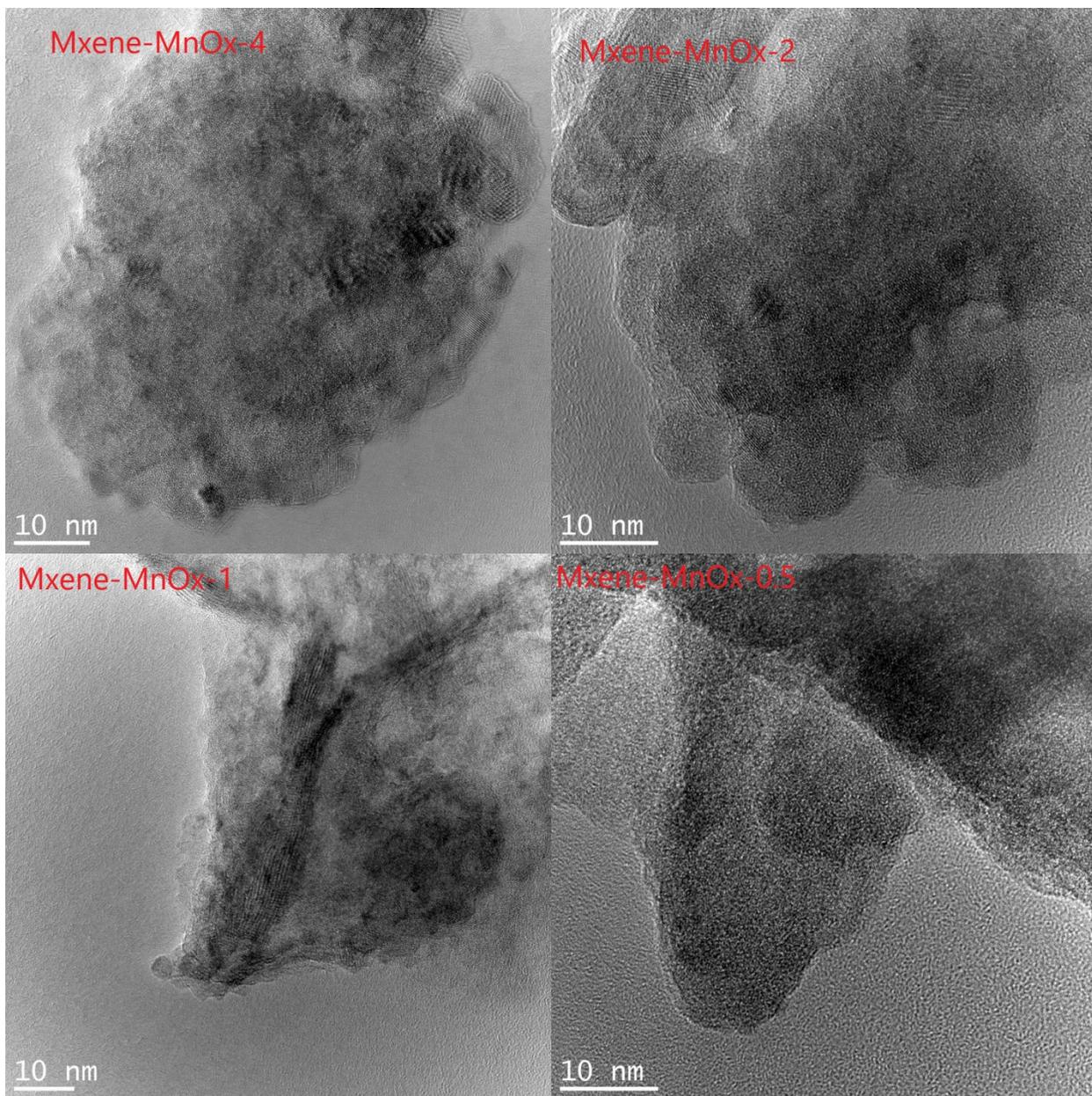


Figure S2. TEM images of the MXene-MnOx composites.

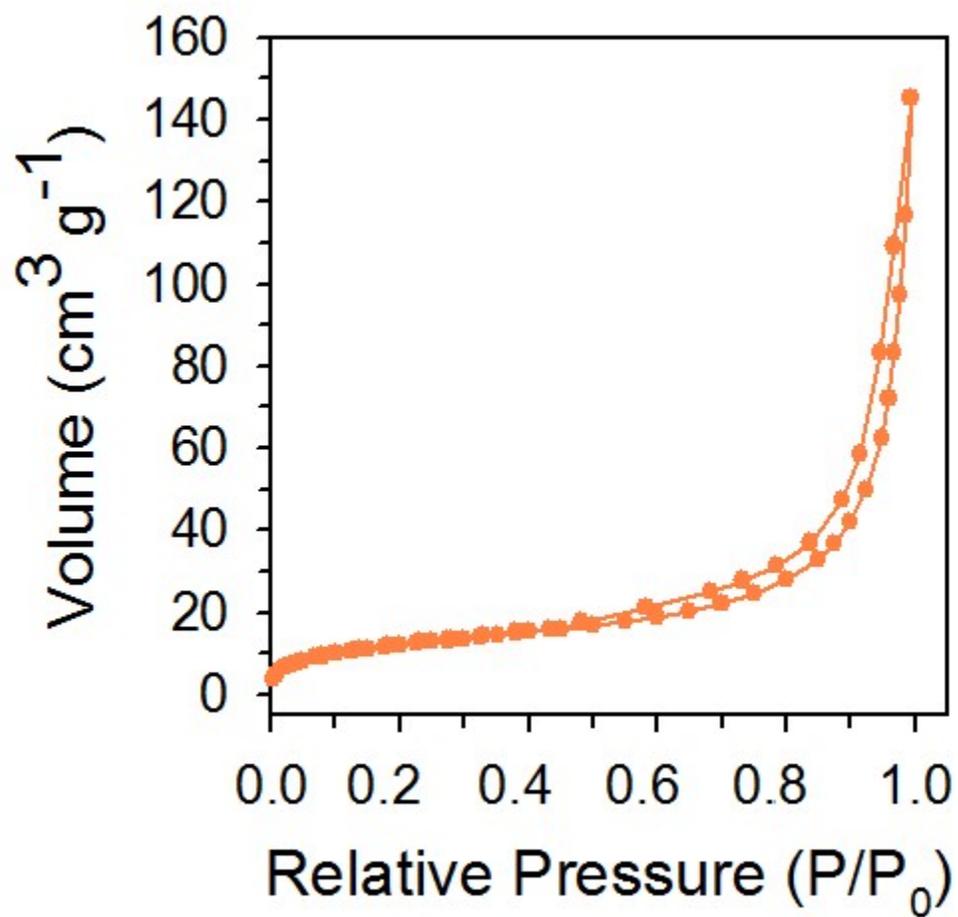


Figure S3 The sorption-desorption curves of the Ti₃C₂Tx/MnO_x-2.

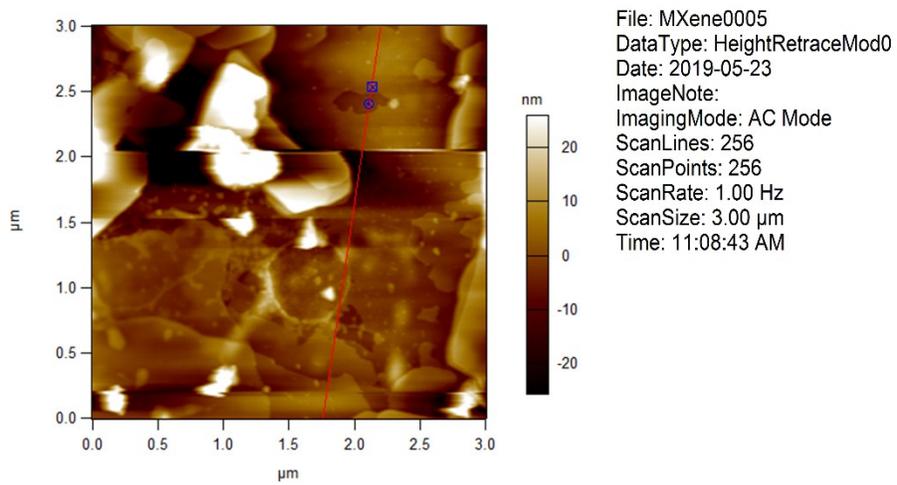
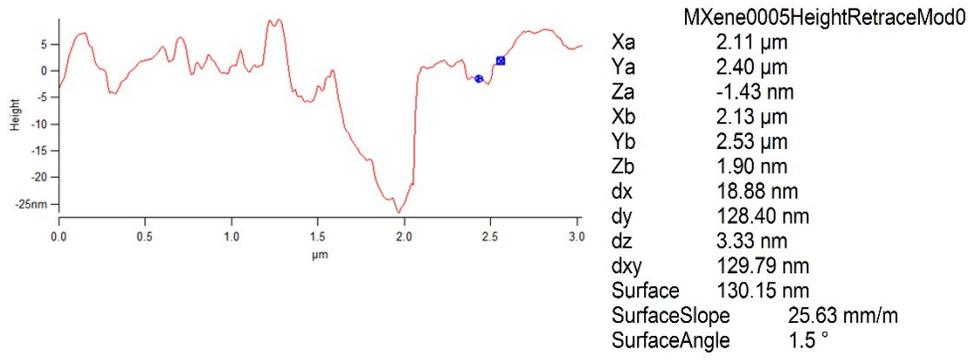


Figure S4 AFM of the $\text{Ti}_3\text{C}_2\text{T}_x/\text{MnO}_x$ -2 composite demonstrate the single layer.

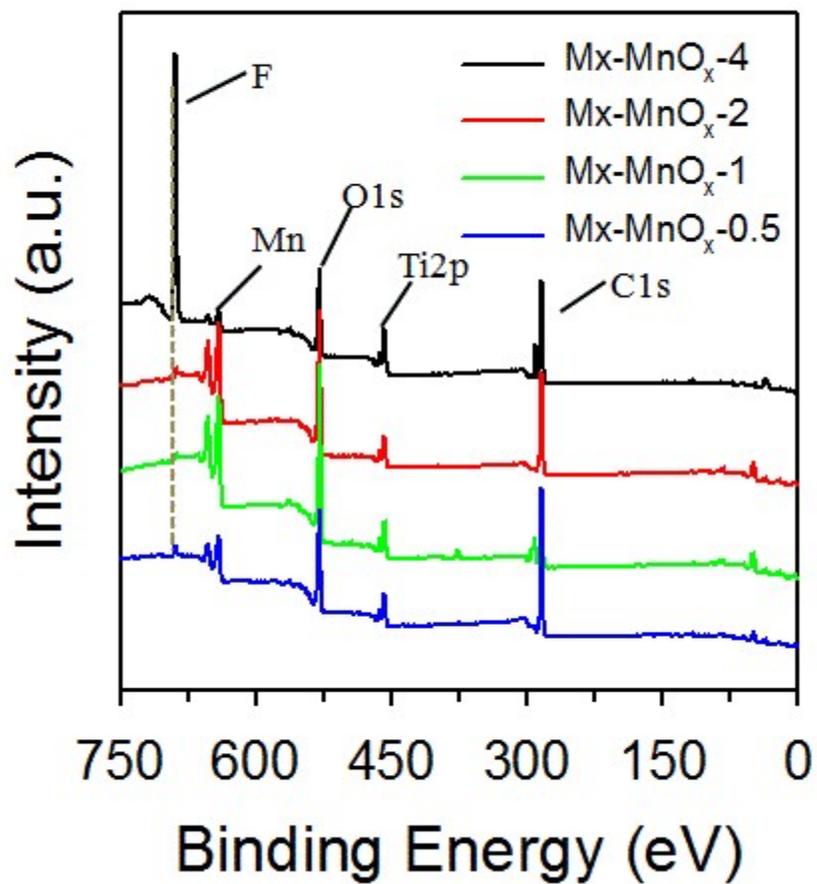


Figure S5 Full XPS spectra of the MXene(Mx)-MnO_x composites.

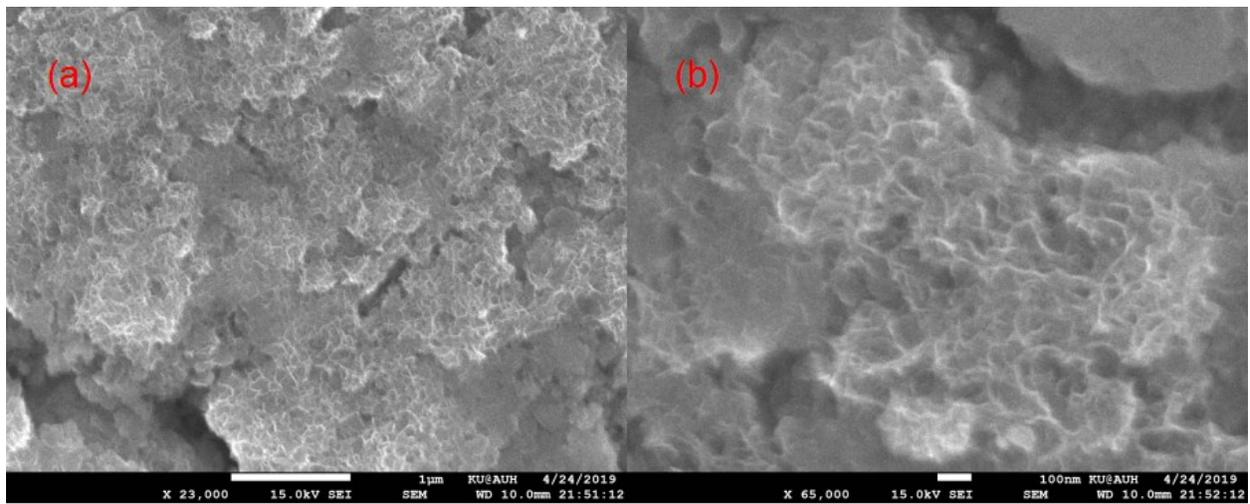


Figure S6 The different resolution SEM images of the $\text{Ti}_3\text{C}_2\text{T}_x/\text{MnO}_x$ -2 as the supercapacitor electrode on nickel foam after 5000 cycles.