

Supporting Information

MXenes with Tunable Work Functions and Their Application as Electron- and Hole-Transport Materials of Non-Fullerene Organic Solar Cells

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[†] Contribute equally to this work

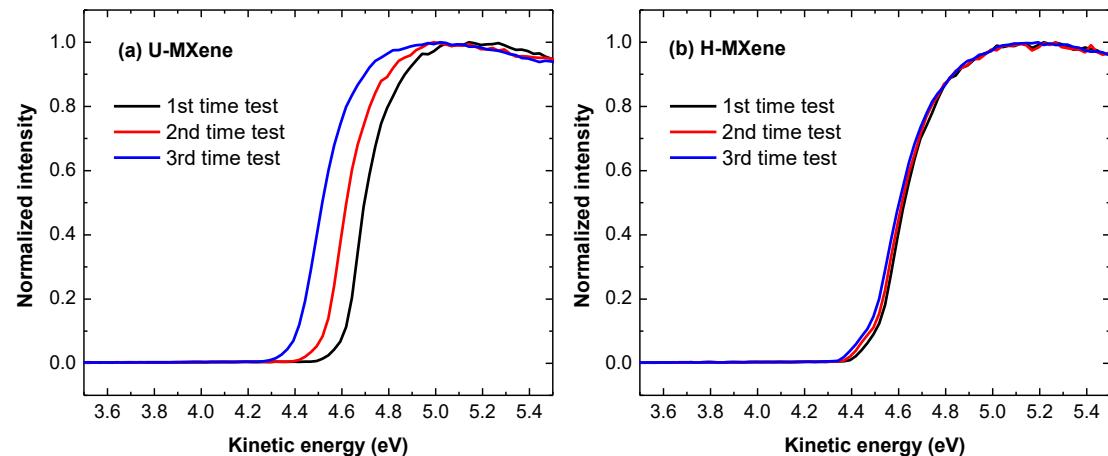
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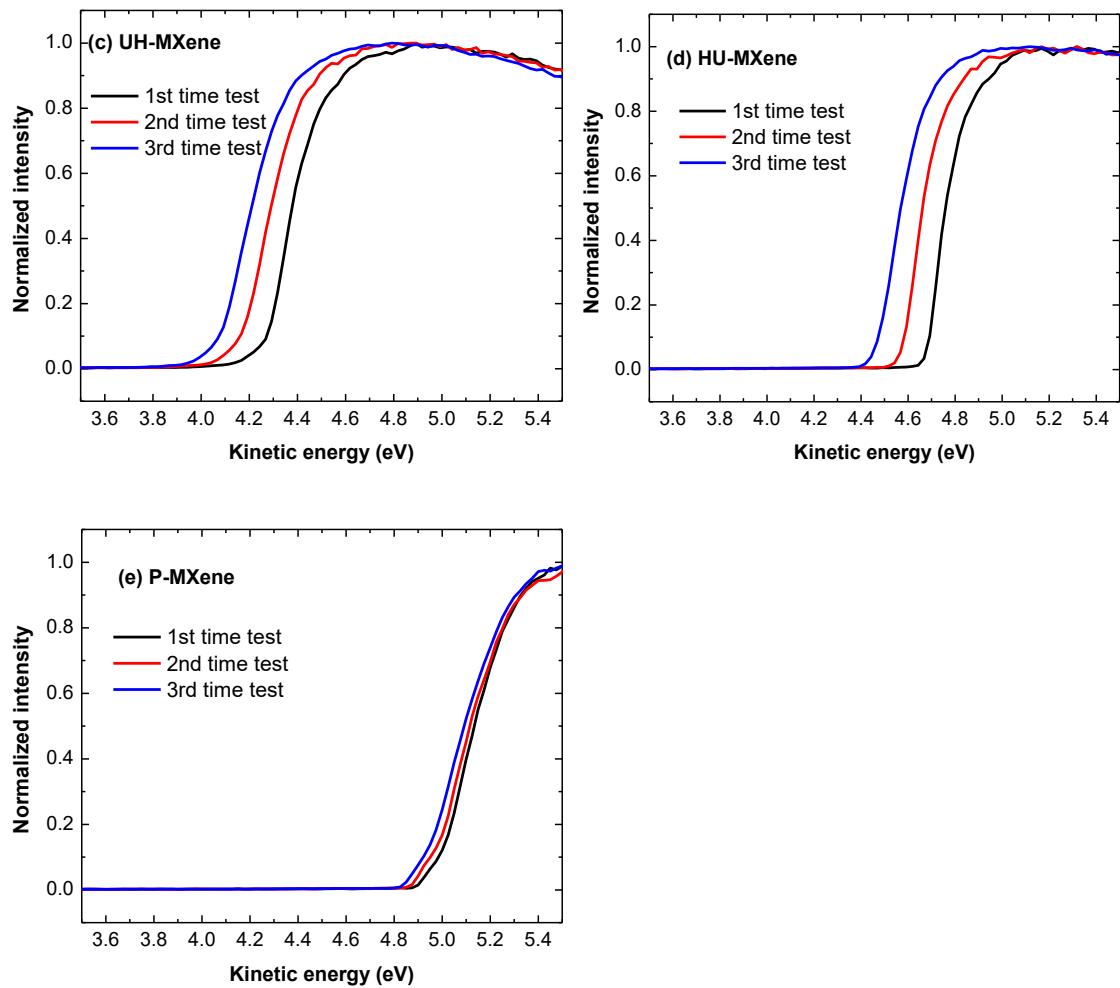


Figure S1. UPS spectra change vary with the exposure time under UPS of (a) U-MXene, (b) H-MXene, (c) UH-MXene, (d) HU-MXene and (e) P-MXene.

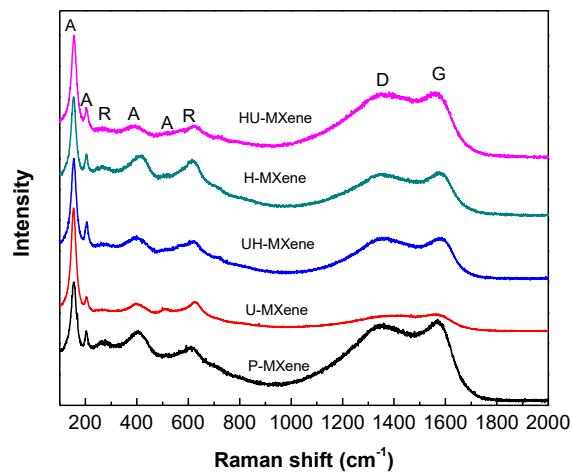


Figure S2. Raman spectrum of P-MXene and MXenes by various treatments. A and R stand for the anatase and rutile phases of TiO₂, respectively.

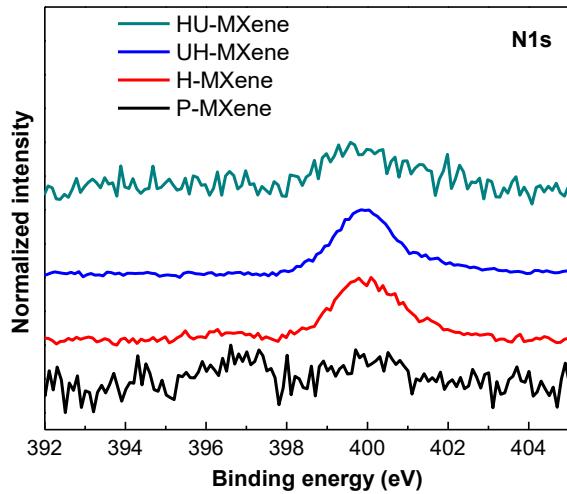


Figure S3. N1s XPS spectrum of MXene under different treatment condition

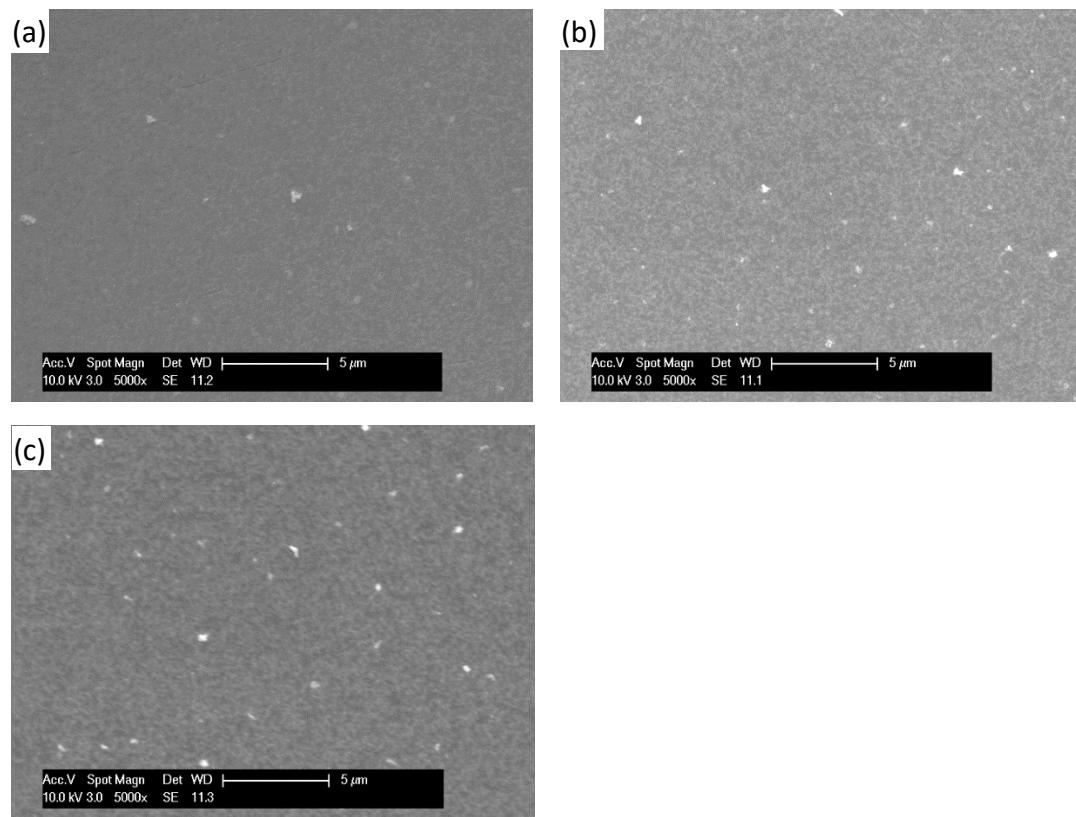


Figure S4. SEM image of MXene with (a) no treatment, (b) UV-O treatment for 15 min and (c) UV-O treatment for 60 min.

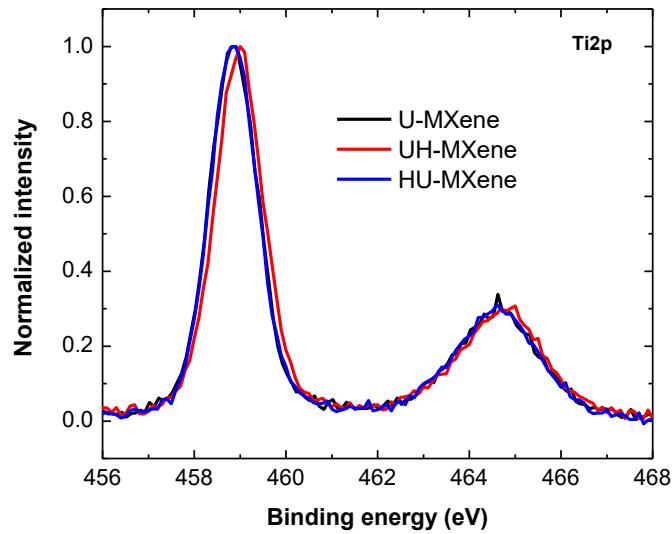


Figure S5. Ti2p XPS spectra of (a) P-MXene and H-MXenes and (b) U-MXene, UH-MXene and HU- MXenes.

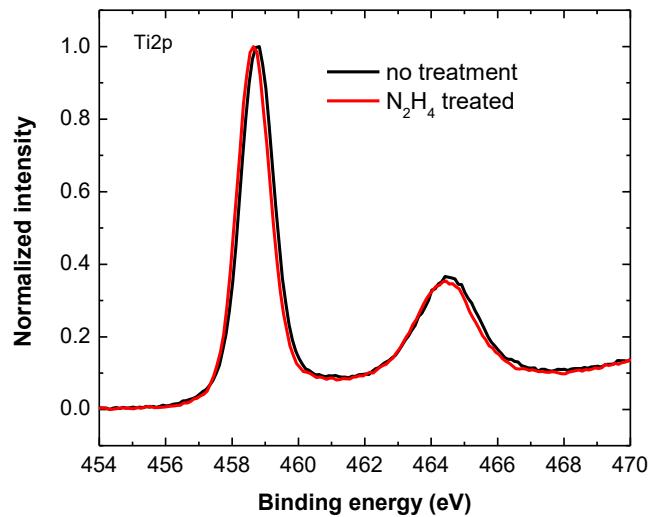


Figure S6. T2p XPS spectrum of TiO_2 with no treatment or N_2H_4 treatment. The TiO_2 was prepared by the sol-gel method.

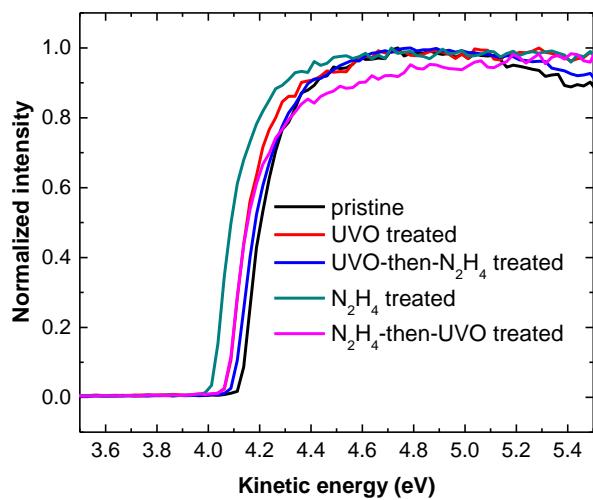


Figure S7. UPS spectrum of sol-gel TiO₂ by different treatments.

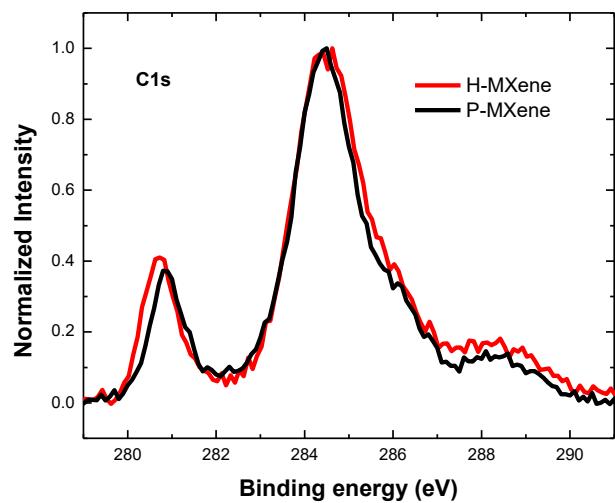


Figure S8. C1s XPS spectra of P-MXene and H-MXenes.

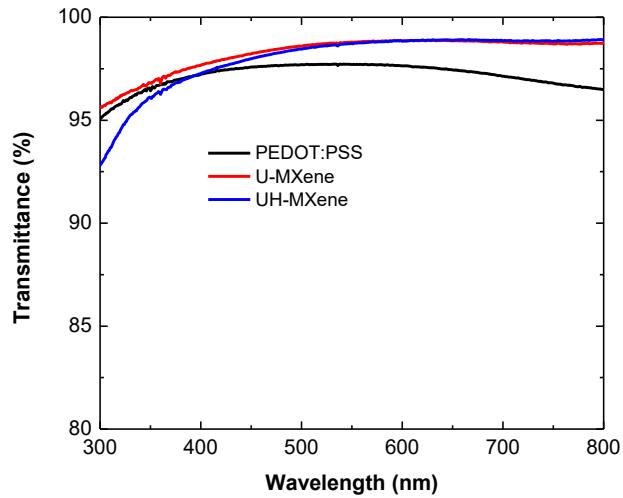


Figure S9. Transmittance spectra of PEDOT:PSS, U-MXene and UH-MXene. The thickness of MXene layer was around 8 nm.