Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

Chalcogen (S, Se, and Te) decorated few-layered $Ti_3C_2T_x$ MXene hybrids: modulation of properties through covalent bonding

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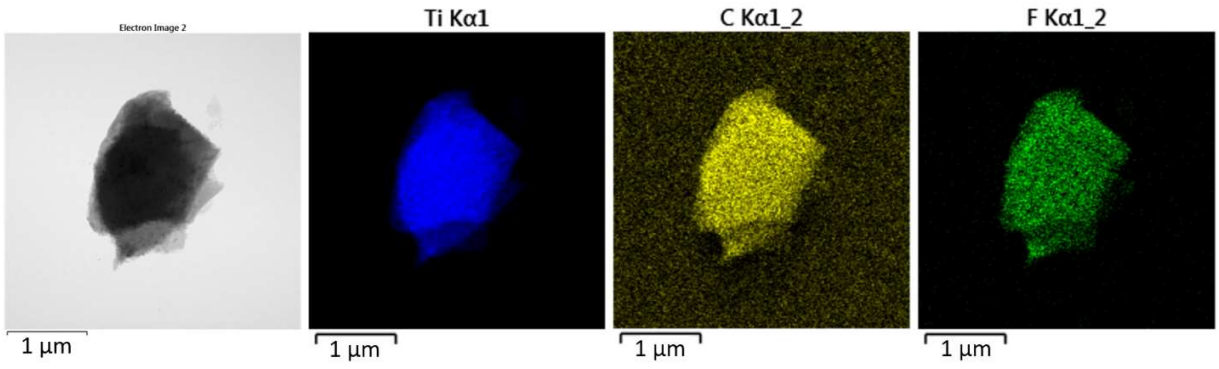

Figure S1. TEM and elemental mappings of synthesized Ti_3C_2Tx MXene.

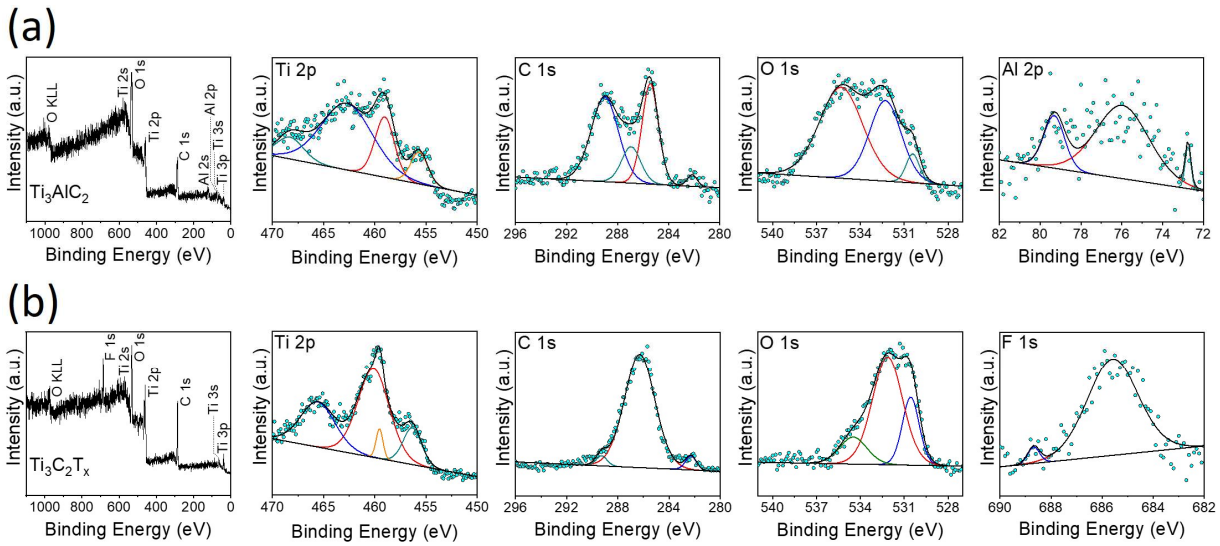

Figure S2. XPS survey and high-resolution spectrums of (a) Ti_3AlC_2 and (b) $Ti_3C_2T_x$ samples.

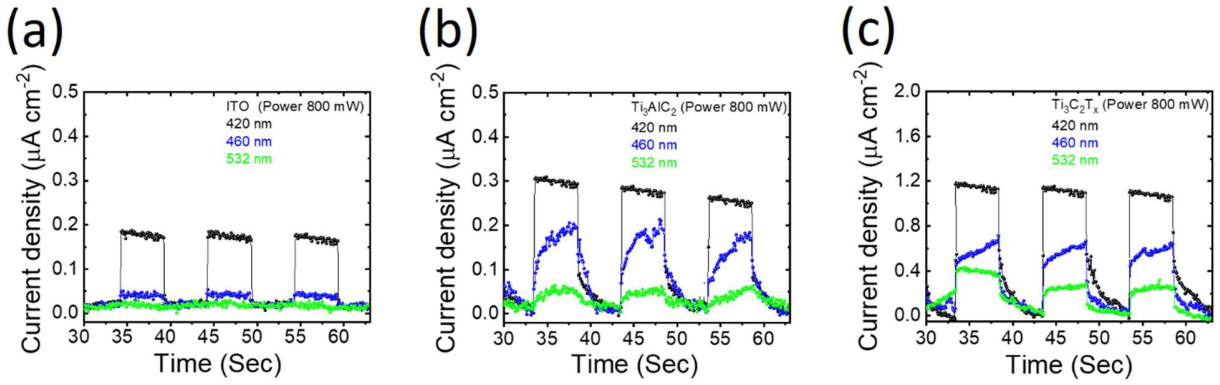

Figure S3. Power dependence of the photocurrent density under the illumination of 420 nm, 460 nm, and 532 nm LED sources in 1 M KOH solution at 1.25 V vs SCE for (a) blank ITO, (b) Ti_3AlC_2, and (c) $Ti_3C_2T_x$ samples.

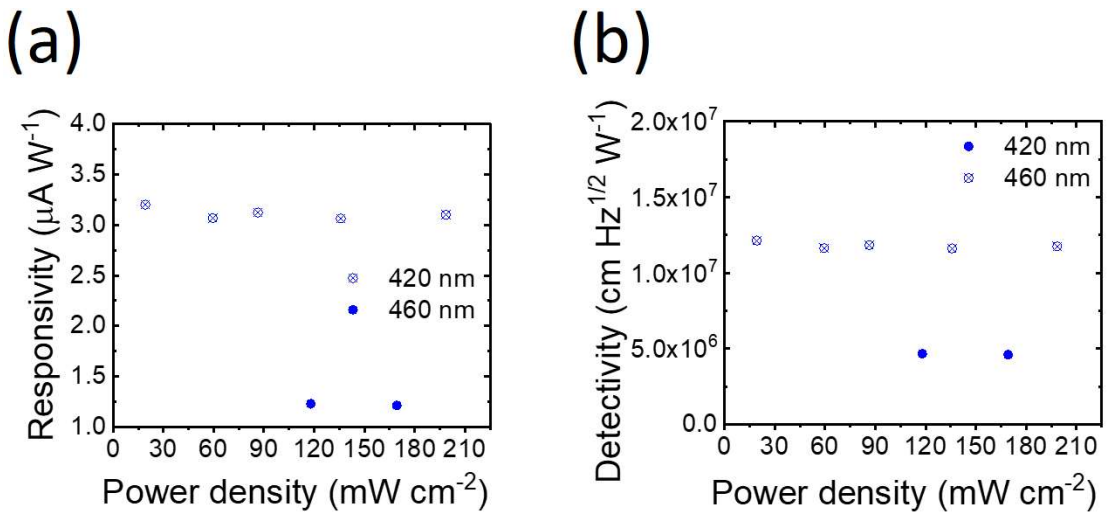

Figure S4. The responsivity (a) and detectivity (b) of blank $Ti_3C_2T_x$ PEC photodetector in 1 M KOH solution as a function of power density upon illumination wavelengths of 420 nm and 460 nm LED sources.