nanomaterials

Supplementary Materials

Controlled Growth of WO_3 Photoanode under Various pH Conditions for Efficient Photoelectrochemical Performance

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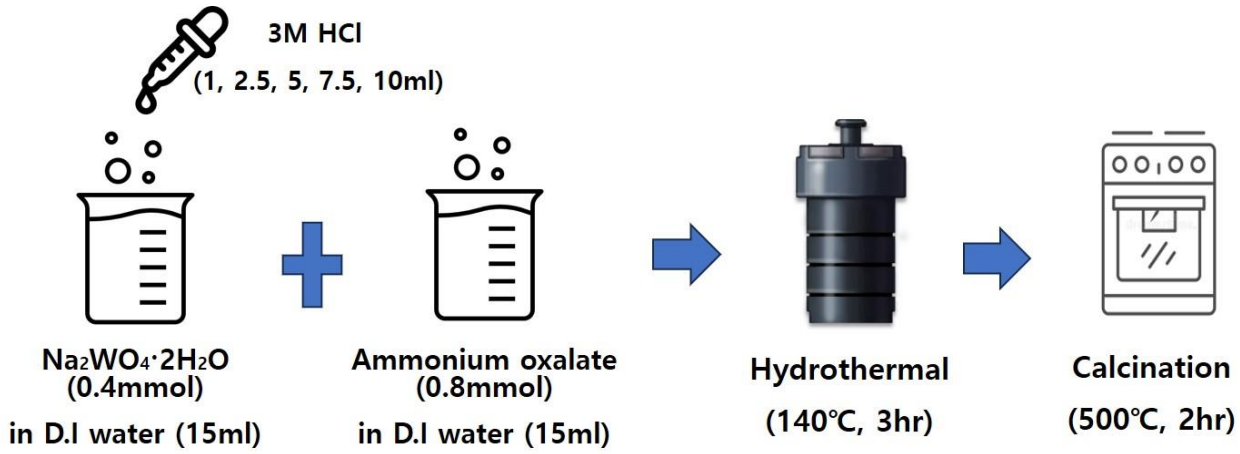

Figure S1. Schematics of the preparation procedures of $WO_3 \cdot nH_2O$ and WO_3 materials.

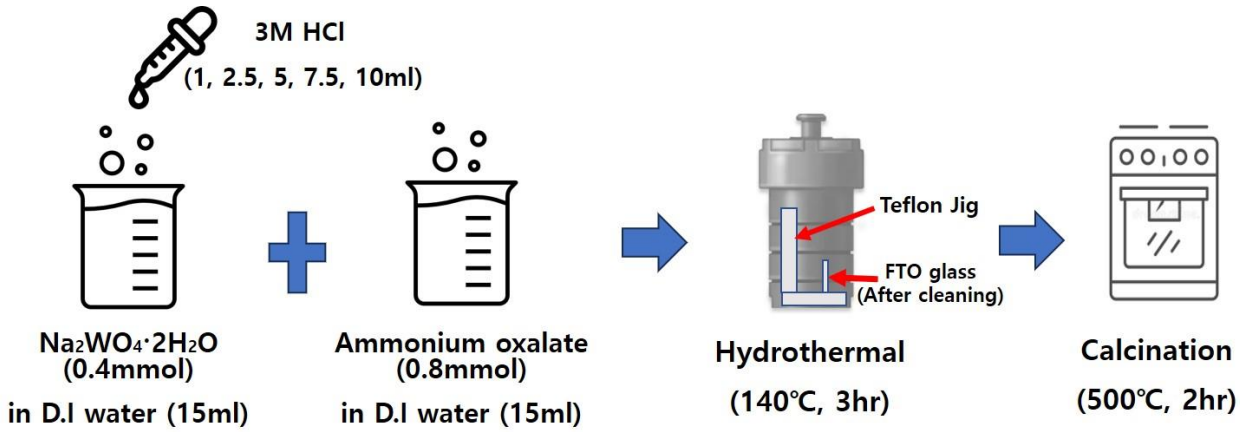

Figure S2. Illustrations of the preparation procedures of WO_3 photoanode on FTO substrate.

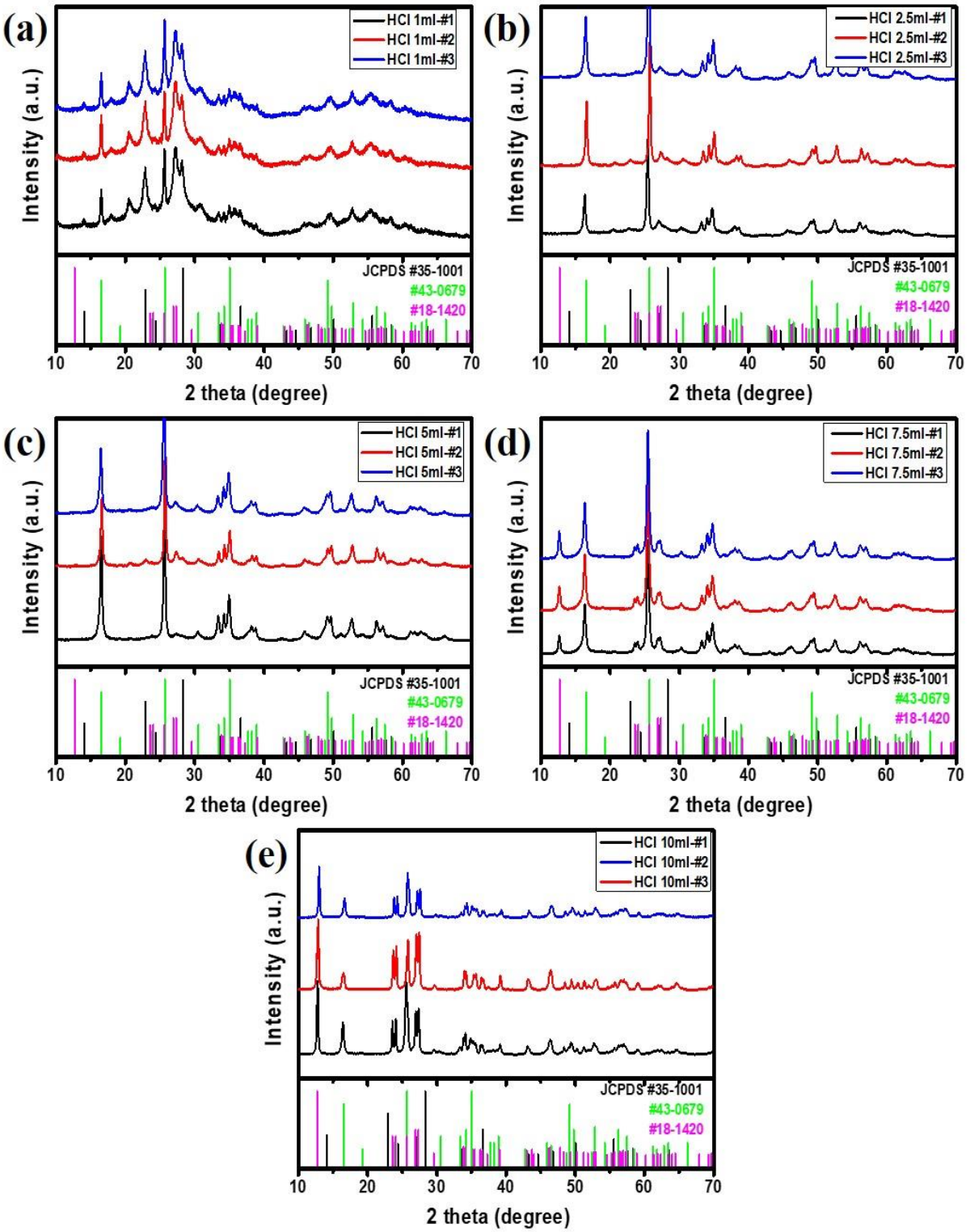

Figure S3. XRD spectra of the $WO_3 \cdot nH_2O$ powders obtained by acid precipitation process with 2theta range from 10° to 70°. (a) HCl-1ml, (b) HCl-2.5ml, (c) HCl-5ml, (d) HCl-7.5ml, (e) HCl-10ml samples.

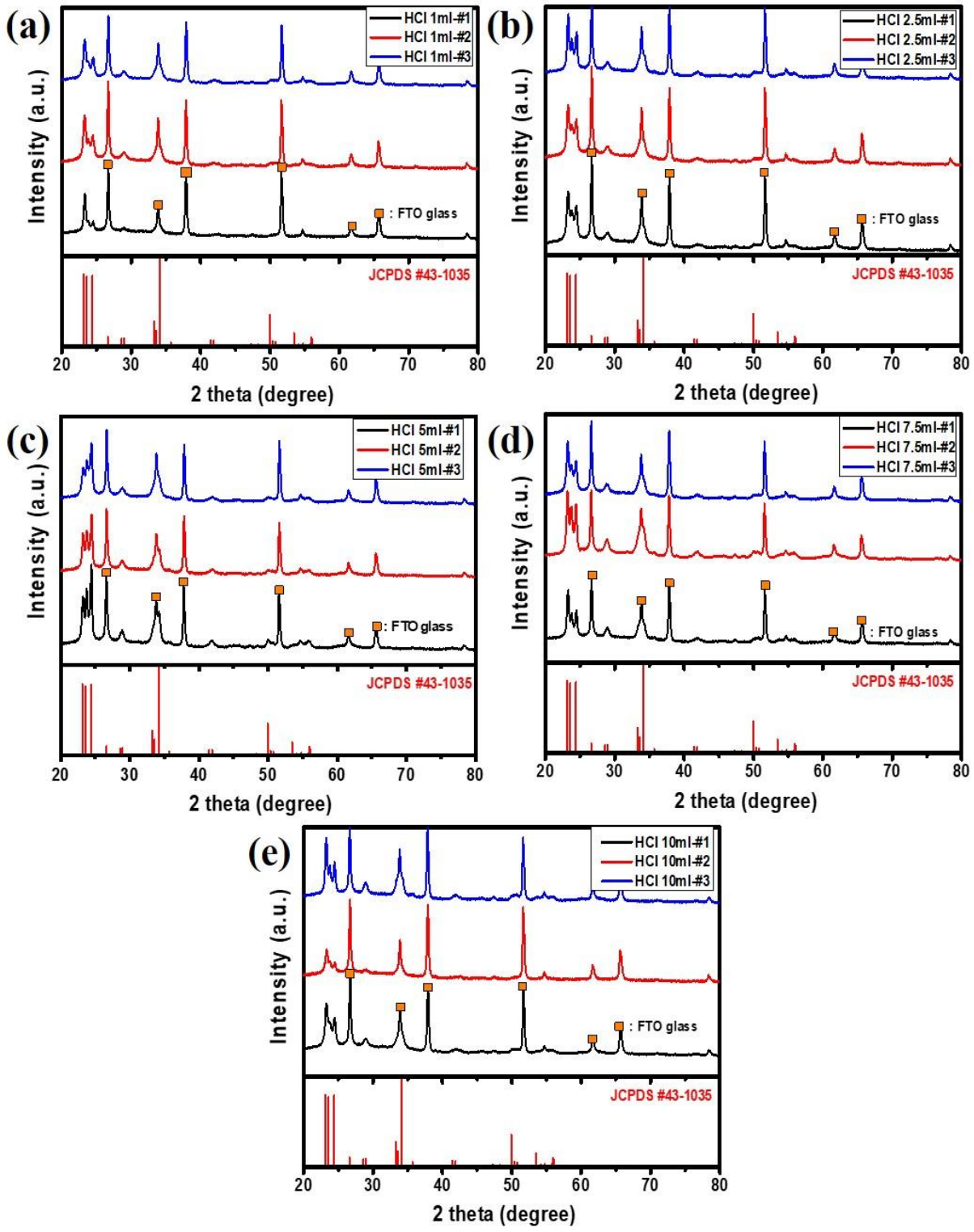

Figure S4. XRD spectra of the WO_3 nanoplates grown on FTO glass with different HCl volume. (a) HCl-1ml, (b) HCl-2.5ml, (c) HCl-5ml, (d) HCl-7.5ml, (e) HCl-10ml samples.

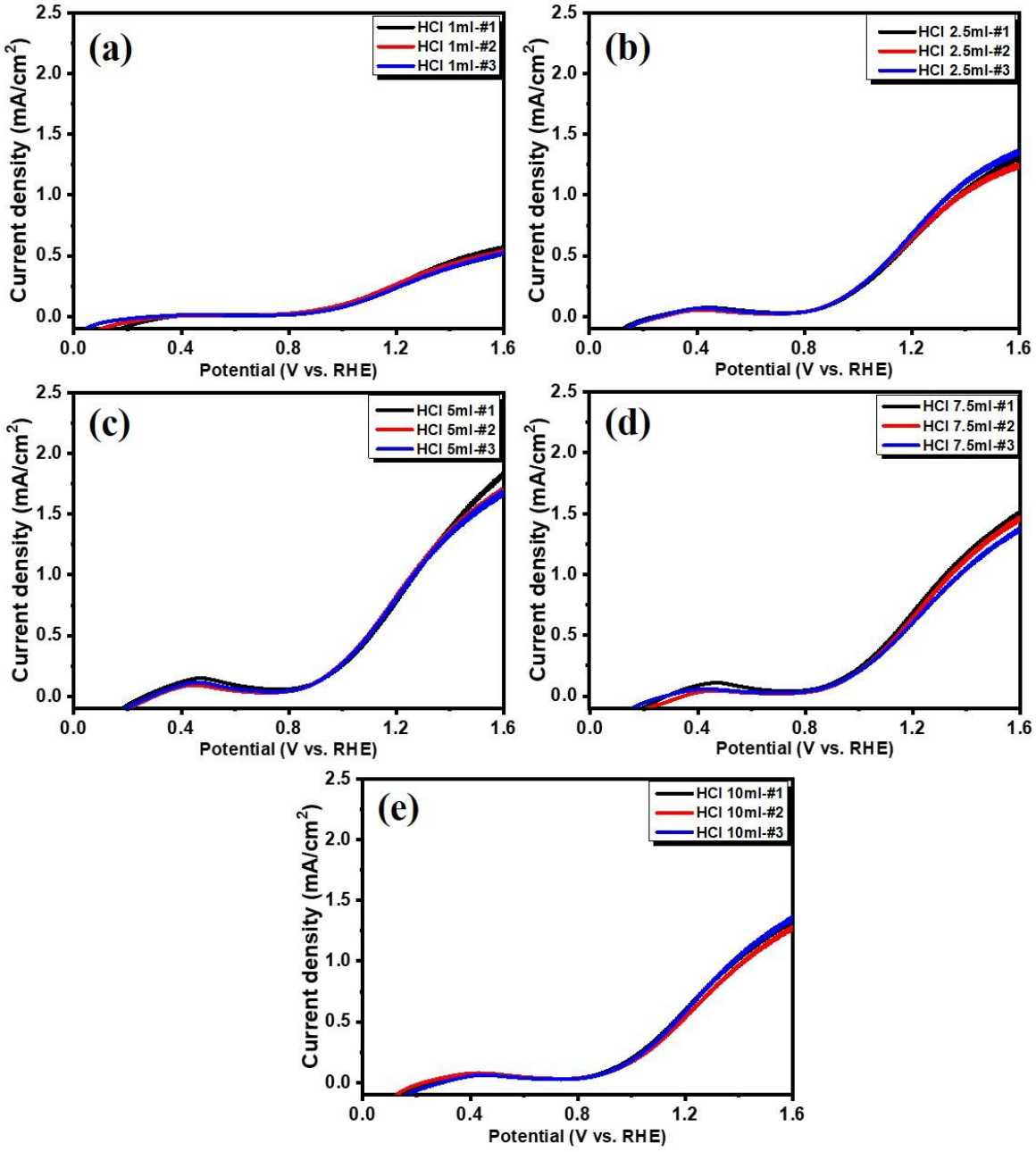

Figure S5. LSV curves obtained from the WO_3 photoanodes under AM 1.5G condition. (a) HCl-1ml, (b) HCl-2.5ml, (c) HCl-5ml, (d) HCl-7.5ml, (e) HCl-10ml samples.

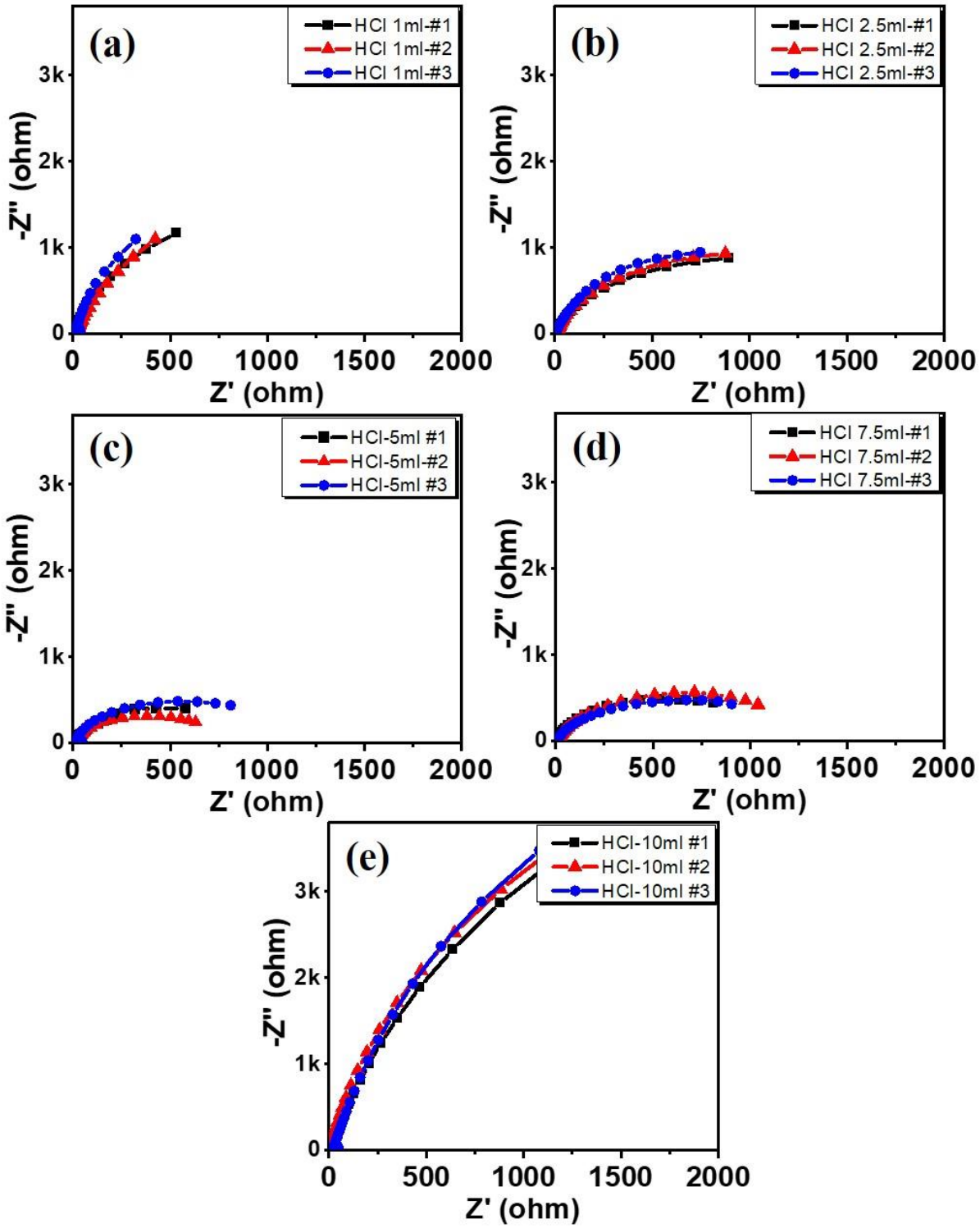

Figure S6. EIS Nyquist plots of all the photoanodes under AM 1.5G condition. (a) HCl-1ml, (b) HCl-2.5ml, (c) HCl-5ml, (d) HCl-7.5ml, (e) HCl-10ml samples.