

## Supporting Information

### Ruthenium Oxide and Iridium Oxide Coated Titanium Electrode for pH Measurement

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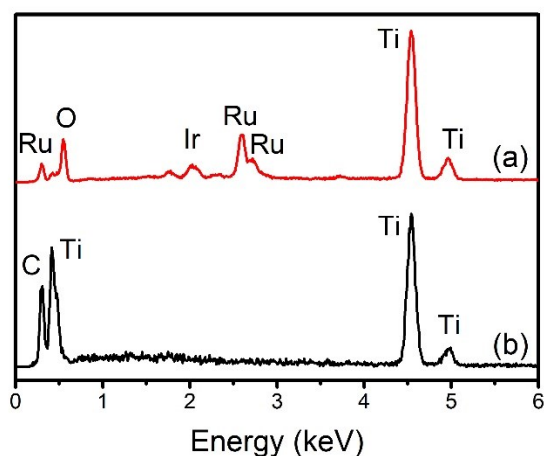


Figure S1. EDX spectra of ROIOT electrode (a) and titanium electrode (b).

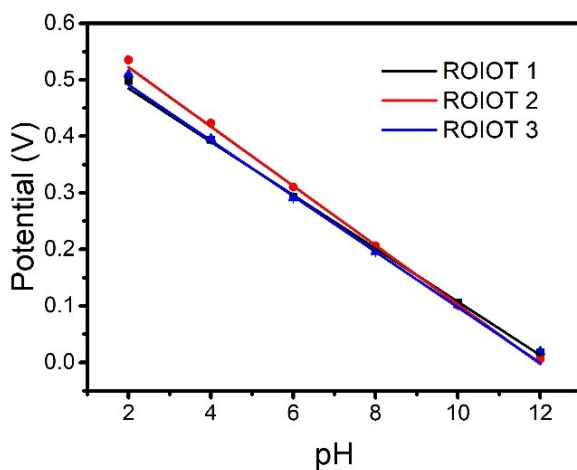


Figure S2. Potential responses of ROIOT electrodes in a gradient of pH buffer solutions.

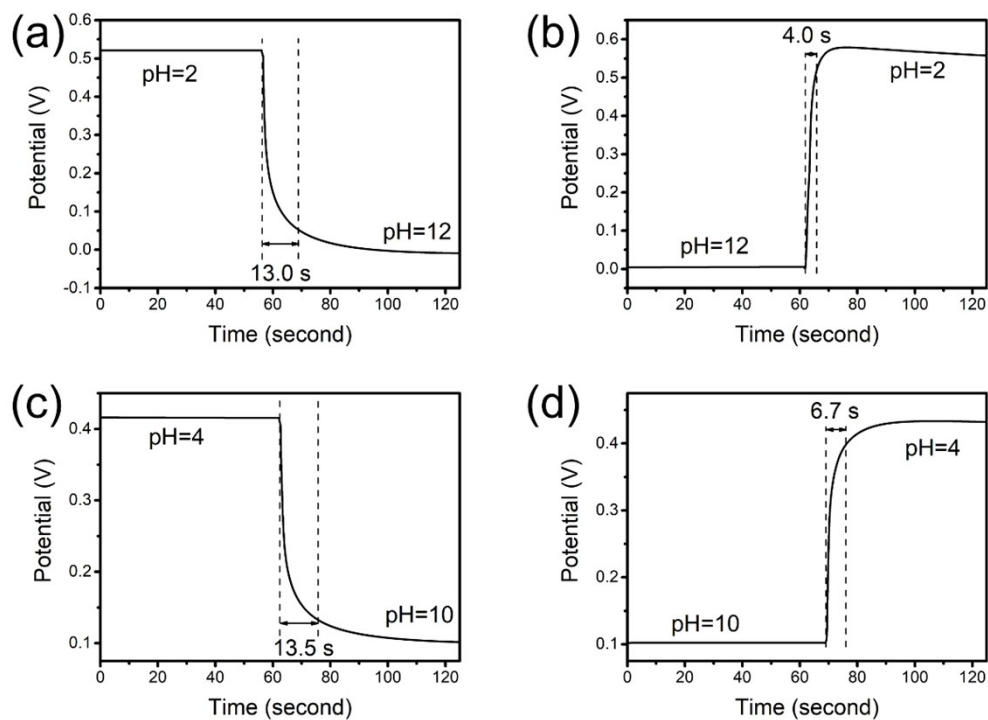


Figure S3. Potential responses of ROIOT electrode upon the change of pH. (a) pH 2-12. (b) pH 12-2. (c) pH 4-10. (d) pH 10-4.

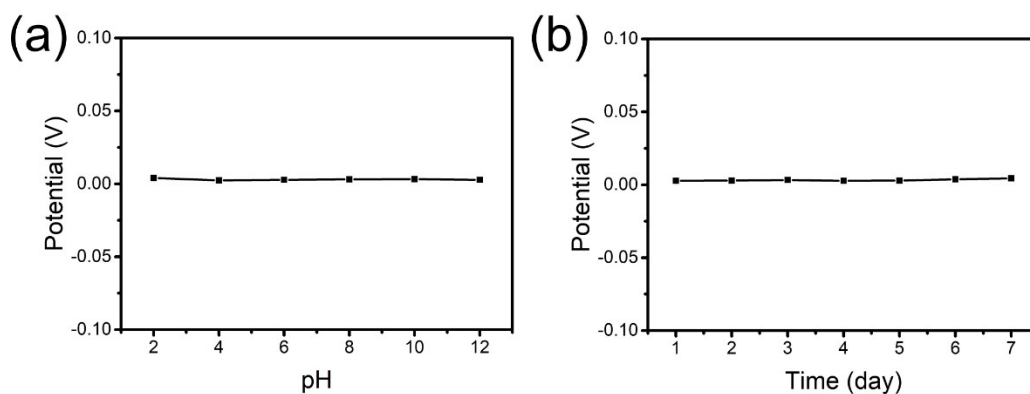


Figure S4. Potential stability of Ag/AgCl reference electrode. (a) potential variation in pH 2-12. (b) potential variation at pH 6 for 7 days.

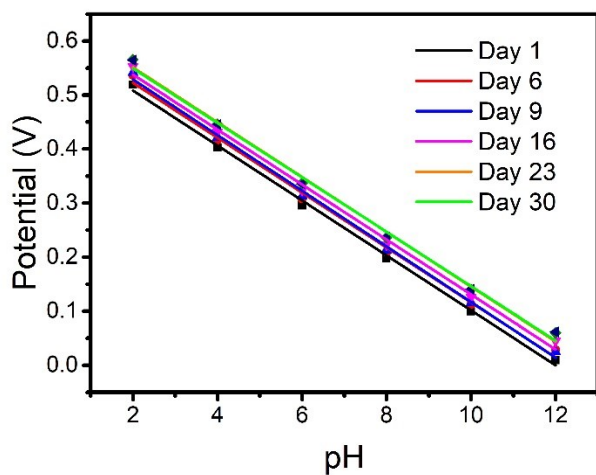


Figure S5. pH calibration curves of ROIOT electrode for 30 days.

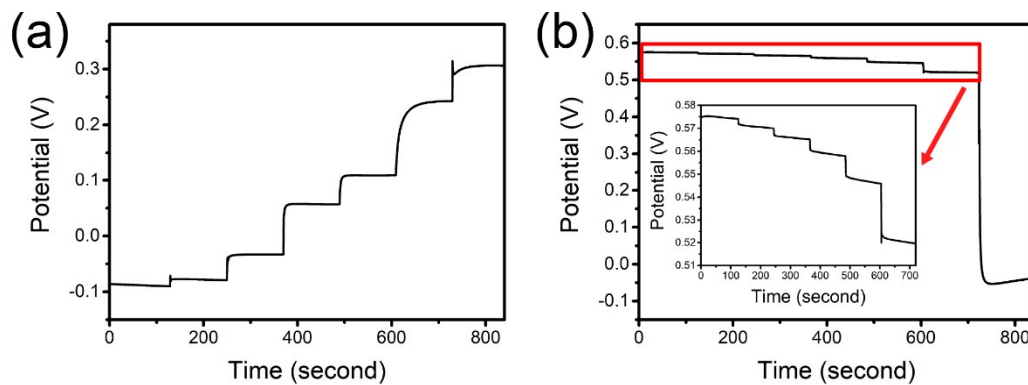


Figure S6. Potential changes during the pH adjusting of wastewater. (a) add HCl solution into degreaser. (pH=13.82, 12.94, 11.17, 10.15, 7.52 and 6.26 for the 6 steps) (b) add NaOH solution into rust remover. Inset shows the enlarged response for the 1-5 steps. (pH=1.06, 1.15, 1.29, 1.52, 1.85 and 13.15 for the 6 steps)