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Supporting Information for

Improved Photoelectrochemical Water Oxidation Kinetics Using TiO_2 Nanorod Arrays Photoanode Decorated with Graphene Oxide in a Neutral pH Solution

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Supplementary Figures

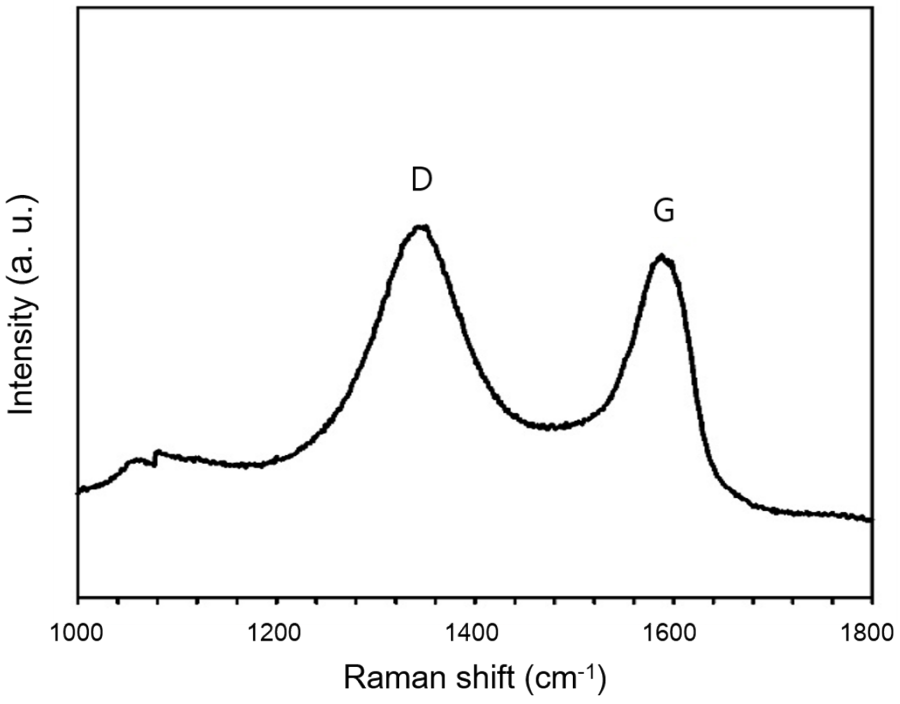


Figure S1. Raman spectrum of the prepared graphene oxide. D and G indicate D band and G band of graphene oxide.

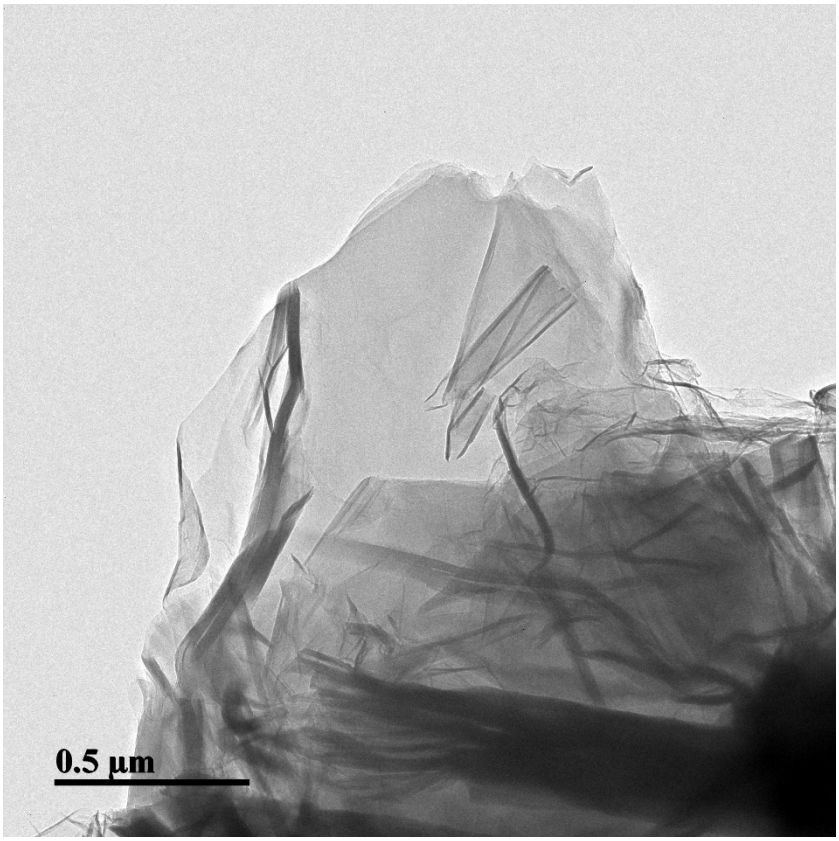


Figure S2. TEM image of the synthesized graphene oxide.

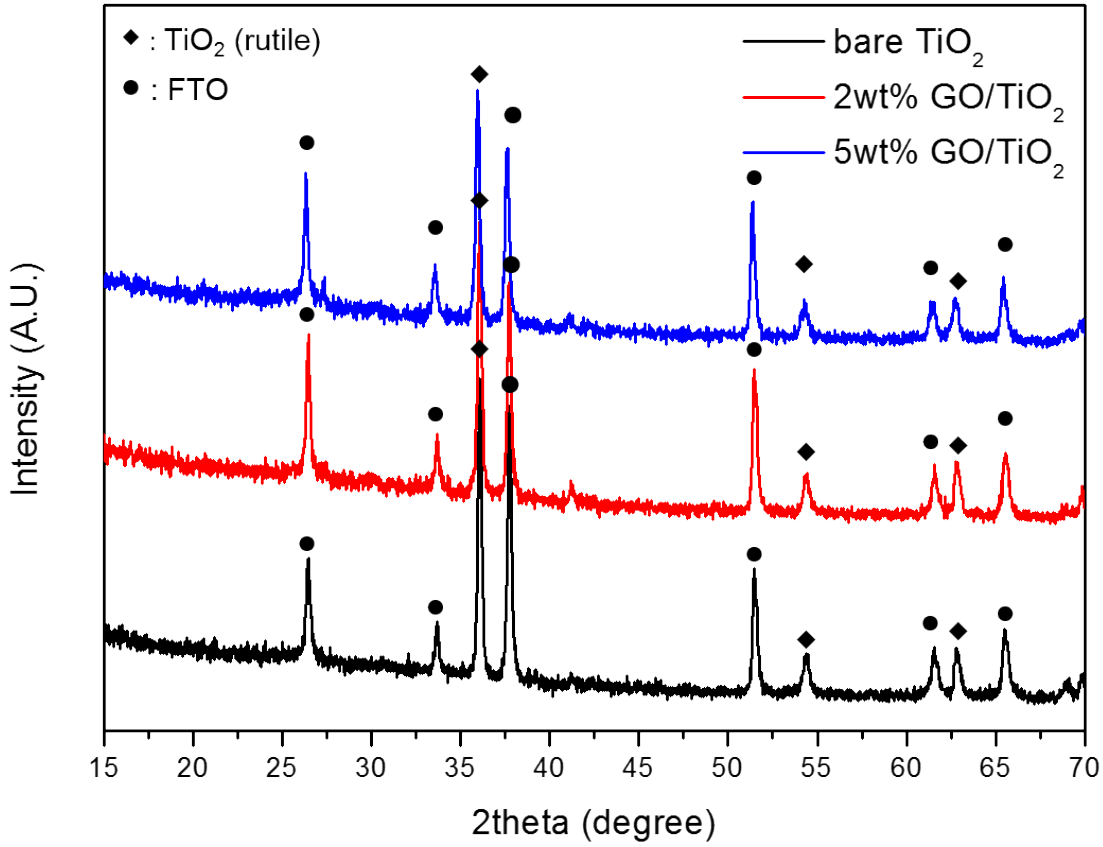
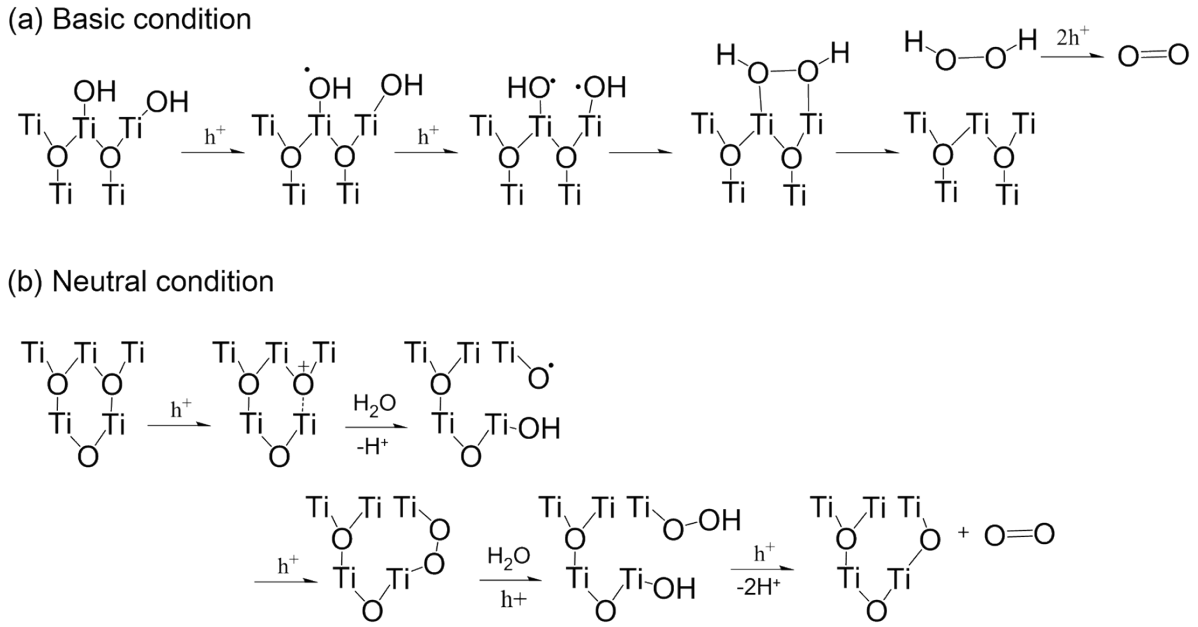


Figure S3. XRD pattern of bare TiO_2, 2 wt% GO coated TiO_2, and 5 wt% GO coated TiO_2 nanorod on FTO glass.



Scheme S1. Proposed water oxidation mechanisms showing the involving chemical species (a) in a basic, and (b) in a neutral pH electrolyte adapted by the previous reports[1, 2].

Reference

1. M. R. Hoffmann, S. T. Martin, W. Y. Choi and D. W. Bahnemann, *Chem. Rev.*, 1995, 95, 69-96.
2. R. Nakamura, T. Okamura, N. Ohashi, A. Imanishi and Y. Nakato, *J. Am. Chem. Soc.*, 2005, 127, 12975-12983.