Small Reduced Graphene Oxides for Highly Efficient Oxygen Reduction Catalysts

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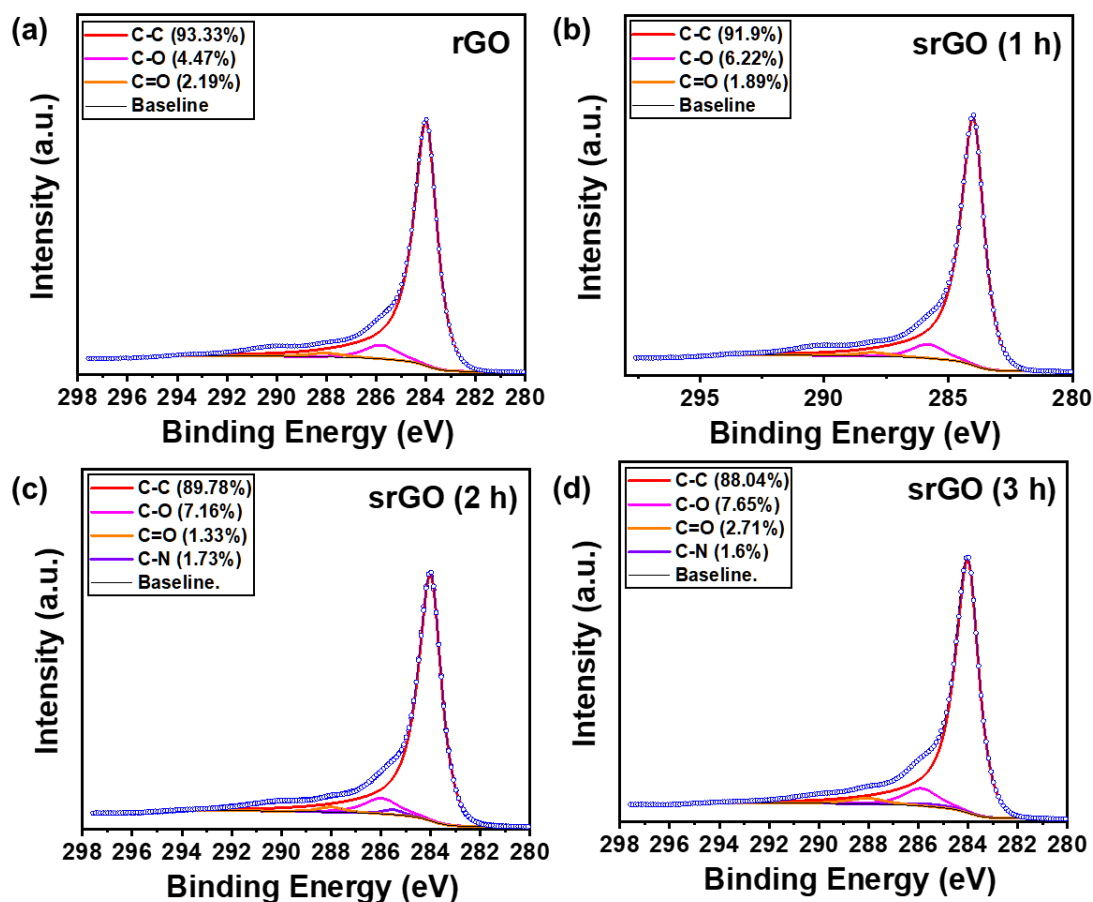
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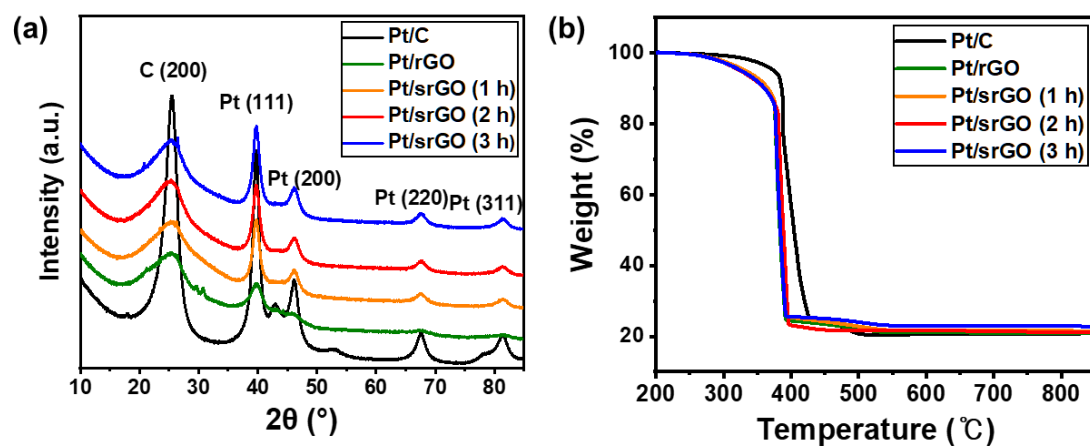
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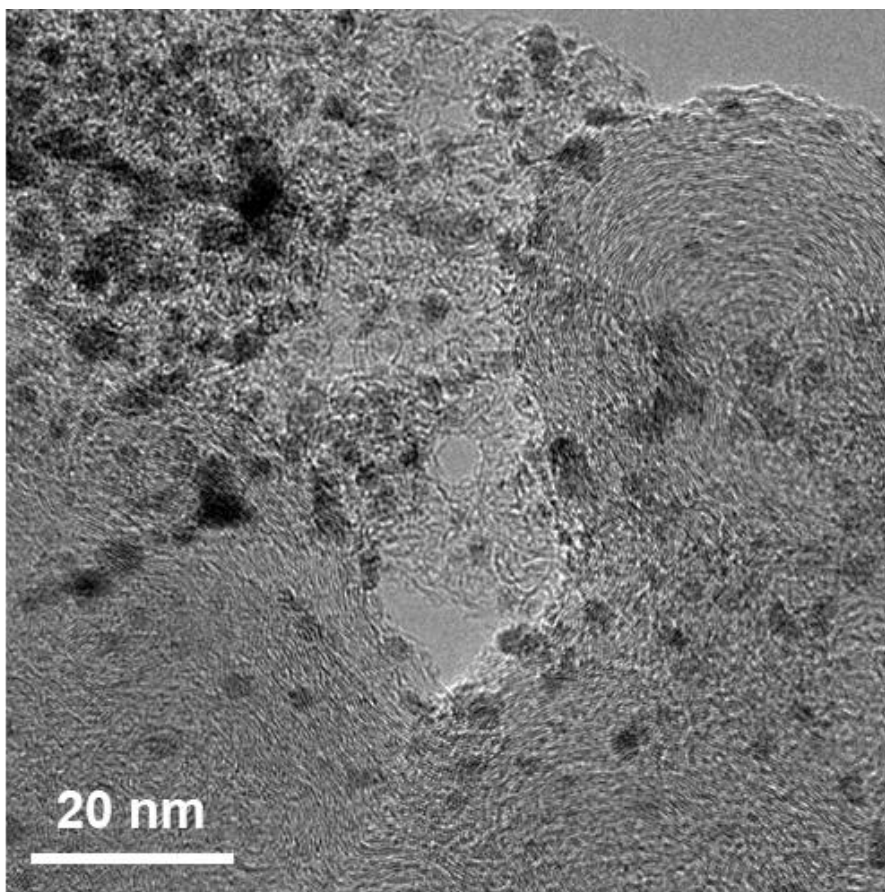Tel: +82-52-980-6709 (D.H.L.); +82-51-3775 (S.-H.K.)

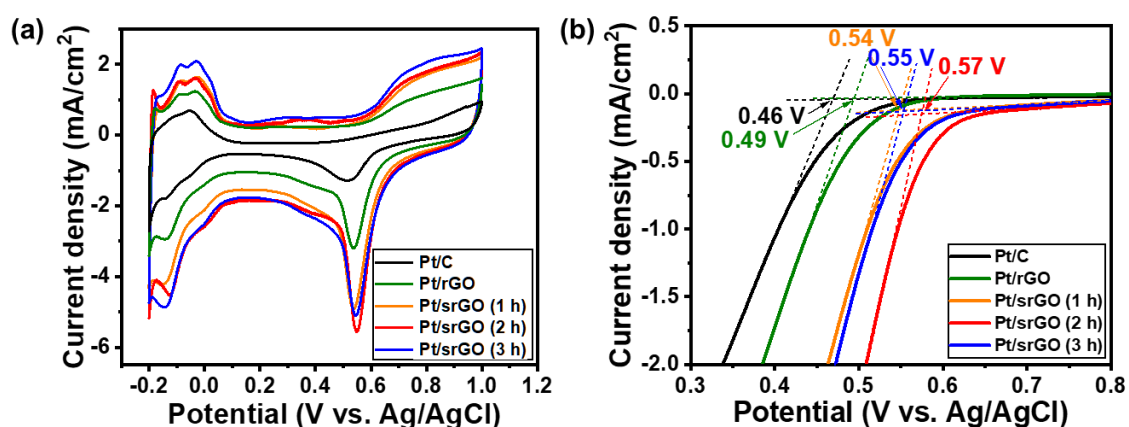† These authors contributed equally to this work.

Figure S1. The C 1s region of the X-ray photoelectron spectroscopy (XPS) spectra of (a) reduced graphene oxide (rGO), (b) small rGO (srGO) (1 h), (c) srGO (2 h), and (d) srGO (3 h).

Figure S2. (a) X-ray diffraction (XRD) patterns and (b) thermogravimetric analysis (TGA) curves of the catalyst samples.

Figure S3. Scanning electron microscopy (SEM) image of Pt/C synthesized using the polyol process.

Figure S4. (a) Cyclic voltammetry (CV) curves of the catalyst samples in O_2-saturated 0.5 M H_2SO_4 collected at a scan rate of 20 mV/s. (b) Onset potentials in the polarization curves of the catalyst samples in O_2-saturated 0.5 M H_2SO_4 collected at a scan rate of 5 mV/s and a glassy carbon electrode rotational speed of 1,600 rpm.