

Supporting Information

Iron-nitrogen-doped mesoporous tungsten carbide nanostructures as an oxygen reduction electrocatalyst

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Fig. S1 J.-S. Moon *et al.*

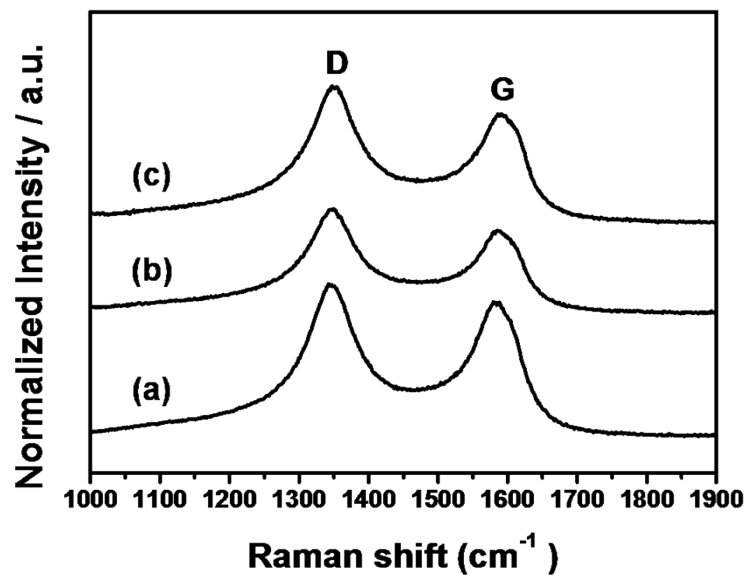


Fig. S1 Raman spectra of (a) WC-m, (b) WC-m-T, and (c) WC-m-FT.

Fig. S2 J.-S. Moon *et al.*

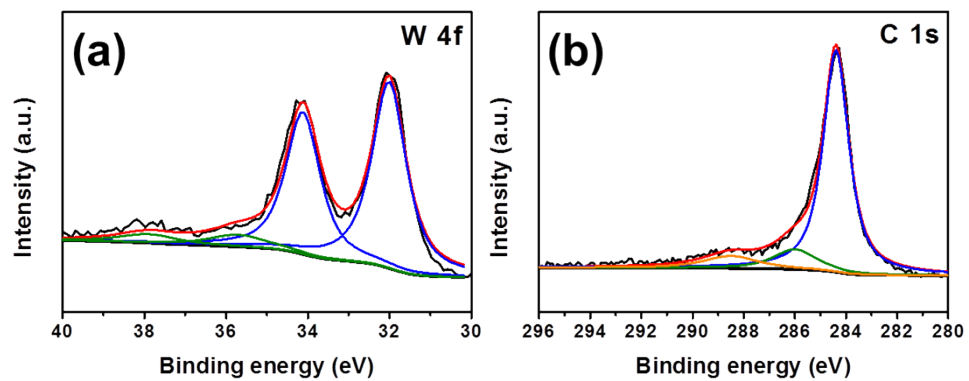


Fig. S2 XPS spectra of WC-m : (a) W4f, and (b) C1s.

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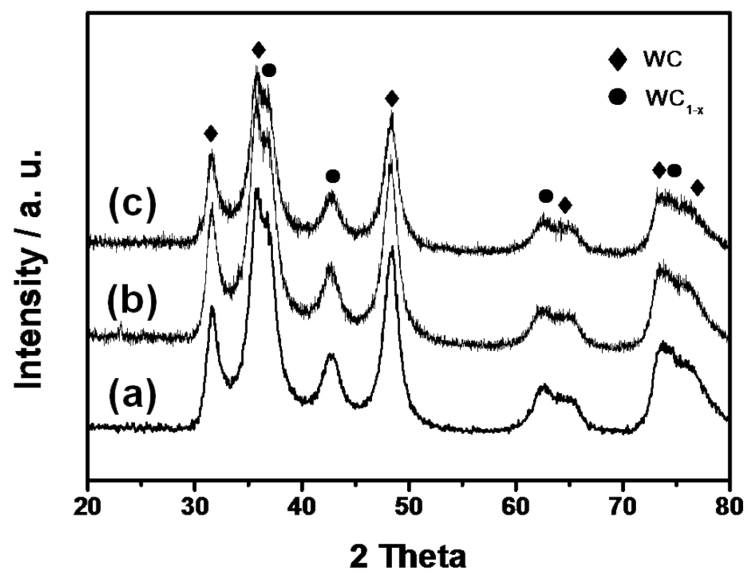


Fig. S3 XRD patterns of (a) WC-m, (b) WC-m-T, and (c) WC-m-FT.

Fig. S4 J.-S. Moon *et al.*

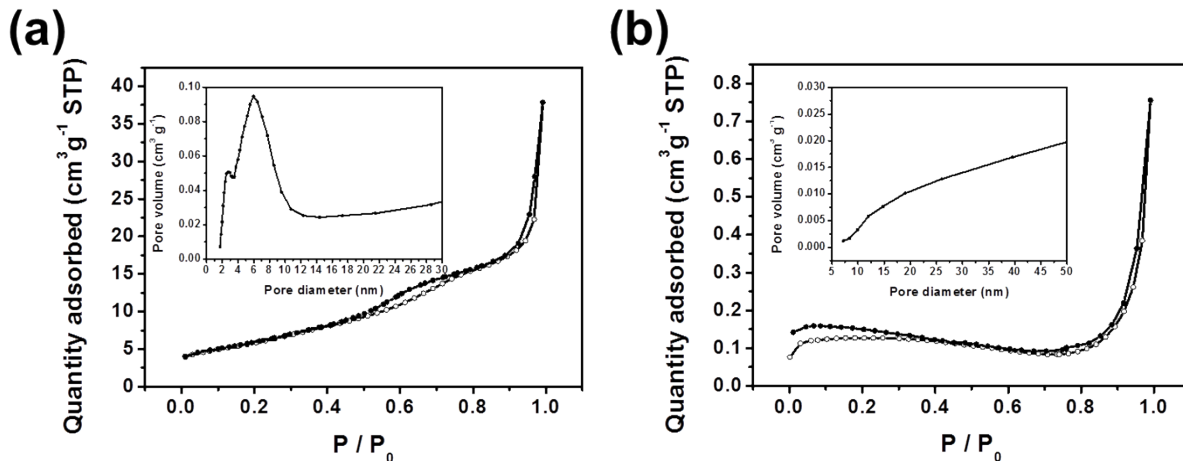


Fig. S4 Characteristic curves of nitrogen gas adsorption–desorption isotherms of (a) WC-m and (b) WC-n. The insets show pore size distributions.

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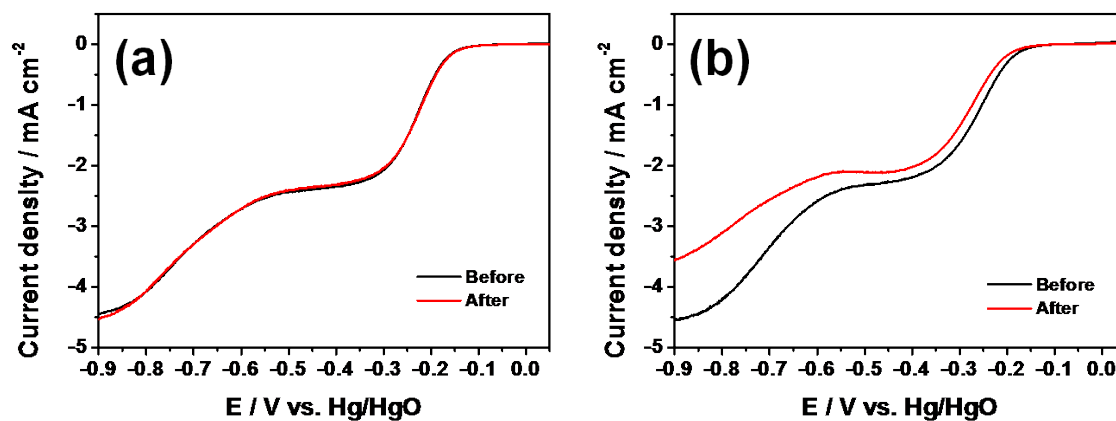


Fig. S5 (a) Polarization curves for (a) WC-m and (b) WC-n before and after stability with a scan rate of 5 mV s⁻¹ and an electrode rotation rate of 1600 rpm in O₂-saturated 0.1 M NaOH at 25 °C.

Fig. S6 J.-S. Moon *et al.*

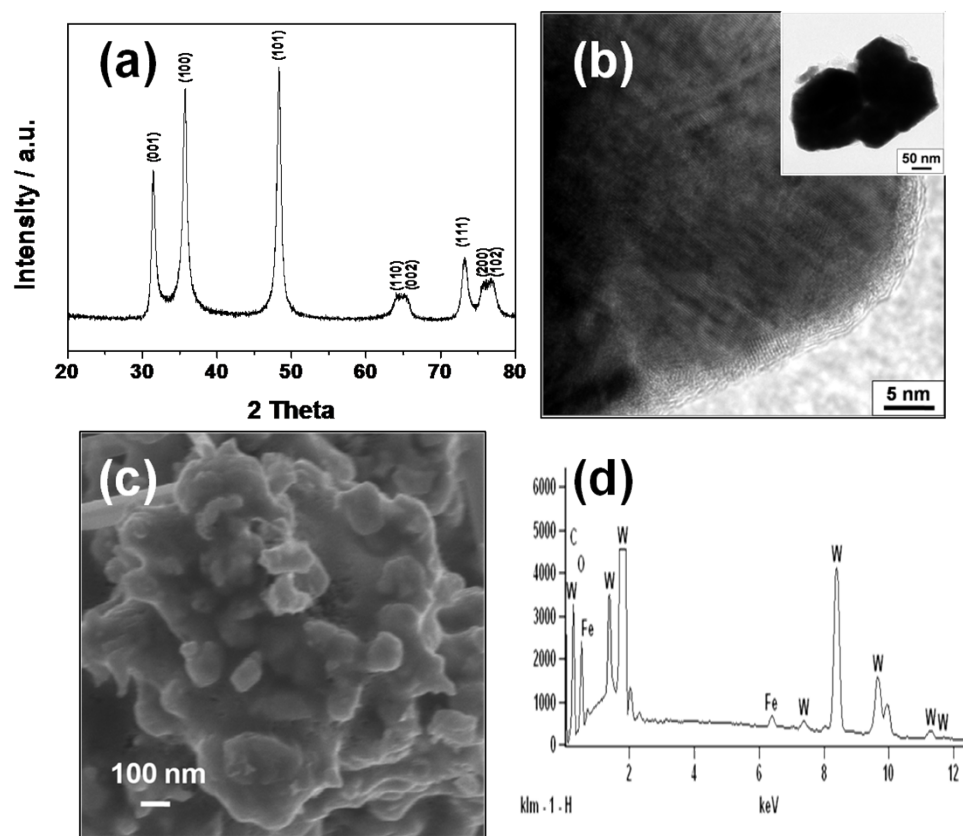


Fig. S6 (a) XRD pattern, (b) FE-TEM images, (c) FE-SEM image and (d) EDX spectrum of WC-n-FT.

Fig. S7 J.-S. Moon *et al.*

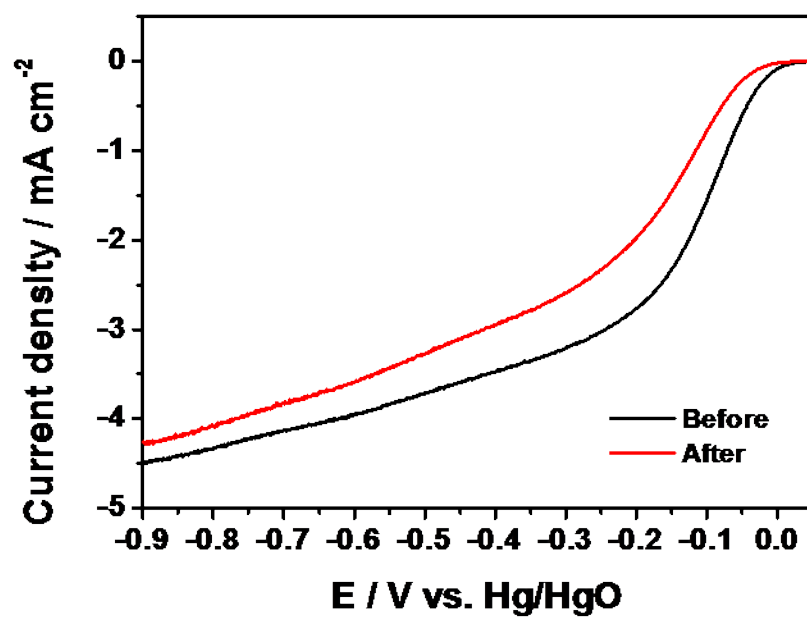


Fig. S7 Polarization curves for WC-n-FT before and after stability with a scan rate of 5 mV s⁻¹ and an electrode rotation rate of 1600 rpm in O₂-saturated 0.1 M NaOH at 25 °C.