Supporting Information

Nitrogen-doped hierarchical porous carbon architecture incorporated with cobalt nanoparticles and carbon nanotubes as efficient electrocatalyst for oxygen reduction reaction

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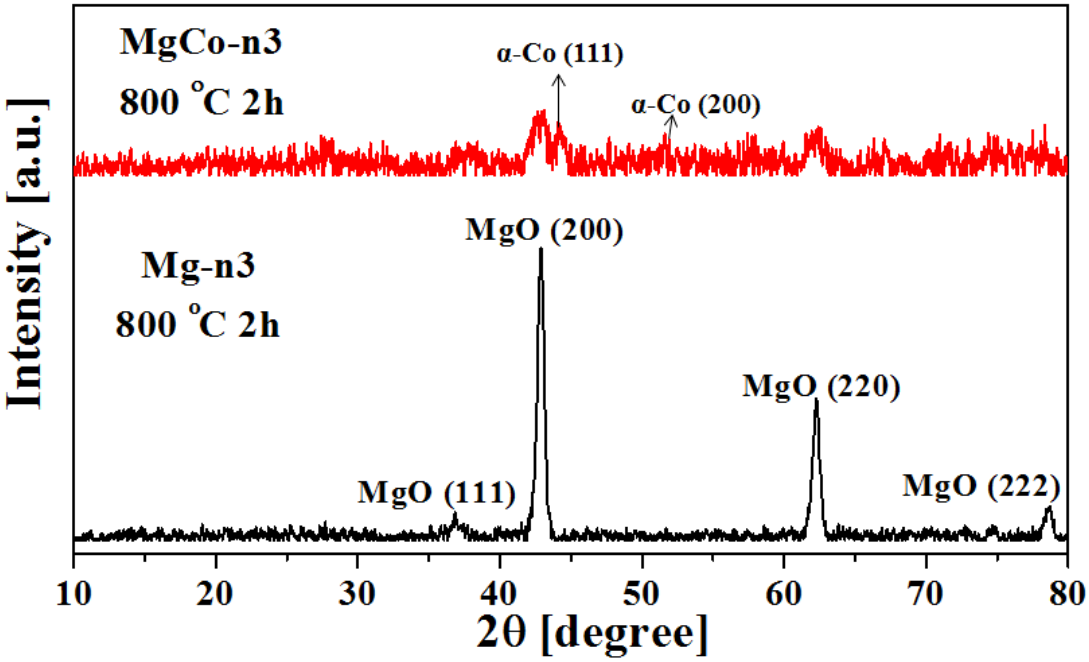

Figure S1. XRD patterns for the samples after heat treatment at 800 °C for 2 h.

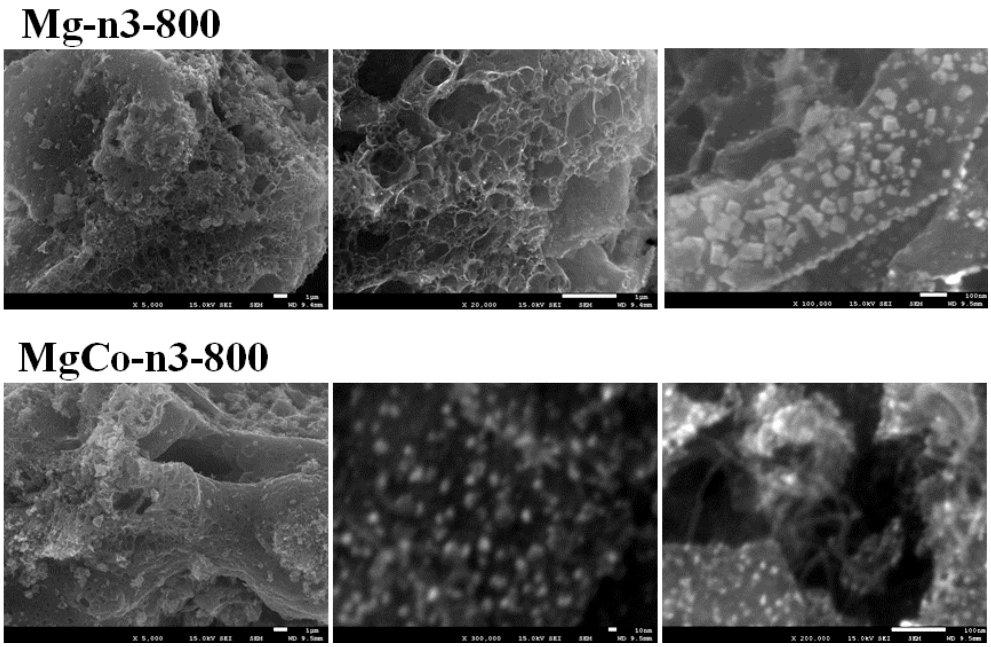

Figure S2. SEM images of the samples after heat treatment at 800 °C for 2h.

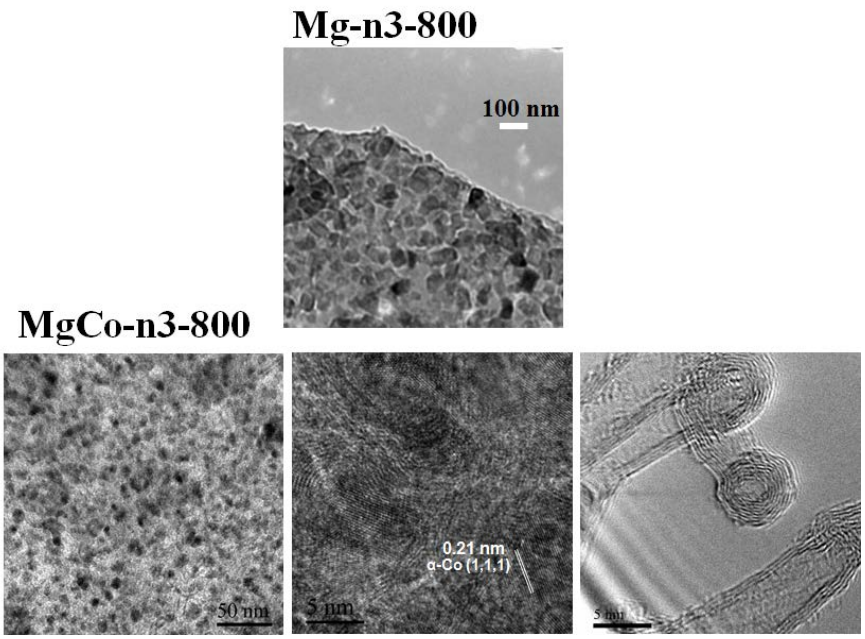

Figure S3. TEM images of the samples after heat treatment at 800 ^{o}C for 2h.

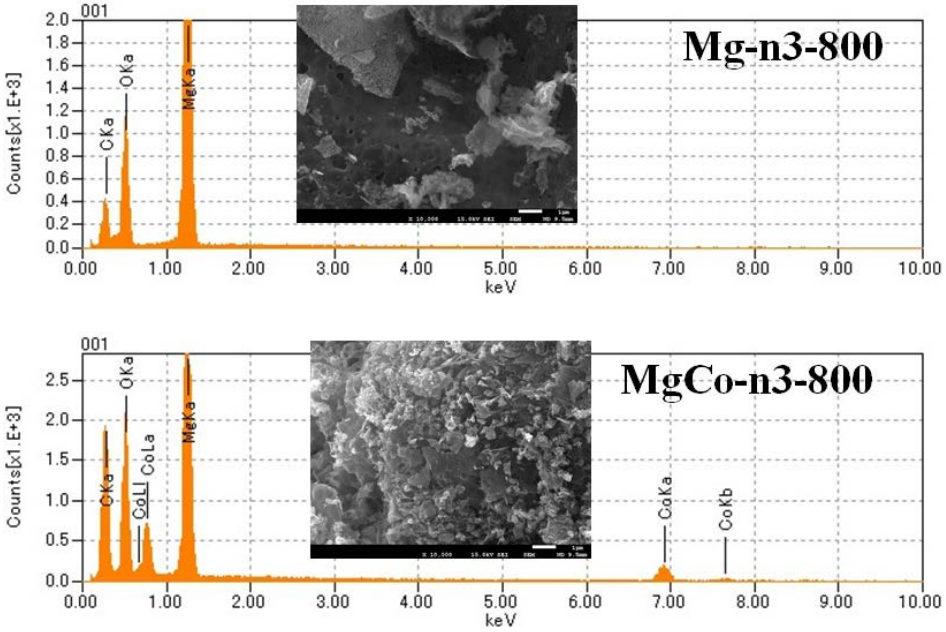

Figure S4. SEM-EDS spectra of the samples after heat treatment at 800 ^{o}C for 2h.

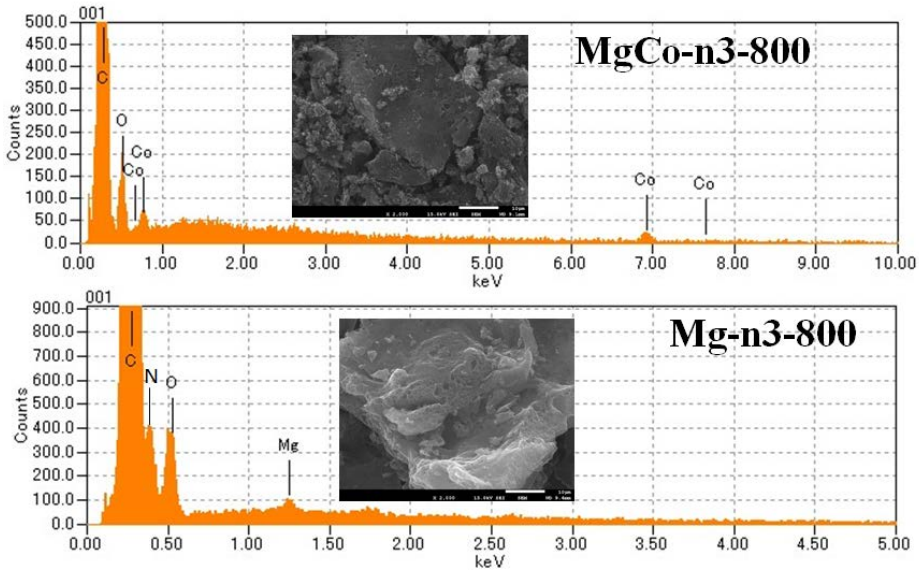

Figure S5. EDS spectra of the carbon samples under SEM observation.

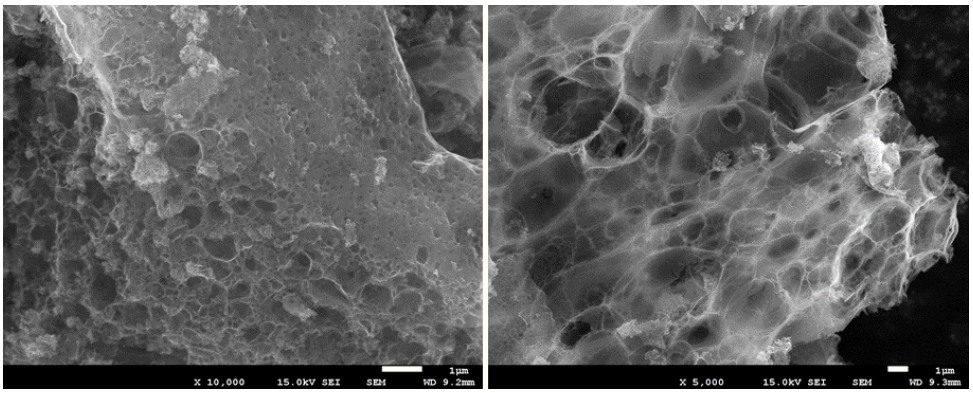

Figure S6. SEM images of the obtained carbon sample (MgCo-n3-800).

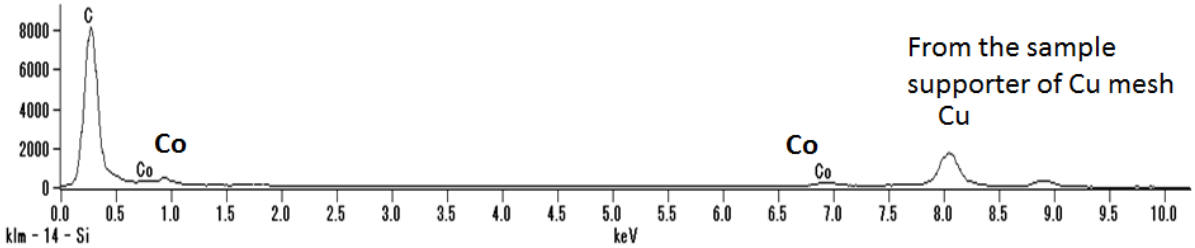

Figure S7. EDS spectra of MgCo-n3-800 under TEM observation.

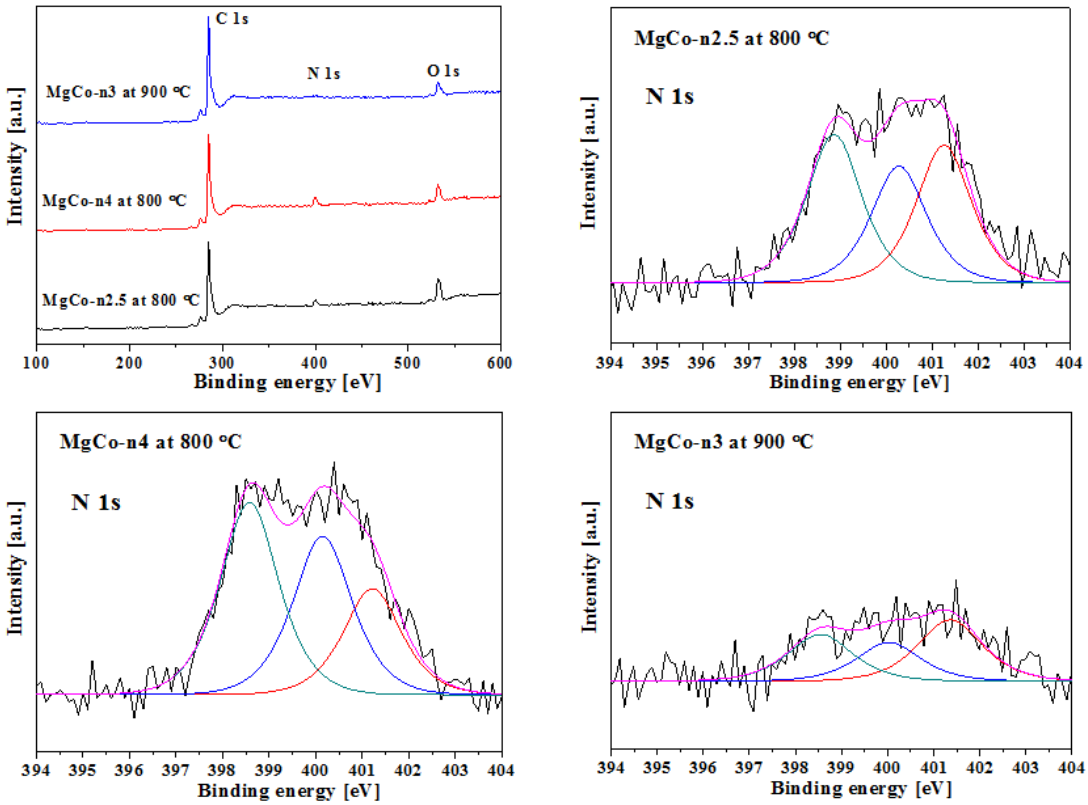

Figure S8. XPS spectra of the carbon samples.

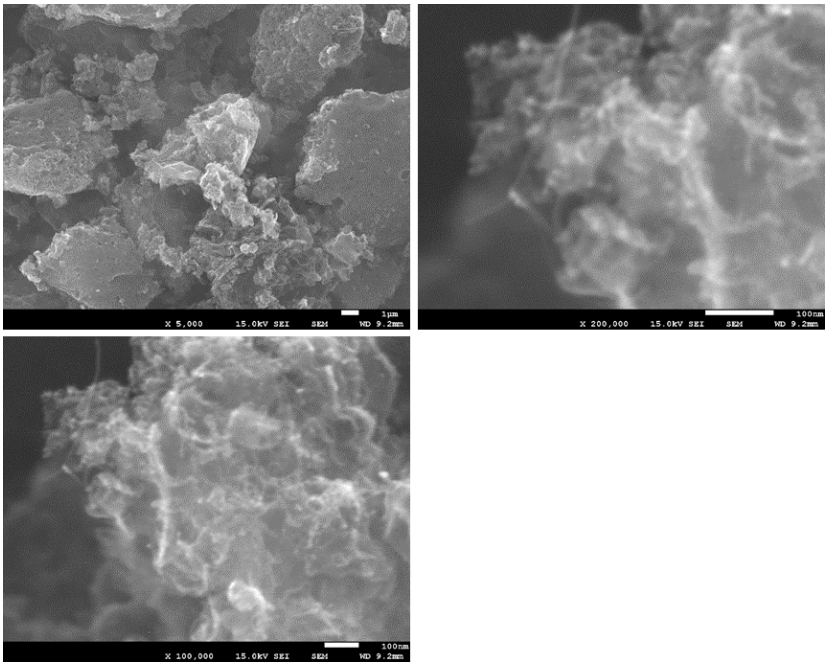

Figure S9. SEM images for sample MgCo-n2.5-800.

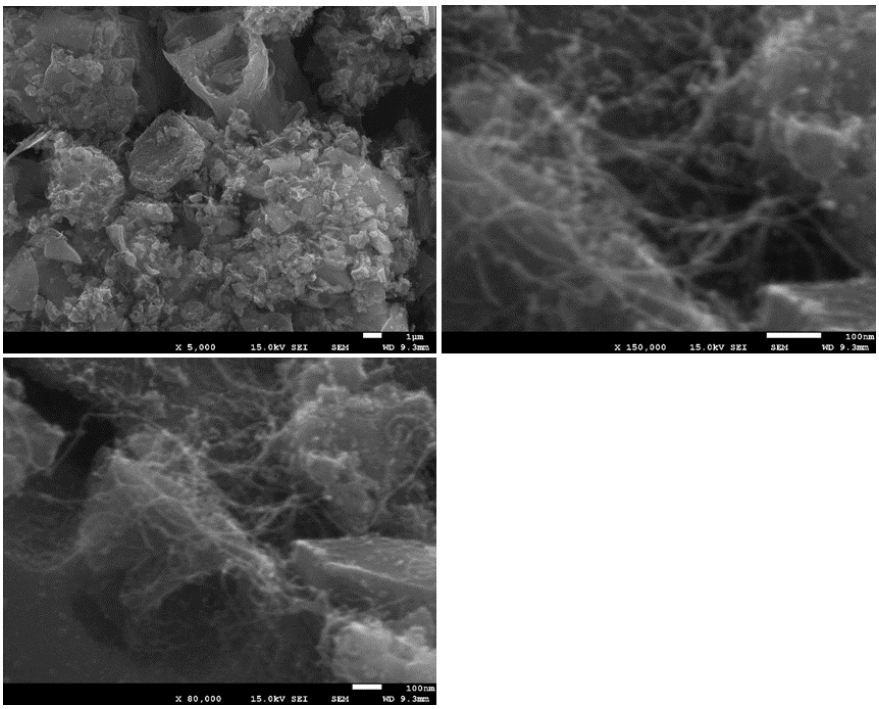

Figure S10. SEM images for sample MgCo-n4-800.

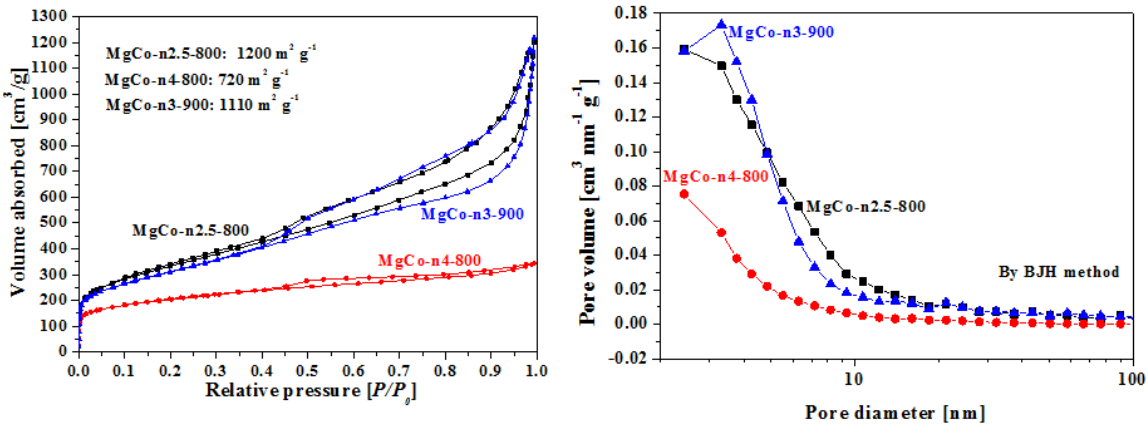

Figure S11. BET N_2 sorption isotherm and pore size distribution.