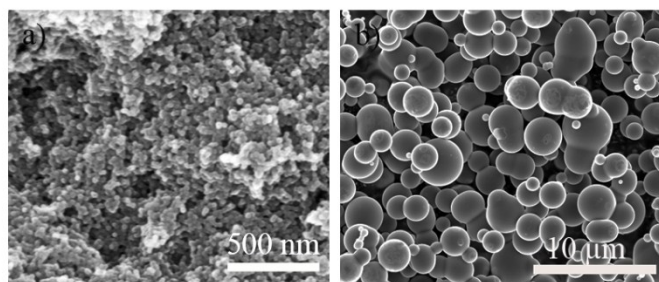


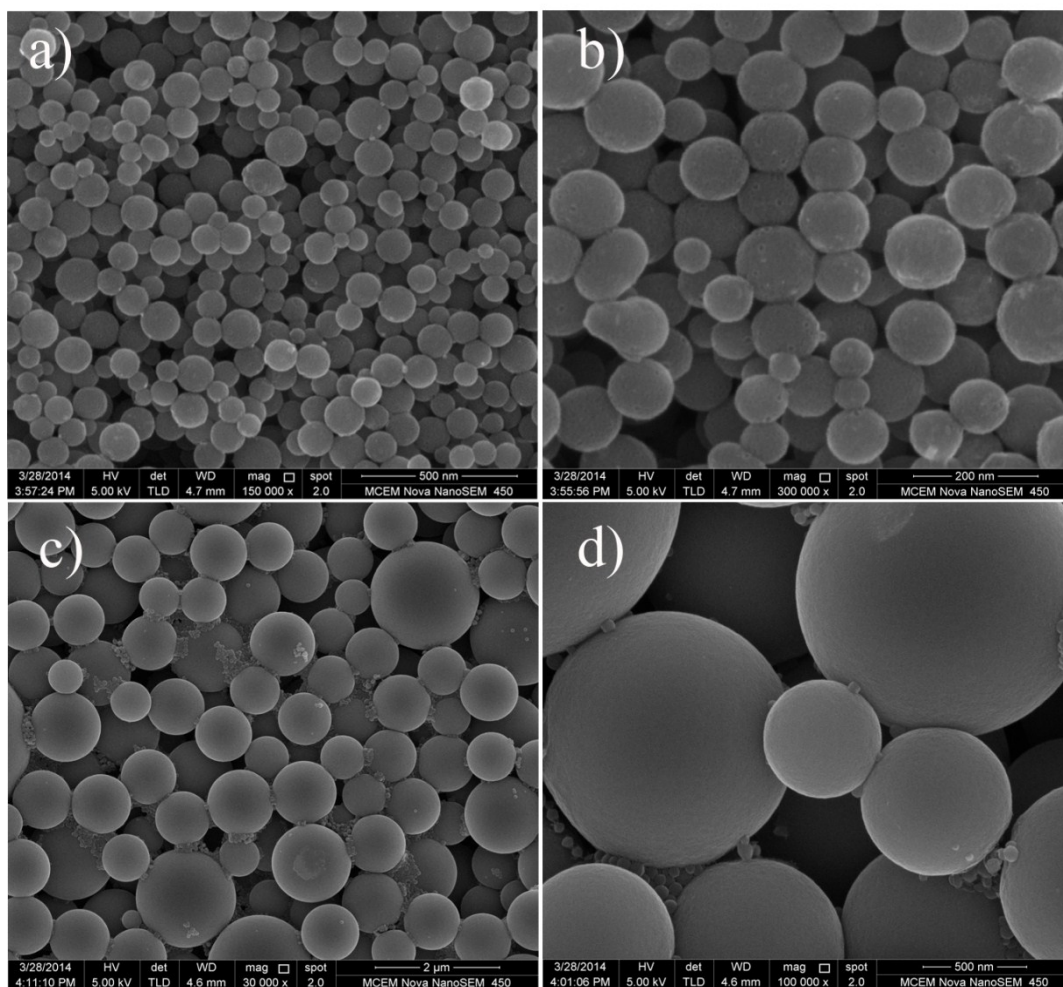
### Supporting information

#### Controllable Synthesis of Mesoporous Carbon Nanospheres and Fe-N/Carbon Nanospheres as Efficient Oxygen Reduction Electrocatalysts

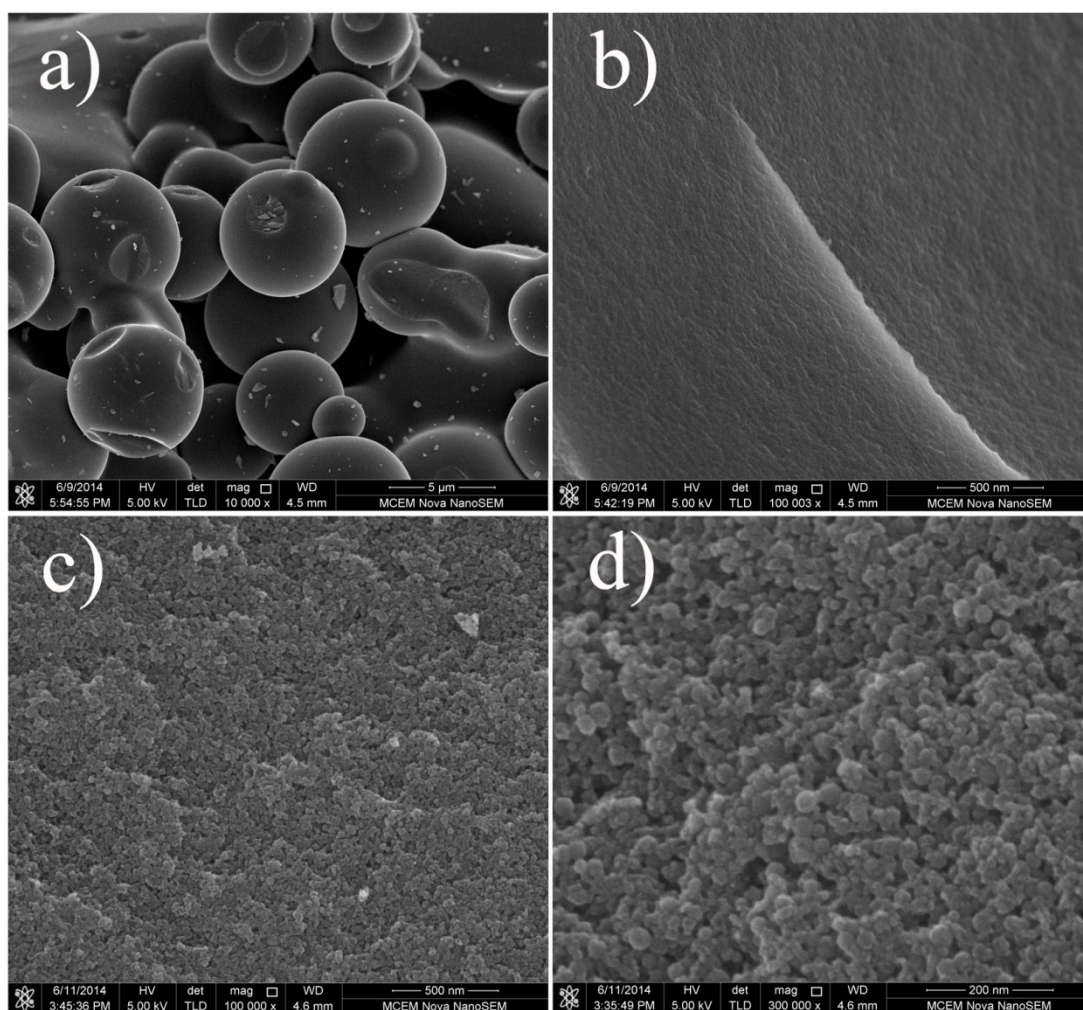
*Jing Wei, Yan Liang, Xinyi Zhang, George P. Simon, Dongyuan Zhao, Jin Zhang, San Ping Jiang, Huanting Wang\**



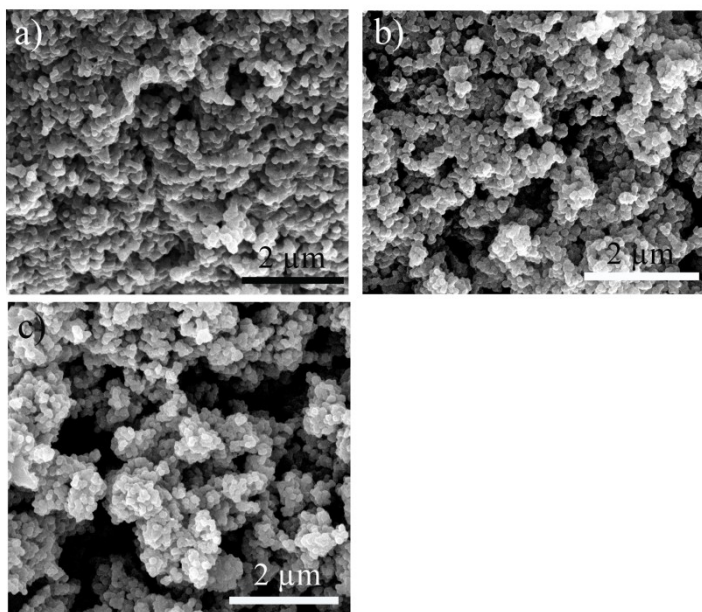
**Figure S1** SEM images of carbon spheres synthesized with different mass ratios of F127 to resol: a) 1.5; b) 0.75.



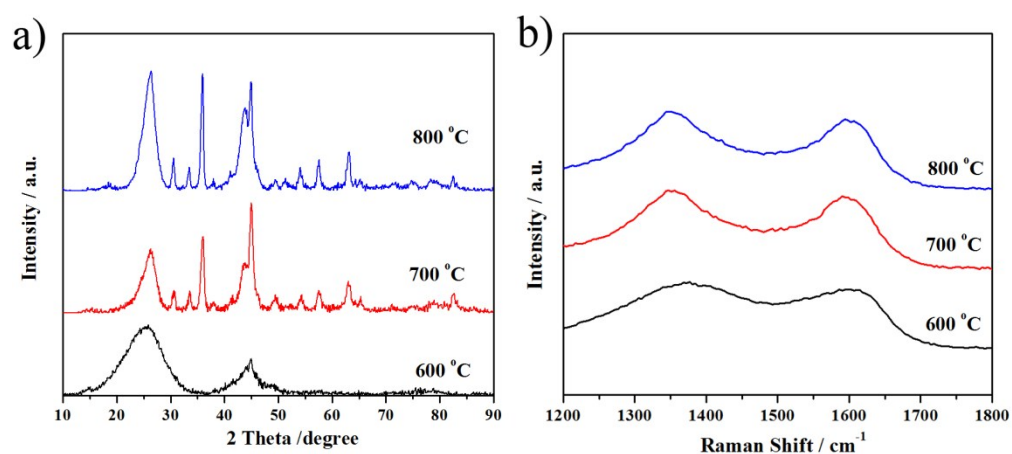
**Figure S2** SEM images of mesoporous carbon spheres prepared with high concentrations: a, b) 0.6 g of F127 in 50 mL of 2 M HCl ( $9.5 \times 10^{-4}$  mol/L); c, d) 1.0 g of F127 in 50 mL of 2 M HCl ( $1.6 \times 10^{-3}$  mol/L). The mass ratio of F127 to resol was fixed at 0.9.



**Figure S3** SEM images of mesoporous carbon spheres prepared using different concentrations of HCl as a solvent: a, b) 0.1 M; c, d) 5 M.



**Figure S4** SEM images of Fe-N/MCNs calcined at different temperatures: a) 600, b) 700, c) 800 °C. All the samples show spherical morphology as that of mesoporous carbon spheres.



**Figure S5** a) XRD patterns b) Raman spectra of Fe-N/MCNs calcined at 600, 700 and 800 °C. The increasing of relative peak intensity and narrowing of the half-peak width at about 26 °C reveal the degree of graphitization increases as the temperature increases from 600 to 800 °C.