

Protein-Carbonized Engineering to Construct Three-Dimensional Sponge-like Carbons for Oxygen Reduction Electrocatalysis

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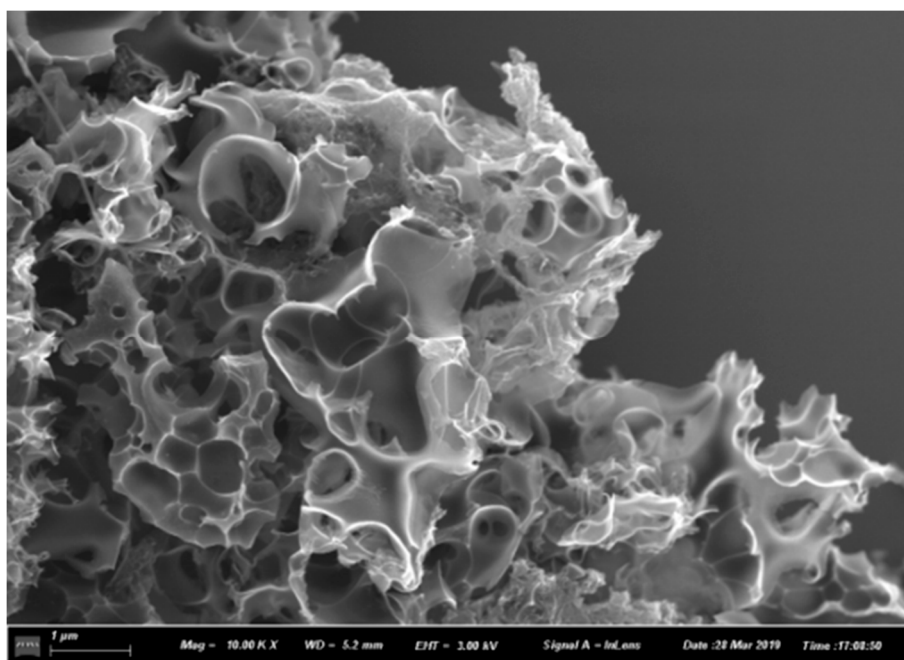


Figure S1. TEM images of Fe-PC@NaCl-900.

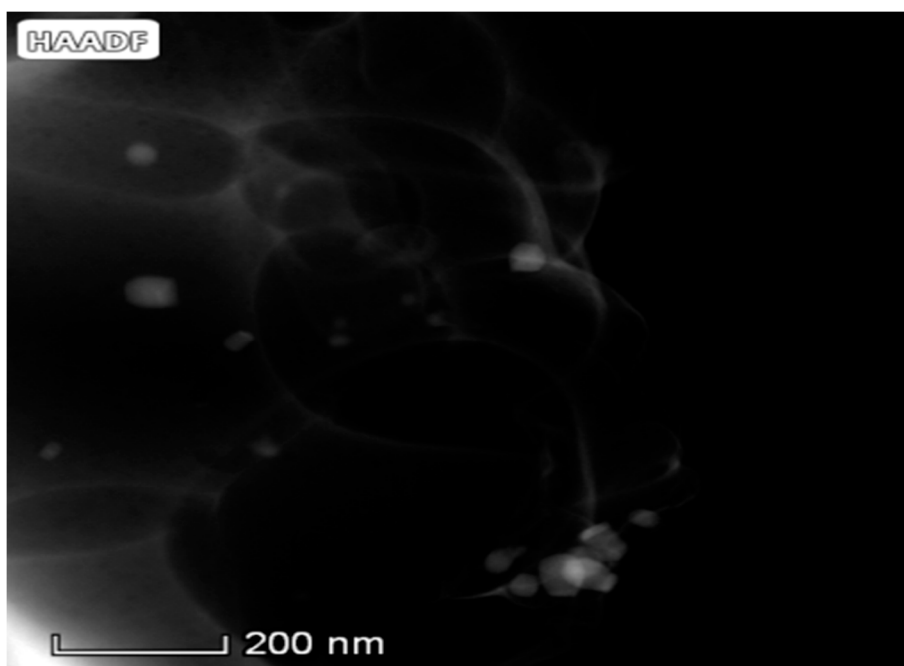


Figure S2. The elemental mapping of the Fe-PC@NaCl catalyst.

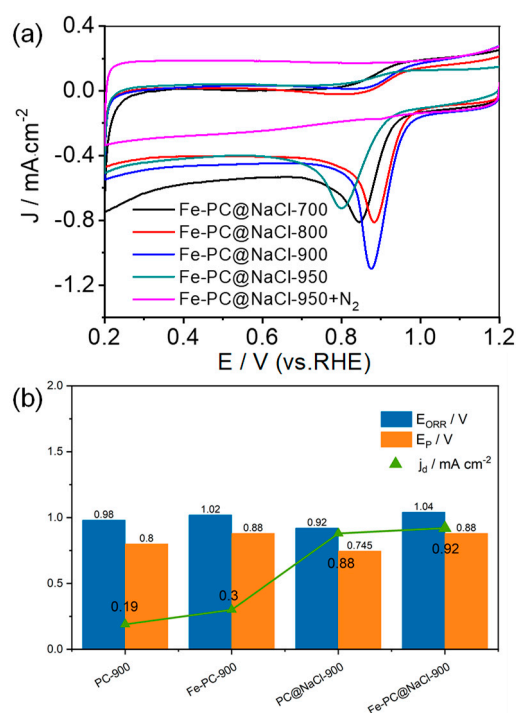


Figure S3. (a) CV curves of Fe-PC@NaCl-700, 800, 900, 950 in O₂ and Fe-PC@NaCl-950 in N₂-saturated 0.1 M KOH solution, respectively. (b) The E_p , E_{ORR} and J_d of the PC-900, Fe-PC-900, PC@NaCl-900 and Fe-PC@NaCl-900.

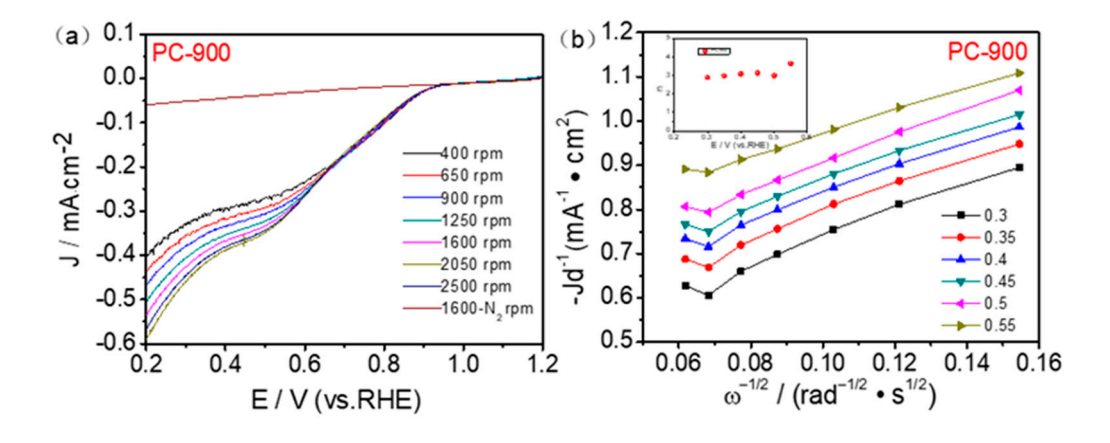


Figure S4. (a) LSV curves of PC-900 at various rotation rates. (b) K-L plots at various potentials.

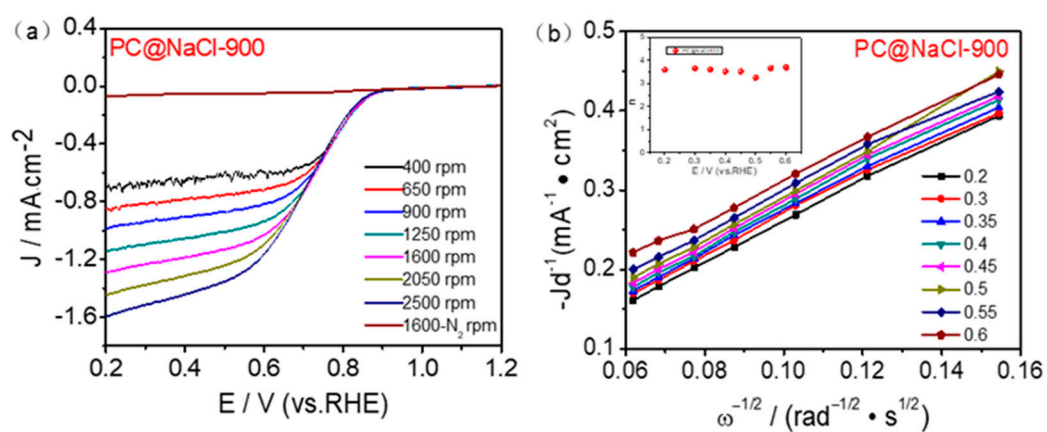


Figure S5. (a) LSV curves of PC@NaCl-900 at various rotation rates. (b) K-L plots at various potentials.

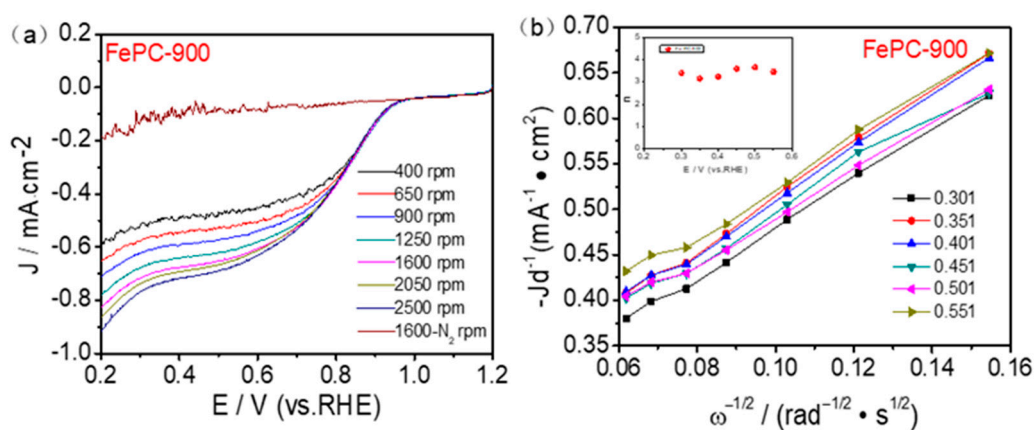


Figure S6. (a) LSV curves of FePC-900 at various rotation rates. (b) K–L plots at various potentials.

Table S1. N 1s XPS results from Figure 4e.

Sample	Total N content (%)	Pyridinic N (%)	Nitrile N (%)	Graphitic N (%)	Oxidized N (%)
Pc-900	2.02	23.7%	17.8%	43.2%	15.3
PC@NaCl-900	2.06	14.6%	--	86.4%	--
FePc-900	1.67	20.03%	--	79.97%	--
Fe-PC@NaCl-900	1.66	14.8%	--	85.2%	--