

Supporting Information

Biomass Lysine-Derived Nitrogen-doped Carbon Hollow Cubes via NaCl Crystal Template: an Efficient Bifunctional Electrocatalyst for Oxygen Reduction and Evolution Reactions

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This supporting information contains:

Fig. S1. SEM images of $C_6H_{15}O_2N_2Cl@NaCl$ (a) and $NC@NaCl$ (b).

Fig. S2. SEM (a) and HRTEM (b) images of NC.

Table S1. The comparison between the prepared material in this work and other N-doped carbon materials reported.

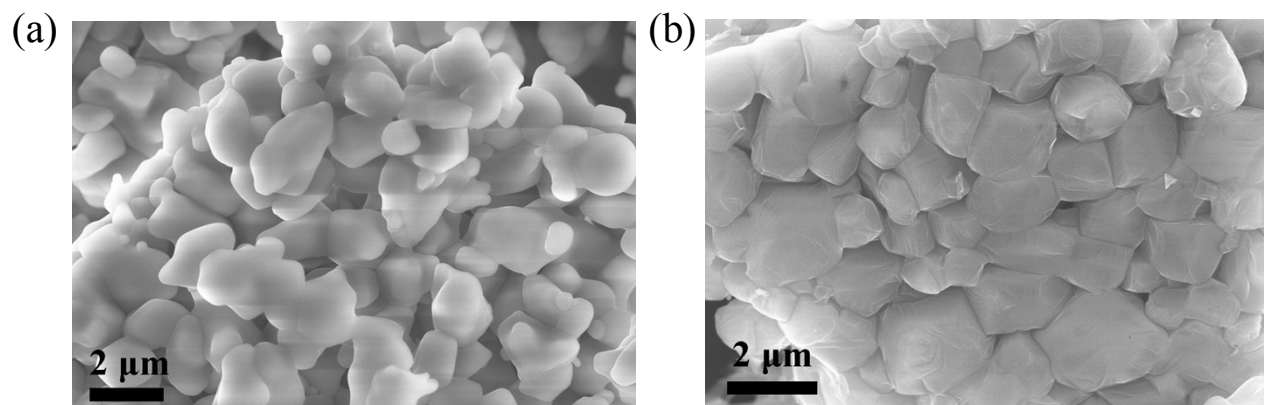


Fig. S1. SEM images of $\text{C}_6\text{H}_{15}\text{O}_2\text{N}_2\text{Cl}@ \text{NaCl}$ (a) and $\text{NC}@ \text{NaCl}$ (b).

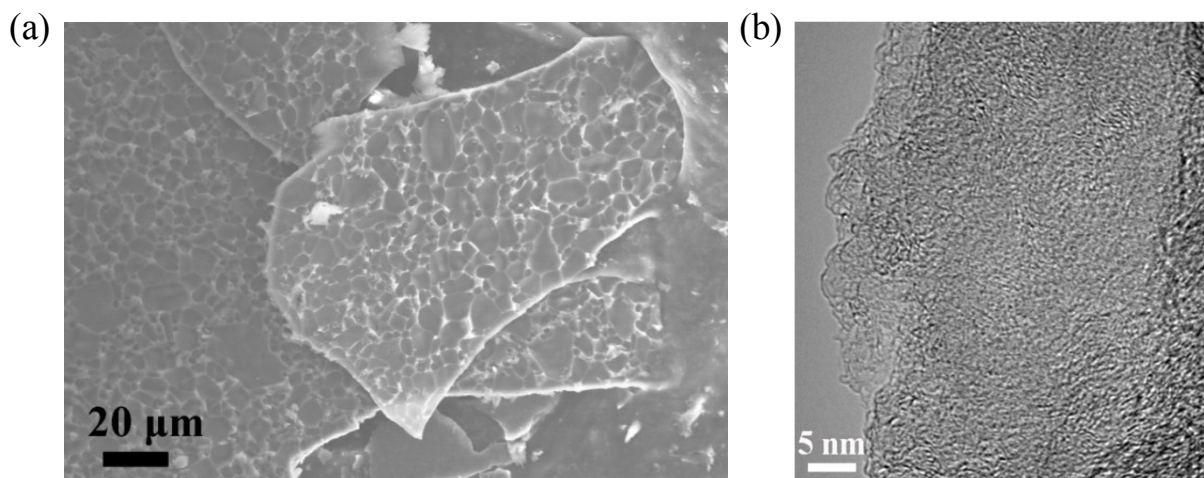


Fig. S2. SEM (a) and HRTEM (b) images of NC.

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Catalyst	Mass loading (mg cm ⁻²)	Electrolyte	S _{BET} (m ² g ⁻¹)	E _{1/2, ORR} (V)	Diffusion limited current density (mA cm ⁻²)	E _{ORR} @10 mA cm ⁻² (V)	Reference
NCHCs	0.4	0.1 M KOH	347	0.80	6.19	1.71 (IR- corrected)	This work
N- CNTFs	0.2	0.1 M KOH	513	0.87	5.2	1.60 (IR- corrected)	[S1]
N-G/CNT	0.43	0.1 M KOH	364	0.70	5.0	1.65 (IR- corrected)	[S2]
N-CNC	0.1	0.1 M KOH	884	0.70	-	-	[S3]
N-CNTA	0.08	0.1 M KOH	869	0.69	4.8	-	[S4]
N-NPC/G	0.2	0.1 M KOH	1170	0.82	4.8	-	[S5]
N,P- carbon foam	0.15	0.1 M KOH	1548	0.85	4.0-5.0	1.80	[S6]

References:

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