Supporting Information for

Composite of hierarchically porous N-doped carbon/carbon nanotube with greatly improved catalytic performance for oxygen reduction reaction

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Containing: 8 pages, 4 Figures and 1 Table.

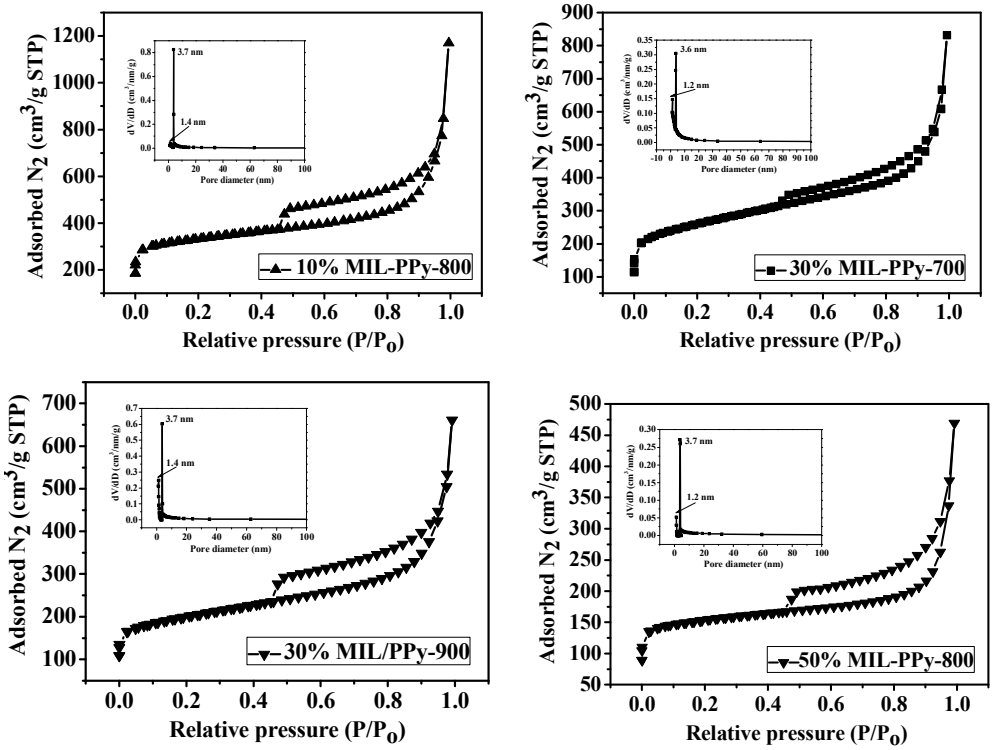
Fig. S1 N_2 adsorption-desorption isotherms and corresponding pore size distribution plots (inset) of 10%MIL/PPy-800, 30%MIL/PPy-700, 30%MIL/PPy-900 and 50%MIL/PPy-800.

Fig. S2 XPS survey spectrum of 30%MIL/PPy-700 (a), 30%MIL/PPy-800 (b) and 30%MIL/PPy-900 (c).

Fig. S3 High-resolution spectra of C1s (a) and N1s (b) for 30%MIL/PPy-700.

Fig. S4 High-resolution spectra of C1s (a) and N1s (b) for 30%MIL/PPy-900.

Table S1 Comparison the catalytic performances of 30% MIL/PPy-800 with other analogous catalysts reported in 0.1M KOH.



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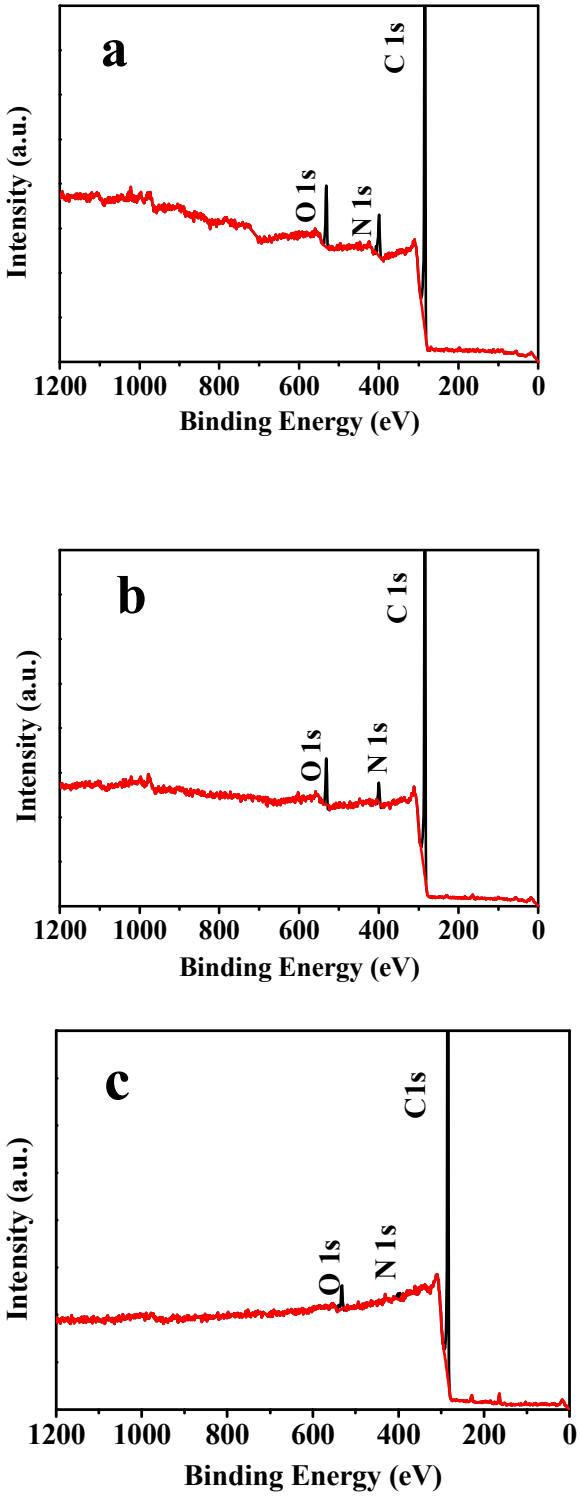

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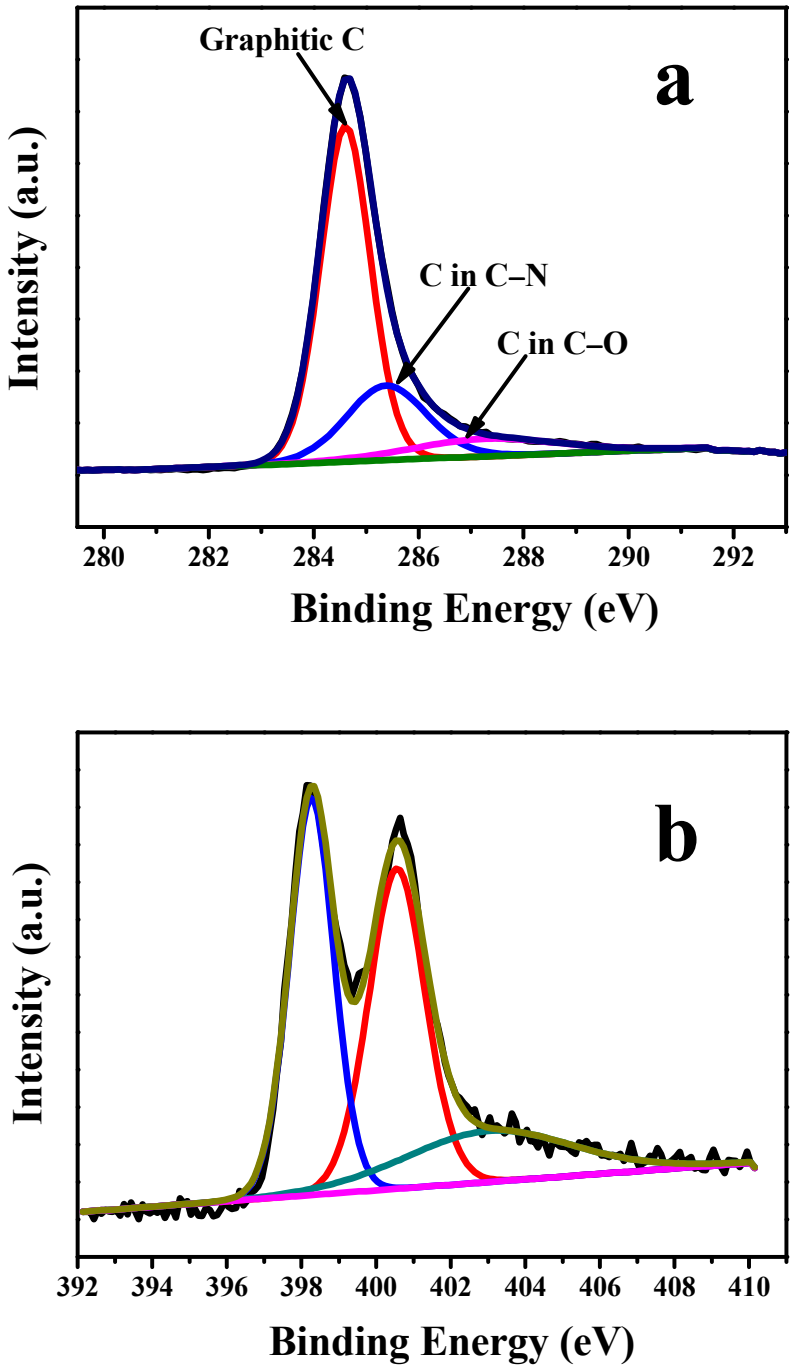

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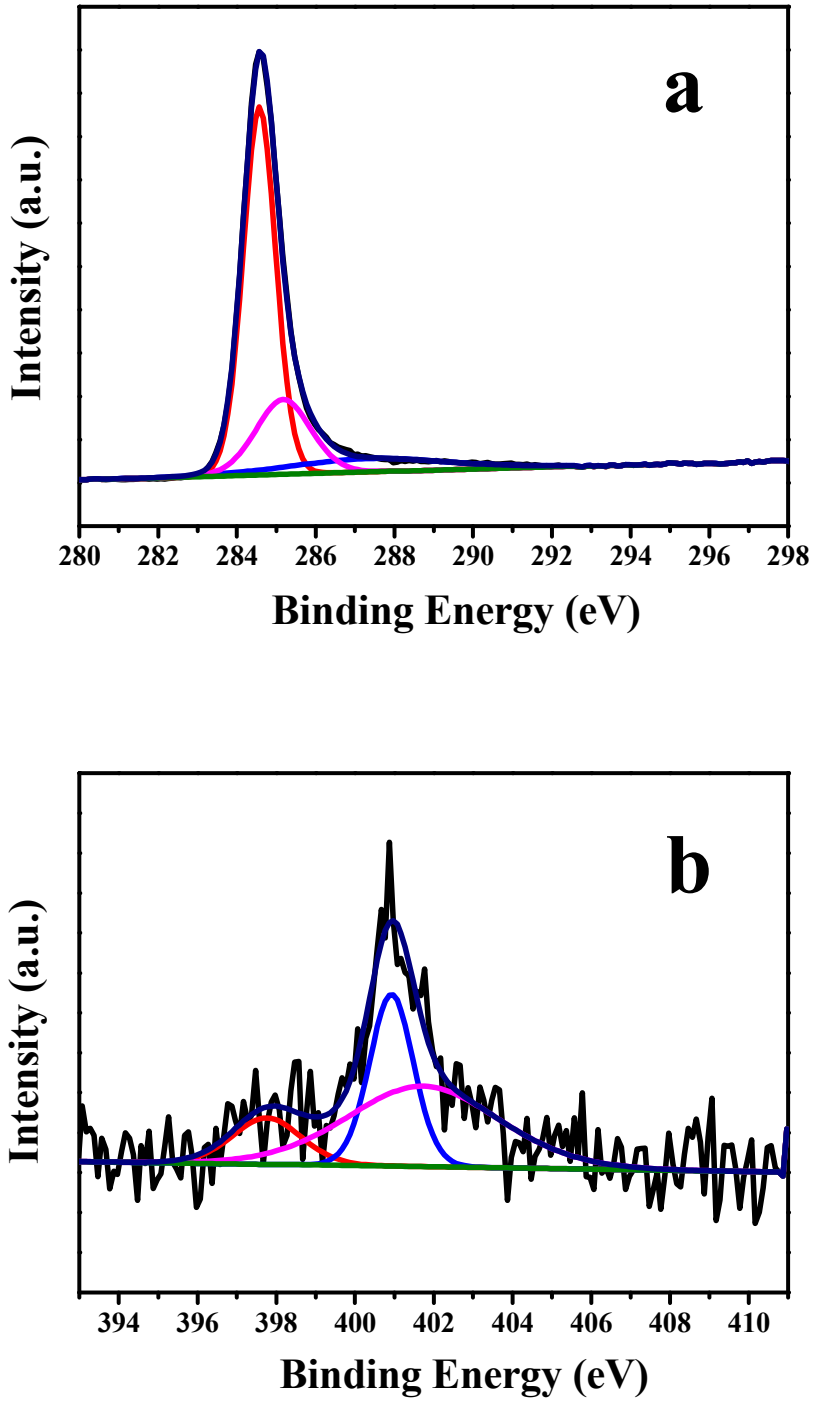

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Table S1 Comparison the catalytic performances of 30% MIL/PPy-800 with other analogous catalysts reported in 0.1M KOH.

Entry	Catalyst	Onset potential (V vs. RHE)	Half-wave potential (V vs. RHE)	Reference
1	30% MIL/PPy-800	0.983	0.850	This work
2[a]	NGPC/NCNT-900	0.914	0.793	1
3[b]	N-graphene/CNT	0.885	Unknown	2
4[c]	S,N-Fe/N/C-CNT	Unknown	0.85	3
5[d]	Fe-ISAs/CN	0.986	0.900	4
6[e]	cal-CoZIF-VXC72	Unknown	0.84	5
7[f]	NPCN/CoNi-NCNT	0.94	0.87	6
8[g]	(b-CNT)/Fe_3C	Unknown	0.861	7
9[h]	NPME	0.936	0.87	8
10[i]	FeNS/HPC	0.97	0.87	9
11[j]	CNT/HDC-1000	0.92	0.82	10
12[k]	Fe-N-CNFs	0.945	0.825	11
13[l]	Fe−N-CNS	0.98	0.85	12
14[m]	Co_3O_4@CMWCNTs	0.89 V	0.81 V	13

[a]Nitrogen-doped graphitic porous carbon and carbon nanotubes; [b]Nitrogen-doped carbon nanoarchitecture with graphene-nanosheet growth on the inner surface of carbon nanotubes; [c]Atomic dispersion of Fe-N_x species on N and S co-decorated hierarchical carbon layers; [d]Isolated single-atom Fe/N-doped porous carbon; [e]Pyrolyzed product of a zeolitic imidazolate framework coated commercial carbon; [f]A 3D nanoarchitecture comprising in situ-formed N-doped CoNi alloyencapsulated carbon nanotubes (CoNi-NCNTs) grown on N-doped porous carbon nanosheets (NPCNs); [g]One-dimensional bamboo-like carbon nanotube/Fe_3C nanoparticle hybrid; [h]Core/shell structured nonprecious metal electrocatalysts (NPMEs) composed of

N-doped graphene-like layers uniformly coated on carbon prepared by pyrolysis of self-assembled iron porphyrin on carbon black; [i]Hierarchically porous carbon with a high content of graphitic N and codoped with sulfur and iron species (FeNS/HPC); [j]Nanocomposites based on carbon nanotubes/heteroatom-doped carbon (CNT/HDC) core-sheath nanostructures; [k]Nonprecious metal catalysts consisting of Fe_3C nanoparticles encapsulated in mesoporous Fe-N-doped carbon nanofibers; [l]Hierarchical Porous Fe–N-doped Hollow Carbon Nanoshells; [m]MOF derived Co_3O_4 nanoparticles embedded in N-doped mesoporous carbon layer/MWCNT hybrids.

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