

Supplementary Information

Facile Synthesis of Carbon-Doped Graphitic C₃N₄@MnO₂ with Enhanced Electrochemical Performance

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Fig. S1 Nitrogen adsorption-desorption isotherms and the corresponding BJH pore-size distribution of (a) CCNM-1; (b) CCNM-3.

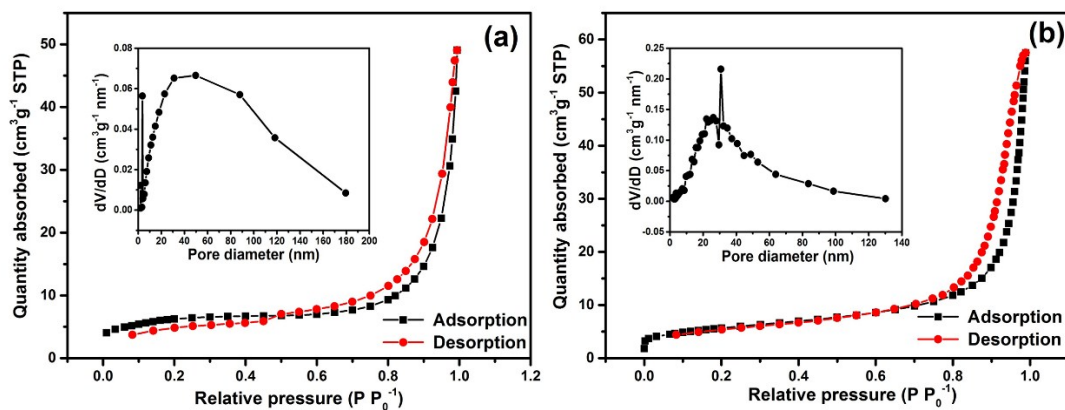


Table S1 The specific capacitance of the samples measured in 1 M Na₂SO₄ solution at the current density of 0.2 A g⁻¹.

Samples	g-C ₃ N ₄	MnO ₂ aggregation	CCNM-1	CCNM-2	CCNM-3
Cs (F g ⁻¹)	2	57	152	324	145

Table S2 Comparison of the capacitor performance with other MnO₂ based electrode reported in literature.

Samples	Cs (F g ⁻¹)	Electrolyte	Test condition	Reference
Nanostructured MnO ₂	168	1 M Na ₂ SO ₄	0.2 A g ⁻¹	1
MnO ₂ with 1 wt.% SDS	187.8	1 M Na ₂ SO ₄	0.2 A g ⁻¹	2
MnO ₂ /NiO@Ni	218	1 M KOH	3 A g ⁻¹	3
3D graphene @ CNT s@ MnO ₂	245	1 M Na ₂ SO ₄	0.5 A g ⁻¹	4
CeO ₂ @MnO ₂ core-shell heterostructure	255	1 M Na ₂ SO ₄	0.25 A g ⁻¹	5
PPy/graphene/MnO ₂ composite	258	1 M Na ₂ SO ₄	1 A g ⁻¹	6
MnO ₂ on hollow carbon spheres	263.5	1 M Na ₂ SO ₄	1 A g ⁻¹	7
NiO@MnO ₂ core/shell nanocomposite	266.7	2 M KOH	0.5 A g ⁻¹	8
Y/ZrO ₂ @MnO ₂	283.1	0.5 M Na ₂ SO ₄	0.05 A g ⁻¹	9
Na ⁺ -intercalated MnO ₂	295	1 M Na ₂ SO ₄	1 A g ⁻¹	10
H-TiO ₂ /C/MnO ₂	299.8	1 M Na ₂ SO ₄	0.5 A g ⁻¹	11
Spherical alpha-MnO ₂	328.4	1 M Na ₂ SO ₄	0.1 A g ⁻¹	12
Birnessite-type MnO ₂ nanoparticles	329	1 M Na ₂ SO ₄	0.2 A g ⁻¹	13
Co ₃ O ₄ @MnO ₂ core/shell arrays	960	1 M LiOH	0.1 A cm ²	14
CCNM02	324	1 M Na ₂ SO ₄	0.2 A g ⁻¹	This work

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