nanomaterials

MDPI

Supporting Information

Controllable Carbonization of Plastic Waste into Three-Dimensional Porous Carbon Nanosheets by Combined Catalyst for High Performance Capacitor

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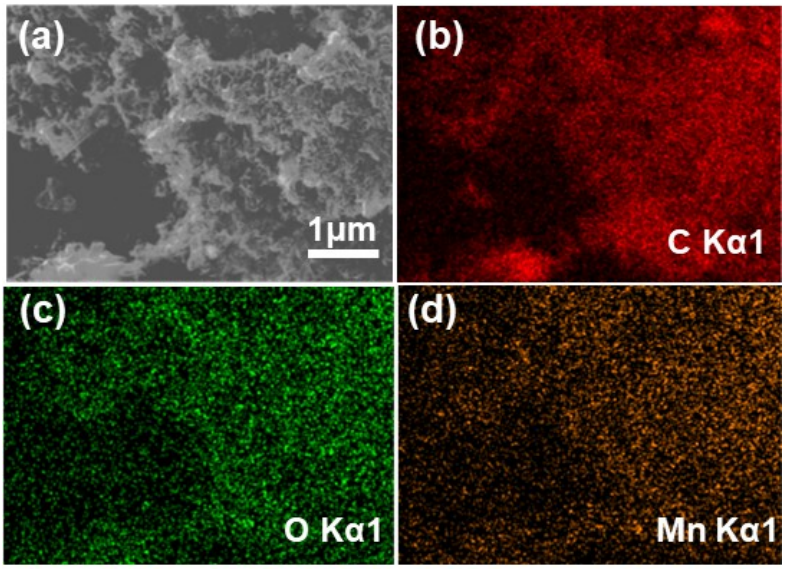

Figure S1. (a) SEM of PCS-MnO_2-2, EDX Mapping of (b) CKα1, (c) OKα1, (d) MnKα1.

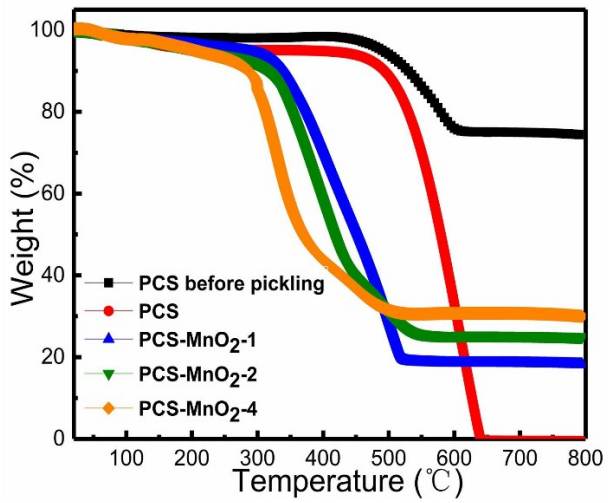

Figure S2. TGA curves of PCS-before pickling, PCS, and PCS-MnO_2 composites.

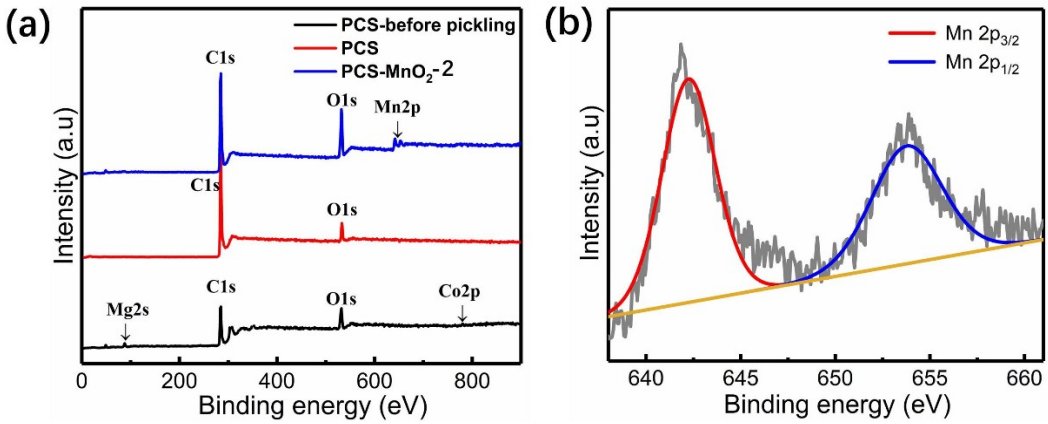

Figure S3. XPS survey spectra of (a). PCS-before pickling, PCS, PCS-MnO_2-2; (b)the narrow spectra of Mn_{2p} peaks of the PCS-MnO_2-2.

Table S1. of the capacitance retention of carbon materials in the literature.

Sample	Electrolyte	Test Condition	Capacitance	Capacitance Retentions	Reference
3D sponge N-doped graphene	6 M KOH	4 A g^{-1}	320 F g^{-1}	87.7%	[1]
Porous carbon nanosheets	6 M KOH	1 A g^{-1}	182 F g^{-1}	/	[2]
Porous activated carbons	2 M H_2SO_4	1 mA cm^{-2}	106~197 F g^{-1}	/	[3]
PCS-MnO_2	6 M KOH	10 A g^{-1}	64 F g^{-1}	90.1%	Current work

References

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3. Domingo-Garcia, M.; Fernandez, J.A.; Almazan-Almazan, M.C.; Lopez-Garzon, F.J.; Stoeckli, F.; Centeno, T.A. Poly(ethylene terephthalate)-based carbons as electrode material in supercapacitors. *J. Power Sources* **2010**, *195*, 3810–3813.