Supporting Information for

Discovering Cathodic Biocompatibility for Aqueous Zn-MnO₂

Battery: An Integrating Biomass Carbon Strategy

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Supplementary Figures

Fig. S1 XPS high-resolution patterns about a Mn 2p and b O 1s of CP-0



Fig. S2 XPS high-resolution patterns about a Mn 2p, b O 1s, c C 1s, and d N 1s of CP-10



Fig. S3 XPS high-resolution patterns about a Mn 2p, b O 1s, c C 1s, and d N 1s of CP-30



Fig. S4 XPS high-resolution patterns about **a** Mn 2p, **b** O 1s, **c** C1s, and **d** N1s of CP-40



Fig. S5 The **a** CV curves, **b** pseudocapacitive contribution, **c** *b*-value fitting results, and **d** cathodic peak1 and peak2 variation at different scan rate of CP-0



Fig. S6 a CV curves, **b** pseudocapacitive contribution, **c** *b*-value fitting results, and **d** cathodic peak1 and peak2 variation at different scan rate of CP-10



Fig. S7 The a CV curves, b pseudocapacitive contribution, c *b*-value fitting results, and d cathodic peak1 and peak2 variation at different scan rate of CP-20



Fig. S8 a CV curves, **b** pseudocapacitive contribution, **c** *b*-value fitting results, and **d** cathodic peak1 and peak2 variation at different scan rate of CP-30



Fig. S9 a CV curves, **b** pseudocapacitive contribution, **c** *b*-value fitting results, and **d** cathodic peak1 and peak2 variation at different scan rate of CP-40 at different scan rate of CP-40