

Hydrous Molybdenum Oxide Coating of Zinc Metal Anode via the Facile Electrodeposition Strategy and Its Performance Improvement Mechanisms for Aqueous Zinc–Ion Batteries

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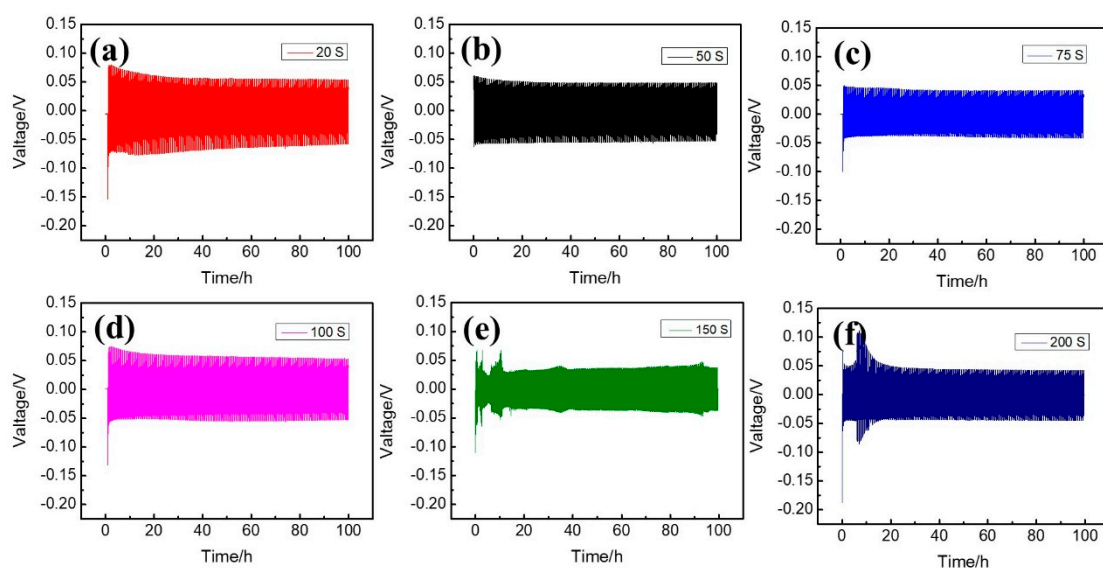


Figure S1. Galvanostatic cycling performances of bare Zn symmetrical cells with at different deposition times of 20 s, 50 s, 75s, 100 s, 150 s, 200 s at a current density of 2.5 mA cm^{-2} .

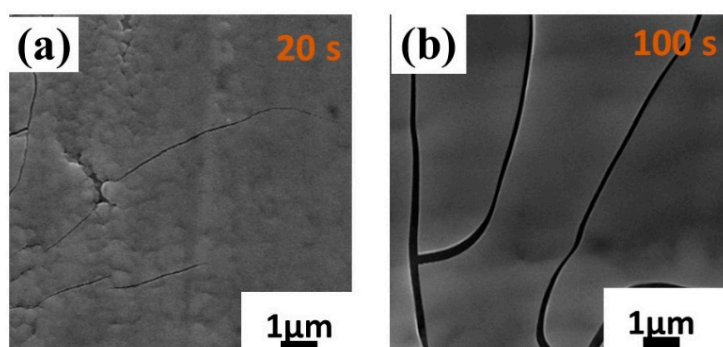


Figure S2. (a, b) The SEM of HMoO_x-Zn anode at different deposition times of 20 s and 100 s.

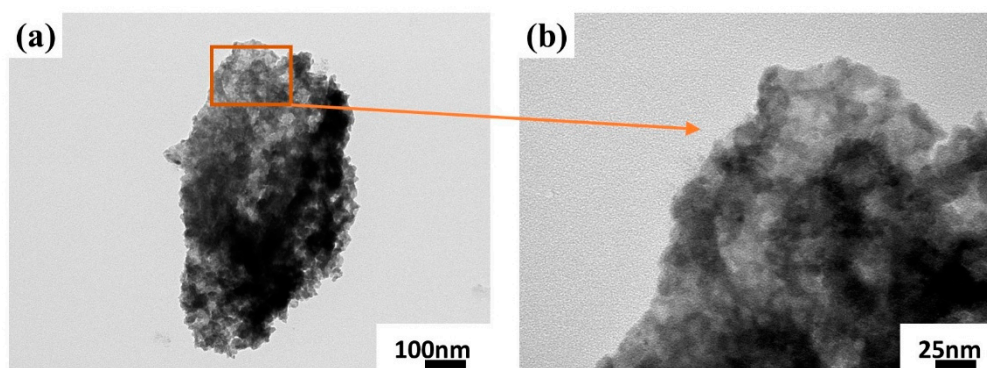


Figure S3. The TEM of HMoO_x at various magnification.

Table S1. Comparison reported Zn anodes fabricated for preventing dendrite growth in Zn anode.

| Anode | Current density (A/g) | Final retention capacity [mAh/g] | Number of cycles | Ref. |
|--|-----------------------------|---|---------------------|-----------|
| Zn@CaCO ₃ //MnO ₂ | 1 | 177 | 1000 | [1] |
| Zn@ZnO-3D//MnO ₂ | 0.5 | 212.9 | 500 | [2] |
| 3D Zn@carbon// MnO ₂ | 0.308 | 140 | 200 | [3] |
| TiO ₂ @Zn//MnO ₂ | 0.5 | 100 | 300 | [4] |
| CeO ₂ @Zn//MoS ₂ | 2 | 90 | 300 | [5] |
| Zn@graphene//LixMnO ₂ | 1 | 90 | 300 | [6] |
| Zn// γ -MnO ₂ | 0.1 | 50 | 300 | This work |
| HMoO _x -Zn// γ -MnO ₂ | 0.1 | 131 | 300 | This work |