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Authors: Yunchang Sun, Haichao Chen, Yuqi Xing, Xinyu Mao, Min Wang, Hongliang Li, Peizhi Guo, X.S. Zhao



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# Synthesis of MnO<sub>2</sub> nanowires and their capacitive behavior in aqueous electrolytes containing magnesium ions

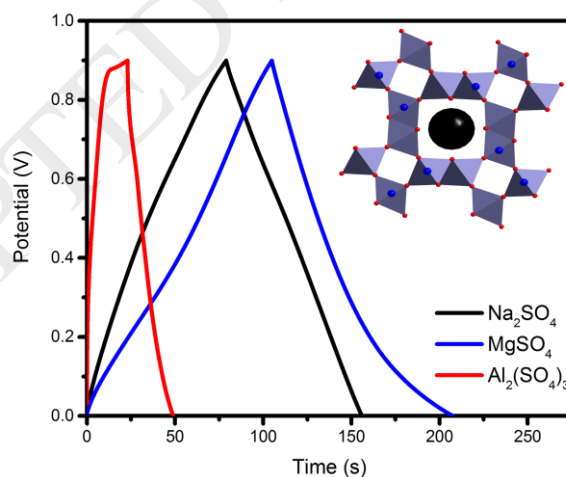
Yunchang Sun, Haichao Chen, Yuqi Xing, Xinyu Mao, Min Wang, Hongliang Li,

Peizhi Guo\*, X. S. Zhao

Institute of Materials for Energy and Environment, State Key Laboratory Breeding Based of New Fiber Materials and Modern Textile, School of Materials Science and Engineering, Qingdao University, Qingdao, 266071, P. R. China.

\*Corresponding author: pzguo@qdu.edu.cn; qduguo@163.com

## Graphical abstract



## Highlights

- MnO<sub>2</sub> nanowires have been synthesized through hydrothermal method.
- MnO<sub>2</sub> nanowires have higher capacitances in Mg<sup>2+</sup> electrolyte than Na<sup>+</sup> or Al<sup>3+</sup>.
- Excellent stability of MnO<sub>2</sub> nanowires electrode is observed in MgSO<sub>4</sub> electrolytes.

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