Electrodeposition Synthesis of PANI/MnO₂/Graphene Composite Materials and its Electrochemical Performance

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doi: 10.20964/2017.09.06

Received: 27 March 2017 / *Accepted:* 19 June 2017 / *Published:* 13 August 2017

This paper uses a simple pulse electrodeposition method to synthesize PANI/MnO₂/Graphene composite. The structure and composition of the complex was characterized by XRD and FT-IR. The morphology of the complex was characterized by SEM. The electrochemical performance was tested by electrochemical workstation. The results show that specific capacity can reach 1019F·g⁻¹ under the current density of 0.5A·g⁻¹. The stability is as high as 98.1% after a 500-cycle. The composite may have a good performance for its applications in supercapacitors.

Keywords: Composite materials; Supercapacitor; Electrochemical

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