

Highly Conductive EG₃-MOP/PEDOT:PSS Composite for Supercapacitor Electrodes

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Supercapacitors have drawn great attention as emerging energy storage devices because of their high power density and long cycle life. In comparison with Li ion battery, however, their energy density is quite low because of low electric conductivity and physical adsorption of electrolytes. To address this issue, novel electrodes with high electric conductivity should be developed. Herein, we reports a novel conductive EG₃-MOP(Cu)/PEDOT:PSS composite for a supercapacitors electrode. The conducting polymer, PEDOT:PSS is well blended with EG₃-MOP(Cu) with a nanometer cavity, which EG₃-MOP(Cu) works as binders to precipitate the PEDOT:PSS. The thin film of EG₃-MOP(Cu)/PEDOT:PSS composite showed high electric conductivities of around 200 S/cm. In this presentation, details of the electrochemical properties for EG₃-MOP(Cu)/PEDOT:PSS composites will be presented.