Short Communication

Electrochemical Performance of Activated Carbons with Different Specific Surface Area as Supercapacitor Electrode Materials

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In this paper, we chose commercial activated carbons (AC) as electrode materials because the advantage of abundant in raw, lower price and larger specific surface area. First, we characterized the physical properties of these two ACs. Second, we utilized these ACs to prepare electrode as working electrodes and characterized in the 1 mol/L H₂SO₄. The results indicated that the specific surface of 1-AC and 2-AC are 758 m²/g and 1771 m²/g respectively. The tests of electrochemical capacitance performance indicated that the specific capacitance of electrode increased with the specific surface area increasing. And both electrochemical stability retained over 90% of the original capacitance.

Keywords: activated carbon; supercapacitor; electrode material

FULLTEXT

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