Patent Search

Invention Title	METHOD OF PREPARATION OF HIGH ENERGY DENSITY CONDUCTING POLYANILINEPHOSPHOVANADOMOLYBDATE NANOHYBRID ELEC SUPERCAPACITOR DEVICEAPPLICATION
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Abstract:

TITLE: Method Of Preparation Of High Energy Density Conducting Polyaniline Phosphovanadomolybdate Nanohybrid Electrode For Supercapacitor Device Applicatior
method of preparation of an active materials used for a PVMo11O40@PANI electrode preparation comprising: adding a 0.76 g of a aniline (momomer) to a beaker wit
distilled water and stirred to obtain a immiscible colorless aniline water mixture; adding a 2 g (0.85mmol) of acidic vanadophosphomolybdate
(H4[PVMo11O40].32H2O,PVMo11O40) slowly to the aniline water mixture to obtain a green colored reaction mixture; stirring the green colored reaction mixture over
room temperature; filtering the green colored reaction mixture using membrane filter paper to obtain a the green colored precipitate; and washing the green colorec
many times with deionized water until the filtrate appears to be colorless after removal of excess Polyoxometalates (POMs, metal–oxide clusters) used as a of active r
electrode preparation ,wherein the obtained green color fine powder of active materials is used as a coating in a PVMo11O40@PANI electrode preparation with Galva
charge/discharge (GCD) of a very high average capacitance of 1544 F g-1 and a high energy density of 164 Wh kg-1 and a power density of 3200 W kg-1 at 2 A g-1 curr

Complete Specification

Claims:CLAIMS
I/We Claim,
1) A method of preparation of an active materials used for a PVMo11O40@PANI electrode preparation (200) comprising:
adding a 0.76 g of a aniline (momomer) to a beaker with a 40 ml distilled water and stirred to obtain a immiscible colorless aniline water mixture (201);
adding a 2 g (0.85mmol) of acidic vanadophosphomolybdate (H4[PVMo11O40].32H2O, PVMo11O40) slowly to the aniline water mixture to obtain a green colored reaction mixture (202);
stirring the green colored reaction mixture overnight at room temperature (203);
filtering the green colored reaction mixture using membrane filter paper to obtain a the green colored precipitate (204); and
washing the green colored precipitate many times with deionized water until the filtrate appears to be colorless after removal of excess Polyoxometalates (POMs, metal–oxide clusters) used as a of active materials for electrode preparation (205)

View Application Status