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Patent Search

Invention Title	METHOD OF PREPARATION OF ACTIVATED CARBON SUPPORTED VANADO-NICKELATE (IV)NANOHYBRID ELECTRODE FOR HIGH-PERFOR SUPERCAPACITOR DEVICE APPLICATION
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Abstract:

A method of preparation of an AC/NiV14O40 active materials used for a AC/NiV14O40 electrode preparation comprising: adding a 850 mg of a activated carbon to a 50 ml of methanol to obtain a activated carbon methanol solution; adding a 150 mg of a aqueous solution of synthesized NiV14O40 slowly to activated carbon methanol solution to obtain a AC/NiV14O40 solution; drying the AC/NiV14O40 solution in vacuum; and washing the AC/NiV14O40 solution with plenty of a aqueous solution and diethyl ether to obtain a fine powder of AC/NiV14O40 active materials, wherein the obtained fine powder of AC/NiV14O40 active materials is used as a coating in a AC/NiV14O40 electrode preparation with the two AC/NiV14O40 electrode has the highest capacitance of 365 Fg⁻¹ and a high value of energy density of 73 Whkg⁻¹ at a 0.2Ag⁻¹ current density the asymmetric electrode of NiV14O40 //15wt% AC/NiV14O40 shows an even better capacitance value of 375 Fg⁻¹ and an energy density of 33.3 Whkg⁻¹ at 2Ag⁻¹ current density.

Complete Specification

Claims:CLAIMS

I/We Claim,

- 1) A method of preparation of an AC/NiV14O40 active materials used for a AC/NiV14O40 electrode preparation (200) comprising:
 - adding a 850 mg of a activated carbon to a beaker with a 50 ml of methanol to obtain a activated carbon methanol solution (201);
 - adding a 150 mg of a aqueous solution of synthesized NiV14O40 slowly to activated carbon methanol solution to obtain a AC/NiV14O40 solution (202);
 - drying the AC/NiV14O40 solution in vacuum (203); and
 - washing the AC/NiV14O40 solution with plenty of a aqueous solution and diethyl ether to obtain a fine powder of AC/NiV14O40 active materials (204), wherein the obtained fine powder of AC/NiV14O40 active materials is used as a coating in a AC/NiV14O40 electrode preparation .
- 2) A method of preparation of an AC/NiV14O40 electrode using the prepared AC/NiV14O40 active materials (300) comprising:

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