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(57) Abstract :

In present investigation, the nanocrystalline ZnFe2O4 thin films have been prepared by chemical deposition method on to low cost stainless steel substrates. These films were used for supercapacitor application. The spinel structure of nanocrystalline ZnFe2O4 thin film confirmed by X-ray diffraction analysis. Scanning electron micrographs (SEM) showed formation of hexagonal flakes like structure of ZnFe2O4 film. ZnFe2O4 thin film tested in 1 M Na2SO3 electrolyte showed maximum specific capacitance of 334 Fg-1 at the scan rate 100 mVs-1. Nanocrystalline ZnFe2O4 thin film showed 65 % cyclic stability after 5000th cycles in 1 M Na2SO3 electrolyte at the scan rate 100 mV s-1.

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