

Abstract

*Electrochemical supercapacitor is an energy storage device that is very influential on future technology. This electrical energy storage device has advantages over conventional batteries, fuel cells and capacitors because it can store large energy and high power. Electrochemical supercapacitor has several advantages including having a high specific capacitance, a simple and safe model of its use. The energy storage mechanism in electrochemical supercapacitor uses a double layer found in the pore electrode [1]. Mangan theoretically has a high capacitance of 1,370 F / g. Some researchers have used the electrodeposition to make porous manganese oxide films which are used as supercapacitor electrodes. This method produces electrode specific capacitance ranging from 377 F / g to 445 F / g [1]. Ginger plant (*zingiber officinale*) is a source of manganese material which can be used to make supercapacitor electrodes. A simple process that carried out such as taking a ginger deposit will be carried out and produce a thin layer of working electrode with a thickness measuring micrometer. Then the performance of the thin layer of electrode will be evaluated using Cyclic Voltammetry.*

Keywords: *Supercapacitor, manganese, electrode, capacitance*