ABSTRACT

The development of research on dye-sensitized solar cell (DSSC) become an interesting topic nowadays because the production process is easy and the price is relatively cheap. Main focus of this research was about *quasi-solid* electrolyte performance for DSSC. Electrolytes was prepared by the addition poly-(vinylidenefluoride-co-hexafluoropropylene) as thickener and P25 TiO_2 as inorganic fillers. Composition of polymer was varied to determine its effect on DSSC. Process of making electrolytes was mixed all the ingredients for ultrasonic bath for 15 minutes. After that the electrolyte stirred for 180 minutes at a temperature of 100^{o}C. DSSC test results obtained through the measurement of IV and IPCE (Incident Photon to Charge Carrier Efficiency). The steady efficiency of 2.94% was achieved in PVDF-HFP with a concentration of 0.4 grams higher than the control with an efficiency of 2.62%

Keywords : PVDF-HFP, QSS-DSSC, Gel-Electrolyte.