

## **ABSTRACT**

Development of solar cell research from the first generation to the third generation through a very long process, in dye-sensitized (DSSC) based third-generation solar cells is an interesting topic because the production process is easy and the price is cheap. In this study DSSC was developed using a monolithic type configuration. The method used is the screen printing method and the parameters studied include the effect of a comparison between HPE and HSE electrolytes on DSSC performance and stability. The test results through measurements of I-V and IPCE (Incident Photon to Charge Carrier Efficiency) provide information that the comparison between HPE and HSE electrolytes has an influence on the performance and stability of DSSC. The highest efficiency of 1.92% was achieved in HPE electrolytes, while the best stability was produced by 1HPE: 1HSE electrolytes where the efficiency decrease was around 12% within 35 days.

Keywords: Research, DSSC (Dye-Sensitized Solar Cell), monolithic, electrolyte, HPE, HSE, performance, stability.