

Practical Evaluation of Dust Effect on Photovoltaic Module Based on Solar Model Tester

In this practical study, an experimental investigation is conducted to evaluate the energy performance of Kyocera PV panel being polluted with different levels of dust. The outcomes of experiment content voltage, current and output power are executed separately for the steps of the experiment. According to the outcomes, the efficiency of the crystalline silicon solar panel has been found to drop as the dust level increases. The performances of 54W Kyocera Photovoltaic is showed with six dust levels. Accumulation of dust on solar photovoltaic (PV) is a natural procedure of varies weather in middle and south of our country Iraq because of the phenomenon of desertification and pollution. The reduction of the solar photovoltaic (PV) power by up to 49% caused by the accumulated dust on the solar photovoltaic (PV) panel. The measurement is showed by installing (PV) solar panel over the solar module tester for getting with direct solar radiation.