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(57) Abstract :

Present invention provides a high performance photovoltaic cell with sodium superoxide interlayer in polyaniline-CuO matrix. The architecture of photovoltaic cell ITO/Polyaniline-CuO/Sodium Superoxide/Polyaniline-CuO/Aluminum fabricated by doctor bleed technique. In this architecture format sodium superoxide-based PV cell exhibits significant value of power conversion efficiency 18.47% under incident power 0.2956 Watt/m<sup>2</sup>. These promising results highlight the potential application of CuO loaded PANimatrix with sodium superoxide interlayer in cost-effective way for photovoltaic application. Following invention is described in detail with the help of Figure 1 of sheet 1 showing the pictorial representation of CuO loaded PANimatrix.

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