

ABSTRACT

PHOTOVOLTAIC CELL AND PHOTOVOLTAIC MODULE

A photovoltaic cell is provided, including a substrate, a doped layer, a tunneling dielectric layer, doped conductive layers, first electrodes, and conductive transport layers. A doping concentration of the doped layer is greater than that of the substrate. The doped layer includes first doped regions, second doped regions and third doped regions. A doping concentration of each first doped region is less than that of each second doped region and that of each third doped region. The tunneling dielectric layer is disposed on the first and second doped regions. Each doped conductive layer is aligned with a first doped region and is disposed on a tunneling dielectric layer. Each first electrode is disposed on and electrically connected to the doped conductive layer. Each conductive transport layer is aligned with a second doped region and is disposed on the tunneling dielectric layer.

Figure 2