

Review on metallic and plastic flexible dye sensitized solar cell

Abstract

Dye sensitized solar cells (DSSCs) are a promising alternative for the development of a new generation of photovoltaic devices. DSSCs have promoted intense research due to their low cost and eco-friendly advantage over conventional silicon-based crystalline solar cells. In recent years, lightweight flexible types of DSSCs have attracted much attention because of drastic reduction in production cost and more extensive application. The substrate that used as electrode of the DSSCs has a dominant impact on the methods and materials that can be applied to the cell and consequently on the resulting performance of DSSCs. Furthermore, the substrates influence significantly the stability of the device. Although the power conversion efficiency still low compared to traditional glass based DSSCs, flexible DSSCs still have potential to be the most efficient and easily implemented technology.