

PV MODULE AND WAVELENGTH CONVERSION TYPE LIGHT TRAPPING FILM FOR PV MODULE

ABSTRACT

A photovoltaic (PV) module in which electric power generation efficiency is enhanced by enhancing light utilization rate. A encapsulant (202) is a first layer, a wavelength
5 conversion type light trapping film (300) is a second layer, an antireflection film (104) is a third layer and an n-type layer is a fourth layer. When the refractive indexed of the layers are expressed as first refractive index (n_1), second refractive index (n_2), third refractive index (n_3) and fourth refractive index (n_4), the following relation is satisfied; $n_1 \leq n_2 \leq n_3 \leq n_4$. The
10 wavelength conversion type light trapping film (300) of the second layer has one structured surface on the light incident side and has a refractive index of 1.6-2.4. The wavelength conversion type light trapping film is transparent and contains a fluorescent substance.

Fig. 2