Influence of TiO_2/WO_3 multilayer on DSSC fabricated by CVD

김연홍[1,2], 정 훈[1,2], 석경석[3,2], 김도형[1,2,*], 임경택[2]
[1]전남대학교 응용화학공학부;
[2]전남대학교 BK21 기능성 나노 신화학소재 사업단;
[3]전남대학교 신화학소재공학과
(kdhh@chonnam.ac.kr*)

Titanium oxide has been widely used as Dye-sensitized solar cells and photocatalytic material. Recently, to impove extend wavelength for photoexcitation there are number of studies related to enhancement of photocatalytic response to visible light using a metal oxide catalyst with TiO_2. Combination of different kinds of semiconductor such as WO_3 and ZnO can enhance photocatalytic response by increasing charge separation and extending wave length. In this research, Influence of WO_3 layer on TiO_2 photovoltaic solar cell was investigated. TiO_2 and WO_3 were deposited by Chemical vapor deposition (CVD). Additionally TiO_2 layer fabricated by Sol-Gel process for the comparison of electrical characteristics with CVD and Sol-Gel process.