

고밀도 산소 플라즈마 처리된 폴리머 기판에 성장시킨 CdS 박막의 특성 분석

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Structural Properties of chemically deposited CdS Films on plasma treated PET

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Abstract : CdS is II-VI semiconductor with a wide band gap of approximately 2.42 eV. CdS is the most popularly employed heterojunction partner to p-CdTe due to its similar chemical properties. In this work, to improvement of the surface properties of the CdS films, PET substrate is treated by high density O₂ plasma. CdS films are prepared by chemical bath deposition(CBD) method. In case of the PET substrate with plasma treatment for 2min, the crystalline orientation of CdS films exhibits a strong hexagonal(002). Grain size was increased from 300nm without O₂ plasma treatment to 380nm with an O₂ plasma treatment.

Key Words : CdS, ICP, PET, CBD