

에어로졸 증착법에 의한 Al_2O_3 박막의 증착 및 특성 평가

조현민^{***}, 김형준^{**}

전자부품연구원^{*}, 서울대학교^{**}

Characterization of Al_2O_3 Thin Film Deposited by Aerosol Deposition Method

Hyun Min Cho^{***} and Hyenog Joon Kim^{**}

Korea Electronics Technology Institute^{*}, Seoul National University^{**}

Abstract : Aerosol deposition(AD) method is a emerging technology for the room temperature deposition of the dielectric thin films with high quality. In this study, Al_2O_3 thin films were deposited by aerosol deposition method directly from raw powders. To get uniform and smooth film surface, process parameters such as gas consumption rate, nozzle-substrate distance and vibration speed were optimized. From XRD results, Al_2O_3 thin films have the same crystal structures with starting powders. Al_2O_3 thin films also showed dense microstructure. Electrical properties of the thin films were also investigated.

Key Words : Aerosol deposition, Al_2O_3 , thin film, electrical properties