

열처리 효과에 따른 AZOB 투명 전도막의 특성

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Influence of Annealing treatment on the properties of B doped ZnO:Al transparent conduction films

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Abstract : Boron doped ZnO:Al(AZOB) thin films were prepared on glass substrates by dc magnetron sputtering. Influence of the annealing treatment on the electrical and optical properties of AZOB thin films were investigated. The lowest resistivity of $1.6 \times 10^{-3} \Omega\text{-cm}$ was obtained at an annealing temperature of 400 °C. The average transmittance of the films is over 80% in the visible range. It was also shown that by introducing boron impurity into AZO system improve the uniformity, the resistivity, and thermal stability of ZnO-based conducting thin films.

Key Words : AZOB; annealing treatment, glass; DC magnetron sputtering