

Multilayer ZnO/Al/ZnO coatings were deposited by thermal evaporation on substrates heated to 300 °C. Subsequently, the coatings were annealed in vacuum in the temperature range 300 to 600 °C. The structural properties of the films were investigated using X-ray diffraction and atomic force microscopy. The chemical properties were determined from X-ray photoelectron spectroscopy. The electrical and optical properties of the coatings were studied in order to evaluate their performance as transparent conducting coatings. The best performance was obtained with films annealed at 500 °C, for which the average visible transmittance was about 60% and the resistivity was  $6.1 \times 10^{-3} \Omega \cdot \text{cm}$ .