

Thin films were produced by the reactive thermal evaporation of pure silver oxide (AgO) in a background of molecular oxygen. The effects of the deposition rate and oxygen partial pressure on the structural, chemical, electrical and optical properties of the films were investigated. The films were characterized using X-ray diffraction, X-ray photoelectron spectroscopy, electrical resistivity, and normal-incidence transmittance and reflectance. The resulting films were found to be mainly metallic with a small oxide component that increased with the oxygen partial pressure.