<u>Abstract</u>

The composition and optical properties of Cadmium Oxide thin film have been studied. Thin film were prepared by chemical spray pyrolysis deposition method on a glass substrates which were heated to (773K). This research contains the effect of Zinc as a dopants for (CdO) in a weight precentages (1%,3%,5%,7%) on the composition and optical properties ,these films were examined to determin the crystal natue befor and after dopping so they found to be polycrystalline and of cubic kind.

Our research included the optical properties such as, absorption coefficient and energy band gap . These results showed that the doping affected increasing the band gap, also ore research included the optical properties such as ,refractive, refractive index, extinction coefficient, real and imaginary part of dielectric constant, all as a function of photon energy.