عنوان مقاله:

Electrical Properties and Optical Conductivity of (NiO)1-x(CuO)x Thin Films Prepared by Chemical Spray Pyrolysis Technique

محل انتشار:

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خلاصه مقاله:

In the present work, (NiO)1-x(CuO)x thin films are prepared by chemical spray pyrolysis technique for different ratios (x=0, 0.2, 0.4, 0.6 ,0.8 and 1) ml, deposit on glass substrate at temperature (375±10°C) with spray time 4s and spray interval (1 minut) for time deposition 12 minute. The electrical properties include D.C conductivity and Hall effect, optical conductivity the results showed all samples have one activation energy within thermal range (293-473)K which are Ea and varies from (0.19 - 0.36) eV, also it showed that D.C conductivity increases with mixing ratios. Hall effect showed all the samples are p-type that mean the carriers charge are holes and the optical conductivity (σopt) increase with decreases the energy gap (Eg) values for (NiO)1-x(CuO)x thin films.

کلمات کلیدی:

Spray pyrolysis, Conductivity, Activation Energy, Hall coefficient, Optical Conductivity