

# Difference Study Between Concentrations and Number of Coatings for the NiO/ZnO Nanocomposites Thin Films

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## Abstract:

In the present work, the difference between concentrations and the number of coatings for ZnO/NiO nanocomposites thin films from an optical and structural properties point of view has been presented. For this reason, the spray pyrolysis method has been used to elaborate the ZnO/NiO nanocomposites thin films with different concentrations (0.1,0.2 and 0.3M) and different coatings number 1,2 and 3. The formation of the NiO/ZnO nanocomposites phases was confirmed by X ray diffraction with a preferred orientation along (002) for all samples with a high intensity corresponds to the high concentration (0.2 M and 0.3M) not the number of coatings (2 and 3). Optical properties show a contrary result mentioned above. Other interesting results have been presented.

**Keywords:** Nanocomposites, Spray pyrolysis, Thin film, Characterization