

# International Conference and Exhibition on Mesoscopic & Condensed Matter Physics

June 22-24, 2015 Boston, USA

## Fabrication and investigation of $\text{Co}_3\text{O}_4$ films deposited by chemical bath deposition

**Esra Zeybekoglu<sup>1,2</sup>, Evren Turan<sup>1</sup> and Metin Kul<sup>1</sup>**

<sup>1</sup>Anadolu University, Turkey

<sup>2</sup>Giresun University, Turkey

$\text{Co}_3\text{O}_4$  films have been deposited onto glass substrates by chemical bath deposition for different deposition time. The deposited films appear blackish. The thicknesses of the  $\text{Co}_3\text{O}_4$  samples have been determined by ellipsometer measurements. The films have been examined to evaluate the structural and optical properties. X ray diffraction spectra have revealed that the films are polycrystalline with face-centered-cubic phase. The structural and surface morphological properties of the films were studied using X-ray diffraction (XRD), field emission scanning electron microscopy (FESEM) and energy dispersive X-rayspectrometer (EDX). The optical band gap values of the films were evaluated from the absorbance measurements in the wavelength range 190–3300 nm.

### Biography

Esra Zeybekoglu is a PhD student and currently works as Research Assistant in Physics Department at Anadolu University, Turkey for four years. Her studies have focused on the production of the semiconducting films and the investigation of the structural optical and electrical properties of the samples using characterization techniques.

[esrazeybekoglu@anadolu.edu.tr](mailto:esrazeybekoglu@anadolu.edu.tr), [esrazeybekoglu07@gmail.com](mailto:esrazeybekoglu07@gmail.com)

### Notes: