

## Surface Coating of Polyester Fabrics by Sol Gel Synthesized ZnO Particles

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**Abstract :** Zinc oxide particles were synthesized using the sol-gel method and dip coated on polyester fabric. X-ray diffraction (XRD) analysis revealed a single crystal phase of ZnO particles. Chemical characteristics of the polyester fabric surface were investigated using attenuated total reflection-Fourier transform infrared (ATR-FTIR) measurements. Morphology of ZnO coated fabric was analyzed using field emission scanning electron microscopy (FESEM). After particle analysis, the aqueous ZnO solution resulted in a narrow size distribution at submicron levels. The deposit of ZnO on polyester fabrics yielded a homogeneous spread of spherical particles. Energy dispersive X-ray spectroscopy (EDX) results also affirmed the presence of ZnO particles on the polyester fabrics.

**Keywords :** dip coating, polyester fabrics, sol gel, zinc oxide

**Conference Title :** ICTC 2016 : International Conference on Textiles and Clothing

**Conference Location :** Amsterdam, Netherlands

**Conference Dates :** December 01-02, 2016