

## عنوان مقاله:

Effects of Calcination Temperature on Indium Tin Oxide Nano Particles Synthesized by Sol-Gel Method

## محل انتشار:

دومین کنگره بین المللی علوم و فناوری نانو (سال: 1387)

تعداد صفحات اصل مقاله: 2

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## خلاصه مقاله:

Indium tin oxide (ITO) is an important transparent conducting oxide (TCO) material. It is an insulator in its stoichiometric form, whereas in its non-stoichiometric form, it behaves as a highly conductive semiconductor with a wide direct band-gap ( $E_g=3.6$  eV) [1]. Indium tin oxide with these properties has widerange of applications such as transparent electrodes for use in Liquid Crystal Display (LCDs), Plasma Display Panels (PDPs), coating material for use in Cathode Ray Televisions (CRTs), transparent conducting thin films, low-emissive windows and solar cells [2]. There are several processes for preparation of ITO powers such as co-precipitation [3], vapor-liquid-solid (VLS) [4], sol-gel [5] and hydrothermal synthesis [6]. Many parameters exist which can affect the properties and shapes of ITO nanopowder, such as reactant pH, stoichiometric ratio, amount of added tin chloride and calcination temperature. Except the temperature, other parameters have been reported in detail in many researches [6]. In this paper, the effects of calcination temperature on morphology and phase structure of ITO particles, is discussed

## کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

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