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## **P99 - Effect of Cobalt Doping on Titanium Dioxide Thin Film Prepared by Ion Layer Gas Reaction method**

*Friday, 11 July 2014 13:00 (1 hour)*

Ion layer gas reaction (ILGAR) method was used to deposit Cobalt doped Titanium dioxide thin films from precursor salts of Cobalt Chloride and Titanium Isopropoxide respectively. The Cobalt concentration in Titanium dioxide was varied between 5% and 50% in the precursor salts. The effect of Cobalt doping of Titanium dioxide thin films was investigated by Rutherford backscattering spectroscopy where the depth profiles were determined from the simulated spectra. The activation energies and exponential pre-factors of Cobalt diffusion determined. Cobalt occupies Ti sites leading to a change in the stoichiometry and therefore variation of thickness of the film.

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