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### XRD and XPS of Cd<sub>2</sub>SnO<sub>4</sub> Thin Films Obtained by Spray Pyrolysis

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Cd<sub>2</sub>SnO<sub>4</sub> thin films with a 1:1 and 1:3 Sn/Cd weight ratio at different substrate temperatures were fabricated by spray pyrolysis. The structural and surface composition of these films by X-ray diffraction (XRD) and X-ray photoelectron spectroscopy (XPS) were investigated. XRD study reveals tetragonal and orthorhombic phases of SnO<sub>2</sub> and cubic phase of Cd<sub>2</sub>SnO<sub>4</sub>. In all samples the grain size of the crystallites of the SnO<sub>2</sub> phase is smaller than that of the Cd<sub>2</sub>SnO<sub>4</sub> phase. The grain size of the crystallites of Cd<sub>2</sub>SnO<sub>4</sub> cubic phase decreases with increasing the substrate temperatures. The full range XPS spectra of all Cd<sub>2</sub>SnO<sub>4</sub> thin films contain the Sn3p, Sn3d, O1s, Cd3d and O2s characteristic peaks.