

Abstract Submitted
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Internal stress, microscopic, and spectroscopic analysis in cadmium telluride grown by close-space sublimation JESSICA SALAZAR, STELLA QUINONES, ARYZBE DIAZ, WILLIAM DURRER, JOSE VALDEZ, CELIA GARCIA, FELICIA MANCIU, University of Texas at El Paso — Cadmium telluride remains one of the materials of interest in the fabrication of photovoltaic cells and infrared devices, mainly because of its suitable crystal structure as well as of its small, direct bandgap of 1.5 eV. Since development of such devices requires a high quality and low defect material, the goal of this study is to microscopically and spectroscopically examine the crystallinity of the material. This information is valuable if optimization of sample growth conditions is envisioned. Crystallinity of the samples was investigated by Fourier transform infrared absorption and Raman spectroscopies. The far-infrared transmission data show the presence of transverse optical and surface optical modes, the latter being direct evidence of confinement in such a material.

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