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Examination of P3 Line Scribe Defects in Electroluminescence Imaging of CdTe Solar Cells TYLER MCGOFFIN, Colorado State University — Thin film Cadmium Telluride photovoltaics is a promising technology for future energy solutions due to its ideal band gap energy and relatively low cost. Because of this promise, there has been much recent advancement in CdTe technologies, including characterization techniques and interpretation. One such technology is Electroluminescence (EL): effectively turning a solar cell into and infrared LED. This characterization technique allows for fast, spatially resolved data from which much information can be gleaned, and even has promise for quality control testing in an industrial environment. Examination of this data has shown many interesting characteristics, including a unique signature indicating a defect in the P3 line scribe. This trait can be seen very easily in the EL image, and the data and interpretations thereof are offered in this presentation.

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