

태양전지용 인라인 검사장비 개발

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Development of In-line Inspection System for Photovoltaic Cell Manufacturing

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Abstract : As the photovoltaic cell market grows up, the size and complexity of the cell manufacturing are also increasing rapidly. In both crystalline Si and thin film photovoltaic cell manufacturing, in-line inspection becomes a critical process step to maintain and rise the yield and the quality of cells. In this paper, we review current photovoltaic cell inspection technologies, and introduce various 2D and 3D in-line inspection technologies using in current semiconductor and flat panel display industries. Its scope includes realtime automatic optical inspection, non-contact three-dimensional measurement, automatic classification of defects and inspection results and more. Also, its feasibilities for wafer-based crystalline Si and large size thin-film photovoltaic cell manufacturing are presented.

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