

Background and Present Status of Line-Scan Sequential Lateral Solidification of Thin Si Films

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Abstract

Line-Scan SLS refers to a technically specific embodiment of SLS in which a single line beam is employed in order to produce crystallized Si films with (1) a directionally solidified or (2) a “2-shot” SLS microstructure. This paper will first review the materials-, processing-, and devices-related findings that have been attained regarding LS-SLS by several groups over the years, and then focus on elaborating the currently identifiable issues, challenges, and opportunities that await the approach.