

Nanomanufacturing Technology for Energy Applications

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Presentation

Abstract: Over 40 years of thin film process innovations have helped enable the IC industry today to produce well over 10^{18} transistors per year at costs of nanodollars per transistor thereby empowering the information age. Likewise large area thin film manufacturing has dramatically improved the performance and cost of low cost displays over the past 15 years, enabling high definition video from the handheld to the wall mounted HDTV. The overwhelming societal and market pull today for new solutions in the field of clean energy offers an exciting opportunity to build on a similar base of technology. Through a combination of materials innovation and highly productive processing platforms we have the potential to enable new solutions for conservation, conversion and storage and thus profoundly change the economics of clean energy.