

# Organic thin films

Nicholas Engel

One motivation to study organic thin films is the hope to create environmentally beneficial products with the known properties of synthetic thin films at low cost. In addition, modern organic thin films have new applications which result from physical properties that electronic silicon-based devices could not reveal. However, there are difficulties in optimizing growth processes and optimizing molecule orientation on substrates. This leads to a clash with the necessary high charge carrier mobilities for ultimate performance in devices. In this presentation, I will compare cost and functionality of silicon-based and organic devices. Furthermore I will discuss products and product concepts that can only be realized using organic thin films. I will depict the concepts and issues concerning growth of organic molecules used in electronic devices. Finally, I will describe some issues that have been resolved and how they were taken care of.

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