

ZERNIKE INSTITUTE COLLOQUIUM

Thursday, February 11th, 2010

16:00h, Lecture Hall: 5111.0080

Coffee and cakes from 15:30h

Organic solar cells – from fundamental research to first applications

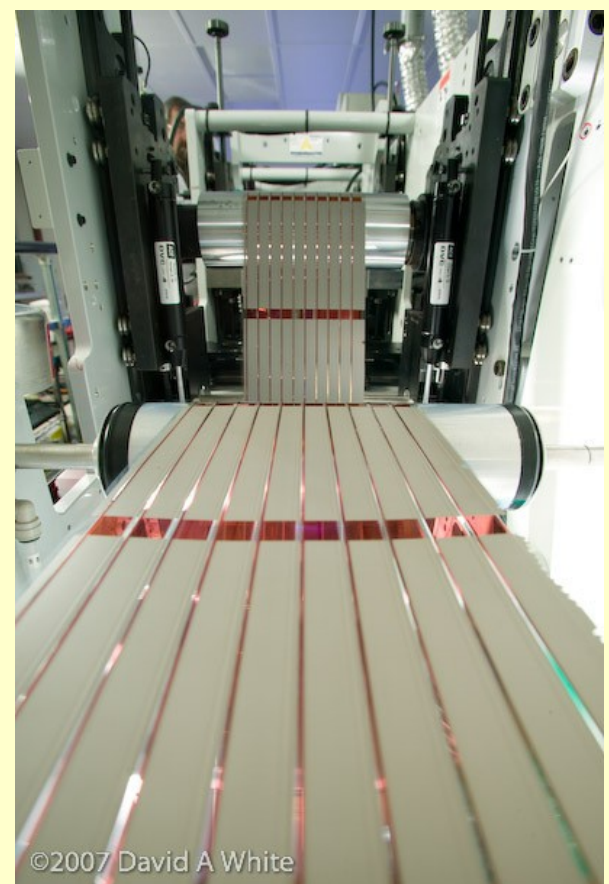
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The technology of organic solar cells has matured to an extent that commercialization of first products is starting. The main focus and research efforts up to now were placed on novel organic semiconductors which have the potential to further increase the power conversion efficiency. That strategy has proven very successful, and within the last three years efficiencies have evolved from the 4 % into the 7 % regime. These efforts in material development will without any doubt further grow; at least until the magic 10 % efficiency milestone is met.

However, with the first products pushing into the market, the research community realizes that a qualified product requires more than only a high efficiency number. Lifetime and costs are of course as important as efficiency, but to achieve a good combination between performance, lifetime and efficiency, multiple technological challenges are met and have to be solved.

In this presentation we will review the materials, processes and components and strategies required for a successful product. Specific emphasis will be placed on the challenges related to printing of organic semiconductors.



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