

City University Distinguished Lecture Series

Speaker

Professor Stephen Forrest

Departments of Electrical Engineering and Computer Science, Physics and Materials Science and Engineering University of Michigan, Ann Arbor, MI

Making Small Things Big in the World of Organic Electronics

on

Friday, 9 January 2015 at 4:30 pm

at

Peter Ho Lecture Theatre (LT10) 4/F Academic 1



City University of Hong Kong Tat Chee Avenue, Kowloon

Abstract

Organic electronics occupies a truly scalable world. Phenomena at the quantum level can provide solutions to applications as large as wall-mounted displays and lighting, to solar cells that cover the sides of buildings, to flexible electronic circuits that can mimic the eye and "see around corners". Beyond the quantum, morphological control at the nano-scale, moving on to individual devices with micrometer and millimeter dimensions, to printing literally "kilometers" of circuits as if they were newsprint provides new and exciting challenges to the device physicist, applications engineer, and specialist in advanced manufacturing. In this talk, I will discuss several important demonstrations of organic electronic devices that span this unprecedented range of dimensions. I will then consider what the future holds in this field that is rapidly emerging as a global industry.

Biography

Professor Stephen Forrest received his B.A. in Physics from the University of California, MSc and Ph.D. in Physics from the University of Michigan. At Bell Labs, he investigated photodetectors for optical communications. In 1985, Professor Forrest joined the Electrical Engineering and Materials Science Departments at USC where he worked on optoelectronic integrated circuits, and organic semiconductors. In 1992, he became the James S. McDonnell Distinguished University Professor of Electrical Engineering at Princeton University. He served as director of the National Center for Integrated Photonic Technology, and as Director of Princeton's Center for Photonics and Optoelectronic Materials (POEM), and from 1997-2001, he chaired Princeton's Electrical Engineering Department. In 2006, he rejoined the University of Michigan as Vice President for Research, and is the Paul G. Goebel Professor of Engineering in the Departments of Electrical Engineering and Computer Science, Materials Science and Engineering, and Physics. A Fellow of the APS, IEEE and OSA and a member of the National Academy of Engineering, he received the IEEE/LEOS Distinguished Lecturer Award in 1996–97, and in 1998 he was co-recipient of the IPO National Distinguished Inventor Award as well as the Thomas Alva Edison Award for innovations in organic LEDs. In 1999, he received the MRS Medal for work on organic thin films. In 2001, he was awarded the IEEE/LEOS William Streifer Scientific Achievement Award for advances made on photodetectors for optical communications systems. In 2006 he received the Jan Rajchman Prize from the Society for Information Display for invention of phosphorescent OLEDs, and is the recipient of the 2007 IEEE Daniel Nobel Award for innovations in OLEDs. Professor Forrest has been honored by Princeton University establishing the Stephen R. Forrest Endowed Faculty Chair in Electrical Engineering in 2012.

Online registration: http://www.cityu.edu.hk/vprt/distinguished_lecture_series/upcoming.htm

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