



SPEAKER

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**Surface-Directed Molecular Assembly of Organic Semiconductors
for High-Performance Organic Electronics**

Friday, January 23, 2015 14:30 - 15:30

@ Meeting Room C016, Lab1

Abstract: Microstructure in organic semiconductor thin films has been regarded as the key factor determining the performance of the organic electronics. In the case of organic field effect transistors (OFETs) and organic photovoltaics (OPVs), the control of the surface characteristics of underlying substrates can govern the mesoscale and/or nanoscale ordering of the semiconductor assembled on them. Here, we present various approaches for controlling the growth of organic semiconductors on gate dielectrics and electrodes to achieve high performance OFETs and OPVs.

1. H. S. Lee et al., J. Am. Chem. Soc. 130, 10556 (2008)
2. W. H. Lee et al., J. Am. Chem. Soc. 133, 4447 (2011)
3. W. H. Lee et al., Adv. Mater. 23, 1752 (2011).
4. B. Kang et al., Nat. Commun. 5, 4752 (2014)

Biography: Kilwon Cho is a professor in the department of chemical engineering at POSTECH, Korea. He received his Ph.D in Polymer Science from University of Akron in 1986.

Professional Appointments

- 1986 - 1987 Postdoctoral Fellow, University of Akron
- 1987 - 1988 Visiting Scientist, IBM Research Center
- 1988 - Professor, POSTECH
- 1993 - 1993 Visiting Professor, Tokyo Institute of Technology
- 2005 - Director, Polymer Research Institute, POSTECH
- 2011 - Director, Global Frontier Research Center for Advanced Soft Electronics
- 2015 Senior Vice President (President-Elect), The Polymer Society of Korea

Honors and Awards

- Fellow, The Korean Academy of Science and Technology
- Best Paper Award, The Korean Federation of Science and Technology Societies(1999)
- Outstanding Research Award, The Polymer Society of Korea (2004)
- NanoKorea Award, Ministry of Science and Technology, Korea (2008)
- Proud Postechian Award (POSTECH, 2009)
- Lee, D. Y. Award (Pohang Accelerator Laboratory , 2009)
- Scientist of the Month Award (The Ministry of Edu. Sci. Tech., 2010)
- Lee, J. Y. Chair Professor (2011)



For more information

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