



Date : 9 November, 2005 (Thursday)
Time : 3:30 p.m. – 4:30 p.m.
Location : Rm 418, Ho Sin Hang Engineering Building,
The Chinese University of Hong Kong

Wavelength-tunable Organic Devices and Nanostructures

Professor Wallace C. H. Choy
Department of Electrical and Electronic Engineering
University of Hong Kong

Abstract

Adjustability of the operation wavelength of optoelectronic devices is a degree of freedom to improve the performance and capability of devices besides opening up new applications. Take the optical communication as an example, various wavelength-tunable devices have been demonstrated and some have been commercialized such as optical waveguide, optical modulators, amplifiers and lasers. For flat panel light display applications, the color tunability of organic light emitting devices (OLEDs) by changing applied voltage have been achieved by using small molecules, a combination of polymers and small molecules polymer blends system and light-emitting electrochemical cells. However, more efforts are needed to expand the tuning range and to understand the underlying mechanism. In this talk, our recent progress in wavelength tunable OLEDs and nanostructures will be discussed.

About the Speaker

Dr. Wallace C. H. Choy received M.Phil. and Ph.D Degree in Electronic Engineering from the University of Hong Kong in 1996 and the University of Surrey, UK in 1999, respectively. His work at Hong Kong and Surrey were supported by Sir Edward Youde Memorial Fellowship and the Croucher Foundation Scholarship respectively. In 1999, he joined National Research Council of Canada as a member of research staff to work on InP polarization-independent and wavelength-tunable optical amplifiers and modulators. He joined with Fujitsu Compound Semiconductor, Inc at San Jose, US in 2001 to develop wavelength tunable lasers and high-speed transmitter modules. He is now a Research Assistant Professor of Department of Electrical and Electronic Engineering, the University of Hong Kong. His current research interests are concerned with organic optoelectronic devices, nano-material devices and photonic integrated circuit. Since 1994, Dr. Choy has published 38 internationally technical journal papers and contributed to two book chapters. He received Outstanding Achievement Award from NRC in 2001.

ALL ARE WELCOME

Host: Professor Chinlon Lin (Tel: 2609-8370, Email: chinlon@ie.cuhk.edu.hk)
Enquiries: Electronic Engineering Dept., CUHK (Tel.: 2609-8270)