



Title: Ultrafast charge carrier dynamics of solar cell materials probe by time resolved THz spectroscopy.

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Kemicentrum, LUNDS University



2014/07/21 (Monday) AM 10:00-11:00

國立成功大學 光電科學與工程學系
綜合大樓 48424 室

About the speaker:

Education:

- April 2005 – March 2008 Doctor of Philosophy, The Graduate University for Advanced Studies Kanagawa, Japan
Thesis: Development of Integrated Optics for First Principle Analysis of Terahertz Spectrum of Biomolecules
- June 2001 – June 2004
Master of Science in Electronics and Communications Engineering
De La Salle University, Manila, Philippines
Thesis: Preparation and Characterization of a Semiconducting PPV-based polymer optical waveguide
- June 1996 – November 2000 Bachelor of Science in Electronics and Communications Engineering
Mapua Institute of Technology, Manila, Philippines

RESEARCH INTERESTS:

- Carrier charge dynamics using time resolved terahertz (THz) spectroscopy (optical pump THz probe) in bulk heterojunction polymer cells, dye sensitized solar cells, quantum dot sensitized solar cells, high efficient solar cells with nanoparticles and nanowires, and organo metal halide perovskite.
- Development of ultrafast THz scanning tunneling microscope for understanding charge dynamics of molecular scale electronics.
- Use of high field THz radiation for resonant and non-resonant control of matter.
- Design, theoretical calculations and characterization of hollow/solid core THz waveguides/fibers.

Sponsored by:
Department of Photonics, NCKU

