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Opening Remarks

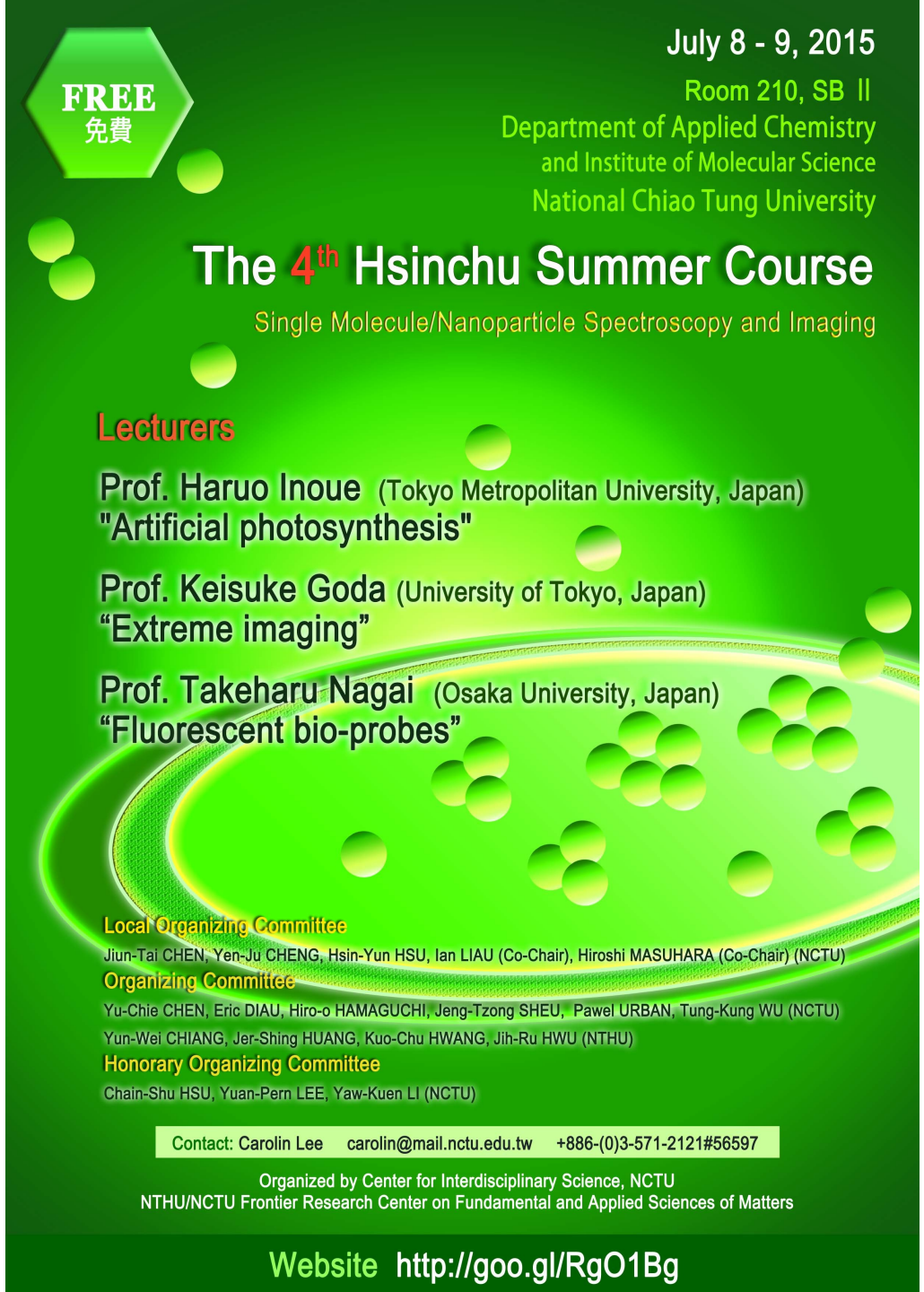
On behalf of organizing committees

Hiroshi MASUHARA (NCTU)

Welcome to the 4th Summer Course

History

Purpose



2012

Lecture. I

The International Summer Course on Single Molecule/Nanoparticle Spectroscopy and Imaging

Johan Hofkens

Room 210, Science Building Ⅱ,

National Chiao Tung University

June 25-27, 2012

Lecture. II

The International Summer Course on Single Molecule/Nanoparticle Spectroscopy and Imaging

Naoto Tamai

Room 210, Science Building Ⅱ,

National Chiao Tung University

June 25-27, 2012

2013

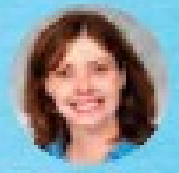

2013
6/25
I
6/27
The 2nd International Summer Course and Workshop on
Single Molecule/Nanoparticle
Spectroscopy and Imaging
Fundamentals, spectroscopy, dynamics and modeling of plasmonic nanoparticles
Fundamentals of fluorescence spectroscopy at the single molecule/single particle limit
Fabrication and characterization of metal nanostructures
Workshop (afternoon, June 27 - afternoon, June 28)
Poster Session (June 27)
Cochairs :
Prof. Hiroshi Masuhara
Prof. Jan Liau

- **Summer Course (noon, June 25 - noon, June 27)**

  Fundamentals, spectroscopy, dynamics and modeling of plasmonic nanoparticles

  Prof. Stephan Link (Rice University, USA)

  Fundamentals of fluorescence spectroscopy at the single molecule/single particle limit



  Prof. Christy Landes (Rice University, USA)

  Fabrication and characterization of metal nanostructures

  Prof. Hiroaki Misawa (Hokkaido University, Japan)

2013

2014


Science Building II, Room 210
Department of Applied Chemistry,
National Chiao Tung University
The 3rd International Summer Course
Single Molecule/Nanoparticle
Spectroscopy and Imaging
Lecture I
Prof. Steven De Feyter
"Nanochemistry on surfaces:
a scanning probe microscopy approach"
July 7 - 9, 2014
Organized by
Center for Interdisciplinary Science, NCTU
NHTU/NCTU Frontier Research Center
on Fundamental and Applied Sciences of Matters

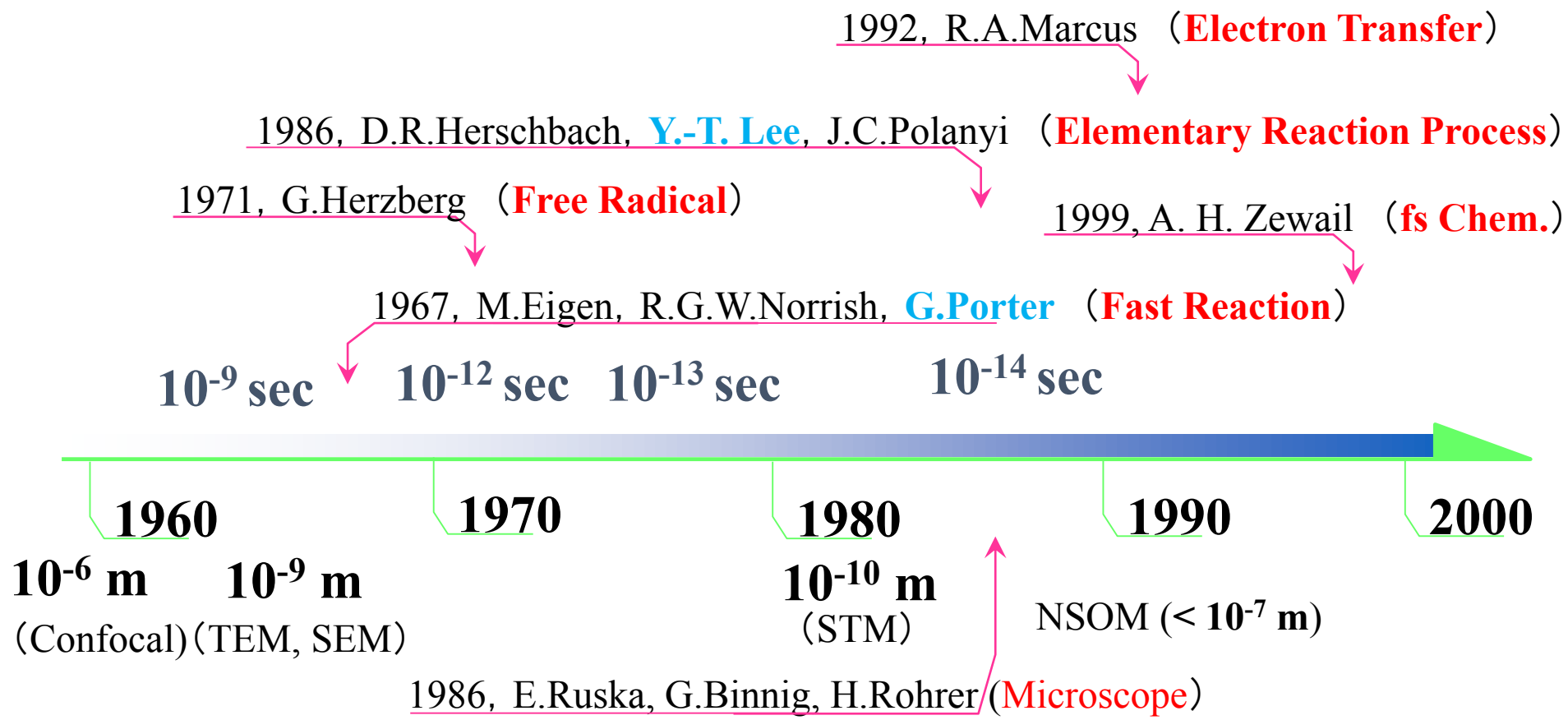

Science Building II, Room 210
Department of Applied Chemistry,
National Chiao Tung University
The 3rd International Summer Course
Single Molecule/Nanoparticle
Spectroscopy and Imaging
Lecture II
Prof. Mizuo Maeda
"DNA-Functionalized nanoparticles
for chemical- and bio-sensing"
July 7 - 9, 2014
Organized by
Center for Interdisciplinary Science, NCTU
NHTU/NCTU Frontier Research Center
on Fundamental and Applied Sciences of Matters


Science Building II, Room 210
Department of Applied Chemistry,
National Chiao Tung University
The 3rd International Summer Course
Single Molecule/Nanoparticle
Spectroscopy and Imaging
Lecture III
Prof. Tomoji Kawai
"DNA nanotechnology and
metal oxide nanotechnology"
July 7 - 9, 2014
Organized by
Center for Interdisciplinary Science, NCTU
NHTU/NCTU Frontier Research Center
on Fundamental and Applied Sciences of Matters

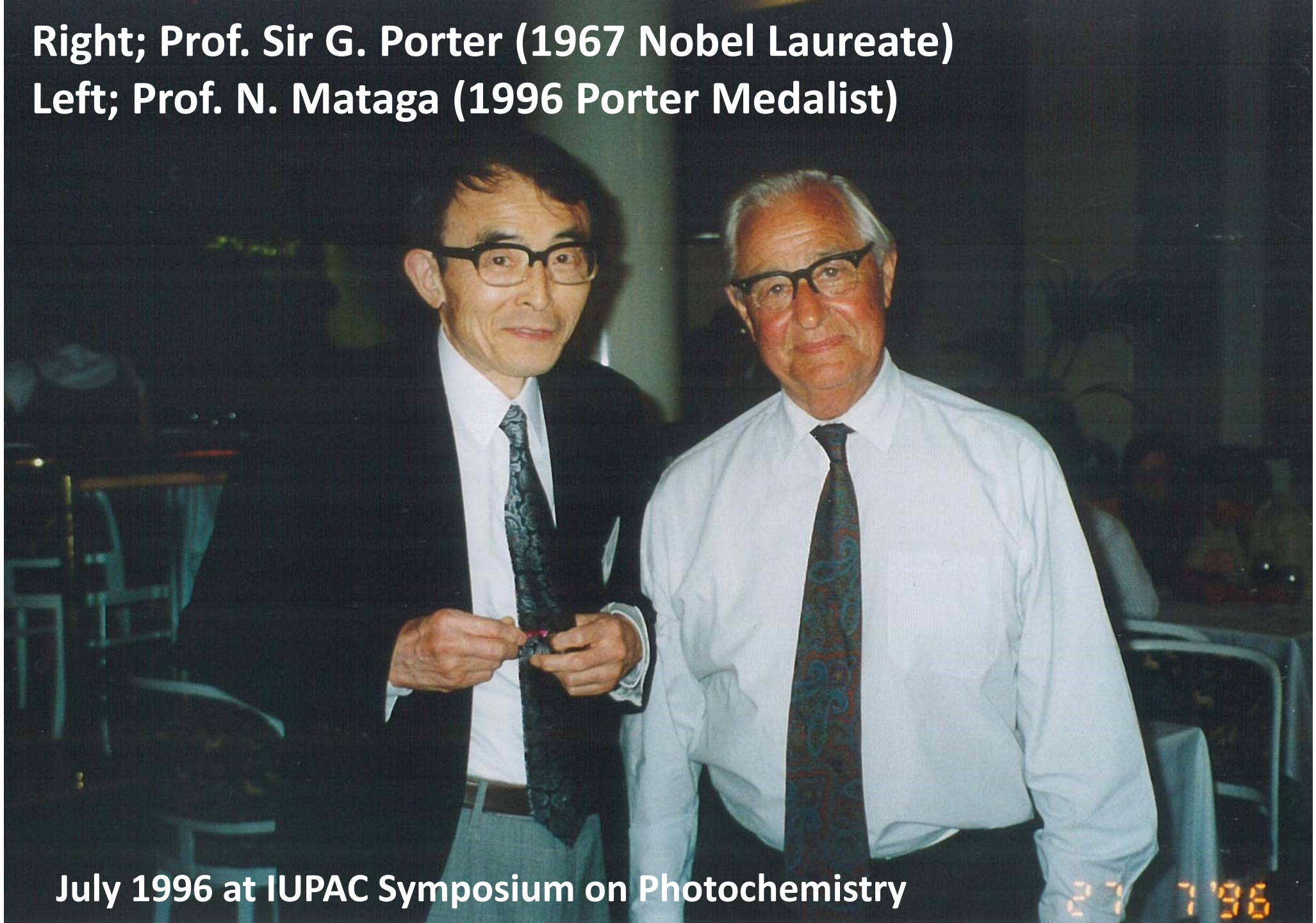
2015


免費
Department of Applied Chemistry
and Institute of Molecular Science
National Chiao Tung University
The 4th Hsinchu Summer Course
Single Molecule/Nanoparticle Spectroscopy and Imaging
Lecturers
Prof. Haruo Inoue (Tokyo Metropolitan University, Japan)
"Artificial photosynthesis"
Prof. Keisuke Goda (University of Tokyo, Japan)
“Extreme imaging”
Prof. Takeharu Nagai (Osaka University, Japan)
“Fluorescent bio-probes”

Nobel Prizes in Chemistry



20th Century: Time-resolved Chemistry


Right; Prof. Sir G. Porter (1967 Nobel Laureate)
Left; Prof. N. Mataga (1996 Porter Medalist)
July 1996 at IUPAC Symposium on Photochemistry
27 7 96

The Nobel Prize in Chemistry 2014

Photo: Matt Staley/HHMI

Eric Betzig

Prize share: 1/3

© Bernd Schuller, Max-Planck-Institut

Stefan W. Hell

Prize share: 1/3

Photo: K. Lowder via Wikimedia Commons, CC-BY-SA-3.0

William E. Moerner

Prize share: 1/3

The Nobel Prize in Chemistry 2014 was awarded jointly to Eric Betzig, Stefan W. Hell and William E. Moerner *"for the development of super-resolved fluorescence microscopy"*.

"The Nobel Prize in Chemistry 2014". Nobelprize.org. Nobel Media AB 2014. Web. 3 Dec 2014. <http://www.nobelprize.org/nobel_prizes/chemistry/laureates/2014/>

20th Century: Time-resolved Chemistry

21st Century: Space-resolved Chemistry

Chemistry under a microscope

Single molecule/nanoparticle spectroscopy and imaging

Our lecturers are indeed top scientists

Prof. Haruo INOUE

Prof. Keisuke GODA

Prof. Takeharu NAGAI