

Program

13/11/2014 (Thursday)

10:20 Opening Remark (Osamu Kojima, Kobe University)

*\*Quantum optics and Nanophotonics*

(chair: Takashi Kita, Kobe University)

10:30 Invited Talk

**Real-time control of semiconductor cavity-QED beyond the radiative lifetime**

Chao-Yuan Jin, Eindhoven University of Technology (Netherlands)

11:00 Invited Talk

**Electron and hole spin dephasing induced by nuclear field fluctuation in semiconductor quantum dots**

Reina Kaji, Hokkaido University (Japan)

11:30 Plenary Talk

**Ultrafast coherent control of excitons and spins in quantum dots**

A. Mark Fox, University of Sheffield (United Kingdom)

12:20 Lunch & Poster Exhibition supported by



*\*Photonic and Nanostructured materials I*

(chair: Kouichi Akahane, NICT)

14:00 Invited Talk

**Optical properties of layered structures of semiconductor quantum dots and metal nanoparticles prepared by layer-by-layer assembly**

Daegwi Kim, Osaka City University (Japan)

14:30 Contributed Talk

**CMOS-compatible nonlinear optical materials for Si photonics**

Kenji Imakita, Kobe University (Japan)

14:50 Contributed Talk

**Modulation of Photoluminescence Properties of InAs Quantum Dots on Nitrogen  $\delta$ -doped GaAs**

Toshiyuki Kaizu, Kobe University (Japan)

15:30 Break

*\*Photonic and Nanostructured materials II*

(chair: Hideki Hirori, Kyoto University)

**16:00 Invited Talk**

**Energy transfer processes in Eu-doped GaN**

**Dolf Timmerman, Osaka University (Japan)**

**16:30 Invited Talk**

**Superfluorescence of Biexcitons in CuCl Quantum Dots**

**Kensuke Miyajima, Tokyo University of Science (Japan)**

**17:00 Invited Talk**

**Two-Dimensional Electronic States of Epitaxial Nitrogen Atomic Sheet in GaAs**

**Yukihiro Harada, Kobe University (Japan)**

**17:30 Banquet (Ground Floor)**

14/11/2014 (Friday)

*\*Photonic Devices and application*

(chair: Osamu Kojima, Kobe University)

10:00 Plenary Talk

**Coherently Coupled Epitaxially Re-grown Photonic Crystal Surface Emitting Lasers**

Richard Hogg, University of Sheffield (United Kingdom)

10:50 Invited Talk

**Growth of self-assembled InAs quantum dots on InP substrates**

Kouichi Akahane, National Institute of Information and Communications Technology (Japan)

11:20 Invited Talk

**Growth and Characterization of Stacked InAs/GaAs Quantum Dots for Photovoltaics**

Takashi Kita, Kobe University (Japan)

11:50 Lunch & Poster Session supported by



*\*Terahertz Physics and Ultrafast Spectroscopy*

(chair: Dolf Timmerman, Osaka University)

14:30 Invited Talk

**New Progress of Ultraintense THz Pulse Generation Technology and Nonlinear THz Spectroscopy**

Hideki Hirori, Kyoto University (Japan)

15:00 Invited Talk

**Photon-echo-based Broadband Quantum Interface using a Quantum Dot Ensemble**

Junko Ishi-Hayase, Keio University (Japan)

15:30 Invited Talk

**Ultrafast Optical Switch Based on Quantum Beat Oscillation in GaAs/AlAs Multiple Quantum Well**

Osamu Kojima, Kobe University (Japan)

16:00 Closing (Takashi Kita, Kobe University)

*Poster Program*

- P01 Theoretical Analysis of Selective Optical Assembling Based on Light-induced-force Nano Metropolis Method**  
Mamoru Tamura, Osaka Prefecture University (Japan)
- P02 Broadband near-infrared light source using multi-color InAs quantum dots for optical coherence tomography**  
Takuma Yasuda, Wakayama University (Japan)
- P03 Measurements of photo-induced surface relief in TlInS<sub>2</sub>**  
Makoto Imanishi, Osaka Prefecture University (Japan)
- P04 Two-Photon Absorption Band and Size-Selective Excitation of Biexcitons Confined in CuCl Quantum Dots**  
Tatsuro Akatsu, Tokyo University of Science (Japan)
- P05 Generation of Collinear and Degenerated Entangled Photons via Biexciton-Resonant Hyper-Parametric Scattering**  
Hayate Shimizu, Osaka Prefecture University (Japan)
- P06 Ultrafast optical responses caused by nonequilibrium transport process of carriers in GaAs epitaxial structures**  
Takayuki Hasegawa, University of Hyogo (Japan)
- P07 Excited States of Exciton and Biexciton in CuCl Bulk Crystal**  
Masahiro Sugawara, Tokyo University of Science (Japan)
- P08 Control of Optical Response of Nano-hole Array with Random Plasmonic Structure and Biological Application**  
Takayasu Yoshikawa, Osaka Prefecture University (Japan)
- P09 Fabrication and Characterization of Cyanine Dye Thin Films Grown by a Layer-by-Layer Method**  
Junpei Nagauchi, Kobe University (Japan)
- P10 Polarization of Photoluminescence of Cd<sub>0.8</sub>Mn<sub>0.2</sub>Te under High Density Excitation**  
Masami Nagata, Tokyo University of Science (Japan)
- P11 Development of Local Optical Fabrication Method for Photonic Structure with Heterogeneous Microparticles**  
Yasuyuki Yamamoto, Osaka Prefecture University (Japan)
- P12 Non-classical Light Generation from Isoelectronic Centers Embedded in Photonic Crystal Microcavities**  
Michio Ikezawa, University of Tsukuba (Japan)
- P13 Photoluminescence Spectra and Decay Profiles of In-rich InGaN Quantum Wells Structure Grown by MOVPE**  
Kazuki Nagasawa, Tokyo University of Science (Japan)

- P14    Optical property of cavity polaritons in CuCl microcavities with Ag mirrors  
Goro Oohata, Osaka Prefecture University (Japan)**
- P15    Photoluminescence decay dynamics in epitaxial two-dimensional nitrogen  
atomic sheet in GaAs  
Takeshi Baba, Kobe University (Japan)**
- P16    THz pulse generated from high power shaped femtosecond laser pulses  
interaction with gas-plasma  
Haiwei Du, RIKEN (Japan)**
- P17    Excitation power dependence of degree of entanglement of photon-pair  
from biexciton  
Yasuo Yamamoto, Osaka Prefecture University (Japan)**
- P18    Broadband Down-conversion for Silicon Solar Cell by Using  
Semiconductor/Phosphor Heterostructure  
Xiaojie Wu, Chinese Academy of Sciences (China)/ Kobe University (Japan)**
- P19    Control of Electronic States of Colloidal PbS Quantum Dots Embedded in  
Polymer Films  
Mai Hirota, Kobe University (Japan)**
- P20    Photoconductivity-based strain sensing in graphene  
Satofumi Souma, Kobe University (Japan)**