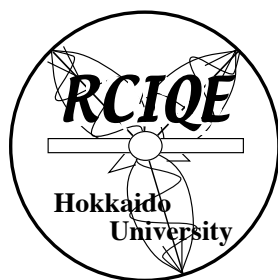


2004 RCIQE International Seminar for 21st Century COE Program: "Quantum Nanoelectronics for Meme-Media-Based Information Technologies (II)"



February 9th-11th, 2004
Conference Hall, Hokkaido University

日時：平成16年 2月9日10:00 ～ 2月11日12:00

場所：北海道大学学術交流会館

主催：北海道大学21世紀COEプログラム(知識メディアを基盤とする次世代ITの研究)

北海道大学量子集積エレクトロニクス研究センター

Program

(Monday, February 9th)

10:00 - 10:10 "Introductory Talk"

Hideki Hasegawa, Hokkaido University

- Plenary -

10:10 - 10:50 "Meme Media for the Dynamic Federation of Web Applications and Ubiquitous Knowledge Resources"
Yuzuru Tanaka, Hokkaido University

10:50 - 11:10 Break

11:10 - 11:50 "Toward Realization of Intelligent Quantum Chips Utilizing III-V Nanoelectronics"
Hideki Hasegawa, Hokkaido University

11:50 - 12:40 "Self-Assembled Quantum Dots for Optoelectronic Devices: Progress and Challenges"
Mohamed Henini, Nottingham University

12:40 - 13:40 Lunch Break

- Spintronics -

13:40 - 14:30 "Growth and Characterization of Ferromagnetic Metal/Compound Semiconductor Heterostructures for Spin Electronics"
Chris Palmström, University of Minnesota

14:30 - 15:10 "High Efficiency Spin Injection from a Ferromagnetic Metal into a Semiconductor through an Fe/InAs Junction"
Kanji Yoh, Hokkaido University

15:10 - 15:30 Break

15:30 - 16:20 "Hybrid Ferromagnetic (MnGa)As / GaAs-Structures: Metal Organic Vapor Phase Epitaxy, Structure Analysis and Magnetic Properties"
Wolfgang Stolz, Philipps-University Marburg

16:20 - 17:00 "Magnetoresistance and Magnetometry Phenomena in AlGaIn/GaN Two-Dimensional Electron Gas"

Kotaro Tsubaki¹, N. Maeda², T. Saitoh³, N. Kobayashi⁴, ¹Toyo University, ²NTT Photonics Laboratory, ³NTT Basic Research Laboratory, ⁴University of Electro-Communications

17:00 - 18:00 **Lab Tour to RCIQE**

(Tuesday, February 10th)

- Devices and Circuit Applications -

9:30 - 10:10 "Room Temperature Operation of Highly Functional Single-Electron Transistors and Silicon Nanocrystal Memories",
Toshiro Hiramoto, M. Saitoh, I. Kim, University of Tokyo

10:10 - 10:50 "MOVPE Growth of Nanostructures and Their Applications"
Takashi Fukui, Hokkaido University

10:50 - 11:10 Break

11:10 - 11:50 "A LSI Design of a High-Speed Wireless Communication System using Dynamic Reconfigurable Architecture"
Yoshikazu Miyanaga, Kentarou Yoshikawa Yasuyuki Hatakawa, Hokkaido University

11:50 - 13:30 Lunch Break

- Photonic Technologies -

13:30 - 14:10 "Photonic Nanodevice Integration Engineering in Tokyo Tech"
Shigehisa Arai, Tokyo Institute of Technology

14:10 - 14:50 "Challenges to Terahertz Integrated Circuits"
Eiichi Sano, Hokkaido University

14:50 - 15:10 Break

- GaN-Based Technologies -

15:10 - 15:50 "Surface Characterization and Passivation for GaN-Based Electron Devices"
Tamotsu Hashizume, Hideki Hasegawa, Hokkaido University

15:50 - 16:30 "AlGaIn/GaN Heterojunction FET for High Frequency Power Applications"
Masaaki Kuzuhara, R&D Association for Future Electron Devices

16:30 - 18:00 **Poster Viewing Session**

18:30 - 20:30 **Reception** (Centennial Hall, Hokkaido University)

(Wednesday, February 11th)

- GaN-Based Technologies (continued) -

9:30 - 10:10 "Critical Issues for the Development of GaN-Based UV Devices"
Hiroshi Amano, Meijo University

10:10 - 10:30 Break

- Quantum Dots -

10:30 - 11:20 "In-rich InGaIn/GaN Self-Assembled Quantum Dots by MOCVD"
Euijoon Yoon, Seoul National University

11:20 - 12:00 "Scanning Probe Microscopy Observations of Electronic States and Work Functions in InAs Quantum Dots",
Arao Nakamura, T. Yamauchi*, M. Tabuchi**, *Nagoya University and CREST-JST, **Nagoya University-VBL*

聴講料無料、懇親会参加費 1,000円

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