Program

(abstract page)

(Monday, February 9)

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, Kimihito Ito, and Jun Fujima**, Hokkaido University* *p.1*

10:50 - 11:10 Break

11:10 - 11:50 "Toward Realization of Intelligent Quantum Chips Utilizing III-V Nanoelectronics"
***Hideki Hasegawa**, Hokkaido University* *p.39*

11:50 - 12:40 "Self-Assembled Quantum Dots for Optoelectronic Devices: Progress and Challenges"
***Mohamed Henini**, Nottingham University* *p.46*

12:40 - 13:40 Lunch Break

- **Spintronics** -

13:40 - 14:30 "Growth and Characterization of Ferromagnetic Metal/Compound Semiconductor Heterostructures for Spin Electronics"
***Chris Palmstrøm**, University of Minnesota* *p.60*

14:30 - 15:10 "High Efficiency Spin Injection from a Ferromagnetic Metal into a Semiconductor through an Fe/InAs Junction"
***Kanji Yoh**, Hokkaido University and CREST-JST* *p.62*

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* *p.66*

16:20 - 17:00 "Magnetoresistance and Magnetometory Phenomena in AlGaN/GaN Two-Dimensional Electron Gas"
***Kotaro Tsubaki[1], N. Maeda[2], T. Saitoh[3], and N. Kobayashi[4]**, [1]Toyo University, [2]NTT Photonics Laboratory, [2]NTT Basic Research Laboratory, [3]University of Electro-Communications* *p.67*

17:00 - 18:00 Lab Tour to RCIQE

(Tuesday, February 10)

- 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, and I. Kim**, University of Tokyo* p.73

10:10 - 10:50 "MOVPE Growth of Nanostructures and Their Applications"
***Takashi Fukui and Junichi Motohisa**, Hokkaido University* p.78

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 and Yasuyuki Hatakawa**, Hokkaido University* p.83

11:50 - 13:30 Lunch Break

- Photonic Technologies -

13:30 - 14:10 "Photonics Nanodevice Integration Engineering in Tokyo Tech"
***Shigehisa Arai**, Tokyo Institute of Technology* p.89

14:10 - 14:50 "Challenges for Terahertz Integrated Circuits"
***Eiichi Sano**, Hokkaido University* .....p. 95

14:50 - 15:10 Break

- GaN-Based Technologies -

15:10 - 15:50 "Surface Characterization and Passivation for GaN-based Electron Devices"
***Tamotsu Hashizume and Hideki Hasegawa**, Hokkaido University* p.101

15:50 - 16:30 "AlGaN/GaN Heterojunction FET for High Frequency Power Applications"
***Masaaki Kuzuhara**, R&D Association for Future Electron Devices* p.112

16:30 - 18:00 Poster Sessions (see page iv)

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

(Wednesday, February 11)

- GaN-Based Technologies (continued) -

9:30 - 10:10 "Critical Issues for the Development of GaN-Based UV Devices"
***Hiroshi Amano, M. Iwaya, S. Kamiyama and I. Akasaki**, Meijo University* p.118

10:10 - 10:30 Break

- Quantum Dots -

10:30 - 11:20 "In-rich InGaN/GaN Self-Assembled Quantum Dots by MOCVD"
***Euijoon Yoon**, Seoul National University* ..... p. 112

11:20 - 12:00 "Scanning Probe Microscopy Observations of Electronic States and Work Functions in InAs Quantum Dots"
***Arao Nakamura*[1,2]*, T. Yamauchi*[2] *and M. Tabuchi*[3], *[1]Nagoya University, [2]CREST-JST, [3]Nagoya University-VBL* p.127

Poster Sessions