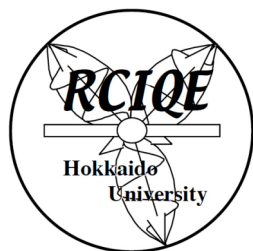


2009 RCIQE International Seminar on "Advanced Semiconductor Materials and Devices"



March 2-3, 2009

Conference Hall, Hokkaido University

Co-Sponsored by

Research Center for Integrated Quantum Electronics (RCIQE)
and

*Global COE Program of
Center for Next-Generation Information Technology based on
Knowledge Discovery and Knowledge Federation,
Hokkaido University*

Program

(Monday, March 2)

10:00 - 10:10 "Opening Address"

- Semiconductor Nanowires -

10:10 - 10:50 "Vapor-liquid-solid growth of III-V nanowires:
Mechanisms, difficulties, challenges"

*J.-C. Harmand, F. Glas, G. Patriarche,
L. Largeau, M. Tchernycheva, C. Sartet and
L. Liu, CNRS-LPN, France*

10:50-11:30 "Heterostructured wurtzite/zinc-blende
GaAs/GaAsSb nanowires: New possibilities for
band-structure engineering in nanowire based
photonic devices"
*H. Weman, Norwegian University of Science and
Technology, Norway*

11:30-11:50 "III-V semiconductor nanowires and their device
application"
*T. Fukui, S. Hara, K. Hiruma and J. Motohisa,
Hokkaido University*

11:50-13:20 Lunch Break

- Spintronics -

13:20-14:00 "Characterization of spintronic materials - Are
ferromagnetic clusters in semiconductors useful
for spintronics?"
*P. J. Klar, Justus-Liebig-University of Giessen,
Germany*

14:00-14:20 "Ferromagnetic MnAs nanoclusters position-
controlled by selective-area MOVPE toward
magneto-resistive device applications"
S. Hara, Hokkaido University and JST-PRESTO

14:20-14:40 Coffee Break

- Graphen -

14:40-15:20 "Novel microscopies for graphene on SiC"
*M. Nagase, H. Hibino, H. Kageshima,
H. Yamaguchi, NTT Basic Research Labs.*

15:20-15:40 "Theoretical investigation of graphene-channel
field-effect transistors"
E. Sano, Hokkaido University

15:40-16:00 "Fabrication and characterization of graphene
transistor on SiC"
K. Yoh and K. Konishi, Hokkaido University

16:00-17:30 **Poster Viewing Session**

Lab Tour to RCIQE (17:00-18:00)

18:00-19:30 **Reception (Centennial Hall, Hokkaido Univ.)**

(Tuesday, March 3)

- Advanced Device Technology -

10:00-10:40 "InGaAs MISFET with hetero-laucher"
Y. Miyamoto, Tokyo Institute of Technology

10:40-11:20 "Cooperation of R&D's on compound
semiconductor materials with advanced electron
devices in NTT laboratories"
*N. Shigekawa, M. Hiroki and H. Sugiyama, NTT
Photonics Labs.*

11:20-11:40 "Electrochemical formation and sensor
application of InP porous nanostructures"
T. Sato, Hokkaido University

11:40-13:10 Lunch Break

- Nanoelectronic Materials and Devices -

13:10-13:50 "Novel-functional single-electron device using
nanodot array with multiple outputs"
*Y. Takahashi¹, T. Kaizawa¹, M. Arita¹,
A. Fujiwara², Y. Ono² and H. Inokawa³,
¹Hokkaido University, ²NTT Basic Research
Labs., ³Shizuoka University*

13:50-14:30 "Siliconphotonics and plasmonics for on-chip
interconnection"
K. Ohashi, NEC and MIRAI-Selete

14:30-14:50 "Semiconductor surfaces and growth of
nanowires: A first-principles study"
H. Koga, Hokkaido University

14:50-15:00 "Closing Remarks"

Registration fee: free, Reception fee: 1000 yen

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