

**Poster Presentation (October 22, 16:00-17:30)**

No.	Author	Affiliation	Title
P-1	Makoto Kohda <sup>1,2</sup> and Junsaku Nitta <sup>1</sup>	1 Department of Materials Science, Tohoku University, 2 PRESTO, Japan Science and Technology Agency	<i>Enhancement of spin orbit interaction in quaternary InGaAsP / InGaAs heterostructures</i>
P-2	H. Hiraga <sup>1</sup> , T. Makino <sup>1</sup> , T. Fukumura <sup>2,3</sup> , A. Ohtomo <sup>2</sup> , M. Kawasaki <sup>1,2,4</sup>	1 WPI-AIMR Tohoku Univ., 2 IMR Tohoku Univ., 3 JST-PRESTO, 4 JST-CREST	<i>Excitonic and magnetic properties in natural superlattices composed of Cu<sub>2</sub>O and transition metal oxides</i>
P-3	Takeshi Kutsuwa <sup>1</sup> , Makoto Kuwahara <sup>1</sup> , Keiji Ono <sup>2, 1</sup> , Hideo Kosaka <sup>3, 1</sup>	1 CREST-JST, 2 Low Temperature Physics Laboratory, RIKEN, 3 Research Institute of Electrical Communication, Tohoku University	<i>Single electron spin resonance in a semiconductor double quantum dot with a nearly zero g-factor</i>
P-4	Kazumi Sato, Jun Tang and Katsumi Tanigaki	TU-WPI, Department of Physics, Graduate of Science, Tohoku University	<i>Physical properties of silicon and germanium network polyhedra</i>
P-5	Greg Dyer <sup>1</sup> , Jess Crossno <sup>1</sup> , Greg Aizin <sup>2</sup> , Eric Shaner <sup>3</sup> , Mike Wanke <sup>3</sup> , John Reno <sup>3</sup> and S.J. Allen <sup>1</sup>	1 Physics Department, UC Santa Barbara, 2 City College of New York, 3 Sandia National Laboratory	<i>Narrowband terahertz detection with 2D plasmons in multi-gate high electron mobility transistors</i>
P-6	Y. Kunihashi <sup>1</sup> , M. Kohda <sup>1,2</sup> and J. Nitta <sup>1</sup>	1 Department of Materials Science, Tohoku University, 2 PRESTO Japan Science and Technology Agency	<i>Anisotropic spin splitting in InGaAs wire structures</i>
P-7	Shoun Matsunaga and Takahiro Hanyu	Laboratory for Brainware Systems, RIEC, Tohoku University, Japan	<i>Ultra-low-power ternary content-addressable memory Using MOS/MTJ-hybrid circuitry</i>
P-8	Bo Gu <sup>1</sup> , Jing-Yu Gan <sup>1,2</sup> , Nejat Bulut <sup>1,3</sup> , Guang-Yu Guo <sup>4,5</sup> , Naoto Nagaosa <sup>6,7</sup> , and Sadamichi Maekawa <sup>1,3</sup>	1 Institute for Materials Research, Tohoku University, 2 Institute of Physics, Chinese Academy of Sciences 3 JST, CREST, 4 Graduate Institute of Applied Physics, National Chengchi University, 5 Department of Physics and Center for Theoretical Sciences, National Taiwan University 6 Department of Applied Physics, The University of Tokyo, 7 Cross-Correlated Materials Research Group (CMRG), ASI, RIKEN	<i>Quantum renormalization of the spin Hall effect</i>
P-9	T. -T. Lin, K. Ohtani, and H. Ohno	Laboratory for Nanoelectronics and Spintronics, Research Institute of Electrical Communication, Tohoku University	<i>Properties of Cu-based metal-metal waveguide THz quantum cascade lasers fabricated by radio frequency sputtering method</i>
P-10	S. Teraoka <sup>1</sup> , S. Amaha <sup>1</sup> , T. Hatano <sup>1</sup> , T. Kubo <sup>1</sup> , Y. Tokura <sup>1,2</sup> , Y. Ohno <sup>3</sup> , H. Ohno <sup>3</sup> , and S. Tarucha <sup>1,4</sup>	1 Quantum Spin Information Project, ICORP-JST 2 NTT Basic Research Laboratories, NTT Corporation 3 Laboratory for Nanoelectronics and Spintronics, Research Institute of Electrical Communication Tohoku University 4 Department of Applied Physics, Graduate School of Engineering, The University of Tokyo	<i>Spin resonance and zero field spin splitting of two dimensional hole system in (311)A GaAs/AlGaAs heterostructure</i>
P-11	T. Makino <sup>1</sup> , Y. Furuta <sup>2</sup> , Y. Segawa <sup>3</sup> , A. Tsukazaki <sup>4</sup> , A. Ohtomo <sup>4</sup> , Y. Hirayama <sup>5</sup> , R.	1 WPI-Advanced Institute for Materials Research, Tohoku University, 2 Dept. of Material	<i>Charged exciton emission in n-type modulation-doped ZnO/MgZnO single quantum wells</i>

	Shen <sup>5</sup> , S. Takeyama <sup>5</sup> , Y. Takagi <sup>2</sup> , M. Kawasaki <sup>1,3,4</sup>	Science. University of Hyogo, 3 Cross-correlated Materials Research Group (CMRG), RIKEN, 4 Institute for Materials Research, Tohoku University, 5 Institute for Solid State Physics, The University of Tokyo	
P-12	J. M. LeBeau <sup>1</sup> , S. D. Findlay <sup>2</sup> , L. J. Allen <sup>3</sup> , and S. Stemmer <sup>1</sup>	1 Materials Department, University of California, Santa Barbara 2 Institute of Engineering Innovation, The University of Tokyo, 3 School of Physics, University of Melbourne	<i>Quantitative scanning transmission electron microscopy</i>
P-13	Roman Olac-vaw <sup>1</sup> , Hyun-Chul Kang <sup>1</sup> , Hiromi Karasawa <sup>1</sup> , Yu Miyamoto <sup>1</sup> , Hiroyuki Handa <sup>1</sup> , Hirokazu Fukidome <sup>1,2</sup> , Tetsuya Suemitsu <sup>1,2</sup> , Maki Suemitsu <sup>1,2</sup> and Taiichi Otsuji <sup>1,2</sup>	1 Research Institute of Electrical Communication, Tohoku University, 2 JST-CREST, Japan Science and Technology Agency	<i>Electronic and optoelectronic properties of heteroepitaxial graphene on a Si substrate</i>
P-14	T. Inagaki <sup>1,2</sup> , H. Kosaka <sup>1,2</sup> , Y. Rikitake <sup>3,2</sup> , H. Imamura <sup>4,2</sup> , Y. Mitsumori <sup>1, 2</sup> , and K. Edamatsu <sup>1</sup>	1 Research Institute of Electrical Communication, Tohoku University, 2 CREST-JST, 3 Department of Information Engineering, Sendai National College of Technology, 4 Nanotechnology Research Institute, AIST	<i>Optical measurement of electron spin coherence in a semiconductor quantum well</i>
P-15	Daisuke Suzuki, Masanori Natsui and Takahiro Hanyu	Laboratory for Brainware Systems, Research Institute of Electrical Communication, Tohoku University	<i>Nonvolatile field-programmable gate array using MOS/MTJ hybrid structure</i>
P-16	Lihui Bai <sup>1</sup> , Makoto Kohda <sup>1,2</sup> and Junsaku Nitta <sup>1</sup>	1 Department of Materials Science, Tohoku University, 2 PRESTO, Japan Science and Technology Agency	<i>Propagating spin wave in a Permalloy strip and its excitation, manipulation and detection</i>
P-17	K. Ohno, F. J. Heremans, D. M. Toyli, G. D. Fuchs, C. J. Palmstrom, and D. D. Awschalom	Center for Spintronics and Quantum Computation, University of California, Santa Barbara	<i>Development of fabrication technology for single spin manipulation in diamond</i>
P-18	Yongfeng Li, Toshiro Kaneko and Rikizo Hatakeyama	Department of Electronic Engineering, Tohoku University	<i>Novel photoinduced transport properties of azafullerene encapsulated carbon nanotubes synthesized by a plasma ion-irradiation method</i>
P-19	T. Fukumura <sup>1,2</sup> , Y. Yamada <sup>1</sup> , K. Ueno <sup>3</sup> , H. Shimotani <sup>1,4</sup> , Y. Iwasa <sup>1,4</sup> , M. Kawasaki <sup>1,3,4</sup>	1 Institute for Materials Research, Tohoku University, 2 PRESTO, Japan Science and Technology Agency, 3 WPI Advanced Institute for Materials Research, Tohoku University, 4 CREST, Japan Science and Technology Agency	<i>Electric field effect on room temperature ferromagnetism in a magnetic oxide semiconductor</i>
P-20	A. El Moutaouakil, T. Watanabe, T. Komori, T. Nishimura, T. Suemitsu and T. Otsuji	Research Institute of Electrical Communication (RIEC), Tohoku University	<i>Observation of coherent terahertz emission from super-grating dual-gate plasmon-resonant HEMT's using time-resolved spectroscopy</i>
P-21	Justin R Weber <sup>1</sup> , Anderson	1 Department of Physics, University of	<i>Point defects in Al<sub>2</sub>O<sub>3</sub> and their</i>

	Janotti <sup>2</sup> , and Chris G Van de Walle <sup>2</sup>	California, Santa Barbara, 2 Materials Department, University of California, Santa Barbara	<i>impact on novel CMOS performance</i>
P-22	Yan Wang <sup>1</sup> , Ryotaro Kumashiro <sup>2</sup> , and Katsumi Tanigaki <sup>1,2</sup>	1 Department of Physics, Graduate school of Science, Tohoku University, 2 World Premier International Research Center, Tohoku University	<i>Modification of interfaces in organic light-emitting field-effect transistors</i>
P-23	K. F. Yang <sup>1</sup> , H. W. Liu <sup>1,2</sup> , K. Nagase <sup>1</sup> , K. Amakata <sup>4</sup> , T. D. Mishima <sup>3</sup> , M. B. Santos <sup>3</sup> , Y. Hirayama <sup>1,4</sup>	1 ERATO-JST, 2 Jilin Univ., 3 Oklahoma Univ., 4 Tohoku Univ.	<i>Exchange enhancement of effective g factors in a symmetrically doped InSb quantum well</i>
P-24	M. Ono, H. Kobayashi, S. Matsuzaka, Y. Ohno and H. Ohno	Laboratory for Nanoelectronics and Spintronics, Research Institute of Electrical Communication, Tohoku University	<i>Nuclear spin coherence in a Schottky gated n-GaAs quantum well</i>
P-25	Qi Hu <sup>1,3</sup> , Eric Garlid <sup>3</sup> , Madhukar Reddy <sup>4</sup> , Jianjie Zhang <sup>3</sup> , Tsuyoshi Kondo <sup>3</sup> , Paul Crowell <sup>3</sup> and Chris Palmstrom <sup>1,2</sup>	1 Department of Electrical and Computer Engineering, 2 Department of Materials, University of California, Santa Barbara, 3 School of Physics and Astronomy, 4 Department of Chemical Engineering and Materials Science, University of Minnesota	<i>Doping profile studies on spin transport in Fe/GaAs Schottky barrier heterostructures</i>
P-26	Takashi Kawamura, Jun-ichiro Hayakawa, and Go Yusa	Department of Physics, Tohoku University	<i>Local nuclear spin detection using unconventional nuclear magnetic resonance</i>
P-27	H. Karasawa <sup>1</sup> , T. Watanabe <sup>1</sup> , T. Komori <sup>1</sup> , M. Suemitsu <sup>1,3</sup> , V. Ryzhii <sup>2,3</sup> , T. Otsuji <sup>1,3</sup>	1. RIEC Tohoku University, 2. University of Aizu, 3. JST-CREST	<i>Observation of coherent THz emission from optically pumped epitaxial graphene heterostructures</i>
P-28	M. Endo <sup>1</sup> , D. Chiba <sup>2,1</sup> , H. Shimotani <sup>3,4</sup> , F. Matsukura <sup>1,2</sup> , Y. Iwasa <sup>3,4</sup> and H. Ohno <sup>1,2</sup>	1 RIEC, Tohoku Univ., 2 ERATO-JST, 3 IMR, Tohoku Univ. 4 CREST-JST	<i>Electrical control of properties of (Ga,Mn)As using electric-double layer transistor</i>