

International Symposium on
Photonics and Electronics Science and Engineering 2018
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The Joint Kyoto University - Victoria University of Wellington Workshop 2018
on Science, Engineering and Applications of Electric and Electronic Materials

March 19,20 2018

Katsura-Hall, B Cluster, Katsura-Campus, Kyoto University, Kyoto, Japan

March 19: International Symposium and Joint Workshop

- 9:55-10:00 Opening Remark
- 10:00-10:30 J. L. Tallon (Victoria University of Wellington),
“Thermodynamics of high- T_c superconductors – cuprates, pnictides and hydrides”
- 10:30-11:00 I. Kakeya (Kyoto University),
“Evolution of collective inter-layer intrinsic Josephson phenomena in cuprate superconductors”
- 11:00-11:30 R. G. Buckley (Victoria University of Wellington),
“Electrical transport and optical behaviour of the spin gapless semiconductor Mn_2CoAl ”
- 11:30-12:00 T. Okuda (Kyoto University),
“Development of SiO_2 surface passivation on SiC epitaxial layers”
- 12:00-13:30 (Lunch)
- 13:30-15:00 Poster Session at ROHM Memorial Plaza
- 15:00-15:30 E. Furutani (Kyoto University),
“Model-based predictive control of physiological states”
- 15:30-16:00 N. J. Long (Victoria University of Wellington),
“Current developments in large scale HTS applications at Robinson Research Institute”
- 16:00-16:30 K. Kaneko (Kyoto University),
“Explore of corundum-structured alloys with novel functions”
- 16:30-17:00 J. Trodahl (Victoria University of Wellington),
“Rare-earth nitrides 2017: Almost nano Magnetic Tunnel Junctions (MTJ) and more”
- 17:00-17:05 Closing Remark

Poster Session (at ROHM Memorial Plaza, 13:30 - 15:00, March 19)

- P-1 T. Kiyohara, “Serial-parallel conversion for single photons with heralding signals”
- P-2 S. Asada, “Effects of carrier injection from parasitic base region in SiC bipolar junction transistors on conductivity modulation”
- P-3 S. Lee, “Injection current dependence of spin signals in non-degenerate n-Si”
- P-4 T. Mannari, “Voltage behavior dependence on flow of electrolysis solution in redox flow battery equipped with monitor cell”
- P-5 Y. Matsuda, “Efficient polychromatic emission from polar-plane-free faceted InGaN quantum wells”
- P-6 M. Matsushima, “Spin-charge conversion properties in highly oriented bismuth grown on single-crystal iron”
- P-7 S. Mochiyama, “A study on trajectory control of manipulator by power packet density modulation”
- P-8 Y. Nagira, “Small-gain theorem for discrete-time stochastic systems”
- P-9 M. Sánchez, “Recovery of periodic symmetry in single-phase AC/AC converter”
- P-10 E. Shigematsu, “Observation of thermal gradient in an YIG/GGG bilayer system in uniform microwave excitation”
- P-11 Y. Sogabe, “Electromagnetic field analyses of magnets wound with HTS coated conductors for accelerator systems”
- P-12 K. Sugiura, “Generation of frequency correlated photon-pairs using an on-chip ring resonator”
- P-13 C. Zhang, “Visual analytics and prediction system based on deep belief networks for icing monitoring data of overhead power transmission lines”
- P-14 Y. Mizobata, “Analyses of shielding-current-induced fields in stack of double pancake coils and layer-wound solenoid coil wound with copper-plated multifilament coated conductors”
- P-15 Y. Li, “Influence of magnetic substrate on the E - J characteristics measurements and the shielding current of the 1.5 T MRI magnet wound by coated conductor”
- P-16 H. Fujisaki, “Clearout of the $^2D_{5/2}$ state using optical frequency comb for fast spectroscopy of the $^2S_{1/2}$ - $^2D_{5/2}$ transition in Ba^+ ”

March 20: Joint Workshop

- 9:00-9:30 J. M. Hodgkiss (Victoria University of Wellington),
“Ultrafast spectroscopy of photocurrent generation in next generation photovoltaic materials”
- 9:30-10:00 H. Ohkita and H. D. Kim (Kyoto University),
“Factors limiting photovoltaic performance of perovskite solar cells”
- 10:00-10:30 J. Trodahl (Victoria University of Wellington),
“Structural transitions revealed by Raman scattering; Kyoto University and TU Darmstadt collaborations”
- 10:30-10:50 (Coffee Break)
- 10:50-11:20 J. Storey (Victoria University of Wellington),
“Fermi surface reconstruction in the pseudogap state”
- 11:20-11:50 R. Ohshima and M. Shiraishi (Kyoto University),
“Spintronics using low-dimensional materials systems”
- 11:50-12:20 S. Granville (Victoria University of Wellington),
“Nucleation and annihilation of skyrmions in spin gapless semiconductor Mn_2CoAl ”
- 12:20-13:30 (Lunch)
- 13:30-14:00 S. V. Chong (Victoria University of Wellington),
“Advanced layered materials – Iron based superconductors and organic-inorganic hybrids”
- 14:00-14:30 Y. Matsuda (Kyoto University),
“Pseudogap in cuprates, crossover or phase transition?”
- 14:30-15:00 Z. Jiang (Victoria University of Wellington),
“The dynamic resistance of YBCO coated conductor wire: effect of DC current magnitude and applied field orientation”
- 15:00-15:20 (Coffee Break)
- 15:20-15:50 T. Saito and Y. Shimakawa (Kyoto University),
“Exploration of novel functional materials under high pressure”
- 15:50-16:20 S. C. Wimbush (Victoria University of Wellington),
“Advances in HTS wire critical current characterisation”
- 16:20-16:50 N. Amemiya (Kyoto University),
“Simulation experiments of quench and protection of conduction-cooled coated-conductor magnets”
- 16:50-17:20 K. Hamilton (Victoria University of Wellington),
“Kiloamp class magnet based flux pump power supplies”
- 17:20-17:30 Closing Remark
- 17:30- Lab. Tour Opportunity