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- working on small scales

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Speaker of Session 21

ENERGY SAVING TECHNIQUES



Hideo Kaiju received his Ph. D. from Keio University in 2005. During the doctor course, he worked as a research fellow of the Japan Society for the Promotion of Science (JSPS). He worked as a research associate from 2004-2007 and an Assistant Professor from 2007-2013 in Research Institute for Electronic Science (RIES) at Hokkaido University. From 2009-2013, he also worked as a Precursory Research for Embryonic Science and Technology (PRESTO) researcher of Japan Science and Technology Agency (JST). From 2013 to the present, he worked as an Associate Professor in RIES at Hokkaido University. Dr. Kaiju pioneered a new technology for the fabrication of nanoscale junctions utilizing thin-film edges in 2010 (H.K. *et al.*: *Nanotechnology* 21, 015301 (2010)) and he successfully fabricated nanoscale tunneling junctions (H.K. *et al.*: *Jpn. J. Appl. Phys.* 49, 105203 (2010)) and nanoscale molecular devices (H.K., *et al.*: *InTech "Lithography"*, ISBN 978-953-308-72-7 (2011), *Jpn. J. Appl. Phys.* 51, 065202 (2012). He is now exploring new organic spintronics devices, consisting of organic molecules sandwiched between ferromagnetic thin films whose edges are crossed (H.K., *et al.*: *Mater. Res. Soc. Symp. Proc.* 1708, vv0910 (2014), *J. Appl. Phys.* (2015) [in press]). They can be expected as beyond CMOS switching devices and novel magnetoresistance devices. He has published more than 45 papers, including original and review articles. He also received academic awards, including Keio Engineering Society Award in 2000, Applied Physics and Physico-Informatics Award in 2002, Matsumoto-Hadori Award in 2007, and MRS Best Poster Presentation Award and MSJ Young Scientist Award in 2014.

