

- (54) Hydrogen peroxide distribution and neuronal cell death in a rat hippocampal slice, *Sensors and Actuators B*, 108 (2005), 746-750, N. Kasai, C. Han, K. Torimitsu
- (55) CA2: the most vulnerable sector to bicuculline exposure in rat hippocampal slice cultures, *NeuroReport*, 16 (2005), 333-336, C. Han, N. Kasai, K. Torimitsu
- (56) Selective Chemisorption of End-Functionalized Conjugated Polymer on Macro-and Nanoscale Surfaces, *Langmuir*, 21 (2005), 511-515, H. Nakashima, K. Furukawa, K. Ajito, Y. Kashimura, K. Torimitsu
- (57) A Self-assembled Nano Optical Switch and Transistor Based on a Rigid Conjugated Polymer, Thioacetyl-end-functionalized Poly (para-Phenylene ethynylene), *J. Am. Chem. Soc.*, 127 (2005), 2804-2805, W. Hu, H. Nakashima, K. Furukawa, Y. Kashimura, K. Ajito, Y. Liu, D. Zhu, K. Torimitsu,
- (58) Advancing conjugated polymers into nanometer-scale devices, *Pure Appl. Chem.*, 78 (2006), 1803-1822, W. Hu, H. Nakashima, E. Wang, K. Furukawa, H. Li, Y. Luo, Z. G. Shuai, Y. Kashimura, Y. Liu, K. Torimitsu
- (59) Fabrication of an electrochemical sensor array for 2D H₂O₂ imaging, *Electrochemistry*, 74 (2006), 628-631, N. Kasai, A. Shimada, T. Nyberg, K. Torimitsu
- (60) Microchannel device using self-spreading lipid bilayer as molecule carrier, *Lab on a Chip*, 6 (2006), 1001-1006, K. Furukawa, H. Nakashima, Y. Kashimura, K. Torimitsu
- (61) Molecular-mediated single-electron devices operating at room temperature, *Jpn. J. Appl. Phys.*, 45 (2006), 4285-4289, T. Goto, K. Degawa, H. Inokawa, K. Furukawa, H. Nakashima, K. Sumitomo, T. Aoki, K. Torimitsu
- (62) Electron transport in self-assembled polymer molecular junctions, *Phys. Rev. Lett.*, 96 (2006), 027801-1-4, W. Hu, Jun Jiang, H. Nakashima, Y. Luo, Y. Kashimura, K.-Q. Chen, Z. Shuai, K. Furukawa, W. Lu, Y. Liu, D. Zhu, K. Torimitsu
- (63) Visualization of inositol 1,4,5-trisphosphate receptor by atomic force microscopy, *Neurosci. Lett.*, 391 (2006), 102-107, W. Suhara, M. Kobayashi, H. Sagara, K. Hamada, T. Goto, I. Fujimoto, K. Torimitsu, K. Mikoshiba
- (64) Electrochemical sensor array and its application to real time imaging of a brain slice, *IEEE Trans. EIS*, 127 (2007), 217-221, N. Kasai, A. Shimada, T. Nyberg, K. Torimitsu
- (65) Anisotropic assembly of gold nanorods assisted by selective ion recognition of surface-anchored crown ether derivatives, *Chem. Commun.*, (2007), 1080-1082, H. Nakashima, K. Furukawa, Y. Kashimura, K. Torimitsu
- (66) Field-Effect Transistor with Deposited Graphite Thin Film, *Jpn. J. Appl. Phys.*, 46 (2007),

- 2615-2617, H. Inokawa, M. Nagase, S. Hirono, T. Goto, H. Yamaguchi, K. Torimitsu
- (67) A new morphology of copper 7,7,8,8-tetracyano-*p*-quinodimethane, *Micron*, 38 (2007), 536-542, Y. Liu, H. Li, Z. Ji, Y. Kashimura, Q. Tang, K. Furukawa, K. Torimitsu, W. Hu, D. Zhu
- (68) Supported lipid bilayer self-spreading on nanostructured silicon surface, *Langmuir*, 23 (2007), 367-371, K. Furukawa, Koji Sumitomo, H. Nakashima, Y. Kashimura, K. Torimitsu
- (69) Influence of the Local Environment on determining aspect-ratio distributions of gold nanorods in solution using gans theory, *J. Physic. Chem. C*, 111 (2007), 14299-14306, D. P. Sprunken, H. Omi, K. Furukawa, H. Nakashima, I. Sychugov, Y. Kobayashi, K. Torimitsu
- (70) Effect of UV/ozone Treatment on Nanogap Electrodes for Molecular Devices, *Jpn. J. Appl. Phys.* 46 (2007), 1731-1733, T. Goto, H. Inokawa, K. Sumitomo, M. Nagase, Y. Ono, K. Torimitsu
- (71) Ion conducting polymer microelectrodes for interfacing with neural networks, *J. Neurosci. Methods*, 160 (2007), 16-25, T. Nyberg, A. Shimada, K. Torimitsu
- (72) Real-time imaging of DNA-streptavidin complex formation in solution using a high-speed atomic force microscope, *Ultramicroscopy*, 107 (2007), 184-190, M. Kobayashi, K. Sumitomo, K. Torimitsu
- (73) Self-assembly of vesicle nanoarrays on Si: a potential new route to high-density functional protein arrays, *Appl. Phys. Lett.*, 90 (2007), 033901-1-3, C. S. Ramanujan, K. Sumitomo, M. R. R. de Planque, H. Hibino, K. Torimitsu, J. F. Ryan
- (74) Phototransistors of a Rigid Rod Conjugated Polymer, *J. Phys. Chem. C*, 112 (2008), 19690-19693, H. Dong, H. Li, E. Wang, H. Nakashima, K. Torimitsu, W. Hu
- (75) Elastic modulus of suspended purple membrane measured by atomic force microscopy, *Appl. Surf. Sci.*, 254 (2008), 7877-7800, A. M. Siitonen, K. Sumitomo, C. S. Ramanujan, Y. Shinozaki, N. Kasai, K. Furukawa, J. F. Ryan, K. Torimitsu
- (76) Self-spreading Behavior of Supported Lipid Bilayer through Single sub-100-nm Gap, *Jpn. J. Appl. Phys.*, 47 (2008), 3248-3252, Y. Kashimura, J. Durao, K. Furukawa, K. Torimitsu
- (77) Effect of Ca²⁺ on vesicle fusion on solid surface: An *in vitro* model of protein-accelerated vesicle fusion, *Jpn. J. Appl. Phy.*, 47 (2008), 6164-6167, Y. Shinozaki, A. M. Siitonen, K. Sumitomo, K. Furukawa, K. Torimitsu
- (78) Self-Assembly of Gold Nanorods Induced by intramolecular interactions of surface-anchored lipids, *Langmur*, 24 (2008), 5654-5658, H. Nakashima, K. Furukawa, Y. Kashimura, K. Torimitsu

- (79) Novel Lipid-Flow Chip Configuration to Determine Donor-to-Acceptor Ratio-Dependent Fluorescence Resonance Energy Transfer Efficiency, *Langmuir*, 24 (2008), 921-926, K. Furukawa, K. Sumitomo, H. Nakashima, Y. Kashimura, K. Torimitsu
- (80) Role of low magnesium in neural activities of rat cultured cortical and hippocampal neurons, *JJSMgR*, 27 (2008), 75-82, Y. Furukawa, K. Torimitsu
- (81) AFM observation of membrane proteins suspended over CNT network, *Jpn. J. Appl. Phys.*, 48 (2009), 08JB18-1-4, K. Sumitomo, Y. Shinozaki, D. Takagi, H. Nakashima, Y. Kobayashi, K. Torimitsu
- (82) Effect of Mg^{2+} on neural activity of rat cortical and hippocampal neurons in vitro, *Magnes. Res.*, 22 (2009), 174S-181S, Y. Furukawa, N. Kasai, K. Torimitsu
- (83) Structural and Electrical Properties of Organic Conductive Polymers Bearing Tetrathiafulvalene Backbone, *Mol. Cryst. Liq. Cryst.*, 504 (2009), 231-237, Y. Kashimura, T. Goto, K. Furukawa, E. Wang, H. Li, W. Hu, K. Torimitsu
- (84) Geometrical effect in submicrometer channel organic field effect transistors, *Thin Solid Films*, 518 (2009), 579-582, T. Goto, H. Inokawa, K. Torimitsu
- (85) Direct Observation of ATP-Induced Conformational Changes in Single P2X₄ Receptors, *PLoS Biol.*, 7 (2009), e1000103-1-12, Y. Shinozaki, K. Sumitomo, M. Tsuda, S. Koizumi, K. Inoue, K. Torimitsu
- (86) Molecular Orientation and Field-effect Transistors of a Rigid Rod Conjugated Polymer Thin Films, *J. Phys. Chem. B*, 113 (2009), 4176-4180, H. Dong, H. Li, E. Wang, S. Yan, J. Zhang, C. Yang, I. Takahashi, H. Nakashima, K. Torimitsu, W. Hu
- (87) Neural signal transmission measurements with a conductive polymer microelectrode array, *IEEJ Trans. EIS*, 129 (2009), 267-271, A. Shimada, N. Kasai, Y. Furukawa, T. Nyberg, K. Torimitsu
- (88) AFM observation of single, functioning ionotropic glutamate receptors reconstituted in lipid bilayers, *BBA Gen. Sub.*, 1800 (2010), 655-661, N. Kasai, Chandra S. Ramanujan, I. Fujimoto, A. Shimada, J. F. Ryan, K. Torimitsu
- (89) Confinement of fluorescent probes in microwells on Si substrates by sealing with Hongxiang Lipid bilayers, *Appl. Phys. Express*, 3 (2010), 07001-1-3, K. Sumitomo, Y. Tamba, Y. Shinozaki, K. Torimitsu
- (90) Pattern formation and molecular transport of histidine-tagged GFPs using supported lipid bilayers, *Langmuir*, 26 (2010), 12716-12721, H. Nakashima, K. Furukawa, Y. Kashimura, K. Sumitomo, Y. Shinozaki, K. Torimitsu

- (91) Characterization and application of self-assembly porphyrin with four “clips” on gold surface, *J. Phys. Chem. C*, 114 (2010), 12320-12324, J. Yang, M. Li, H. Li, Y. Yang, Y. Kashimura, C. Wang, K. Torimitsu, X. Lu and W. Hu
- (92) Multichannel biosensing and stimulation LSI chip using 0.18 μm Complementary Metal-Oxide-Semiconductor technology, *Jpn. J. Appl. Phys.*, 49 (2010), 04DL14-18, M. Yamaguchi, A. Shimada and K. Torimitsu, N. Nakano
- (93) Self-Spreading Supported Lipid Bilayer Passing through Single Nanogap Structure: Effect of Position of Dyes in Lipid Molecules, *Jpn. J. Appl. Phys.*, 49 (2010), 04DL15-1-5, Y. Kashimura, K. Furukawa, K. Torimitsu
- (94) Visualization of single membrane protein structure in stretched lipid bilayer suspended over nanowells, *Appl. Phys. Express*, 3 (2010), 027002-1-3, Y. Shinozaki, K. Sumitomo, K. Furukawa, H. Miyashita, Y. Tamba, N. Kasai, H. Nakashima, K. Torimitsu
- (95) Transistor properties of novel organic conducting polymer bearing tetrathiafulvalene units in the backbone, *Jpn. J. Appl. Phys.*, 49 (2010), 01AB08-1-4, Y. Kashimura, T. Goto, H. Nakashima, K. Furukawa, E. Wang, H. Li, W. Hu, K. Torimitsu
- (96) Examination of ion channel protein orientation in supported lipid bilayers, *Appl. Phys. Express*, 4 (2011), 107001-1-3, Y. Shinozaki, K. Sumitomo, A. Tanaka, N. Kasai, K. Torimitsu
- (97) Electrostatic control of lipid bilayer self-spreading using a nanogap gate on a solid support, *J. Am. Chem. Soc.*, 133 (2011), 6118-6121, Y. Kashimura, K. Furukawa, K. Torimitsu
- (98) Electrical characterization of terphenyl-based molecular devices, *Jpn. J. Appl. Phys.*, 50 (2011), 071603-1-6, T. Goto, H. Inokawa, Y. Ono, A. Fujiwara, K. Torimitsu
- (99) Ca^{2+} ion transport through channels formed by α -hemolysin analyzed using a microwell array on a Si substrate, *Biosensors and Bioelectronics*, 31 (2012), 445-450, K. Sumitomo, A. McAllister, Y. Tamba, Y. Kashimura, Aya Tanaka, Y. Shinozaki, K. Torimitsu
- (100) Liquid deposition patterning of conducting polymer ink onto hard and soft flexible substrates via Dip-Pen nanolithography, *Langmuir*, 28 (2012), 804-811, H. Nakashima, M. Higgins, C. O'Connell, K. Torimitsu, G. Wallace
- (101) Conductive Polymer Combined Silk Fiber Bundle for Bioelectrical Signal Recording, *PLoS ONE*, 7 (2012), e33689-1-10, S. Tsukada, H. Nakashima, K. Torimitsu
- (102) Monitoring neural stem cell differentiation using PEDOT-PSS based MEA, *BBA Gen. Sub.*, 1830 (2013), 4329–4333, Y. Furukawa, A. Shimada, K. Kato, H. Iwata, K. Torimitsu
- (103) Reconstitution of homomeric GluA2 receptors in supported lipid membranes: functional and structural properties, *J. of Biol. Chem.*, 288 (2013), 8647-8657, J. Baranovic, C. S.

Ramanujan, N. Kasai, C. Midgett, D. R. Madden, K. Torimitsu, J. F. Ryan

(104) Electrically conducting, ultra-sharp, high aspect-ratio probes for AFM fabricated by electron-beam-induced deposition of platinum, *Ultramicroscopy*, 133, (2013), 62–66, J. Brown, P. Kocher, C. S. Rmanujan, D. N. Sharp, K. Torimitsu, J.F.Ryan

(105) Ligand-induced structural changes in a membrane-reconstituted ion channel observed with atomic force microscopy, *Appl. Phys. Express*, 7, (2014), 27001-1-3, Y. Shinozaki, A. Tanaka, N. Kasai, K. Torimitsu and K. Sumitomo,

(106) Electroporation of adherent cells by direct lamination of hydrogel-based microelectrode substrates, *Chem. Letters*, 43, (2014), 444-446, D. Takahashi, M. Sasaki, K. Nagamine, K. Torimitsu, and M. Nishizawa

(107) Highly Conductive Stretchable and Biocompatible Electrode–Hydrogel Hybrids for Advanced Tissue Engineering, *Advanced Healthcare Materials.*, 3, (2014), 1919-1927, M. Sasaki, B. C. Karikkineth, K. Nagamine, H. Kaji, K. Torimitsu and M. Nishizawa,

(108) Electroconductive polymer-coated silk fiber electrodes for neural recording and stimulation in vivo, *Jpn. J. Appl. Phys.*, 56, (2017), 037001-1-5, S.Watanabe, H. Takahashi and K. Torimitsu