

List of publications (Apr.2010 - Mar.2011)

1. S. Nakashima, K. Sugioka, and K. Midorikawa: "Space-selective modification of magnetic properties in Fe^{3+} -doped transparent glass by irradiation with femtosecond laser", *Applied Physics A*, in press (2011).
2. Q. Zhang, E. J. Takahashi, O. D. Mueke, P. Lu and K. Midorikawa: "Dual-chirped optical parametric amplification for generating few hundred mJ infrared pulses", *Opt. Exp.*, 19, 7190-7212 (2011).
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4. T. Kobayashi and Y. Matsuo: "Study on the Carbon Fragment Anions Produced by Femtosecond Laser Ablation of Solid C_{60} ", *J. Chem. Phys.* 134, 064320 (2011).
5. S. Nakashima, K. Sugioka, T. Ito, H. Takai and K. Midorikawa: "Fabrication of high-aspect-ratio nanohole arrays on GaN surface by using wet-chemical-assisted femtosecond laser ablation", *J. Laser Micro/Nanoengin.* 6, 15-19 (2011).
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9. K. Katahira, H. Ohmori, J. Komotori, D. Dornfeld, Y. Akahane, H. Kotani and M. Mizutani, "Modification of surface properties on a nitride based coating films through mirror-quality finish grinding", *Annals of the CIRP*, 59/1, 593-596, (2010).
10. M. Kurata-Nishimura, Y. Ando, T. Kobayashi, Y. Matsuo, H. Suzuki, Y. Hayashizaki, and J. Kawai: "Sequencing of Isotope-Labelled Small RNA Using Femtosecond Laser Ablation Time-of-Flight Mass Spectrometry", *Appl. Phys. Express* 3, 047002 (2010).
11. F. He, Y. Cheng, L. Qiao, C. Wang, Z. Xu, K. Sugioka, K. Midorikawa, and J. Wu: "Two-photon fluorescence excitation with a microlens fabricated on the fused silica chip by femtosecond laser micromachining", *Appl. Phys. Lett.* 96, 041108 (2010).
12. Y. Kawano and K. Ishibashi, "Scanning nanoelectrometer based on a two-dimensional electron gas transistor with a probe-integrated gate electrode", *Applied Physics Letters* **96**, 142109-1-3 (2010).
13. J. W. Song, G. R. Aizin, J. Mikalopas, Y. Kawano, K. Ishibashi, N. Aoki, J. L. Reno, Y. Ochiai, and J. P. Bird, "Bolometric THz detection in pinched-off quantum point contacts", *Applied Physics Letters* **97**, 083109-1-3 (2010).
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16. E. J. Takahashi, T. Kanai and K. Midorikawa: "High-order harmonic generation by an ultrafast infrared pulse", *Appl. Phys. B* 100, 29 (2010).
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24. H. Ohmori, Y. Uehara and K. Katahira, "Development of a Desktop Machine Tool for Mirror Surface Grinding", *International Journal of Automation Technology*, 4/2, 88-96, (2010).
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39. S. Nakashima, K. Sugioka, T. Ito, H. Takai, and K. Midorikawa: "Fabrication of periodic nano-hole array on GaN surface by fs laser for improvement of extraction efficiency in blue LED", *Physics Procedia* **5**, 203-211 (2010).

Books, Proceedings (Apr.2010-Mar.2011)

1. Y. Kawano, "Terahertz Technology Based on Nano-Electronic Devices", 1 chapter in "Integrated Microsystems: Materials, MEMs, Photonics, Bio Interfaces", edited by Kris Iniewski, (Taylor & Francis Group), in press.
2. K. Midorikawa: "Nonlinear interaction of intense xuv fields with atoms and molecules", *Springer Series in Chemical Physics* 94, *Lectures on Ultrafast Intense Laser Science* 1, Springer, (2010).
3. K. Sugioka, M. Meunier, and A. Pique (Eds.): "Laser Precision Micorfabrication", (Springer, Berlin). (2010).
4. K. Sugioka and S. Nolte: "3D fabrication of embedded microcomponents", K. Sugioka, M. Meunier, and A. Pique (Eds.), *Laser Precision Micorfabrication*, (Springer, Berlin, 2010) p. 215-238.
5. K. Sugioka and K. Midorikawa: "Major accomplishments in 2009 on femtosecond laser fabrication: fabrication of bio-microchips", *IEEE Photonics Journal* **2**, 253-255 (2010).
6. Y. Kawano, "Scanning Electrometer: Mapping of Electric Potential and Its Fluctuation", *Japanese*

- Journal of Applied Physics **49**, 08LA02-1-8 (2010). (Review paper) (Selected for SPOTLIGHTS: Editors' Choice)
7. Y. Kawano, "Highly Sensitive Detector for On-Chip Near-Field THz imaging", IEEE Journal of Selected Topics in Quantum Electronics **17**, 67-78 (2011). (Invited paper)
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 9. 杉岡幸次, "2.7 レーザ加工分野の市場動向: 2.7.1 はじめに", 光産業の動向 ((財) 光産業技術振興協会編) p.176-179 (2010).
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 17. 金井恒人、高橋栄治、鍋川康夫、緑川克美 「混合ガス中の高次高調波発生とそのアト秒物理学への応用」、光学 **40** 巻 第 3 号、136-141 (2011).
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