

## **LIST OF PUBLICATIONS**



# List of publications

## (1) Papers

1. S.Amano, K.Masuda, A.Shimoura, S.Miyamoto, T.Mochizuki  
“*Characterization of a laser-plasma extreme-ultraviolet source using a rotating cryogenic Xe target*”  
Applied Physics B, Vol.101, pp.213-219(2010).
2. S.Amano, K.Masuda, S.Miyamoto, T.Mochizuki  
“*Soft X-ray source by laser produced Xe plasma*” (inJapanese)  
IEEJ Trans. EIS, Vol.130, No.10, 1768(2010).
3. P.E.Nica, M.Agop, S.Miyamoto S.Amano, A.Nagano, T.Inoue, E.Poll, T.Mochizuki  
“*Multi-peak structure of the ion current in laser produced plasma*”  
European Physical Journal D 60, pp.317-323(2010).
4. N.Matsuo, N.Isoda, A.Heya, S. Amano, S.Miyamoto, T. Mochizuki, N.Kawamoto  
“*Influence of Laser Plasma Soft X-Ray Irradiation on Crystallization of a-Si Film by Infrared Furnace Annealing*”  
Materials Transactions, Vol. 51, pp.1490-1493 (2010).
5. S.Amano, K.Horikawa, S.Miyamoto, T.Mochizuki,  
“*Laser-Compton gamma-ray source at a beamline (BL01) in NewSUBARU* ”  
AIP Conference Proceedings (SRI2009), Vol.1234, pp.495-498 (2010).
6. K.Horikawa, S.Miyamoto, S.Amano, T. Mochizuki,  
“*Measurements for the energy and flux of laser Compton scattering g-ray photons generated in an electron storage ring: NewSUBARU* ”  
Nucl. Instrum. and Methods A, Vol.618, pp.209-215(2010).
7. K.Horikawa, S.Miyamoto, S.Amano, D.Li, K.Imasaki T. Mochizuki,  
“*Quantum beam generation by laser Compton scattering gamma-ray*” (in Japanese)  
IEEJ Trans.EIS, Vol.130, No.10, 1784(2010).
8. T. Shima, Y. Nagai, S. Miyamoto, S. Amano, K. Horikawa, T. Mochizuki, H. Utsunomiya, and H. Akimune  
“*Experimental Study of Nuclear Astrophysics with Photon Beams*”  
AIP Conf. Proc. May 12, 2010 - Volume 1235, pp. 315-321, Issue Date: 12 May (2010).
9. T. Shima, Y. Nagai, S. Miyamoto, S. Amano, K. Horikawa, T. Mochizuki, H. Utsunomiya, and H. Akimune  
“*Study of  $^{12}\text{C}(\gamma,2\alpha)^4\text{He}$  with NewSUBARU laser Compton scattered gamma-ray beam*”  
AIP Conf. Proc. August 12, 2010 - Volume 1269, pp. 469-471, Issue Date: 12 August (2010).
10. Yoshihiko Shoji  
“*Generating coherent THz radiation in electron storage rings using an ac sextupole magnet and a vertical kicker magnet*”  
Phys. Rev. ST Accel. Beams 13, 060702 (2010).
11. Yoshihiko Shoji  
“*Design of a Multi-Element Corrector Magnet for the Storage Ring NewSUBARU*”  
IEEE Transactions on Applied Superconductivity, Vol.20, No.3, pp.230-233 (2010).
12. Yuichi Utsumi, Shigeaki Yamamoto, Tomoyuki Kuroki, and Masaaki Okubo  
“*Direct bonding of PFTF sheets assisted by synchrotron radiation induced surface modification*”  
Microsystem Technologies, 16, 8-9, pp.1495-1500 (2010).
13. Yoshiaki Ukita, Saki Kondo, Chiwa Kataoka, Masahiro Takeo, Seiji Negoro, and Yuichi Utsumi,  
“*Immunoassay using poly-tetrafluoroethylene microstructure in organic solvent*”  
ibid., pp.1465-1470 , (2010).

14. Tsunemasa Saiki, Katsuhide Okada and Yuichi Utsumi  
**"Micro liquid rotor operated by surface-acoustic-wave"**  
ibid., pp. 1589-1594 , (2010).
15. Saki Kondo, Tsukasa Azeta, Yoshiaki Ukita, Yuichi Utsumi,  
**"Vertical Liquid Transportation Through Capillary Bundle Structure Using Centrifugal Force"**  
ibid., pp. 1577-1580 (2010).
16. Akinobu Yamaguchi, Keiichi Motoi, Hideki Miyajima, Tsuyoshi Uchiyama, and Yuichi Utsumi  
**"Detection of Nonlinear Spin Dynamics in Artificial magnets Using Rectification of Planar Hall Effect"**  
Journal of the Magnetics Society of Japan , 34, pp. 73-77 (2010).
17. Tsuyoshi Uchiyama, Akinobu Yamaguchi, and Yuichi Utsumi  
**"Noise Characterization of Coil Detection Type Magnetic Field Sensor Utilizing Pulse Excitation Amorphous Wire Magneto-Impeadance Element"**  
ibid., pp.533-536 (2010).
18. Tomoya Omukai, Atsushi Kinoshita, Fusao Komada, and Yuichi Utsumi  
**"High density cell culture using 3D scaffold with capillary bundle structure"** (in Japanese)  
IEEJ Transactions on Electronics, Information and Systems, 130, 10, pp.1789-1794(2010).
19. Saki Kondo, Tsukasa Azeta, Yoshiaki Ukita, Chiwa Kataoka, and Yuichi Utsumi  
**"Immunoassay System Using Three-dimensional Micro Fluid Network"** (in Japanese)  
ibid., pp.1844-1816, (2010).
20. Takao Fukuoka, Daisuke Fukuoka, Yasuhige Mori, and Yuichi Utsumi  
**"Development of Multi-Analytes DNA Microchip by Using 3-D Nanoprototyping Fabrication Method"** (in Japanese)  
ibid., pp.1806-1810(2010).
- 21 Tsunemasa Saiki, Katsuhide Okada, and Yuichi Utsumi  
**"Highly Efficient Liquid Flow Actuator Operated by Surface Acoustic Waves"** (in Japanese)  
ibid., pp. 1717-1722(2010).
22. Yoshiaki Ukita, Saki Kondo, Masahiro Takeo, Seiji Negoro, Chiwa Kataoka, Yuichi Utsumi  
**"Vertical Microreactor Stack Consist of poly-(tetrafluoroethylene) Microfluidics for Immunoassay"** (in Japanese)  
ibid., pp. 1756-1761(2010).
23. Atsushi Kinoshita, Tomoya Omukai, Fusao Komada, and Yuichi Utsumi  
**"High density cell culture using micro 3D structure"**  
Journal of Japan Institute of Electronics packaging, 13, 3, 200-203(2010).
24. Shigeaki Yamamoto, Yoshiaki Ukita, Kozo Mochiji, Yuichi Utsumi  
**"Microfabrication of Poly (tetrafluoroethylene) Using SR Direct Etching"**  
Accepted for publication on 20th, Sep, 2010, Electrical Engineering in Japan, (2010).
25. Tsunamasa Saiki, Katsuhide Okada, Yuichi Utsumi  
**"Fabrication and Estimation of Novel Micro Liquid Rotor that Operates with Surface-Acoustic-Wave"**  
Accepted for publication on 20th, Sep, 2010, Electrical Engineering in Japan, (2010).
26. Yuichi Utsumi  
**"Proposal of 3D Micro prototyping Using Synchrotron Radiation and Its Application to Bio-Microsystems"** (Invited)  
Service Robotics and Mechatronics (Springer), 7-14, (2010).
27. Daiju Shiono, Hideo Hada, Kazufumi Sato, Yasuyuki Fukushima, Takeo Watanabe, and Hiroo Kinoshita  
**"Fundamental Decomposition Analysis of Chemically Amplified Molecular Resist for below 22 nm Resolution"**  
J. Photopolymer Sci. Technol 23, pp.649-656 (2010).

28. Y. Fukushima, Y. Yamaguchi, T. Kimura, T. Iguchi, T. Harada, T. Watanabe, and H. Kinoshita  
**"EUV interference lithography for 22 nm node and below"**  
ibid., pp.673-680 (2010).
29. Y. Yamaguchi, Y. Fukushima, T. Iguchi, H. Kinoshita, T. Harada, and T. Watanabe  
**"Fabrication process of EUV-IL transmission grating"**  
ibid., pp.681-686 (2010).
30. Y. Fukushima, N. Sakagami, T. Kimura, Y. Kamaji, T. Iguchi, Y. Yamaguchi, M. Tada, T. Harada, T. Watanabe, and H. Kinoshita  
**"Development of Extreme Ultraviolet Interference Lithography System"**  
Jpn. J. Appl. Phys. 49, 06GD06 (2010).
31. Y. Fukushima, N. Sakagami, T. Kimura, Y. Kamaji, T. Iguchi, Y. Yamaguchi, M. Tada, T. Harada, T. Watanabe, and H. Kinoshita  
**"Development of Extreme Ulyaviolet Interference Lithography System"**  
ibid., 06GD06-1, 06GD06-5 (2010).
32. Daiju Shiono, Hideo Hada, Kazufumi Sato, Yasuyuki Fukushima, Takeo Watanabe, and Hiroo Kinoshita  
**"Decomposition and Roughness Analysis of Chemically Amplified Molecular Resist for Reducing LWR"**  
ibid., 06GF05-1, 06GF05-5 (2010).
33. K. Takase, Y. Kamaji, N. Sakagami, T. Iguchi, M. Tada, Y. Yamaguchi, Y. Fukushima, T. Harada, T. Watanabe, and H. Kinoshita  
**"Imaging Performance Improvement of an Extreme Ultraviolet Microscope"**  
ibid., 06GD07-1, 06GD07-4 (2010).
34. T. Kaito, H. Oba, Y. Sugiyama, A. Yasaka, J. Fujita, T. Suzuki, K. Kanda, and S. Matsui  
**"Deposition Yield and Physical Property of Carbon Films Deposited by Focused Ion Beam Chemical Vapor Deposition"**  
ibid., 06GH08 (2010).
35. K. Kanda, M. Okada, Y. Kang, M. Niibe, A. Wada, H. Ito, T. Suzuki, and S. Matsui  
**"Structural Changes in Diamond-Like Carbon Films Fabricated by Ga Focused-Ion-Beam-Assisted Deposition Caused by Annealing"**  
ibid., 06GH06 (2010).
36. Y. Nakai, Y.i Kang, M. Okada, Y. Haruyama, K. Kanda, T. Ichihashi, and S. Matsui  
**"Mechanical Characteristics of Nanosprings Fabricated by Focused-Ion-Beam Chemical Vapor Deposition Using Ferrocene Source Gas"**  
ibid., 06GH07 (2010).
37. Makoto Okada, Takahiro Nakayama, Yuji Kang, Yuichi Haruyama, Kazuhiro Kanda, and Shinji Matsui.  
**"Direct Patterning on Sol-Gel Low-k Porous Silica by Thermal Nanoimprinting"**  
ibid., 06GL08 (2010).
38. Yuji Kang, Makoto Okada, Chiaki Minari, Kazuhiro Kanda, Yuichi Haruyama, and Shinji Matsui.  
**"Room-Temperature Nanoimprinting Using Liquid-Phase Hydrogen Silsesquioxane with Hard Poly(dimethylsiloxane) Mold"**  
ibid., 06GL13 (2010).
39. Makoto Okada, Mayuko Shibata, Yuichi Haruyama, Kazuhiro Kanda, Yoshihiko Hirai, and Shinji Matsui  
**"Cross-sectional observation of nanoimprint resins filled in SiO<sub>2</sub>/Si mold pattern using scanning electron microscopy"**  
Microelectronic Engineering, 87, 1159 (2010).
40. M. Tagawa, K. Yokota, A. Kitamura, K. Matsumoto, A. Yoshigoe, Y. Teraoka, K. Kanda, M. Niibe  
**"Synchrotron Radiation Photoelectron Spectroscopy and Near-Edge X-Ray Absorption Fine Structure Study on Oxidative Etching of Diamond Like Carbon Films by Hyperthermal Atomic Oxygen"**

Applied Surface Science 2567, pp.678-7683 (2010)

41. Makoto Okada, Takafumi Kishiro, Kaori Yanagihara, Masashi Ataka, Norimichi Anazawa, and Shinji Matsui  
**"Newly developed electron beam stepper for nanoimprint mold fabrication"**  
J. Vac. Sci. Technol B 28 , pp. 740-743(2010).
42. Makoto Okada, Masatoshi Maeda, Satoshi Shimatani, Shoji Otaka, and Shinji Matsui  
**"Fabrication of Replica Mold by Room Temperature Nanoimprinting using Organic Spin-on-glass"**  
J. Photopolym. Sci. Tech. 23, pp.65-68 (2010).
43. Makoto Okada, Takafumi Kishiro, Kaori Yanagihara, Masashi Ataka, Norimichi Anazawa, and Shinji Matsui  
**"Large Area Nanoimprint Mold Fabricated by Electron Beam Stepper"**  
ibid., pp. 75-78 (2010).
44. Yuji Kang, Makoto Okada, Yuichi Haruyama, Kazuhiro Kanda, and Shinji Matsui  
**"UV irradiation Effect on Pattern Size Shrinkage of Sol-gel Indium Tin Oxide Replicated by Nanoimprint Lithography"**  
ibid., pp.39-43, (2010).
45. Yasuki Nakai, Shinya Omoto, Yong Kang, Makoto Okada, Kazuhiro Kanda, Yuichi Haruyama, and Shinji Matsui  
**"Evaluation of Heat Durability of Fluorinated Antisticking Layers"**  
ibid., 23, pp55-58, (2010).
46. Shinya Omoto, Makoto Okada, Yuji Kang, Kazuhiro Kanda, Yuichi Haruyama, Seiji Tono and Shinji Matsui  
**"Comparison of EB Exposure Characteristics between HSQ and Calix Arene of High Resolution Negative Resist"**  
ibid., pp. 97-100, (2010).
47. Y. Haruyama, S. Matsui, T. Ideta and H. Ishigaki  
**"Annealing Effect on the Chemical Composition of a Synchrotron Radiation Irradiation"** (in Japanese)  
IEEJ Transactions on Electronics, Information and Systems, Vol. 130-C, pp. 1741-1745, (2010).
48. R. Kawakami, M. Niibe, T. Fukudome, A. Takeichi, T. Inaoka, and K. Tominaga:  
**"Effect of DBD Air Plasma Treatment on TiO<sub>2</sub> Thin Film Surfaces"**  
Jpn, J. Appl. Phys., 50 01BE02 pp. 1-5 (2011).
49. R. Kawakami, T. Inaoka, K. Tominaga, M. Niibe, T. Mukai, A. Takeichi, and T. Fukudome:  
**"Synergy Effect of Xenon Plasma Ions and Ultraviolet Lights on GaN Etch Surface Damage and Modification"**  
Trans. Materials Res. Soc. Japan, 36, 75-78 (2011).
50. M. Niibe, K. Koida, Y. Kakutani:  
**"Inhibition of carbon growth and removal of carbon deposits on extreme ultraviolet lithography mirrors by extreme ultraviolet irradiation in the presence of water, oxygen, or oxygen/ozone mixtures"**  
J. Vac. Sci. Technol. B 29 011030-1~5 (2011).
51. M. Niibe, Y. Maeda, R. Kawakami, T. Inaoka, K. Tominaga, and T. Mukai:  
**"Surface analysis on n-GaN crystal damaged by RF-plasma-etching with Ar, Kr, and Xe gases"**  
Physica Status Solidi, C 8, 435-437 (2011).
52. R. Kawakami, T. Inaoka, K. Tominaga, M. Niibe T. Mukai, A. Takeichi, and T. Fukudome:  
**"Etch-induced damage characteristics of n-GaN surfaces by capacitively coupled radio frequency He and Ar plasmas"**  
Physica Status Solidi, C 8, 441-443 (2011).
53. Masahito Niibe, Kazuyoshi Miyamoto, Tohru Mitamura, K. Mochiji:  
**"Identification of B-K NEXAFS peaks of boron nitride thin film prepared by sputtering deposition"**

- J. Vac. Sci. Technol. A 28, 1157~1160 (2010).
54. Naoki Takahashi, Hiroshi Tujii, Megumi Katori, Kenji Yamashita, Daiji Noda, Tadashi Hattori  
***“Fabrication of X-rays mask with carbon membrane for diffraction gratings”***  
Microsystem Technologies, Vol. 16, No. 8-9, pp. 1303-1307 (2010).
55. Daiji Noda, Hiroshi Tsuji, Naoki Takahashi, Tadashi Hattori  
***“Fabrication of Precision X-ray Mask for X-ray Grating of X-ray Talbot Interferometer”***  
Microsystem Technologies, Vol. 16, No. 8-9, pp. 1309-1313 (2010).
56. Yoshitaka Sawa, Kenji Yamashita, Takeshi Kitadani, Daiji Noda, Tadashi Hattori  
***“Fabrication of High Hardness Micro Metal Mold using double layer by Nickel Electroforming and Ni-B Electroless Alloy Plating”***  
Microsystem Technologies, Vol. 16, No. 8-9, pp. 1369-1375 (2010).
57. Hiroaki Miyake, Kazufumi Nishimoto, Satoshi Nishida, Daiji Noda, Tadashi Hattori  
***“Fabrication of Micro Capacitive Inclination Sensor by Resin Molding”***  
Microsystem Technologies, Vol. 16, No. 8-9, pp. 1431-1437,(2010).
58. Daiji Noda, Masaru Setomoto, Yuki Kobayashi, Tadashi Hattori  
***“Fabrication of Microcoils with Narrow and High Aspect Ratio Coil Lines”***  
Microsystem Technologies, Vol. 16, No. 8-9, pp. 1479-1483 (2010).
59. Yuta Okayama, Kenji Yamashita, Yoshitake Sawa, Daiji Noda, Tadashi Hattori  
***“Fabrication of Ultraviolet range Light Guide Plate”***  
Microsystem Technologies, Vol. 16, No. 8-9, pp. 1625-1631 (2010).
60. Tadashi Hattori  
***“Fabrication of a High Functional Light Guide Plate Replicated by Micro Ni Mold and It’s Application for LED Lights”***  
Journal of The Surface Finishing Society of Japan, Vol. 61, No. 9, pp. 630-636 (2010).
61. Daiji Noda, Tadashi Hattori  
***“Fabrication of Microcoils with Narrow and High Aspect Ratio Coil Lines”***  
The International Journal of the Robotics Society of Japan, Advanced Robotics Vol. 24, No. 10, pp. 1461-1470 (2010).
62. Daiji Noda, Atsushi Tokuoka, Tadashi Hattori  
***“Fabrication of Au Microstructure Using ICP-RIE”***  
Transaction of The Japan Society of Mechanical Engineers series C, Vol. 77, No. 775, pp. 691-697 (2011).

## (2) International Meetings

1. S.Amano, T.Inoue, T.Harada  
“*Grazing-incidence EUV collector coated by DLC*”,  
2010 International Synchrotron on Extreme Ultraviolet Lithography, Kobe, Oct.17-20 (2010).
2. S.Hashimoto, S.Miyamoto, K.Kawata, T.Shinomoto, Y.Minagawa  
“*Improved stability of the radiation intensity at the NewSUBARU synchrotron radiation facility*”  
Proceedings of International Particle Accelerator Conference (2010).
3. Y.Ukita, T.Azeta, S.Kondo, C.Kataoka, S.Yusa, M.Takeo, Y.Takamura, and Y.Utsumi  
“*High-Sensitive Detection of Polychlorinated Biphenyl on Three-dimensional LAB-ON-A-CD*”  
The 14th International Conference on Miniaturized Systems for Chemistry and Life Science ( $\mu$ TAS2010), pp345-347, Groningen, Netherland, October 3-7 (2010)
4. Y.Ukita, T.Azeta, S.Kondo, C.Kataoka, S.Yusa, M.Takeo, Y.Takamura, and Y.Utsumi  
“*High-Sensitive Enzyme-linked immunosorbent assay in Three-dimensional LAB-ON-A-CD*”  
ibid. pp1475-14777.
5. Tsukasa Azeta, Yoshiaki Ukita, Yoshito Hirose, Saki Kondo and Yuichi Utsumi,  
“*Three-dimensional Microfluidics Device Using Centrifugal Force*”  
Digest of Papers, 2010 International Microprocess and Nanotechnology Conference (MNC2010), 12D-11-107, Kokura, Japan, November 9-12, (2010)
6. Mitsuhiro Yoshida, Yoshito Hirose, Yoshiaki Ukita, Kunihiko Mabuchi Yuichi Utsumi,  
“*Proposal of stacked electrodes for multiplex neural interface*”  
ibid.
7. Tsukasa Azeta, Yoshiaki Ukita, Yoshito Hirose, Saki Kondo and Yuichi Utsumi,  
“*High-Sensitive Enzyme-linked immunosorbent assay in Three-dimensional LAB-ON-A-CD*”  
ibid.
8. Y.Ukita, T.Azeta, S.Kondo, C.Kataoka, S.Yusa, M.Takeo, and Y.Utsumi  
“*Three-dimensional Centrifugal Microfluidics for Environmental Analysis*”  
ibid.
9. Takao Fukuoka, Yasuhige Mori, and Yuichi Utsumi  
“*The anisotropic assemblies of Au nanoparticles for near Infrared surface-enhanced Raman scattering*”  
The 2010 International Chemical Congress of Pacific Basin Societies (Pacificchem 2010) (Honolulu, USA), Symposium of Plasmonics and Nanophotonics for Chemical Sensing, Imaging and Spectroscopy, 165, Dec.15, (2010).
10. Takao Fukuoka, Daisuke Fukuoka, Yoshiaki Ukita, Yuji Kang, Shinji Matsui, and Yuichi Utsumi  
“*Gold nanoparticles assembled nanovalley for microfluidic SERS Detection*”  
ibid., 455, Dec. 16, (2010).
11. Takao Fukuoka, Daisuke Fukuoka, Yoshiaki Ukita, Yuji Kang, Shinji Matsui, and Yuichi Utsumi  
“*Fabrication of gold nanoparticles assembled nanovalley for surface enhanced Raman scattering*”  
ibid., 681, Dec. 17, (2010).
12. Takao Fukuoka, Yuichi Utsumi, and Yasuhige Mori  
“*New strategy of non-labeling ligand-receptor binding assay in aqueous medium using anisotropic aggregation of Au nanoparticles*”  
ibid., 1362, Dec. 19, (2010).
13. Yoshiaki Ukita, Chiwa Kataoka, Masahiro Takeo, Seiji Negoro, Yuzuru Takamura, Yuichi Utsumi  
“*Detection of polychlorinated biphenyl by using antibody-bound fluoroplastic capillary bundle structure*”  
The 2010 International Chemical Congress of Pacific Basin Societies (Pacificchem 2010) (Honolulu, USA), Symposium of Microfluidic and Nanofluidic Devices for Chemical and Biochemical Experimentation, 549, USA, Dec. 17, (2010).

14. Takeshi Komoto, Tsunemasa Saiki, Yuichi Utsumi  
**"Application of Surface Acoustic Wave Actuator to Lab-on-a-chip"**  
The first Japan-China-Korea Joint Seminar on MEMS/NEMS 2010 For Green & Life Innovation,  
P6, Sapporo Convention Center, Hokkaido, Japan, August 30-31 (2010).
15. Tsukasa Azeta, Yoshiaki Ukita, Yoshito Hirose, Saki Kondo, Yuichi Utsumi  
**"Three-dimensional Micro Fluidics Device Using Centrifugal Force"**  
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16. Mitsuhiro Yoshida, Yoshito Hirose, Yoshiaki Ukita, Kunihiko Mabuchi, Yuichi Utsumi  
**"Proposal of stacked electrodes for multiplex neural interface"**  
ibid.
17. Hiroo Kinoshita and Takeo Watanabe  
**"A New Resist Evaluation System developed at NewSUBARU"**  
2010 International Workshop on EUV Lithography, Maui, Hawaii, USA, Jul. 21-25, (2010).
18. Hiroo Kinoshita, Kei Takase, Toshiyuki Uno, Takeo Watanabe, and Tetuo Harada  
**"Study of the Minimum Phase Defect Affecting the Exposure Result"**  
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19. Yasuyuki Fukushima, Yuya Yamaguchi, Teruhiko Kimura, Takafumi Iguchi, Tetsuo Harada, Takeo Watanabe, and Hiroo Kinoshita  
**"EUV interference lithography for 22 nm node and below"**  
The 27th International Conference of Photopolymer Science and Technology, Chiba, Japan, June 22- July 25, (2010).
20. Yuya Yamaguchi, Yakusuki Fukushima, Takafumi Iguchi, Hiroo Kinoshita, Tetsuo Harada, and Takeo Watanabe  
**"Fabrication process of EUV-IL transmission grating"**  
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21. Daiju Shiono, Hideo Hada, Kazufumi Sato, Yasuyuki Fukushima, Takeo Watanabe, Hiroo Kinoshita  
**"Fundamental Decomposition Analysis of Chemically Amplified Molecular Resist for below 22 nm Resolution"**  
ibid.
22. Takeo Watanabe, Naohiro Matsuda, Tetsuo Harada, Hiroo Kinoshita, Hiroaki Oizumi, and Toshiro Itani  
**"In-situ Contamination Thickness Measurement by Novel Resist Evaluation System at NewSUBARU"**  
22th Micropocesses and Nanotechnology Conference, Kokura, Fukuoka, Japan, Nov.9-12, (2010).
23. Tetsuo Harada, Masato Nakasugi, Masaki Tada, Takeo Watanabe, Hiroo Kinoshita  
**"Critical Dimension Evaluation of an EUV Mask utilizing the Coherent EUV Scatterometry Microscope"**  
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24. Yuya Yamaguchi, Yasuyuki Fukushima, Masaki Tada, Tetsuo Harada, Takeo Watanabe, and Hiroo Kinoshita  
**"Fabrication of transmission grating for replication of 20 nm node resist pattern"**  
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25. Kazuhiro Kanda, Masahito Niibe, Akira Wada, Haruhiko Itoh, Tsuneo Suzuki, and Hidetoshi Saitoh  
**"Near-Edge X-ray Absorption Fine Structure Spectra of Si-containing DLC Thin Films"**  
4th Workshop for International Standardization of Diamond-like Carbon Coatings [P6]
26. Akira Wada, Takeshi Ogaki, Tomoyuki Yasukawa, Fumio Mizutani, Masahito Tagawa, Tsuneo Suzuki, Masahito Niibe, Hidetoshi Saitoh, Kazuhiro Kanda, and Haruhiko Ito  
**"Near edge X-ray absorption fine structure measurements of DLC and a-SiCx:H films"**  
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27. A. Wada, T. Suzuki, M. Niibe, H. Ito and K. Kanda  
**"Annealing Effect of W incorporated DLC fabricated by Ga focused ion beam CVD"**  
 23rd International Microprocesses and Nanotechnology Conference (MNC2010) [11D-8-134L]
28. S. Omoto, M. Okada, Y. Kang, Y. Nakai, K. Kanda, Y. Haruyama, S. Tono and S. Matsui  
**"High-resolution UV Nanoimprint Mold fabricated by EB Lithography using Calix Arene"**  
 ibid. [11D-8-94]
29. Y. Sawada, M. Okada, H. Miyake, T. Ohsaki, Y. Hirai, Y. Haruyama, K. Kanda and S. Matsui  
**"Characteristics of Synthesized Radicaland Cationic-UV Nanoimprint Resins"**  
 ibid. [11D-8-95]
30. Y. Kang, S. Omoto, M. Okada, K. Kanda, Y. Haruyama and S. Matsui  
**"Wafer Scale Room-Temperature Nanoimprint using Spin-Coated HSQ with PDMS Mold"**  
 ibid. [11D-8-96]
31. D. Yamashita, M. Okada, Y. Kang, Y. Haruyama, K. Kanda and S. Matsui  
**"Evaluation of Si Containing UV Nanoimprint Resin and Bilayer Structure Application"**  
 ibid. [11D-8-138L]
32. Y. Nakai, Y. Kang, M. Okada, Y. Haruyama, K. Kanda and S. Matsui  
**"Annealing Effect of Fe-Ga doped DLC Film formed by Focused-ion-beam Chemical Vapor Deposition using Ferrocene Source Gas"**  
 ibid. [12D-11-56]
33. Y. Kang, M. Okada, K. Kanda, Y. Haruyama and S. Matsui  
**"Fabrication and Characterization of SiOx Moth-eye Structure by Room-temperature Nanoimprint using HSQ"**  
 ibid. [12D-11-87]
34. M. Okada, M. Iwasa, Y. Haruyama, K. Kanda, H. Hiroshima and S. Matsui  
**"Adhesion Force Measurement by Scanning Probe Microscopy under Pentafluoropropane Gas Atmosphere"**  
 ibid. [12D-11-97]
35. M. Okada, M. Iwasa, Y. Haruyama, K. Kanda, K. Kuramoto, M. Nakagawa and S. Matsui  
**"In-situ Measurement of Adhesion Force between Fluorinated Self-assembled Monolayer and UV Nanoimprint Resin by scanning Probe Microscopy"**  
 ibid. [12D-11-100]
36. Shinji Matsui, Hiroshi Hiroshima, Yoshihiko Hirai, and Masaru Nakagawa  
**"Research and Development on Process Science and CD Control in High-Throughput UV Nanoimprint"**  
 ibid.
37. Makoto Okada, Masayuki Iwasa, Yuichi Haruyama, Kazuhiro Kanda, Kei Kuramoto, Masaru Nakagawa, and Shinji Matsui  
**"Evaluation Of Interaction Between Antisticking Layer And UV Curable Resin By Scanning Probe Microscopy"**  
 The 9th International Conference on Nanoimprint and Nanoprint Technology (NNT2010) [P25]
38. Yuji Kang, Makoto Okada, Kazuhiro Kanda, Yuichi Haruyama, and Shinji Matsui,  
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### (3) Award

1. Hiroo Kinoshita  
The Japan Society of Applied Physics Fellow Award  
*"The pioneer of the EUV Lithography"*
2. Hiroo Kinoshita  
The 10th (2010) Yamazaki-Teiichi Prize  
*"Semiconductor & Semiconductor Device"*
3. Yuji Kang, Makoto Okada, Yuichi Haruyama, Kazuhiro Kanda, and Shinji Matsui  
The 2nd prize in the NNT 2010 Gold Sponsor Award  
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*"Fabrication and characterization of SiO<sub>x</sub> moth-eye structure by room-temperature nanoimprint using caged- and ladder-HSQ"*
4. Yoshitaka Sawa, Kenji Yamashita, Takeshi Kitadani, Daiji Noda, and Tadashi Hattori  
Best Paper Award in the Journal of the Society of Plant Engineers Japan  
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*"Development of High Hardness Micro Metal Mold by Double Layered Electroforming"*,