

List of publications

(1) Papers

1. **"Development of Terahertz Radiation Sources using Compact Linear Accelerator LEENA"**
Satoshi Hashimoto, Sayaka Chin, Karin Kobayashi, Kenji Kawata, Dazhi Li, Sho Amano, Shuji Miyamoto
IEEJ Trans. Electronic, Information and Systems Vol.134, No.4, pp495-501 (2014)
2. **"Energy Calibration of the NewSUBARU Storage Ring for Laser Compton-Scattering Gamma Rays and Applications"**
H.Utsunomiya, T.Shima, K.Takahisa, D. M. Filipescu, O. Tesileanu, I. Gheorghe, H.-T. Nyhus, T. Renstrøm, Y.-W. Lui, Y. Kitagawa, S. Amano, S. Miyamoto
IEEE Transactions on Nuclear Science, Volume 61, No 3, pp.1252-1258 (2014).
3. **"Cherenkov radiation oscillator without reflectors"**
D. Li, Y. Wang, M. Hangyo, Y. Wei, Z. Yang, and S. Miyamoto
Appl. Phys. Lett., vol.100, 194102 (2014).
4. **"放射光軟 X 線照射による Si 系非晶質半導体膜の結晶化に光子エネルギーが与える影響"**
松尾直人, 部家 彰, 天野 壮, 宮本 修治, 神田 一浩, 望月 孝晏
日本真空学会誌, 57 巻, 6 号, pp.227-232 (2014).
5. **"Shielding design of laser electron photon beamlines at SPring-8"**
Yoshihiro Asano, Shuji Miyamoto and LEPS-II Collaboration
Progress in Nuclear Science and Technology, vol.4, pp.252-256 (2014).
6. **"Neutron angular distribution in (γ ,n) reactions with linearly polarized γ -ray beam generated by laser Compton scattering"**
K.Horikawa, S.Miyamoto, T.Mochizuki, S.Amano, D.Li, K.Imsakaki, Y.Izawa, K.Ogata, S.Chiba, T.Hayakawa
Physics Letters B, 737, pp.109-113 (2014).
7. **"Photoneutron cross sections for samarium isotopes: Toward a unified understanding of (γ , n) and (n, γ) reactions in the rare earth region"**
D. M. Filipescu, I. Gheorghe, H. Utsunomiya, S. Goriely, T. Renstrøm, H.-T. Nyhus, O. Tesileanu, T. Glodariu, T. Shima, K. Takahisa, S. Miyamoto, Y.-W. Lui, S. Hilaire, S. Pe'ru, M. Martini, and A. J. Koning
Physical Review C, Vol. 90, Iss. 6, 064616 (2014).
8. **"Photoneutron cross sections for neodymium isotopes: Toward a unified understanding of (γ , n) and (n, γ) reactions in the rare earth region"**
H.-T. Nyhus, T. Renstrøm, H. Utsunomiya, S. Goriely, D. M. Filipescu, I. Gheorghe, O. Tesileanu, T. Glodariu, T. Shima, K. Takahisa, S. Miyamoto, Y.-W. Lui, S. Hilaire, S. Pe'ru, M. Martini, L. Siess, and A. J. Koning
Physical Review C, Vol. 91, Iss. 1, 015808 (2015).
9. **"Laser plasma cryogenic target on translating substrate for generation of continuously repetitive EUV and soft X-ray pulses"**
S.Amano,
Rev.Sci.Instrum., Vol.85 , 063104 (2014).

10. **“Microprocessing using soft X-ray from laser produced Xe plasma ”**
S.Amano, T.Inoue, S.Miyamoto
IEEJ Trans. on Electro. Info. and Sys., Vol.**134**, 489 (2014).
11. **”Damage Characteristics of n-GaN Thin Film Surfaces Etched by Ultraviolet Light-Assisted Helium Plasmas”**
R. Kawakami, M. Niibe, Y. Nakano, T. Shirahama, K. Aoki, K. Oba, M. Takabatake, T. Mukai:
Thin Solid Films, **570**, 81-86, (2014).
12. **“Optical and electrical investigation of Ar⁺-irradiated GaN”**
M-G. Chen, K. Nakamura, Y-Q. Qiu, D. Ogawa, R. Kawakami, M. Niibe, and Y. Nakano:
Appl. Phys. Express, **7**, 111003, (2014).
13. **”Structure dependence of corrosion resistance of amorphous carbon films against nitric acid”**
A. Takarada, T. Suzuki, K. Kanda, M. Niibe, M. Nakano, N. Ohtake, H. Akasaka:
Diamond and Related Materials, **51**, 49-54 (2015).
14. **“Hyperthermal atomic oxygen beam irradiation effect on the Ti-containing DLC film”**
K.Kanda, K.Fukuda, K.Kidena, R.Imai, M.Niibe, S.Fujimoto, K.Yokota, M.Tagawa
Diamond and Related Materials, Vol. **41**, Pages 49-52 (2014).
15. **“Soft X-ray irradiation effect on the surface and material properties of highly hydrogenated diamond-like carbon thin films”**
Ryo Imai, Akihiro Fujimoto, Makoto Okada, Shinji Matsui, Takahiro Yokogawa, Eri Miura, Tohru Yamasaki, Tsuneo Suzuki, Kazuhiro Kanda
Diamond and Related Materials, Vol. **44**, Pages 8-10 (2014).
16. **“Sulfur accumulation in Melanodermis during development by upbuilding pedogenesis since 14-15 cal. ka”**
Toko Tanikawa, Yohey Hashimoto, Noriko Yamaguchi, Yoshiaki Ito, Sei Fukushima, Kazuhiro Kanda, Masaharu Uemura, Takayuki Hasegawa, Masamichi Takahashi, Shuichiro Yoshinaga,
Geoderma **232–234**, 609-618 (2014).
17. **“Tailored design of boron-doped diamond electrodes for various electrochemical applications with boron-doping level and sp²-bonded carbon impurities”**
Yutaro Suzuki, Tsuneo Suzuki, Kazuhiro Kanda, Naoto Ohtake, Hiroki Akasaka
Phys. Status Solidi A **211**, No. 12, 2709-2717 (2014).
18. **“Molecular orientation of a photoreactive liquid crystalline polymer induced by thermal nanoimprinting and graphoepitaxy”,**
M. Okada, R. Hosoda, M. Kondo, Y. Haruyama, T. Sasaki, H. Ono, N. Kawatsuki, and S. Matsui
Microelectronic Engineering, **123**, pp. 159-162 (2014).
19. **“Localized Abrasion Resistance Test for Antisticking Layer by Atomic Force Microscopy”,**
M. Okada, Y. Haruyama, and S. Matsui
Journal of Photopolymer Science and Technology, **27**, pp.103-106 (2014).
20. **“Effect of Fluorosurfactant contained in Resin for Anti-sticking Layer Free UV Nanoimprinting”,**
T. Oyama, M. Okada, S. Iyoshi, Y. Haruyama, T. Yamashita, and S. Matsui
Journal of Photopolymer Science and Technology, **27**, pp.117-120 (2014).

21. **“Chemical Patterns Fabricated by Nanoimprinting for Block Copolymer Directed Self-Assembly”,**
H. Wakaba, M. Okada, S. Iyoshi, Y. Haruyama and S. Matsui
Journal of Photopolymer Science and Technology, **27**, pp.99-102 (2014).
22. **“Release Property of HSQ Replica Mold Fabricated by Room Temperature Nanoimprinting with PDMS soft mold”,**
N. Sugano, M. Okada, Y. Haruyama, and S. Matsui
Journal of Photopolymer Science and Technology, **27**, pp.81-84 (2014).
23. **”Evaluation of fluorosurfactant distribution in ultrathin UV nanoimprint resin by X-ray photoelectron spectroscopy”,**
T. Oyama, M. Okada, S. Iyoshi, Y. Haruyama, and S. Matsui
Japanese Journal of Applied Physics, **53**, 06JK06 (2014).
24. **“Evaluation of Young’s modulus of imprinted hydrogen silsesquioxane pillar after residual layer removal by reactive ion etching,**
Y. Kang, Y. Haruyama, S. Matsui
Microsystem Technologies”, **20**, 1899-1903 (2014).
25. **“Fabrication of gold nanoparticle pattern using imprinted hydrogen silsesquioxane pattern for surface-enhanced Ramanscattering”,**
Y. Kang, T. Fukuoka, R. Takahashi, Y. Utsumi, Y. Haruyama, and S. Matsui
Microsystem Technologies, **20**, 1993-2000 (2014).
26. **“Evaluation of Fluorinated Self-assembled Monolayer by Using Photoelectron and Near Edge X-ray Absorption Fine Structure Spectroscopies”,**
Y. Haruyama, M. Okada, Y. Nakai, T. Ishida, and S. Matsui
IEEE Transactions on Electronics, Information and Systems, **134**, 468-472 (2014).
27. **“EUV Resist Chemical Analysis by Soft X-ray Absorption Spectroscopy for High Sensitivity Achievement”,**
K. Emura, T. Watanabe, M. Yamaguchi, H. Tanino, T. Fukui, D. Shiono, Y. Haruyama, Y. Muramatsu, K. Ohmori, K. Sato, T. Harada, H. Kinoshita
Journal of Photopolymer Science and Technology, **27**, 631-638 (2014).
28. **“Comparison of the Photoinduced Orientation Structure in the Bulk and at the Near-Surface of a Photoalignable Liquid Crystalline Polymer Film”,**
N. Kawatsuki, Y. Taniguchi, M. Kondo, Y. Haruyama, S. Matsui
Macromolecules **48**, 2203–2210 (2015).
29. **“Synchrotron radiation absorption spectroscopy to enhance photoresists”**
Takeo Watanabe, Kazuya Emura, Daiju Shiono, Yuichi Haruyama, Yasuji Muramatsu, Katsumi Ohmori, Kazufumi Sato, Tetsuo Harada, and Hiroo Kinoshita
SPIE Newsroom, DOI: 10.1117/2.1201403.005299 (2014).

30. **“Demonstrating 30-nm spatial resolution of three-multilayer-mirror objective for extreme ultraviolet microscopy: Imaging test by observing lithography mask”**
Mitsunori Toyoda, Kenjiro Yamasoe, Akifumi Tokimasa, Kentaro Uchida, Tetsuo Harada, Tsuneo Terasawa, Tsuyoshi Amano, Mihiro Yanagihara, and Hiroo Kinoshita
Appl. Phys. Express **7**, 102502 (2014).
31. **“Characterization of small phase defects using a micro-coherent extreme ultraviolet scatterometry microscope”**
Yusuke Tanaka, Tetsuo Harada, Tsuyoshi Amano, Youichi Usui, Takeo Watanabe, and Hiroo Kinoshita
Jpn. J. Appl. Phys. **53**, 06JC03 (2014).
32. **“Multilayer reflectometry and quantitative analysis of higher order diffraction impurities of grating monochromator”**
Tadashi Hatano, Tetsuo Harada
J. Electron. Spectrosc. Relat. Phenom. **195**, 156-158 (2014).
33. **“Development of EUV mask inspection system using high-order harmonic generation with a femtosecond laser”**
Hiroo Kinoshita, Tetsuo Harada, Yutaka Nagata, Takeo Watanabe and Katsumi Midorikawa
Jpn. J. Appl. Phys. **53**, 086701 (2014).
34. **“Study of Acid Diffusion Behaviors of PAG by Using Top Coat Method for EUVL”**
Atsushi Sekiguchi, Takeo Watanabe, and Hiroo Kinoshita
J. Photopolym. Sci. Technol. **27** pp. 623- 629 (2014).
35. **“EUV Resist Chemical Analysis by Soft X-ray Absorption Spectroscopy for High Sensitivity Achievement”**
Kazuya Emura, Takeo Watanabe, Masato Yamaguchi, Hirohito Tanino, Tsubasa Fukui, Daiju Shiono, Yuichi Haruyama, Yasuji Muramatsu, Katsumi Ohmori, Kazufumi Sato, Tetsuo Harada, and Hiroo Kinoshita
J. Photopolym. Sci. Technol. **27**, 631-638 (2014).
36. **“Cellular Automaton-based Nanoelectronic Hardware”**
Takeo Watanabe, Tejiro Isokawa, and Nobuyuki Matsui
6th IEEE International Nanoelectronics Conference, pp. 1-3. (2014).
37. **“Observation of phase defect on extreme ultraviolet mask using an extreme ultraviolet microscope”**
Tsuyoshi Amano, Tsuneo Terasawa, Hidehiro Watanabe, Mitsunori Toyoda, Tetsuo Harada, Takeo Watanabe, and Hiroo Kinoshita
J. Micro/Nanolith. MEMS MOEMS **13**, 023012 (2014).
38. **“At-wavelength observation of phase defect using focused lensless microscope”**
T. Harada, Y. Tanaka, T. Amano, Y. Usui, T. Watanabe, H. Kinoshita
SPIE Proc. **9048**, 90483F (2014).
39. **“At wavelength observation of phase defect embedded in EUV mask using microscope technique”**
T. Terasawa, T. Amano, T. Yamane, H. Watanabe, M. Toyoda, T. Harada, T. Watanabe, H. Kinoshita
SPIE Proc. **9048**, 904825 (2014).

40. **“Observation of phase defect on extreme ultraviolet mask using an extreme ultraviolet microscope”**
T. Amano, T. Terasawa, H. Watanabe, M. Toyoda, T. Harada, T. Watanabe, H. Kinoshita
SPIE Proc. **9048**, 904827 (2014).
41. **“Contribution of EUV resist components to the non-cleanable contaminations”**
E. Shiobara, T. Takahashi, N. Sugie, Y. Kikuchi, I. Takagi, K. Katayama, H. Tanaka, S. Inoue, T. Watanabe, T. Harada, H. Kinoshita
SPIE Proc. **9048**, 904819 (2014).
42. **“Correlation study on resist outgassing between EUV and e-beam irradiation”**
Y. Kikuchi, K. Katayama, I. Takagi, N. Sugie, T. Takahashi, E. Shiobara, H. Tanaka, S. Inoue, T. Watanabe, T. Harada, H. Kinoshita
SPIE Proc. **9048**, 90482W (2014).
43. **“ニュースバル多目的ビームライン BL10 における軟X線吸収分析（3）；液体有機化合物とエンジンオイルの状態分析”**
植村智之、村松康司、南部啓太、原田哲男、木下博雄
X線分析の進歩第 **45** 集, 269 (2014). (in Japanese)
44. **“半導体デバイスの X 線照射耐性に関する迅速評価方法の開発”**
工藤統吾, 小林和生, 小野峻, 寺西信一, 渡邊健夫, 木下博雄, 沖原将生, 初井宇記
応用物理学会分科会シリコンテクノロジー 170 半導体デバイスに対する放射線照射効果,
pp.24-29 (2014). (in Japanese)
45. **“Fabrication of gold nanoparticle pattern using imprinted hydrogen silsesquioxane pattern for surface-enhanced Raman scattering”**,
Yuji Kang, Takao Fukuoka, Ryo Takahashi, Yuichi Utsumi, Yuichi Haruyama, and Shinji Matsui,
Microsystem Technologies, **20**, 1993-2000 (2014).
46. **“Broadband noise spectroscopy of a nano-scale magnetic wire”**,
Akinobu Yamaguchi, K. Motoi, H. Miyajima and Yuichi Utsumi,
Journal of Magnetism and Magnetic Materials **364**, 34-38 (2014).
47. **“High-Efficiency Mixing Chip with Liquid flow Actuators Operated by Surface Acoustic Waves”**,
Tsunemasa Saiki and Yuichi Utsumi,
Electronics and Communications in Japan, **97**, 1, 54-61 (2014).
48. **“Powder Transport by Surface Acoustic Wave Actuator using Bragg Reflection”**, Tsunemasa Saiki,
Yuya Matsui, Yasuto Arisue, Yuichi Utsumi and Akinobu Yamaguchi, IEEJ Transactions on Electronics,
Information and Systems, Vol. **134**(No. 12) pp. 1934-1935 (2014).
49. **“Surface-enhanced Raman spectroscopy using a coffee-ring-type three-dimensional silver nanostructure”**, Ryohei Hara, Takao Fukuoka, Ryo Takahashi, Yuichi Utsumi and Akinobu Yamaguchi,
RSC Advances, **5**, 1378-1384 (2014).

50. **“Measurement of Reduced Elastic Modulus of Organic Semiconductor Materials for Flexible Organic Light Emitting Diode”**,
T. Kobayashi, H. Ikeda, Y. Utsumi, H. Kanematsu, T. Masuda and M. Yamamoto, ,
Journal of the Japanese Society for Experimental Mechanics, **14**, s189-s193 (2014).
51. **“Improvement in the Ductility of Organic Semiconductor Materials Used in a Flexible Organic Light Emitting Diode”**,
T. Kobayashi, T. Yokoyama, Y. Utsumi, H. Kanematsu, T. Masuda and M. Yamamoto, Journal of the
Japanese Society for Experimental Mechanics, **14**, s194-s199 (2014).
52. **“Design and Prototyping of a Fuel Cell Controlling Equipment for Small Hybrid Driving Airship System”**, T. Kobayashi , M. Fukushima, H. Kanematsu, Y. Utsumi, and Y. Shimamoto,
Advanced Materials Research, **933**, 444-449 (2014).
53. **“Coupled oscillations of vortex cores confined in a ferromagnetic elliptical disk”**,
H. Hata, M. Goto, A. Yamaguchi, T. Sato, Y. Nakatani and Y. Nozaki,
Physical Review B **90**, 104418-1-14 (2014).

(2) **International meetings**

1. **"Production of Positrons via Pair Creation from LCS Gamma-rays and Application to Defect Study in Bulk Materials"**
F. Hori, K. Ishii, T. Ishiyama, A.o Iwase, S. Miyamoto, and M. Terasawa
Proc. 2nd Japan-China Joint Workshop on Positron Science, JJAP Conf. Proc. 2, 011301 (2014).
2. **"Laser Compton Scattering Gamma-Ray Beam Source at NewSUBARU Storage Ring"**
S.Miyamoto, S.Amano, S.Hashimoto, N.Sakai and A.Koizumi, T.Hayakawa, T.Shizuma, H.Utsunomiya, T.Yamagata, H.Akimune, T.Shima, D.Li, Y.Asano, H.Ohkuma
Proceedings of the International Symposium "Nuclear Physics and Gamm-Ray Sources for Nuclear Security and Nonproliferation", Ricotta, Tokai-mura, Japan, 28-30 Jan. 2014, Ed. T. Hayakawa, M. Senzaki, P. Bolton, R. Hajima, M. Seya, M. Fujiwara, World Scientific Publishing, Singapore, pp.143-150 (2014) ISBN 978-981-4635-44-8.
3. **"Medium Modification of α Cluster Size in ^6Li "**
T.Yamagata, H.Akimune, S.Nakayama, T.Shima and S.Miyamoto
Ibid., pp.171-176. (2014) ISBN 978-981-4635-44-8.
4. **"Photodisintegration Reaction with Linear Polarized γ -Ray Beam"**
T.Hayakawa, S.Miyamoto, K.Horikawa, S.Amano, T.mochizuki, K.Imasaki, D.Li, Y.Izawa, K.Ogata, S.Chiba
Ibid., pp.301-307. (2014) ISBN 978-981-4635-44-8.
5. **"HARPO: a TPC concept for γ -ray polarimetry with high angular resolution in the MeV-GeV range"**
S. Wang, D. Bernard, P. Bruel, M. Frotin, Y. Geerebaert, B. Giebels, P. Gros, D. Horan, M. Louzir, P. Poilleux, I. Semeniouk, S. Anvar, D. Atti'e, P. Colas, A. Delbart, P. Sizun, D. G'otz, S. Amano, T. Kotaka, S. Hashimoto, Y. Minamiyama, A. Takemoto, S. Miyamoto, M. Yamaguchi, S. Da'e, H. Ohkuma
7th Symposium on Large TPCs for Low-Energy Rare Event Detection, Paris, 15-17 December 2014.
6. **"Generation Behavior of Deep-Level Defects in Ar⁺-Irradiated GaN"**
Yoshitaka Nakano, Miao-Gen Chen, Daisuke Ogawa, Keiji Nakamura, Retsuo Kawakami, Masahito Niibe:
7th International Symposium on Advanced Plasma Science and Its Applications for Nitrides and Nanomaterials (ISPlasma2015) 26-31, March 2015, Nagoya, Japan.
7. **"Etching damage analysis of n-GaN crystals etched with N₂-plasma using soft X-ray absorption spectroscopy"**
Masahito Niibe, Takuya Kotaka, Retsuo Kawakami, Yoshitaka Nakano and Takashi Mukai:
36th International Symposium on Dry Process (DSP2014), Nov. 27-28 (2014) Yokohama, Japan.
8. **"Morphological and Compositional Changes in AlGaN Surfaces etched by RF Capacitively Coupled Carbon Tetrafluoride and Argon Plasmas"**
R. Kawakami, M. Niibe, Y. Nakano, T. Shirahama, S. Hirai and T. Mukai:
36th International Symposium on Dry Process (DSP2014), Nov. 27-28 (2014) Yokohama, Japan.
9. **"Spectral Recovery of Etching Damage of TiO₂ thin film Observed in XAS Spectra"**
Keiji Sano, Masahito Niibe, Retsuo Kawakami, Yoshitaka Nakano:
7th International Symposium on Surface Science (ISSS-7), Nov. 2-6 (2014) Matsue, Japan.

10. **"Surface analysis of AlGaN treated by Ar and CF₄ plasma etching"**
Shodai Hirai, Masahito Niibe, Retsuo Kawakami, Yoshitaka Nakano:
7th International Symposium on Surface Science (ISSS-7), Nov. 2-6 (2014) Matsue, Japan.
11. **"Damage Characteristics of n-GaN Crystal Etched with N₂ Plasma by Soft X-ray Absorption Spectroscopy"**
Masahito Niibe, Takuya Kotaka, Retsuo Kawakami, Yoshitaka Nakano and Takashi Mukai:
7th International Symposium on Surface Science (ISSS-7), Nov. 2-6 (2014) Matsue, Japan.
12. **"Surface Modification on Horizontally Aligned Multi-walled Carbon Nanotube Films by Ar Ion Irradiation"**
R.Tamura, A.Tsukagoshi, S.Honda, M.Niibe, M.Terasawa, R.Hirase, H.Yoshioka, H.Izumi, K.Niwase, E.Taguchi, K.-Y.Lee, and M.Oura:
The 15th IUMRS-International Conference in Asia (IUMRS-ICA 2014), Fukuoka, Japan, August 24-30, 2014.
13. **"Atomic Oxygen Beam Irradiation Effect on the Si-doped DLC Film"**
Kengo Kiden, Minami Endo, Ryo Imai, Masahito Niibe, Kumiko Yokota, Masahito Tagawa, Kazuhiro Kanda
The 15 th IUMRS-International Conference in Asia 2014/8/24-30 Fukuoka Univ.
14. **"Isotopic influence on amorphous carbon films"**
Yutaro Suzuki, Tsuneo Suzuki, Kazuhiro Kanda, Naoto Ohtake, Hiroki Akasaka
The 15 th IUMRS-International Conference in Asia 2014/8/24-30 Fukuoka Univ.
15. **"Molecular orientation of imprinted nm-order pattern of photo-cross-linkable liquid crystalline polymer"**,
M. Okada, R. Hosoda, M. Kondo, Y. Haruyama, T. Sasaki, H. Ono, N. Kawatsuki, and S. Matsui
58th International Conference on electron, ion, photon beam technology and fabrication(EIPBN2014), Washington, D.C. USA, 2014/5/28
16. **"Surface evaluation of HSQ with PDMS additive after room temperature nanoimprinting using hard and soft molds"**,
N. Sugano, M. Okada, Y. Haruyama, and S. Matsui,
58th International Conference on electron, ion, photon beam technology and fabrication(EIPBN2014), Washington, D.C. USA, 2014/5/28
17. **"Localized Abrasion Resistance Test for Antisticking Layer by Atomic Force Microscopy"**,
M. Okada, Y. Haruyama, and S. Matsui,
31st International Conference of Photopolymer Science and Technology, Chiba, Japan, 2014/7/10
18. **"Effect of Fluorosurfactant contained in Resin for Anti-sticking Layer Free UV Nanoimprinting"**,
T. Oyama, M. Okada, S. Iyoshi, Y. Haruyama, T. Yamashita, and S. Matsui,
31st International Conference of Photopolymer Science and Technology(ICPST-31), Chiba, Japan, 2014/7/10
19. **"Chemical Patterns Fabricated by Nanoimprinting for Block Copolymer Directed Self-Assembly"**,
H. Wakaba, M. Okada, S. Iyoshi, Y. Haruyama, and S. Matsui,

- 31st International Conference of Photopolymer Science and Technology(ICPST-31), Chiba, Japan, 2014/7/10
20. **"Release Property of HSQ Replica Mold Fabricated by Room Temperature Nanoimprinting with PDMS soft mold"**,
N. Sugano, M. Okada, Y. Haruyama and S. Matsui,
31st International Conference of Photopolymer Science and Technology(ICPST-31), Chiba, Japan, 2014/7/10
 21. **"EUV Resist Chemical Reaction Analysis by Soft X-ray Absorption Spectroscopy for High Sensitivity"**,
K. Emura, T. Watanabe, D. Shiono, M. Yamaguchi, H. Tanino, T. Fukui, Y. Haruyama, Y. Muramatsu, K. Ohmori, K. Sato, T. Harada, H. Kinoshita,
31st International Conference of Photopolymer Science and Technology(ICPST-31), Chiba, Japan, 2014/7/11
 22. **"Material dependency of liquid crystalline polymer's molecular orientation by nanoimprint-graphoepitaxy"**,
M. Okada, R. Hosoda, M. Kondo, Y. Haruyama, T. Sasaki, H. Ono, N. Kawatsuki, and S. Matsui,
40th International Conference on Micro and Nano Engineering (MNE2014), Lausanne, Switzerland, 2014/9/24
 23. **"Evaluation of molecular orientation in liquid crystalline polymer structure fabricated by nanoimprinting"**,
M. Okada, R. Hosoda, M. Kondo, Y. Haruyama, T. Sasaki, H. Ono, N. Kawatsuki, and S. Matsui,
13th International Conference on Nanoimprint and Nanoprint Technology (NNT2014), Kyoto, Japan, 2014/10/23
 24. **"Study on Deterioration Mechanism of Antisticking Layer in Repeated UV Nanoimprint"**,
S. Iyoshi, M. Okada, Y. Haruyama, M. Nakagawa, H. Hiroshima, and S. Matsui,
13th International Conference on Nanoimprint and Nanoprint Technology (NNT2014), Kyoto, Japan, 2014/10/23
 25. **"Consideration of Resin Peeling In UV Nanoimprint Without Antisticking Layer"**,
T. Oyama, T. Yamashita, M. Okada, S. Iyoshi, Y. Haruyama, and S. Matsui,
13th International Conference on Nanoimprint and Nanoprint Technology (NNT2014), Kyoto, Japan, 2014/10/23
 26. **"Reversal Room-Temperature Nanoimprinting for 3D HSQ Structure"**,
N. Sugano, M. Okada, Y. Haruyama, and S. Matsui,
13th International Conference on Nanoimprint and Nanoprint Technology (NNT2014), Kyoto, Japan, 2014/10/23
 27. **"Chemical Guide Pattern Fabricated by Thermal Nanoimprinting for Alignment of PS-b-PMMA Microdomains"**,
H. Wakaba, M. Okada, S. Iyoshi, Y. Haruyama, and S. Matsui,
13th International Conference on Nanoimprint and Nanoprint Technology (NNT2014), Kyoto, Japan, 2014/10/23

28. **"Photoelectron Spectroscopy Study of the Fluorinated Antisticking Layers for Nanoimprint Lithography"**,
Y. Haruyama, M. Okada, Y. Nakai, T. Ishida, and S. Matsui,
3th International Conference on Nanoimprint and Nanoprint Technology (NNT2014), Kyoto, Japan, 2014/10/23
29. **"Chemical Guide Pattern Fabricated by Thermal Nanoimprinting Using One Terminal Functionalized PS and PS-r-PMMA Polymers"**,
H. Wakaba, S. Iyoshi, M. Okada, Y. Haruyama, and S. Matsui,
27th International Microprocesses and Nanotechnology Conference (MNC2014), Fukuoka, Japan, 2014/11/7
30. **"3D HSQ Structure Fabrication by Reversal RT-Nanoimprint Using PDMS Mold"**,
N. Sugano, M. Okada, Y. Haruyama, and S. Matsui,
27th International Microprocesses and Nanotechnology Conference(MNC2014), Fukuoka, Japan, 2014/11/7
31. **"Evaluation of the Fluorinated Antisticking Layer by Using Photoemission and NEXAFS Spectroscopies"**,
Y. Haruyama, M. Okada, Y. Nakai, T. Ishida, S. Matsui,
7th International Microprocesses and Nanotechnology Conference(MNC2014), Fukuoka, Japan, 2014/11/7
32. **"Evaluation of the Photoinduced Orientation Behavior of Photoreactive Liquid Crystalline Polymer Film in Bulk and at the Near-Surface"**,
Y. Taniguchi, Y. Inada, M. Kondo, Y. Haruyama, S. Matsui, N. Kawatsuki,
2nd Asian Conference on Liquid Crystals, Busan, Korea, 2015/1/20
33. **"Development of Micro Coherent EUV Scatterometry Microscope for Phase Defect Observation"**
Tetsuo Harada, Yusuke Tanaka, Tsuyoshi Amano, Youichi Usui, Takeo Watanabe, Hiroo Kinoshita
Photomask Japan 2014, Yokohama, Japan, 2014/4/15
34. **"Characterization of Small Phase Defect on EUV Mask Using Micro Coherent EUV Scatterometry Microscope"**
Tetsuo Harada, Yusuke Tanaka, Takahiro Fujino, Takeo Watanabe, Hiroo Kinoshita, Youich Usui, Tsuyoshi Amano
THE 58th INTERNATIONAL CONFERENCE on ELECTRON, ION, and PHOTON BEAM TECHNOLOGY & NANOFABRICATION (EIPBN2014), Washington DC. USA, 2014/5/30."
35. **"Study of Acid Diffusion Behaves Form PAG by Using Top Coat Method for EUVL"**
Jun Sekiguchi, Takeo Watanabe, and Hiroo Kinoshita
The 31st International Conference of Photopolymer Science and Technology Chiba, Japan, 2014/7/8-11.
36. **"EUV Resist Chemical Reaction Analysis by Soft X-ray Absorption Spectroscopy for High Sensitivity Achievement"**
Kazuya Emura, Takeo Watanabe, Daiju Shiono, Masato Yamaguchi, Hirohito Tanino, TsubasaFukui, Yuichi Haruyama, Yasuji Muramatsu, Katsumi Ohmori, Kazufumi Sato, Tetsuo Harada,and Hiroo Kinoshita
The 31st International Conference of Photopolymer Science and Technology Chiba, Japan,

2014/7/8-11.

37. **“Cellular Automaton-based Nanoelectronic Hardware” (Invited Talk)**
Ferdinand Peper, Takeo Watanabe, Teijiro Isokawa, and Nobuyuki Matsui,
6th IEEE International Nanoelectronics Conference 2014, Conference Hall, Hokkaido University,
Sapporo, Hokkaido, 2014/7/28-31.
38. **“Imaging Result of Small Phase Defects Using Micro Coherent EUV Scatterometry Microscope”**
T. Harada, Y. Tanaka, T. Watanabe, T. Amano and H. Kinoshita
26th Microprocesses and Nanotechnology Conference, Fukuoka, Japan. 2014/11/4-7.
39. **“EUV Mask Observation Result Using Coherent EUV Scatterometry Microscope with High-Harmonic-Generation EUV Source”**
Takahiro Fujino, Yusuke Tanaka, Tetsuo Harada, Yutaka Nagata, Takeo Watanabe, Hiroo Kinoshita
Photomask Japan 2014, Yokohama, Japan, 2014/4/15.
40. **“Development of EUV Reflectometer in NewSUBARU”**
Masaki Kuki, Tetsuo Harada, Takeo Watanabe, Hiroo Kinoshita
Photomask Japan 2014, Yokohama, Japan, 2014/4/15.
41. **“Chemical Reaction Analysis of EUV CA Resist for High Sensitivity and Low LWR by Soft X-ray Absorption Spectroscopy”**
Takeo Watanabe, Kazuya Emura, Masato Yamaguchi, Hirohito Tanino, Tsubasa Fukui, Daiju Shiono,
Yuichi Haruyama, Yasuji Muramatsu, Katsumi Ohmori, Kazufumi Sato, Tetsuo Harada, and Hiroo
Kinoshita
EUV lithography symposium 2014, Washington D.C., USA, 2014/10/27.
42. **“Development of a Large Reflectometer for Large EUV Optical Elements”**
Tetsuo Harada, Hiraku Hashimoto, Harutaka Iguchi, Youhei Takahashi, Takeo Watanabe, and Hiroo
Kinoshita
EUV lithography symposium 2014, Washington D.C., USA, 2014/10/27.
43. **“EUV Mask Observation Result Using Coherent EUV Scatterometry Microscope with High-Harmonic-Generation EUV Source”**
Tetsuo Harada, Takahiro Fujino, Yusuke Tanaka, Yutaka Nagata, Takeo Watanabe, and Hiroo
Kinoshita
EUV lithography symposium 2014, Washington D.C., USA, 2014/10/27.
44. **“Pattern Defect Observation Result Using Coherent EUV Scatterometry Microscope with High-Harmonic-Generation EUV Source”**
T. Fujino, Y. Tanaka, T. Harada, Y. Nagata, T. Watanabe and H. Kinoshita
26th Microprocesses and Nanotechnology Conference, Fukuoka, Japan, 2014/11/4-7.
45. **“Study of Dill's B parameter measurement of EUV resist”**
Atsushi Sekiguchi, Yoko Matsumoto, Tetsuo Harada, Takeo Watanabe, and Hiroo Kinoshita
SPIE advanced lithography 2015, San Jose, USA, 2015/2/24.

46. **“High-Performance Feeder Driven by Surface Acoustic Wave for Micro Powders”**, T. Saiki, Y. Matsui, A. Yamaguchi, M. Takeo, K. Maenaka, and Y. Utsumi,
Proc. of 40th International Conference on Micro and Nano Engineering (MNE2014), P2-12-Tu, p.71,
September 22-26 (2014), Lausanne, Switzerland
47. **“Study on the sensitivity of Surface Enhanced Raman spectroscopy using three-dimensional Silver and Gold Nanostructure”**,
R. Hara, R. Takahashi, T. Fukuoka, A. Yamaguchi, Y. Utsumi, ,
27th International Microprocesses and Nanotechnology Conference (MNC2014), No. 7P-11-51,
November 4-7 (2014), Fukuoka, Japan