List of publications

(1) Papers

1. K. Imasaki, D. Li, S. Miyamoto, S. Amano T. Mochizuki, and Y. Asano
   "Gamma-ray Beam Transmutation"

2. Shuji Miyamoto
   "Laser Compton Gamma-ray Generation"

3. D. Li, K. Imasaki, S. Miyamoto, K. Horikawa, S. Amano, and T. Mochizuki
   "Positron generation through laser Compton scattering gamma ray"

4. Akihisa Nagano, Sho Amano, Shuji Miyamoto, Takayasu Mochizuki
   "Extream Ultraviolet Source Using Laser-Produced Li Plasma"

5. Sho Amano, Ken Horikawa, Kazuki Ishihara, Shuji Miyamoto, Takehito Hayakawa, Toshiyuki Shizuma, and
   Takayasu Mochizuki
   "Several-MeV γ-ray generation in NewSUBARU by laser Compton backscattering"

6. Akira Heya, Yasuyuki Takanashi, Sho Amano, Naoto Matsuo, Shuji Miyamoto, and Takayasu Mochizuki
   "Effect of Laser Plasma X-ray Irradiation on Nucleation in Amorphous Silicon Film"

7. Dazhi Li, Kazuo Imasaki, Ken Horikawa, Shuji Miyamoto, Sho Amano and Takayasu Mochizuki
   "Iodine Transmutation through Laser Compton Scattering Gamma Rays"

8. Yoshihiko Shoji
   “Generating coherent THz radiation in electron storage rings using an ac sextupole magnet and a vertical
   kicker magnet”

9. Yoshihiko Shoji,
   "Design of a Multi-Element Corrector Magnet for the Storage Ring NewSUBARU”

10. Yoshihiko Shoji
    “Transient bunch lengthening by a betatron motion along bending sections”,
    Nuclear Instr.& Meth. in Physics Research A, in press (available online 10 Feb. 2010).

11. S. Amano, Y. Inaoka, H. Hiraishi, S. Miyamoto, T. Mochizuki
    “Laser-plasma debris from a rotating cryogenic-solid-Xe target”

12. Mitsuyoshi Kishihara, Yoshiaki Ukita, Shigeaki Yamamoto, Isao Ohta, Yuichi Utsumi
    “SR Direct Etching of PTFE and Its Application to Millimeter-Wave PTFE-Filled Waveguide”

13. Saki Kondo, Yoshiaki Ukita, Kuniyo Fujiwara, Yuichi Utsumi
    “A Novel Micromixer with Three-Dimensionally Cross-Linked Capillary Array Structure Fabricated by
14. Tsunamasa Saiki, Katsuhide Okada, Yuichi Utsumi
   “Fabrication and Estimation of Novel Micro Liquid Rotor that Operates with Surface-Acoustic-Wave”

15. Shigeaki Yamamoto, Yoshiaki Ukita, Kozo Mochiji, Yuichi Utsumi
   “Microfabrication of Poly(tetrafluoroethylene) Using SR Direct Etching”

16. Daisuke Fukuoka, Tomohiro Ikeda, Yuichi Utsumi
   "Development of Multi-Analytes DNA Microchip by Using 3-D Nanoprototyping Fabrication Method"

17. Akinobu Yamaguchi, Keiichi Motoi, Hideki Miyajima, Atsufumi Hirohata, Takehiro Yamaoka, Tsuyoshi Uchiyama, and Yuichi Utsumi
   “Current manipulation of a vortex confined in a micron-sized Fe19Ni81 disk”

18. Yuichi Utsumi, Shigeaki Yamamoto, Tomoyuki Kuroki, and Masaaki Okubo
   "Direct bonding of PTFE sheets assisted by synchrotron radiation induced surface modification"
   Microsystem Technologies, 16, 8-9, pp.1495-1500 (2010).

19. Yoshiaki Ukita, Saki Kondo, Chiwa Kataoka, Masahiro Takeo, Seiji Negoro, and Yuichi Utsumi
   “Immunoassay using poly-tetrafluoroethylene microstructure in organic solvent”
   Microsystem Technologies, 16, 8-9, pp.1465-1470 (2010).

20. Tsunemasa Saiki, Katsuhide Okada and Yuichi Utsumi
   “Micro liquid rotor operated by surface-acoustic-wave”

21. Saki Kondo, Tsukasa Azeta, Yoshiaki Ukita, Yuichi Utsumi
   “Vertical Liquid Transportation Through Capillary Bundle Structure Using Centrifugal Force”
   Microsystem Technologies, 16, 8-9, pp.1577-1580 (2010).

22. Yuichi Utsumi, (Invited paper)
   “Proposal of 3D Micro prototyping Using Synchrotron Radiation and Its Application to Bio-Microsystems”

23. 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”

24. Tsuyoshi Uchiyama, Akinobu Yamaguchi, and Yuichi Utsumi
   “Noise Characterization of Coil Detection Type Magnetic Field Sensor Utilizing Pulse Excitation Amorphous Wire Magnetoo-Impeadance Element”

25. Makoto Okada, Masayuki Iwasa, Ken-ichiro Nakamatsu, Kazuhiro Kanda, Yuichi Haruyama, and Shinji Matsui,
   “Nanoimprinting using Release-agent-coated Resins”

26. Makoto Okada, Masayuki Iwasa, Ken-ichiro Nakamatsu, Kazuhiro Kanda, Yuichi Haruyama, and Shinji Matsui,
   “Durability of Antisticking Layer Against Heat in Nanoimprinting Evaluated using Scanning Probe Microscopy”


Journal of the Society of Plant Engineers Japan, Vol. 21, No. 1, pp. 7-12, 2009

41. Hiroaki Miyake, Kazufumi Nishimoto, Hiroyasu Ueda, Hiroshi Ueno, Koichi Itoigawa, Satoshi Nishida, Daiji Noda, and Tadashi Hattori
"Fabrication of a Micro Capacitive Inclination Sensor by Resin Molding"

42. Yoshitaka Sawa, Kenji Yamashita, Takeshi Kitadani, Daiji Noda, and Tadashi Hattori
"Fabrication of High Hardness Micro Metal Mold by Nickel-Boron Electroless Plating Method"
Journal of the Society of Plant Engineers Japan, Vol. 21, No. 2, pp. 21-25, 2009

43. Daiji Noda, Kazufumi Nishimoto, Hiroaki Miyake, Satoshi Nishida, and Tadashi Hattori
"Fabrication of Micro Capacitive Inclination Sensor"

44. Kenji Yamashita, Yoshitaka Sawa, Daiji Noda, and Tadashi Hattori
"Fabrication of Ultraviolet Range Light Guide Plate and Applies to Photocatalyst Source of Light"

45. Teppei Kimura, Tomohiro Ishida, and Tadashi Hattori
"Mechanical Characteristics Evaluation of MEMS Probe"

46. Yoshitaka Sawa, Kenji Yamashita, Takeshi Kitadani, and Tadashi Hattori
"Fabrication of High Hardness Micro Metal Mold by Double Layer Nickel Electroforming"

47. Tadashi Hattori
"Fabrication of Micro Structure Surface by Etching Method"

(2) International Meetings

"Laser Compton Scattering Gamma-ray Source on NewSUBARU"(oral)
Int’l Conf. on Ultra-Short Electron & Photon Beams: Techniques and Applications, September 7-11 in Shaanxi-Xi’an, China (2009).

2. Y. Shoji
"Transient Bunch Lengthening by a Betatron Motion Along Bending Sections"
Int’l Conf. on Ultra-Short Electron & Photon Beams: Techniques and Applications, September 7-11 in Shaanxi-Xi’an, China (2009).

3. Yoshihiko Shoji
"Design of a Multi-Element Corrector Magnet for the Storage Ring NewSUBARU"
21th Int’l Conf. on Magnet Technology, Oct. 18-23, Hefei, China (2009).

4. S.Amano, K.Horikawa, S.Miyamoto, and T. Mochizuki
"Laser-Compton Gamma-Ray Source at Beamline (BL1) in NewSUBARU"
10th Int’l Conf. on Synchrotron Radiation Instrumentation (SR109), Melbourne, #363 (2009).

5. S.Isoda, A.Heya, S.Amano, S.Miyamoto, N.Matsuo and T. Mochizuki,
"Low-Temperature Thermal Crystallization of a-Si Film Irradiated by Laser Plasma Soft X-ray"
6th Int’l Thin-Film Transistor Conference (ITC’10), (Himeji,2010) , P4.
6. Akinobu Yamaguchi, Keiichi Motoi, Hideki Miyajima, Atsufumi Hirohata, Takehiro Yamaoka, Tsuyoshi Uchiyama, and Yuichi Utsumi
“Current manipulation of a vortex confined in a micron-sized Fe19Ni81 disk”

7. Munehiko Kato, Eric Blasius, Yoshiaki Ukita, Kunihiko Mabuchi, and Yuichi Utsumi
“Fabrication of stacked electrodes for multiplex nervous interface”
Int’l Conf. on Electronics Packaging 2009 (ICEP2009), pp955-958, (2009), April 14-16, Kyoto, JAPAN

8. Akinobu Yamaguchi, Keiichi Motoi, Hideki Miyajima, Tsuyoshi Uchiyama and Yuichi Utsumi
“Permeability and permittivity of single layered Ni81Fe19 micron-scale wire in ferromagnetic resonance state”
IEEE Int’l Magnetic Conference (INTERMAG09), May4-8, Sacramento, California, USA (2009)

9. Yuichi Utsumi, Shigeaki Yamamoto, Tomoyuki Kuroki, and Masaaki Okubo
“Direct bonding of PTFE sheets assisted by synchrotron radiation induced surface modification”
8th Int’l Workshop on High-Aspect-Ratio Micro-Structure Technology 2009 (HARMST2009), pp151-152, June 25-28, (2009), Saskatoon, Canada

10. Yoshiaki Ukita, Saki Kondo, Chiwa Kataoka, Masahiro Takeo, Seiji Negoro, and Yuichi Utsumi
“Immunoassay using poly-tetrafluoroethylene microstructure in organic solvent”
8th Int’l Workshop on High-Aspect-Ratio Micro-Structure Technology 2009 (HARMST2009), pp143-144, June 25-28, (2009), Saskatoon, Canada

11. Yoshiaki Ukita, Shigeaki Yamamoto, and Yuichi Utsumi
“Synchrotron radiation induced smoothing effect of poly-tetrafluoroethylene”

12. Yoshiaki Ukita, and Yuichi Utsumi
“Fluoroplastic mold for UV embossing fabricated by synchrotron radiation (SR) direct etching process”

13. Tsunemasa Saiki, Katsuhide Okada and Yuichi Utsumi
“Micro liquid rotor operated by surface-acoustic-wave”

14. Saki Kondo, Tsukasa Azeta, Yoshiaki Ukita, Tomoya Omukai and Yuichi Utsumi
“Vertical Liquid Transportation Through Capillary Bundle Structure Using Centrifugal Force”

15. Yuichi Utsumi
Int’l Symposium of East Asian Young Scientists Follow-up Program on Environmental- and Bio-Engineering 2009, pp7, September 7-8, (2009), Himeji, Japan.

16. Yuichi Utsumi, Tsukasa Azeta, Saki Kondo, Yoshiaki Ukita, Masahiro Takeo, and Seiji Negoro
“High Sensitive Detection of Endocrine Disrupter Using Enzyme Linked Immunosorbent Assay with Vertical Flow Operation”
19th Academic Symposium of MRS-Japan 2009, pp79, September 7-9, (2009), Tokyo, Japan

17. Yoshiaki Ukita, Saki Kondo, Tsukasa Azeta, Chiwa Kataoka, Masahiro Takeo, Seiji Negoro, and Yuichi Utsumi
“Enzyme-Linked Immunosorbent Assay using Antibody Bound Fluoroplastic Microstructure”
19th Academic Symposium of MRS-Japan 2009, pp80, September 7-9, (2009), Tokyo, Japan
18. Saki Kondo, oshiaki Ukita, Tsukasa Azeta, and Yuichi Utsumi
“Fuluid Flow Behaviors of Three-dimensional Micro Fluidics Device Using Centrifugal Force”
19th Academic Symposium of MRS-Japan 2009, pp74, September 7-9, (2009), Tokyo, Japan.

19. Tomoya Omukai, Atsushi Kinoshita, Fusao Komada, and Yuichi Utsumi
“Usefulness of PMMA Micro 3D Scaffold by Deep X-ray lithography for High Density Cell Culture”
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“Fabrication of stacked electrodes for multiplex nervous interface”
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“High efficiency Liquid Flow Actuator Operated by Surface Acoustic Waves”
19th Academic Symposium of MRS-Japan 2009, pp74, September 7-9, (2009), Tokyo, Japan

22. Tsunemasa Saiki, Katsuhide Okada, and Yuichi Utsumi
“High efficiency mixing and pumping of continuous liquid flow using surface acoustic wave”

23. Yoshiaki Ukita, Saki Kondo, Chiwa Kataoka, Masahiro Takeo, Seiji Negoro, and Yuichi Utsumi
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24. Tomoya Omukai, Atsushi Kinoshita, Fusao Komada, and Yuichi Utsumi
“High density cell culture using 3D scaffold with capillary bundle structure”

25. Tsunemasa Saiki, Katsuhide Okada, and Yuichi Utsumi
“High Efficiency Micro Reactor Operated by Surface Acoustic Wave”

26. Munehiko Kato, Eric Blasius, Yoshiaki Ukita, Kunihiko Mabuchi, and Yuichi Utsumi
“Fabrication of electrodes for multiplex nervous interface”

27. Yoshiaki Ukita, Saki Kondo, Chiwa Kataoka, Masahiro Takeo, Seiji Negoro, and Yuichi Utsumi
“Immunoaassay using antibody-bound poly-tetrafluoroethylene capillary-bundle structure for environmental analysis”

28. Shinji Matsui,
“Room Temperature Nanoimprint using HSQ and SOG”
The 2nd Asian Symposium on Nanoimprint Lithography (Taipei), Oct.7(2009).

29. Yuji Kang, Makoto Okada, Ken-ichiro Nakamatsu, Kazuhiro Kanda, Yuichi Haruyama, and Shinji Matsui
“Effect of UV Irradiation on Sol-Gel ITO Nanopatterns Replicated by Room-Temperature Nanoimprint”
54th Int’l Conf. on Electron, Ion and Photon Beam Technology and Nanofabrication(EIPBN2009), (Florida, USA), May 28 (2009).

30. Makoto Okada, Yuji Kang, Ken-ichiro Nakamatsu, Masayuki Iwasa, Kazuhiro Kanda, Yuichi Haruyama, and Shinji Matsui
“Characterization of Nanoimprint Resin and Antisticking Layer by Scanning Probe Microscopy”
The 27th Int’l Conf. of Photopolymer Science and Technology (Chiba), Jul.2(2009).


34. Makoto Okada, Ken-ichiro Nakamatsu, Yuji Kang, Yuichi Haruyama, Kazuhiro Kanda, and Shinji Matsui “Characteristics of Antisticking Layer Formed by Plasma Irradiation using Mixture Gas with CHF₃ and O₂ for Nanoimprint” 54th Int’l Conf. on Electron, Ion and Photon Beam Technology and Nanofabrication(EIPBN2009), (Florida, USA), May.27(2009).


43. Yuji Kang, Makoto Okada, Chiaki Minari, Kazuhiro Kanda, Yuichi Haruyama, and Shinji Matsui “Nanostructure fabrication by room-temperature nanoimprint using liquid-phase HSQ with PDMS mold” 8th Int’l Conf. on Nanoimprint and Nanoprint Technology 2009 (NNT2009), (California, USA), Nov.12(2009).
44. Yuji Kang, Makoto Okada, Kazuhiro Kanda, Yuichi Haruyama, and Shinji Matsui
   “Large area Room-Temperature Nanoimprint using Liquid-Phase HSQ with PDMS mold”
   American Vacuum Society 56th international symposium & exhibition, (California, USA), Nov.10(2009).

45. Makoto Okada, Yuji Kang, Takahiro Nakayama, Yuichi Haruyama, Kazuhiro Kanda, and Shinji Matsui
   “Nanoimprint on Sol-Gel Low-k Porous Silica”
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46. Yuji Kang, Makoto Okada, Chiaki Minari, Kazuhiro Kanda, Yuichi Haruyama, and Shinji Matsui
   “Room-temperature nanoimprint using liquid-phase HSQ with h-PDMS mold”
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47. Kazuhiro Kanda, Makoto Okada, Yuji Kang, Tsuneo Suzuki, and Shinji Matsui,
   “Departure Process of Ga from DLC Films Fabricated using Ga Focused Ion Beam Assisted Deposition by Heat Treatment”

48. Kazuhiro Kanda, Makoto Okada, Yuji Kang, Masahito Niibe, Tsuneo Suzuki, and Shinji Matsui,
   “Structural Changes in the DLC Films Fabricated using Ga Focused Ion Beam Assisted Deposition by Heat Treatment”
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50. Kazuhiro Kanda, Makoto Okada, Yuji Kang, Masahito Niibe, and Shinji Matsui,
   “NEXAFS study of the annealing effect on the DLC films fabricated using Ga focused ion beam assisted deposition”
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   “NEXAFS study on annealing temperature dependence of hydrogenated amorphous carbon films”
   14th Int’l Conf. on Xay Absorption Fine Structure (XAFS 2009), July, PS1.36, Camerino, Italy

52. Y. Haruyama, Y. Teraoka, and S. Matsui
   “Electronic structure near the surface region in the ternary transition metal alloy Ti_{35}V_{25}Cr_{40} by photoemission spectroscopy”
   The 11-th Int’l Conference on Electronic Spectroscopy & Structure (ICES11), 6AP09, October, Nara, Japan

   “Inhibition of deposition and removal of carbon films on the multilayer surface by EUV irradiation in the presence of water vapor, oxygen and ozone gases”

54. K. Kanda, M. Okada, Y. Kang, M. Niibe, S. Matsui:
   “Electronic structure near the surface region in the ternary transition metal alloy Ti_{35}V_{25}Cr_{40} by photoemission spectroscopy”

55. Masahito Niibe, Masanori Kayahara, and Shozo Inoue
   “Electronic structure and photocatalytic activity of titania thin films prepared by magnetron sputtering with glancing angle deposition technique”


   “EUV Interference Lithography in New SUBARU”

70. Y. Fukushima, T. Watanabe, T. Harada, H. Kinoshita
   “Resist Transmittance Measurement using EUV Light”

   “Development of the Extreme Ultraviolet Interference Lithography System”

72. Daiji Noda, Hiroshi Tsujii, Naoki Takahashi, and Tadashi Hattori
   “Fabrication of High Precision X-ray Mask for X-ray Grating of X-ray Talbot Interferometer”
   8th Int’l Workshop on High-Aspect-Ratio Micro-Structure Technology (HARMST 2009), Saskatoon, Canada, June 25-28, 2009

73. Naoki Takahashi, Hiroshi Tsujii, Megumi Katori, Kenji Yamashita, Daiji Noda, and Tadashi Hattori
   “Fabrication of X-rays Mask with Carbon Membrane for Diffraction Gratings”
   8th Int’l Workshop on High-Aspect-Ratio Micro-Structure Technology (HARMST 2009), Saskatoon, Canada, June 25-28, 2009

74. Hiroaki Miyake, Kazufumi Nishimoto, Satoshi Nishida, Daiji Noda, and Tadashi Hattori
   “Fabrication of Micro Capacitive Inclination Sensor by Resin Molding”
   8th Int’l Workshop on High-Aspect-Ratio Micro-Structure Technology (HARMST 2009), Saskatoon, Canada, June 25-28, 2009

75. Yasuhata Sawa, Kenji Yamashita, Takeshi Kitadani, Daiji Noda, and Tadashi Hattori
   “Fabrication of High Hardness Ni Mold with Electroless Nickel-Boron Thin Layer”
   8th Int’l Workshop on High-Aspect-Ratio Micro-Structure Technology (HARMST 2009), Saskatoon, Canada, June 25-28, 2009

76. Daiji Noda, Masaru Setomoto, Yuki Kobayashi, and Tadashi Hattori
   “Fabrication of Microcoils with Narrow and High Aspect Ratio Coil Lines”
   8th Int’l Workshop on High-Aspect-Ratio Micro-Structure Technology (HARMST 2009), Saskatoon, Canada, June 25-28, 2009

77. Yuta Okayama, Kenji Yamashita, Yoshitaka Sawa, Daiji Noda, and Tadashi Hattori
   “Fabrication of Ultraviolet Range Light Guide Plate”
   8th Int’l Workshop on High-Aspect-Ratio Micro-Structure Technology (HARMST 2009), Saskatoon, Canada, June 25-28, 2009

78. Daiji Noda, Masaru Setomoto, and Tadashi Hattori
   “Fabrication of High Aspect Ratio Microcoils for Electromagnetic Actuators”
   2009 IEEE Int’l Symposium on Micro-Nano Mechatronics and Human Science (MHS 2009), Nagoya, Japan, November 8-11, 2009

79. Takaya Fujimoto, Yuta Okayama, Kenji Yamashita, Satoshi Nishida, Yoshitaka Sawa, Daiji Noda, and Tadashi Hattori
   “Examination of High Luminance Light Guide Plate by Accumulating Method”
   2009 IEEE Int’l Symposium on Micro-Nano Mechatronics and Human Science (MHS 2009), Nagoya, Japan, November 8-11, 2009

80. Daiji Noda and Tadashi Hattori
   “Development of a New Nano-Micro Solid Processing Technology Based on a LIGA Process and a Next-
(3) Awards

1. Professor Hiroo Kinoshita
   "Lifetime Achievement Award"