

## 【論文】

- (1) V. Mizeikis, R. Tarozaitė, S. Juodkaziš, H. Misawa, “Metallo-dielectric 3D photonic crystals prepared by metallization of optically microfabricated polymeric templates”, Proc. of SPIE 7205, (2009) p.72050L.
- (2) E. Gaižauskas, V. Mizeikis, H. Misawa, S.I. Kudryashov, V. D. Zvorykin, A. A. Ionin, S. Juodkaziš, “Monitoring of microplasma formation and filamentation of tightly focused femtosecond laser pulses in dielectrics”, Proc. of SPIE, 7214, (2009) p.72140S
- (3) N. Murazawa, K. Ueno, V. Mizeikis, S. Juodkaziš, H. Misawa, “Spatially Selective Nonlinear Photopolymerization Induced by the Near-Field of Surface Plasmons Localized on Rectangular Gold Nanorods”, J. Phys. Chem. C 113, (2009) pp. 1147 -1149.
- (4) Y. Nishijima, K. Ueno, S. Juodkaziš, V. Mizeikis, H. Fujiwara, K. Sasaki, H. Misawa, “Lasing with well-defined cavity modes in dye-infiltrated silica inverse opals”, Opt. Express 17, (2009) pp. 2976-2983.
- (5) V. Mizeikis, S. Juodkaziš, T. Balciunas, S. I. Kudryashov, V.D. Zvorykin, A.A. Ionin, and H. Misawa, “Optical and ultrasonic monitoring of femtosecond laser filamentation in fused silica”, Appl. Surf. Sci. 255, (2009) p. 9721
- (6) K. Ueno, S. Juodkaziš, T. Shibuya, V. Mizeikis, Y. Yokota, H. Misawa, “Nanoparticle-Enhanced Photopolymerization”, J. Phys. Chem. C 113, (2009) p. 11720
- (7) V. Mizeikis, S. Juodkaziš, T. Balciunas, H. Misawa, et al., “Optical and ultrasonic signatures of femtosecond pulse filamentation in fused silica”, J. Appl. Phys. 105, 123106, 2009.
- (8) S. Juodkaziš, Y. Nishi, H. Misawa, V. Mizeikis, O. Schecker, R. Waitz, P. Leiderer, E. Scheer, “Optical transmission and laser structuring of silicon membranes”, Opt. Expr. 17, (2009) p. 15308
- (9) V. Mizeikis, S. Kimura, N.V. Surovtsev, V.Jarutis, A.Saito, H.Misawa, S. Juodkaziš, “Formation of amorphous sapphire by a femtosecond laser pulse induced micro-explosion”, Appl. Surf. Sci., 255, (2009) p. 9745
- (10) V. Mizeikis, K.K. Seet, S. Juodkaziš, H. Misawa, “Fabrication of photonic crystal structures by laser lithography”, J. Automation, Mobile Robotics & Intel. Syst. 3, (2009) p. 99
- (11) S. Juodkaziš, V. Mizeikis, and H. Misawa, “Three-dimensional microfabrication of materials by femtosecond lasers for photonics applications”, J. Appl. Phys. 106, 051101, 2009.
- (12) Y. Yokota, K. Ueno, S. Juodkaziš, V. Mizeikis, N. Murazawa, H. Misawa, H. Kasa, K. Kintaka, J. Nishii, “Nano-textured metallic surfaces for optical sensing and detection applications”, J. Photochem. Photobiol. A 207, (2009) p. 126
- (13) V. Mizeikis, S. Juodkaziš, H. Misawa, “Fabrication of micro- and nanostructures

- in thin metallic films by femtosecond laser ablation”, Proc. of SPIE 7591, (2010) p. 75910J
- (14) Q. Sun, S. Juodkazis, N. Murazawa, V. Mizeikis, H. Misawa, “Femtosecond laser photopolymerization of photonic and free-movable microstructures in sol-gel hybrid resist”, Proc. of SPIE 7591, (2010) p. 75910K
  - (15) K. Ueno, S. Takabatake, Y. Nishijima, V. Mizeikis, Y. Yokota, H. Misawa, “Nanogap-assisted surface plasmon nanolithography”, J. Phys.Chem. Lett. 1, (2010) pp. 657
  - (16) E.G. Gamaly, S. Juodkazis, V. Mizeikis, H. Misawa, A.V. Rode, W. Krolikowski, “Modification of refractive index by a single femtosecond pulse confined inside a bulk of a photorefractive crystal”, Phys. Rev. B 81, (2010) p. 054113
  - (17) Q. Sun, S. Juodkazis, N. Murazawa, V. Mizeikis, H. Misawa, “Freestanding and movable photonic microstructures fabricated by photopolymerization with femtosecond laser pulses”, J. Micromech. Microeng. 20, (2010) p. 35004
  - (18) V. Mizeikis, S. Juodkazis, K. Sun, H. Misawa, “Fabrication of frequency-selective surface structures by femtosecond laser ablation of gold films”, J. Las. Micro/Nano Eng. 5, (2010) pp. 115
  - (19) V. Mizeikis, E. Kowalska, B. Ohtani, S. Juodkazis, “Frequency- and polarization-dependent optical response of asymmetric spheroidal silver nanoparticles on dielectric substrate”, Physica status solidi (RRL) – Rapid Res. Lett. 4, (2010) pp. 268-270.
  - (20) K. Ueno, S. Juodkazis, V. Mizeikis, H. Misawa, “Enhancement of optical near-field using metallic nanostructures tailored with high accuracy”, in "Molecular Electronic and Related Materials - Control and probe with light", ed. T. Naito, (2010) pp. 261-279
  - (21) S. Juodkazis, S. Kohara, Y. Ohishi, N. Hirao, A.Vailionis, V. Mizeikis, A. Saito, A. Rode, “Structural changes in femtosecond laser modified regions inside fused silica”, J. Opt. 12, (2010) p. 124007
  - (22) V. Mizeikis, V. Purlys, L. Maigyte, K. Staliunas, S. Juodkazis, “Direct laser writing and applications of dielectric microstructures with low refractive index contrast”, Proceedings of SPIE 7927 (2011) p. 7927F
  - (23) L. Rossa, K. Sun, V. Mizeikis, S. Bauerdick, L. Peto, S. Juodkazis, “3D-Tailored Gold Nanoparticles for Light Field Enhancement and Harvesting over Visible-IR Spectral Range”, J. Phys. Chem. C 115 (2011) DOI:10.1021/jp109099m
  - (24) Z. Li, K. Sun, M. Sunayama, Y. Matsuo, V. Mizeikis, R. Araki, K. Ueno, M. Abe, H. Misawa, “On-chip fraction collection for multiple selected ssDNA fragments using isolated extraction channels”, J. Chromatogr. 1218, (2011) pp. 997-1003
  - (25) V. Mizeikis, E. Kowalska, S. Juodkazis, “Resonant localization, enhancement, and polarization of optical fields in nano-scale interface regions for photo-catalytic applications”, J. Nanosci. Nanotechnol. 11, (2011) pp. 2814-2822

- (26) A. Saito, M. Yonezawa, J. Murase, S. Juodkazis, V. Mizeikis, M. Akai-Kasaya, Y. Kuwahara, “Numerical analysis on the optical role of nanometer scale randomness on the Morpho butterfly's scale”, *Journal of Nanoscience and Nanotechnology* 11, 2785-2792, 2011.
- (27) V. Mizeikis, V. Purlys, W. Inami, Y. Kawata, “Direct Laser Writing of refractive-index microstructures in lithium niobate”, *Adv. Mater. Research* 222, (2011) pp. 118-121.
- (28) L. Bressel, D. de Ligny, C. Sonnevile, V. Martinez, V. Mizeikis, R. Buividas, S. Juodkazis, “Femtosecond laser induced density changes in GeO<sub>2</sub> and SiO<sub>2</sub> glasses: fictive temperature effect”, *Opt. Mater. Express* 1, (2011) pp.605-613
- (29) A. Vailionis, E.G. Gamaly, V. Mizeikis, W. Yang, A.V. Rode, S. Juodkazis, “Evidence of superdense aluminium synthesized by ultrafast microexplosion”, *Nature Communications* 2, (2011) p. 445
- (30) J. Trull, L. Maigyte, V. Mizeikis, M. Malinauskas, S. Juodkazis, C. Cojocar, M. Rutkauskas, M. Peckus, V. Sirutkaitis, K. Staliunas, “Formation of collimated beams behind the woodpile photonic crystal”, *Phys. Rev. A* 85, (2011) p. 33812
- (31) E.G. Gamaly, A. Vailionis, V. Mizeikis, W. Yang, A.V. Rode, S. Juodkazis, “Warm dense matter at the bench-top: fs-laser-induced confined micro-explosion”, *J. High Energy Phys.* 8, (2011) pp.13-17
- (32) V. Mizeikis, V. Purlys, D. Paipulas, L. Maigyte, K. Staliunas, Tailoring of photonic structures by femtosecond laser lithography”, *Proc. of SPIE* 8204, (2011) p.820417
- (33) T. Suzuki, J. Morikawa, T. Hashimoto, R. Buividas, G. Gervinskas, D. Paipulas, M. Malinauskas, V. Mizeikis, S. Juodkazis, “Thermal and optical properties of sol-gel and SU-8 resists”, *Proc. of SPIE*, 8249, (2012) p. 82490K
- (34) V. Mizeikis, A. Vailionis, E.G. Gamaly, W. Yang, A. V. Rode, S. Juodkazis, “Synthesis of super-dense phase of aluminum under extreme pressure and temperature conditions created by femtosecond laser pulses in sapphire”, *Proc. of SPIE*, 8249, (2012) p. 82490A
- (35) K. Kanev, V. Mizeikis, V. Gnatyuk, “Localization Encoding in the Bulk of Physical Objects by Laser-Induced Damage”, *Proceedings of HCCE-2012*, (2012) pp.93-98, 2012.
- (36) L. Maigyte, J. Trull, V. Mizeikis, M. Malinauskas, S. Juodkazis, C.M. Cojocar, M. Rutkauskas, M. Peckus, V. Sirutkaitis, K. Staliunas, “Woodpile photonic crystal for beam collimation”, *Proc. of SPIE* 8425, (2012) pp. 842511.
- (37) V. Mizeikis, V. Purlys, D. Paipulas, R. Buividas, S. Juodkazis, “Direct Laser Writing: Versatile Tool for Microfabrication of Lithium Niobate”, *J. Las. Micro/Nano Eng.*, 7, (2012) pp. 345-350

【国際会議】

- (1) V. Mizeikis, R. Tarozaitė, S. Juodkaziš, H. Misawa, “Metallo-dielectric 3D photonic crystals prepared by metallization of optically microfabricated polymeric templates”, Photonics West 2009, San Jose, USA, Jan. 19-24, 2009
- (2) S. Juodkaziš, V. Mizeikis, H. Misawa, S.I. Kudryashov, V.D. Zvorykin, A.A. Ionin, “Monitoring of microplasma formation and filamentation of tightly focused femtosecond laser pulses in dielectrics” (INVITED), Photonics West 2009, San Jose, USA, Jan. 19-24, 2009
- (3) V. Mizeikis, S. Juodkaziš, K. Sun, H. Misawa, “Fabrication of frequency-selective surface structures by femtosecond laser ablation of gold films”, The 5th International Congress on Laser Advanced Materials Processing LAMP-2009, Kobe, Japan, Jun. 29-Jul. 2, 2009
- (4) V. Mizeikis, S. Juodkaziš, K. Staliūnas, and H. Misawa, “Optically Tailored Photonic Microstructures” (invited), 18th International Laser Physics Workshop, Barcelona, Spain, Jul. 13-17, 2009
- (5) V. Mizeikis, S. Juodkaziš, H. Misawa, “Fabrication of Photonic Crystal Structures by Laser Lithography”, Inter Academia 2009, 8th International Conference on Global Research and Education, Kazimierz Dolny and Warsaw, Poland, Sept. 14-17, 2009
- (6) V. Mizeikis, S. Juodkaziš, K. Staliūnas, H. Misawa, “Laser lithography of spectral and angular filters for optical beams” (invited), The 2nd International Symposium on Atomically Controlled Fabrication Technology, Osaka, Japan, Nov. 25-26, 2009
- (7) V. Mizeikis, S. Juodkaziš, H. Misawa, “Fabrication of micro- and nanostructures in thin metallic films by femtosecond laser ablation”, SPIE Photonics West 2010, San Francisco, USA, Jan. 23-28, 2010
- (8) Q. Sun, S. Juodkaziš, N. Murazawa, V. Mizeikis, H. Misawa, “Femtosecond laser photopolymerization of photonic and free-movable microstructures in sol-gel hybrid resist”, SPIE Photonics West 2010, San Francisco, USA, Jan. 23-28, 2010
- (9) S. Juodkaziš, A. Vailionis, W. Yang, V. Mizeikis, E.G. Gamaly, A. Rode, “Super-dense sapphire in confined micro-explosion induced by fs-laser pulses”, XIV Conference on Liquid and Amorphous Metals, Rome, Italy, Jul. 11-16, 2010
- (10) S. Juodkaziš, A. Vailionis, W. Yang, V. Mizeikis, E.G. Gamaly, A. Rode, “Confined micro-explosion induced by tightly focused femtosecond pulses inside sapphire crystal: compression and decomposition under extreme conditions”, Workshop on Matter under Extreme Conditions, Paris, France, July 7, 2010
- (11) V. Mizeikis, “Microfabrication of Photonic Structures by Femtosecond Laser Lithography”, Yonsei Univ. & Shizuoka Univ. International Joint Symposium, Hamamatsu, Japan, Aug. 3, 2010
- (12) V. Mizeikis, V. Purlys, W. Inami, Y. Kawata, “Direct laser writing of

- refractive-index microstructures in lithium niobate”, Inter Academia 2010, 9th International Conference on Global Research and Education, Riga, Latvia, Aug. 9-12, 2010
- (13) V. Mizeikis, S. Kohara, Y. Ohnishi, N. Hirao, A. Saito, A. Vailionis, S. Juodkazis, “Synthesis of high-pressure phases of oxides by laser-induced optical breakdown”, 7th International Conference on Photo-Excited Processes and Applications ICPEPA-7, Copenhagen, Denmark, Aug. 15-20, 2010
  - (14) V. Mizeikis, V. Purlys, S. Juodkazis, “Versatile tailoring of refractive index microstructures in iron-doped lithium niobate by direct laser writing”, 7th International Conference on Photo-Excited Processes and Applications ICPEPA-7, Copenhagen, Denmark, Aug. 15-20, 2010
  - (15) V. Mizeikis, S. Kohara, Y. Ohnishi, N. Hirao, A. Saito, A. Vailionis, S. Juodkazis, “Synthesis of dense phases of oxides by laser-induced dielectric breakdown”, 14th International Symposium on Ultrafast Phenomena in Semiconductors, Vilnius, Lithuania, Aug. 23-25, 2010
  - (16) A. Udhiarto, D. Moraru, R. Nakamura, S. Miki, T. Mizuno, V. Mizeikis, M. Tabe, “Single-Photon Detection by Individual Dopants and the Effect of Channel Shape in SOI-FET”, 2010 International Conference on Solid State Devices and Materials, Tokyo, Japan, Sept. 22-24, 2010
  - (17) V. Mizeikis, V. Purlys, L. Maigyte, K. Staliunas, S. Juodkazis, “Direct laser writing and applications of dielectric microstructures with low refractive index contrast”, SPIE Photonics West 2011, San Francisco, USA, Jan. 22-27, 2011
  - (18) V. Mizeikis, A. Vailionis, E. G. Gamaly, W. Yang, A. Rode, S. Juodkazis, “Synthesis of dense phases of materials using plasma microexplosions induced by ultrashort laser pulses”, ISPlasma 2011, Nagoya, Japan, March 6-9, 2011
  - (19) A. Vailionis, E. Gamaly, V. Mizeikis, W. Yang, A. Rode, S. Juodkazis, “Super-dense Al formed by ultrafast laser microexplosion”, The European Conference on Lasers and Electro-Optics (CLEO/Europe), Munich, Germany, May 22-26, 2011
  - (20) L. Maigyte, M. Rutkauskas, M. Malinauskas, V. Mizeikis, S. Juodkazis, M. Peckus, V. Sirutkaitis, K. Staliunas, “Laser polymerization of photonic crystals for collimation of beams at visible wavelengths”, ICTON 2011 - 13th International Conference on Transparent Optical Networks, Stockholm, Sweden, June 26-30, 2011
  - (21) V. Mizeikis, L. Maigyte, K. Staliunas, S. Juodkazis, “Fabrication of 3D diffractive photonic crystal collimator by femtosecond direct laser writing in photoresist”, LPM2011, Takamatsu, Japan, June 7-10, 2011
  - (22) S. Juodkazis, A. Vailionis, E.G. Gamaly, V. Mizeikis, W. Yang, A. Rode, “Micro-explosions triggered by femtosecond laser pulses: New tool of nano-structuring” (invited), LPM2011, Takamatsu, Japan, June 7-10, 2011

- (23) R. Buividas, V. Mizeikis, L. Rosa, R. Sliupas, T. Kudrius, G. Slekys, S. Juodkazis, "Formation of fine ripples on surfaces of dielectrics and semiconductors", LPM2011, Takamatsu, Japan, June 7-10, 2011
- (24) V. Mizeikis, V. Purlys, D. Paipulas, S. Juodkazis, "Reversible writing of photorefractive structures in lithium niobate by laser lithography", LPM2011, Takamatsu, Japan, June 7-10, 2011
- (25) V. Mizeikis, A. Vailionis, E. G. Gamaly, W. Yang, A. Rode, S. Juodkazis, "Modification of materials using plasma microexplosions induced by ultrashort laser pulses" Inter Academia 2011, 10th International Conference on Global Research and Education, Sucevita, Romania, Sept. 26-29, 2011
- (26) V. Mizeikis, D. Paipulas, V. Purlys, S. Juodkazis, "Formation of reconfigurable photonic structures in lithium niobate by femtosecond laser lithography" (invited), ISOT2011 International Symposium on Optomechatronic Technologies, Hong Kong, Nov. 1-3, 2011
- (27) V. Mizeikis, V. Purlys, D. Paipulas, L. Maigyte, K. Staliunas, "Tailoring of photonic structures by femtosecond laser lithography" (invited), SPIE Smart Nano+Micro Materials and Devices, Melbourne, Australia, Dec. 4-7, 2011
- (28) V. Mizeikis, D. Paipulas, R. Buivydas, "Writing and erasure of photorefractive structures in lithium niobate by direct laser writing technique", SPIE Smart Nano+Micro Materials and Devices, Melbourne, Australia, Dec. 4-7, 2011
- (29) T. Suzuki, J. Morikawa, T. Hashimoto, R. Buividas, G. Gervinskas, D. Paipulas, M. Malinauskas, V. Mizeikis, S. Juodkazis, "Thermal and optical properties of sol-gel and SU-8 resists", SPIE Photonics West 2012, San Francisco, USA, Jan 21-26, 2012
- (30) V. Mizeikis, A. Vailionis, E.G. Gamaly, W. Yang, A. V. Rode, S. Juodkazis, "Synthesis of super-dense phase of aluminum under extreme pressure and temperature conditions created by femtosecond laser pulses in sapphire" (invited), SPIE Photonics West 2012, San Francisco, USA, Jan 21-26, 2012
- (31) K. Kanev, V. Mizeikis, V. Gnatyuk, "Localization encoding in the bulk of physical objects by laser-induced damage", The Joint International Conference on Human-centered Computer Environments HCCE 2012, Hamamatsu, Japan, Mar 8-13, 2012
- (32) V. Mizeikis, V. Purlys, D. Paipulas, R. Buivydas, S. Juodkazis, "Direct laser writing: versatile tool for microfabrication of lithium niobate", 13th International Symposium on Laser Precision Microfabrication LPM 2012, Washington DC, USA, June 12-15, 2012
- (33) V. Mizeikis, G. Gervinskas, A. Tadich, A. Vailionis, D. de Ligny, E.G. Gamaly, A.A. Rode, S. Juodkazis, "Phase separation in transparent solids due to laser-induced micro-explosion", JSAP-OSA Joint Symposia (The 73rd JSAP Autumn Meeting) Matsuyama, Japan, Sept. 11-14, 2012

- (34) V. Mizeikis, K. Kanev, V. Gnatyuk, “Automated System for Experimental localization encoding by laser-induced damage” (invited), 2012 Symposium on Nanovision Technology, Taipei, Taiwan, Oct. 19, 2012
- (35) V. Mizeikis, “Femtosecond Laser Lithography: A Versatile Tool for Microphotonics and Materials Science” (invited), BIT’s Second Annual Congress on Nanoscience and Nanotechnology, Qingdao, China, Oct. 26-28, 2012
- (36) V. Mizeikis, D. Paipulas, V. Purlys, R. Buividas, S. Juodkasis, “Reversible microstructuring of lithium niobate by direct laser write technique”, SPIE Photonics West 2013, San Francisco, USA, Feb. 2-7, 2013.