6. 研究成果リスト

原著論文

No	論文タイトル	著者氏名	論文掲載誌名，発行情報
1	Classification of lines, spaces, and edges of resist patterns in scanning electron microscopy images using unsupervised machine learning	Yuqing Jin and Takahiro Kozawa	Jpn. J. Appl. Phys. 61 056505(2022 5)
2	Interdomain Electron Transfer in Flavohemoglobin from Candida norvegensis with Antibiotic Azole Compounds	Kazuo Kobayashi, Jotaro Igarashi, and Takahiro Kozawa	FEBS Letters 596 938-946(2022 3)
3	Estimation of effective reaction radius for catalytic chain reaction of chemically amplified resist by Bayesian optimization	Yuqing Jin and Takahiro Kozawa	Jpn. J. Appl. Phys. 61 066504(2022 5)
4	Study on deprotonation from radiation-induced ionized acrylate polymers including acid-generation promoters for improving chemically amplified resists	Kazumasa Okamoto, Akihiro Konda, Yuki Ishimaru, Takahiro Kozawa, Yasunobu Nakagawa and Masamichi Nishimura	Jpn. J. Appl. Phys. 61 066505(2022 5)
5	Sensitization mechanism of metal oxide nanocluster resists with carboxylic acid ligands	Tomoe Otsuka, Yusa Muroya, Takuya Ikeda, Yoshitaka Komuro, Daisuke Kawana and Takahiro Kozawa	Jpn. J. Appl. Phys. 61 086508(2022 7)
6	Interfacial effects on sensitization of chemically amplified extreme ultraviolet resists	Takahiro Kozawa	Jpn. J. Appl. Phys. 61 116501(2022 10)

No	論文タイトル	著者氏名	論文掲載誌名，発行情報
7	Stochastic defect generation depending on tetraalkylhydroxide aqueous developers in extreme ultraviolet lithography	Masahiko Harumoto, Andreia Figueiredo dos Santos, Julius Joseph Santillan, Toshiro Itani and Takahiro Kozawa	Jpn. J. Appl. Phys. 62 016503(2023 1)
8	Intramolecular electron transfer from biopterin to FeII-O2 complex in nitric oxide synthases occurs at very different rates between bacterial and mammalian enzymes: Direct observation of a catalytically active intermediate	Kazuo Kobayashi, Yuko Tsutsui Ito, Yuri Kasu, Masaki Horitani, Takahiro Kozawa	Journal of Inorganic Biochemistry 238 112035(2023 1)
9	Protected unit distribution near interfaces of chemically amplified resists used for extreme ultraviolet lithography	Takahiro Kozawa	Jpn. J. Appl. Phys. 62 016509(2023 1)
10	Development of a 1.4-cell RF photocathode gun for single-shot MeV ultrafast electron diffraction devices with femtosecond resolution	Yifang Song, Jinfeng Yang, Jian Wang, Junji Urakawa, Toshikazu Takatomi, Kuanjun Fan	Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment 1031　166602(2022 3)
11	Focused proton beam generating pseudo Bragg peak for FLASH therapy	Zhiyuan Mei, Yi Yuan, Jian Wang, Danlei Fan, Kehan Li, Jinfeng Yang, Kuanjun Fan, Mingwu Fan	Nuclear Instrument andMethods in Physics Research, A 1032 166618(2022 3)
12	Direct ionization-driven observational approaches for radical cation formation in solution for pulse radiolysis	Masao Gohdo, Seiichi Tagawa, Koichi Kan, Jinfeng Yang, Yoichi Yoshida,	Radiation Physics and Chemistry 196 110105(2022 7)

No	論文タイトル	著者氏名	論文掲載誌名，発行情報
13	Triplet–Triplet Annihilation via the Triplet Channel in Crystalline 9,10-Diphenylanthracene	Tomoaki Yago, Manami Tashiro, Kiichi Hasegawa, Masao Gohdo, Syuta Tsuchiya, Tadaaki Ikoma, and Masanobu Wakasa	The Journal of Physical Chemistry Letters 13 37 8768(2022 9)
14	Ultrafast visualization of an electric field under the Lorentz transformation	Masato Ota, Koichi Kan, Soichiro Komada, Youwei Wang, Verdad C. Agulto, Valynn Katrine Mag-usara, Yasunobu Arikawa, Makoto R. Asakawa, Youichi Sakawa, Tatsunosuke Matsui, Makoto Nakajima	Nature Physics 18 1436(2022 10)
15	MeV electron bunch compression and timing jitter suppression using a THz-driven resonator	Yifang Song, Cheng-Ying Tsai, Kuanjun Fan,Jinfeng Yang, Hong Qi	Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment 1047　167774(2022 11)
16	Quantitative spatial mapping of distorted state phases during the metal-insulator phase transition for nanoscale VO2 engineering	Yuichi Ashida, Takafumi Ishibe, Jinfeng Yang, Nobuyasu Naruse, Yoshiaki Nakamura	Science and Technology of Advanced Materials 24　2150525(2022 12)
17	Dependence of surface residual stress on the coefficient of thermal expansion for materials subjected to laser peening without coating	Yuji Sano, Koichi Akita	Optics & Laser Technology 156 108528 1-4(2022 12)
18	Controllable electron self-injection in laser wakefield	Zhenzhe Lei, Zhan Jin, Alexei Zhidkov, Naveen Pathak, Yoshio Mizuta, Kai Huang, Nobuhiki Nakanii, Izuru Daito, Masaki Kando, Tomonao Hosokai	Progress of Theoretical and Experimental Physics 2023 3　1 -13(2023 3)

No	論文タイトル	著者氏名	論文掲載誌名，発行情報
19	Propagation and focusing dependency of a laser beam with its aberration distribution:understanding halo-induced disturbance	ALEXANDRE RONDEPIERRE, DRISS OUMBAREK ESPINOS,ALEXEI ZHIDKOV, TOMONAO HOSOKAI	Optics Continuum 1-19(2023 3)
20	Electron beam energy slicing performance in laser wakefield acceleration	Driss Oumbarek Espinos, Naveen Pathak, Alexei Zhidkov, Tomonao Hosokai	Physics Letters A　453 128482-5(2022 11)
21	レーザー航跡場加速の基礎とＸ線自由電子レーザーへの応用	神門 正城、金 展	J. Particle Accelerator Society of Japan 19 4 187-194(2023 1)
22	Fatigue Properties Improvement via Compressive Residual Stress Induced by a Portable Laser Peening System	Yuji Sano, Volker Schneidau	The Shot Peener 37 2 6-12(2023 2)
23	Fatigue Properties Improvement via Compressive Residual Stress Induced by a Portable Laser Peening System	Yoshio MIZUTA, Kiyotaka MASAKI, Tomoharu KATO, Yoshihiro SAKINO, Satoshi TAMAKI, Tomonao Hosokai and Yuji SANO	Proceedings of JSME International Conference on Materials and Processing 2022 1-4(2022 8)
24	Mesolysis of an asymmetric diphenyldisulfide radical anion studied by γ-ray and pulsed-electron radiolyses	山路　稔、藤乗　幸子、真嶋哲朗、藤塚　守	Physical Chemistry Chemical Physics 25 9152-9157(2023 3)
25	Ablation phenomena by intense terahertz vortex beam	Y. W. Wang, S. Segawa, T. Shimizu, V. C. Agulto, V. K. Mag-usara, K. Kato, K. Miyamoto, T. Omatsu, K. Makino, J. Tominaga, G. Isoyama, M. Asakawa, M. Nakajima	Applied Physics A 128 836 (2022)

No	論文タイトル	著者氏名	論文掲載誌名，発行情報
26	Study on Irradiation Effect of Insulating Materials for Fusion Superconducting Magnet: Effect of Low-temperature Irradiation	Y. Kunitoku, Y. Akiyama, Y. Manabe, F Sato	IOP Conference Series: Materials Science and Engineering 1241 012004(2022)
27	Study on irradiation effect of insulating materials for fusion superconducting magnets-interlaminar shear strength at liquid helium temperature	Y. Akiyama, N. Akazawa, Y. Kunitoku, Y. Manabe, F. Sato, A. Iwamoto, S. Imagawa, S. Nishijima	Radiation Physics and Chemistry 199 110372(2022 3)
28	Gamma-ray-induced amino acid formation in aqueous small bodies in the early solar system	Yoko Kebukawa, Shinya Asano, Atsushi Tani, Isao Yoda, Kensei Kobayashi	ACS Central Science 8 12 1664-1671(2022 12)

国際会議論文

No	タイトル	著者氏名	掲載誌名，発行情報
1	Detail Study for the Laser Activating Reflective Switch for THz Free Electron Laser	K. Kawase	accepted in Proc. of FEL 2022 (2022 8)
2	Observation of Third Harmonic Generation in Two-Dimensional MoS2 Semiconductor Using Terahertz Free-Electron Laser	Y. Wang, V. C. Agulto, V. K. Mag-usara, M. Nishitani, G. Isoyama, M. Asakawa, M. Nakajima	47th International Conference on Infrared, Millimeter and Terahertz Waves (IRMMW-THz 2022) 9895747(2022 8)
3	Laser-Induced Periodic Surface Structures on Ge2Sb2Te5 Irradiated by Terahertz Free-Electron Laser Vortex Beam	Y. Wang, S. Segawa, T. Shimizu, Verdad C. Agulto1, V. K. Mag-usara, K. Miyamoto, T. Omatsu, K. Makino, J. Tominaga, G. Isoyama, M. Asakawa, M. Nakajima	47th International Conference on Infrared, Millimeter and Terahertz Waves (IRMMW-THz 2022) 9895678(2022 8)

Reviews

No	タイトル	著者氏名	掲載誌名，発行情報
1	Facilities in Asia for future accelerator development	M. Kando, T. Hosokai, K.Y. Kim and C. Tang	Journal of Instrumentation 17 1-13(2022 6)