

Kiichiro Uchino

List of Publications by Year in descending order

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papers

825
citations

567281

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134
all docs

134
docs citations

134
times ranked

508
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct measurement of electron density and temperature distributions in a micro-discharge plasma for a plasma display panel. <i>Journal of Applied Physics</i> , 2002, 91, 613-616.	2.5	65
2	Measurements of Electron Temperature and Density of a Micro-Discharge Plasma Using Laser Thomson Scattering. <i>Japanese Journal of Applied Physics</i> , 2001, 40, 326-329.	1.5	42
3	Time-resolved two-dimensional profiles of electron density and temperature of laser-produced tin plasmas for extreme-ultraviolet lithography light sources. <i>Scientific Reports</i> , 2017, 7, 12328.	3.3	31
4	Observation of Si cluster formation in SiO ₂ films through annealing process using x-ray photoelectron spectroscopy and infrared techniques. <i>Applied Physics Letters</i> , 1998, 72, 725-727.	3.3	30
5	Thomson scattering diagnostics of decay processes of Ar/SF ₆ gas-blast arcs confined by a nozzle. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 382001.	2.8	28
6	Laser Thomson Scattering Measurements of Electron Density and Temperature Profiles of a Striated Plasma in a Plasma Display Panel (PDP)-Like Discharge. <i>Japanese Journal of Applied Physics</i> , 2005, 44, L442-L444.	1.5	26
7	Thomson scattering diagnostics of SF ₆ gas-blasted arcs confined by a nozzle under free-recovery conditions. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 265201.	2.8	26
8	Studies of an Impulse Breakdown Process in an Atmospheric Air Using Ruby-Laser Scattering Diagnostics. <i>Japanese Journal of Applied Physics</i> , 1982, 21, L696-L698.	1.5	20
9	Development of laser ionization mass nanoscope (LIMAS). <i>Surface and Interface Analysis</i> , 2012, 44, 635-640.	1.8	20
10	Development of a collective Thomson scattering system for laser-produced tin plasmas for extreme-ultraviolet light sources. <i>Applied Physics Express</i> , 2015, 8, 126101.	2.4	20
11	Studies of Particle Behaviour in Heliotron E by Means of Balmer-Alpha Laser Fluorescence Spectroscopy. <i>Journal of the Physical Society of Japan</i> , 1988, 57, 909-917.	1.6	19
12	Thomson Scattering Diagnostics of an ECR Processing Plasma. <i>Japanese Journal of Applied Physics</i> , 1991, 30, L1425-L1427.	1.5	19
13	Application of two-photon-excited laser-induced fluorescence to atomic hydrogen measurements in the edge region of high-temperature plasmas. <i>Review of Scientific Instruments</i> , 1991, 62, 2345-2349.	1.3	17
14	Ultra-high performance multi-turn TOF-SIMS system with a femto-second laser for post-ionization: investigation of the performance in linear mode. <i>Surface and Interface Analysis</i> , 2010, 42, 1598-1602.	1.8	16
15	Diamond nucleation density as a function of ion-bombardment energy in electron cyclotron resonance plasma. <i>Physical Review B</i> , 2003, 68, .	3.2	15
16	Spatial profiles of electron density, electron temperature, average ionic charge, and EUV emission of laser-produced Sn plasmas for EUV lithography. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 036201.	1.5	15
17	Measurement of electron velocity distribution function in a pulsed positive streamer discharge in atmospheric-pressure air. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 08LT01.	2.8	15
18	Ruby-Laser Scattering Diagnostics of a Supersonic Plasma Flow for Low-Pressure Plasma Spraying. <i>Japanese Journal of Applied Physics</i> , 1987, 26, L1724-L1726.	1.5	14

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19	Laser diagnostics of edge plasmas and laser diagnostics of plasmas for industrial applications (invited). Review of Scientific Instruments, 1992, 63, 4913-4919.	1.3	14
20	Depth profiling analysis of solar wind helium collected in diamond-like carbon film from <i>Genesis</i>. Geochemical Journal, 2015, 49, 559-566.	1.0	14
21	A Collective Laser Thomson Scattering System for Diagnostics of Laser-Produced Plasmas for Extreme Ultraviolet Light Sources. Applied Physics Express, 2013, 6, 076101.	2.4	13
22	Evaluation of multi-turn time-of-flight mass spectrum of laser ionization mass nanoscope. Surface and Interface Analysis, 2016, 48, 1122-1126.	1.8	13
23	High spatial resolution imaging of helium isotope by TOF-SNMS. Surface and Interface Analysis, 2016, 48, 1190-1193.	1.8	13
24	Detection Limit of Laser Thomson Scattering for Low Density Discharge Plasmas. Japanese Journal of Applied Physics, 1999, 38, 3723-3730.	1.5	12
25	Measurements of Atomic Hydrogen-Density Profiles in the RFC-XX-M Machine Using Laser Fluorescence Spectroscopy at the H α Transition. Japanese Journal of Applied Physics, 1985, 24, L59-L61.	1.5	11
26	Synthesis of photochromic nanoparticles and determination of the mechanism of photochromism. AIP Advances, 2016, 6, .	1.3	11
27	Measurement of Electron Density and Temperature Using Laser Thomson Scattering in PANTA. Plasma and Fusion Research, 2017, 12, 1401018-1401018.	0.7	10
28	In situ FT-IR reflective absorption spectroscopy for characterization of SiO ₂ thin films deposited using sputtering-type electron cyclotron resonance microwave plasma. Applied Surface Science, 1997, 121-122, 228-232.	6.1	9
29	Development of large diameter ECR plasma source. Vacuum, 2010, 84, 1381-1384.	3.5	9
30	Simulation of spatial characteristics of very high frequency hydrogen plasma produced by a balanced power feeding. Thin Solid Films, 2013, 547, 132-136.	1.8	9
31	Thomson scattering diagnostics of atmospheric plasmas in contact with ionic liquids. Applied Physics Express, 2014, 7, 066101.	2.4	9
32	Electron density change of atmospheric-pressure plasmas in helium flow depending on the oxygen/nitrogen ratio of the surrounding atmosphere. Japanese Journal of Applied Physics, 2016, 55, 066101.	1.5	9
33	Performance Improvement of a Discharge-Pumped ArF Excimer Laser by Xenon Gas Addition. Japanese Journal of Applied Physics, 1999, 38, 6735-6738.	1.5	8
34	Control of large area VHF plasma produced at high pressure. Thin Solid Films, 2011, 519, 6931-6934.	1.8	8
35	Nondestructive Measurement of Sugar Content in Apples by Millimeter-Wave Reflectometry. Journal of Infrared, Millimeter, and Terahertz Waves, 2012, 33, 228-236.	2.2	8
36	Development of an Ultra-High Performance Multi-Turn TOF-SIMS/SNMS System "MULTUM-SIMS/SNMS". Journal of the American Society for Mass Spectrometry, 2013, 24, 222-229.	2.8	8

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37	Application of an Acousto-optic Laser Deflector to Interferometric Measurement of Discharges in Air. IEEJ Transactions on Fundamentals and Materials, 2004, 124, 56-61.	0.2	8
38	Thomson Scattering Diagnostics of High Pressure Plasmas and Plasma Disturbances by Lasers. IEEJ Transactions on Fundamentals and Materials, 2010, 130, 1099-1104.	0.2	8
39	Studies of an Atmospheric Impulse Arc by Ruby-Laser Scattering. IEEJ Transactions on Fundamentals and Materials, 1983, 103, 609-616.	0.2	8
40	Quantitative analysis of helium by post-ionization method using femtosecond laser technique. Surface and Interface Analysis, 2016, 48, 1181-1184.	1.8	7
41	Aberration-corrected focused ion beam for time-of-flight secondary neutral mass spectrometry. Applied Physics Express, 2019, 12, 085005.	2.4	7
42	Development of a High-Speed Laser Interferometer Using an Acousto-Optic Deflector. IEEJ Transactions on Electronics, Information and Systems, 2003, 123, 1531-1536.	0.2	7
43	Small-Conductive-Particle Detection with a Microwave Resonant Cavity. IEEJ Transactions on Industry Applications, 2012, 132, 788-793.	0.2	7
44	Effects of oxygen content on properties of silicon oxide films prepared at room temperature by sputtering-type electron cyclotron resonance plasma. Journal of Applied Physics, 1998, 84, 4579-4584.	2.5	6
45	Laser Thomson scattering and optical emission studies of striated PDP micro-discharge plasmas. Journal of the Society for Information Display, 2005, 13, 639.	2.1	6
46	Electronic data acquisition and operational control system for time-of-flight sputtered neutral mass spectrometer. Surface and Interface Analysis, 2019, 51, 35-39.	1.8	6
47	Evaluation of Hydrogen-Induced Blistering of Mo/Si Multilayers with a Capping Layer. Plasma and Fusion Research, 2022, 17, 1406005-1406005.	0.7	6
48	Ruby-Laser Scattering Diagnostics of DC-Arcs in Atmospheric Air. Japanese Journal of Applied Physics, 1984, 23, 662-662.	1.5	5
49	Relationship between Ba atom emission and electrode temperature in a low-pressure fluorescent lamp. Thin Solid Films, 2010, 518, 3449-3452.	1.8	5
50	Temporal evolution of electron density and electron temperature profiles in a non-thermal atmospheric-pressure plasma measured by laser Thomson scattering. Japanese Journal of Applied Physics, 2015, 54, 016101.	1.5	5
51	One-Dimensional Simulation of Photo-Detached Electrons in Negative Ion Plasmas.. Journal of Plasma and Fusion Research, 2003, 79, 274-281.	0.4	5
52	Development of VHF Plasma Source with Short Discharge Gap for Solar Cells. Plasma Processes and Polymers, 2009, 6, S273.	3.0	4
53	Development of a 915MHz ECR plasma source. Vacuum, 2013, 87, 123-127.	3.5	4
54	Applicabilities of Laser Thomson Scattering to Various Kinds of Discharge Plasmas.. Journal of Plasma and Fusion Research, 2002, 78, 242-247.	0.4	4

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55	Diagnostics of VHF Argon Plasmas by Laser Thomson Scattering. Plasma and Fusion Research, 2013, 8, 1306114-1306114.	0.7	4
56	Diamond Nucleation Enhancement on Si by Controlling Ion-Bombardment Energy in Electron Cyclotron Resonance Plasma. Japanese Journal of Applied Physics, 2002, 41, 5749-5750.	1.5	3
57	Study on Temporal and Spatial Distributions of Ba Atoms in Fluorescent Lamp Discharge Using Laser-Induced Florescence. Japanese Journal of Applied Physics, 2006, 45, 8109-8112.	1.5	3
58	In vacuosubstrate pretreatments for enhancing nanodiamond formation in electron cyclotron resonance plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 1802-1806.	2.1	3
59	Simulation of Effective Production of Very High Frequency Hydrogen Plasma Using a Balanced Power Feeding Method. Japanese Journal of Applied Physics, 2013, 52, 11ND01.	1.5	3
60	Characteristics of Floating Potential in Negative Ion Plasma. Plasma Processes and Polymers, 2014, 11, 545-550.	3.0	3
61	Measurements of Electron Density and Electron Temperature of Arc Discharge Plasmas Containing Metallic Vapors Using Laser Thomson Scattering. Electrical Engineering in Japan (English Translation) Tj ETQq1 1 0.784314 rgBT /Over	0.2	3
62	Axial distribution of a VHF H ₂ plasma produced by a narrow gap discharge. Japanese Journal of Applied Physics, 2016, 55, 01AH01.	1.5	3
63	Effect of Hydrogen Ion Energy in the Process of Reactive Ion Etching of Sn Thin Films by Hydrogen Plasmas. Plasma and Fusion Research, 2021, 16, 1406003-1406003.	0.7	3
64	Measurements of Electron Density and Electron Temperature of Arc Discharge Plasmas Containing Metallic Vapors using Laser Thomson Scattering. IEEJ Transactions on Fundamentals and Materials, 2013, 133, 458-464.	0.2	3
65	Performance Improvement of an ArF Excimer Laser for Microlithography by Means of Gaseous Impurity Control. The Review of Laser Engineering, 2005, 33, 262-266.	0.0	3
66	Elimination of Pathogenic Biological Residuals by Means of Low-Pressure Inductively Coupled Plasma Discharge. , 0, , 193-199.		3
67	Measurements of spatial distributions of electron density and temperature of 450 MHz UHF plasma using laser Thomson scattering. Japanese Journal of Applied Physics, 2021, 60, SAAB03.	1.5	3
68	Investigation of a Step-Like Output Energy Decrease Observed in an ArF Excimer Laser for Microlithography. Japanese Journal of Applied Physics, 2006, 45, L1030-L1032.	1.5	2
69	Dominant ion species in VHF SiH ₄ /H ₂ plasma. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 549-552.	0.8	2
70	VHF SiH ₄ /H ₂ plasma characteristics with negative ions. Surface and Coatings Technology, 2013, 228, S433-S436.	4.8	2
71	Modeling and experimental detection of resonance frequency shift of a microwave cavity caused by a small conductive particle. Journal of Electromagnetic Waves and Applications, 2013, 27, 1114-1126.	1.6	2
72	Estimation of negative ions in VHF SiH ₄ /H ₂ plasma. Japanese Journal of Applied Physics, 2014, 53, 116101.	1.5	2

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73	Synthetic aperture radar using ultra-wideband microwave-modulated laser. Journal of Electromagnetic Waves and Applications, 2014, 28, 1275-1281.	1.6	2
74	Two-dimensional simulations of a VHF H ₂ plasma for different discharge gaps and gas pressures. Japanese Journal of Applied Physics, 2016, 55, 07LD01.	1.5	2
75	Sterilization and Protein Treatment Using Oxygen Radicals Produced by RF Discharge. , 0, , 201-206.		2
76	Loss of Ba Atom from the Electrode of Fluorescent Lamp Operating under AC and DC Discharges. IEEJ Transactions on Fundamentals and Materials, 2007, 127, 543-548.	0.2	2
77	Studies of Hydrogen Atoms in High-Temperature Plasmas by Laser Fluorescence Spectroscopy at Balmer Series. Kakuyō Kenkyū, 1987, 57, 177-192.	0.1	2
78	Possibility of Employing Laser Rayleigh Scattering as a Standard Vacuum Gauge and a Pressure Sensor in the Medium Vacuum Region.. Shinku/Journal of the Vacuum Society of Japan, 1993, 36, 563-567.	0.2	2
79	Effect of Glow-to-Arc Transition on Loss Mechanism of Ba Atoms from Electrode of Fluorescent Lamp. Japanese Journal of Applied Physics, 2007, 46, 6828-6830.	1.5	1
80	Study of dual-dipole antenna array for millimeter wave imaging. , 2009, , .		1
81	Simulation of balanced power feeding plasma surrounded by a metal box. Japanese Journal of Applied Physics, 2015, 54, 01AC04.	1.5	1
82	Mechanism of VHF H ₂ plasma production at high pressures. Japanese Journal of Applied Physics, 2016, 55, 06HA02.	1.5	1
83	Observation of Bi-Maxwellian Distributions in a H ₂ Plasma Produced by a Narrow Gap VHF Discharge. Plasma Processes and Polymers, 2016, 13, 584-587.	3.0	1
84	Study of spatial profiles of capacitively coupled VHF H ₂ plasma by simulation. Japanese Journal of Applied Physics, 2017, 56, 01AC05.	1.5	1
85	Rayleigh Scattering Measurement of Neutral Atom Number Density Downstream of a Hall Thruster under Cold Flow Conditions. Transactions of the Japan Society for Aeronautical and Space Sciences, 2017, 60, 327-330.	0.7	1
86	Two-dimensional simulations of multi-hollow VHF SiH ₄ /H ₂ plasma. AIP Advances, 2018, 8, .	1.3	1
87	Time-resolved spatial profiles of electron density and temperature in hydrogen plasmas induced by radiation from laser-produced tin plasmas for extreme ultraviolet lithography light sources. Japanese Journal of Applied Physics, 2021, 60, 066002.	1.5	1
88	Plasma Deposition of N-TiO ₂ Thin Films. , 0, , 349-356.		1
89	Development of a laser wavefront sensor for measurement of discharges in air. IEEJ Transactions on Fundamentals and Materials, 2002, 122, 958-964.	0.2	1
90	Influence of Widths of Discharge and Gas Density Depletion on High Repetition Glow Discharges in an ArF Excimer Laser for Microlithography. IEEJ Transactions on Fundamentals and Materials, 2010, 130, 1060-1066.	0.2	1

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91	Development of a Barometer Using Rayleigh Scattering in the Medium Vacuum Region.. Shinku/Journal of the Vacuum Society of Japan, 1995, 38, 11-16.	0.2	1
92	Feasibility study on reactive ion etching occurrence in EUV-induced photoionized hydrogen plasmas based on electron temperature and electron density measurements. Japanese Journal of Applied Physics, 2022, 61, 056001.	1.5	1
93	Verification of preoxidation effect on deposition of thin gate-quality silicon oxide films at low temperature by a sputtering-type ECR microwave plasma. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 72, 128-131.	3.5	0
94	Development of the Third Stage Incoherent Laser Thomson Scattering Diagnostics of Plasmas. Journal of Plasma and Fusion Research, 2004, 80, 101-109.	0.4	0
95	Elucidation of Steplike Output Energy Decrease Observed in ArF Excimer Laser for Microlithography. Japanese Journal of Applied Physics, 2007, 46, 2921-2925.	1.5	0
96	Corrigendum on: Observation of Bi-Maxwellian Distributions in a H2 Plasma Produced by a Narrow Gap VHF Discharge. Plasma Processes and Polymers, 2016, 13, 672-672.	3.0	0
97	Two dimensional simulations of triode VHF SiH4plasma. Japanese Journal of Applied Physics, 2018, 57, 06JG01.	1.5	0
98	VHF Plasma CVD Synthesis of Photochromic ZnO Nanoparticle. MRS Advances, 2019, 4, 1573-1577.	0.9	0
99	Evaluation of Spectral Profiles of KrF Excimer Lasers for Microlithography. The Review of Laser Engineering, 2003, 31, 482-488.	0.0	0
100	Applications of Pulsed Power and Plasmas to Biosystems and Living Organisms. , 0, , 149-163.		0
101	Chemistry of Organic Pollutants in Atmospheric Plasmas. , 0, , 79-92.		0
102	Hydrophilicity and Bioactivity of a Polyethylene Terephthalate Surface Modified by Plasma-Initiated Graft Polymerization. , 0, , 207-219.		0
103	Thomson Scattering Diagnostics in the Plasma of an Ion Thruster. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2012, 10, Pb_79-Pb_83.	0.2	0
104	ArF Excimer Laser Operated at 10 kHz with Small Electrode Separations. The Review of Laser Engineering, 2013, 41, 517.	0.0	0
105	Pressure measurement at medium vacuum by Rayleigh scattering of laser light.. Shinku/Journal of the Vacuum Society of Japan, 1991, 34, 275-278.	0.2	0
106	Development of New Laser-Spectroscopic Methods of Electric Field Measurements in Plasmas.. Journal of Plasma and Fusion Research, 1999, 75, 275-285.	0.4	0