Giichiro Uchida

List of Publications by Year
in descending order

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Version: 2024-02-01

94 papers	1,250 citations	430874 18 h-index	434195 31 g-index
95 all docs	95 docs citations	95 times ranked	928 citing authors

#	Article	IF	Citations
1	Dynamics of fine particles in magnetized plasmas. Physics of Plasmas, 2001, 8, 1786-1790.	1.9	176
2	Highly Conducting and Very Thin ZnO:Al Films with ZnO Buffer Layer Fabricated by Solid Phase Crystallization from Amorphous Phase. Applied Physics Express, 2011, 4, 011101.	2.4	61
3	Effects of nonthermal plasma jet irradiation on the selective production of H2O2 and NO2â^' in liquid water. Journal of Applied Physics, 2016, 120, .	2.5	52
4	Control of reactive oxygen and nitrogen species production in liquid by nonthermal plasma jet with controlled surrounding gas. Japanese Journal of Applied Physics, 2017, 56, 01AC06.	1.5	43
5	Two-dimensional concentration distribution of reactive oxygen species transported through a tissue phantom by atmospheric-pressure plasma-jet irradiation. Applied Physics Express, 2016, 9, 076202.	2.4	41
6	Nano-factories in plasma: present status and outlook. Journal Physics D: Applied Physics, 2011, 44, 174038.	2.8	40
7	Effects of gas flow on oxidation reaction in liquid induced by He/O2 plasma-jet irradiation. Journal of Applied Physics, 2015, 118, .	2.5	39
8	Effects of irradiation distance on supply of reactive oxygen species to the bottom of a Petri dish filled with liquid by an atmospheric O2/He plasma jet. Journal of Applied Physics, 2016, 119, .	2.5	36
9	Analysis on the effect of polysulfide electrolyte composition for higher performance of Si quantum dot-sensitized solar cells. Electrochimica Acta, 2013, 95, 43-47.	5.2	31
10	Visualization of the Distribution of Oxidizing Substances in an Atmospheric Pressure Plasma Jet. IEEE Transactions on Plasma Science, 2014, 42, 2482-2483.	1.3	30
11	High quality epitaxial ZnO films grown on solid-phase crystallized buffer layers. Thin Solid Films, 2012, 520, 4674-4677.	1.8	28
12	Effects of discharge voltage waveform on the discharge characteristics in a helium atmospheric plasma jet. Journal of Applied Physics, 2015, 117, .	2.5	28
13	Surface nitridation of silicon nanoâ€particles using double multiâ€hollow discharge plasma CVD. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 3017-3020.	0.8	26
14	Influence of He Gas Flow Rate on Optical Emission Characteristics in Atmospheric Dielectric-Barrier-Discharge Plasma Jet. IEEE Transactions on Plasma Science, 2015, 43, 737-744.	1.3	26
15	Selective production of reactive oxygen and nitrogen species in the plasma-treated water by using a nonthermal high-frequency plasma jet. Japanese Journal of Applied Physics, 2018, 57, 0102B4.	1.5	22
16	Impacts of Amplitude Modulation of RF Discharge Voltage on the Growth of Nanoparticles in Reactive Plasmas. Applied Physics Express, 2011, 4, 105001.	2.4	21
17	Fine particle removal by a negatively-charged fine particle collector in silane plasma. Thin Solid Films, 2004, 457, 285-291.	1.8	19
18	Generation of two-dimensional dust vortex flows in a direct current discharge plasma. Physics of Plasmas, 2009, 16, 053707.	1.9	19

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19	The reduction of charge recombination and performance enhancement by the surface modification of Si quantum dot-sensitized solar cell. Electrochimica Acta, 2013, 87, 213-217.	5.2	18
20	Effects of driving voltage frequency on the discharge characteristics of atmospheric dielectric-barrier-discharge plasma jet. Japanese Journal of Applied Physics, 2014, 53, 11RA08.	1.5	18
21	Fabrication of high-performance InGaZnOx thin film transistors based on control of oxidation using a low-temperature plasma. Applied Physics Letters, 2018, 112, .	3.3	18
22	Influence of deposition condition on electrical properties of a-IGZO films deposited by plasma-enhanced reactive sputtering. Journal of Alloys and Compounds, 2019, 772, 642-649.	5.5	18
23	Effect of Nitridation of Si Nanoparticles on the Performance of Quantum-Dot Sensitized Solar Cells. Japanese Journal of Applied Physics, 2012, 51, 01AD01.	1.5	18
24	Characteristics of a micro dielectric barrier discharge ignited by a cold cathode with high ion-induced secondary electron emission for plasma display panel. Journal of Applied Physics, 2009, 106, 093301.	2.5	16
25	Transport control of dust particles via the electrical asymmetry effect: experiment, simulation and modelling. Journal Physics D: Applied Physics, 2013, 46, 245202.	2.8	16
26	Epitaxial Growth of ZnInON Films with Tunable Band Gap from 1.7 to 3.3 eV on ZnO Templates. Japanese Journal of Applied Physics, 2013, 52, 11NM06.	1.5	16
27	Development of a non-equilibrium 60 MHz plasma jet with a long discharge plume. Journal of Applied Physics, 2017, 122, .	2.5	16
28	Effect of high Xe-concentration in a plasma display panel with a SrCaO cold cathode. Journal of Applied Physics, 2010, 107, 103311.	2.5	14
29	Effects of Nitrogen on Crystal Growth of Sputter-Deposited ZnO Films for Transparent Conducting Oxide. Japanese Journal of Applied Physics, 2013, 52, 11NB03.	1.5	14
30	Low-temperature formation of amorphous InGaZnO_xfilms with inductively coupled plasma-enhanced reactive sputter deposition. Japanese Journal of Applied Physics, 2015, 54, 06GC02.	1.5	14
31	Influence of voltage pulse width on the discharge characteristics in an atmospheric dielectric-barrier-discharge plasma jet. Japanese Journal of Applied Physics, 2016, 55, 01AH03.	1.5	14
32	Atmospheric-Pressure Gas-Breakdown Characteristics with a Radio-Frequency Voltage. Journal of Nanoscience and Nanotechnology, 2015, 15, 2192-2196.	0.9	13
33	Gas Flow Rate Dependence of the Discharge Characteristics of a Plasma Jet Impinging Onto the Liquid Surface. IEEE Transactions on Plasma Science, 2015, 43, 4081-4087.	1.3	13
34	Decomposition and oxidation of methionine and tryptophan following irradiation with a nonequilibrium plasma jet and applications for killing cancer cells. Scientific Reports, 2019, 9, 6625.	3.3	13
35	Improvement of Si Adhesion and Reduction of Electron Recombination for Si Quantum Dot-Sensitized Solar Cells. Japanese Journal of Applied Physics, 2013, 52, 01AD05.	1.5	12
36	Quantum dot-sensitized solar cells using Si nanoparticles. Transactions of the Materials Research Society of Japan, 2010, 35, 597-599.	0.2	11

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37	Analysis of transient electron energy in a micro dielectric barrier discharge for a high performance plasma display panel. Journal of Applied Physics, 2010, 107, 023305.	2.5	11
38	Characteristics of photocurrent generation in the near-ultraviolet region in Si quantum-dot sensitized solar cells. Thin Solid Films, 2013, 544, 93-98.	1.8	10
39	Dust particle formation due to interaction between graphite and helicon deuterium plasmas. Fusion Engineering and Design, 2013, 88, 28-32.	1.9	10
40	Analysis of Dynamic Discharge Characteristics of Plasma Jet Based on Voltage and Current Measurements Using a Metal Plate. IEEE Transactions on Plasma Science, 2015, 43, 3821-3826.	1.3	10
41	Process controllability of inductively coupled plasma-enhanced reactive sputter deposition for the fabrication of amorphous InGaZnO_x channel thin-film transistors. Japanese Journal of Applied Physics, 2016, 55, 01AA18.	1.5	10
42	Effects of Hydrogen Dilution on ZnO Thin Films Fabricated via Nitrogen-Mediated Crystallization. Japanese Journal of Applied Physics, 2013, 52, 01AC08.	1.5	9
43	Theory for correlation between plasma fluctuation and fluctuation of nanoparticle growth in reactive plasmas. Japanese Journal of Applied Physics, 2014, 53, 010201.	1.5	9
44	Effects of Working Pressure on the Physical Properties of a-InGaZnO_{<italic>x</italic>}Films Formed Using Inductively Coupled Plasma-Enhanced Reactive Sputtering Deposition. IEEE Transactions on Plasma Science, 2016, 44, 3099-3106.	1.3	9
45	Control of radial density profile of nano-particles produced in reactive plasma by amplitude modulation of radio frequency discharge voltage. Thin Solid Films, 2012, 523, 76-79.	1.8	8
46	Sheath-to-sheath transport of dust particles in a capacitively coupled discharge. Plasma Sources Science and Technology, 2012, 21, 032001.	3.1	8
47	Effect of a plasma-activated medium produced by direct irradiation on cancer cell killing. Japanese Journal of Applied Physics, 2018, 57, 096201.	1.5	8
48	Hybrid sensitized solar cells using Si nanoparticles and ruthenium dye. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 3021-3024.	0.8	7
49	Effect of Nitridation of Si Nanoparticles on the Performance of Quantum-Dot Sensitized Solar Cells. Japanese Journal of Applied Physics, 2012, 51, 01AD01.	1.5	7
50	In-situ Measurements of Cluster Volume Fraction in Silicon Thin Films Using Quartz Crystal Microbalances. Materials Research Society Symposia Proceedings, 2012, 1426, 307-311.	0.1	7
51	Study on the Fabrication of Paint-Type Si Quantum Dot-Sensitized Solar Cells. Japanese Journal of Applied Physics, 2013, 52, 10MB07.	1.5	7
52	SiC Nanoparticle Composite Anode for Li-Ion Batteries. Materials Research Society Symposia Proceedings, 2014, 1678, 7.	0.1	7
53	Effects of surrounding gas on plasma-induced downward liquid flow. Japanese Journal of Applied Physics, 2020, 59, SHHF02.	1.5	7
54	The improvement on the performance of quantum dot-sensitized solar cells with functionalized Si. Thin Solid Films, 2013, 546, 284-288.	1.8	6

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55	Comparison between silicon thin films with and without incorporating crystalline silicon nanoparticles into the film. Thin Solid Films, 2011, 519, 6896-6898.	1.8	5
56	Effects of crystalline nanoparticle incorporation on growth, structure, and properties of microcrystalline silicon films deposited by plasma chemical vapor deposition. Thin Solid Films, 2012, 523, 29-33.	1.8	5
57	Discharge power dependence of carbon dust flux in a divertor simulator. Journal of Nuclear Materials, 2013, 438, S788-S791.	2.7	5
58	Effects of DC substrate bias voltage on dust flux in the Large Helical Device. Journal of Nuclear Materials, 2013, 438, S727-S730.	2.7	5
59	Analysis on the photovoltaic property of Si quantum dot-sensitized solar cells. International Journal of Precision Engineering and Manufacturing, 2014, 15, 339-343.	2.2	5
60	High-rate deposition of silicon nitride thin films using plasma-assisted reactive sputter deposition. Thin Solid Films, 2019, 685, 306-311.	1.8	5
61	Low-temperature formation of high-mobility a-InGaZnOx films using plasma-enhanced reactive processes. Japanese Journal of Applied Physics, 2019, 58, 090605.	1.5	5
62	Effects of post-deposition plasma treatments on stability of amorphous InGaZnO_x thin-film transistors prepared with plasma-assisted reactive magnetron sputtering. Japanese Journal of Applied Physics, 2019, 58, SAAC03.	1.5	5
63	Influence of gas pressure and applied voltage on Xe excimer radiation from a micro dielectric barrier discharge for plasma display panel. Journal of Applied Physics, 2009, 106, 073304.	2.5	4
64	Correlation between Volume Fraction of Silicon Clusters in Amorphous Silicon Films and Optical Emission Properties of Si[*]and SiH[*]. Japanese Journal of Applied Physics, 2013, 52, 11NA07.	1.5	4
65	Performance dependence of Si quantum dot-sensitized solar cells on counter electrode. Japanese Journal of Applied Physics, 2014, 53, 05FZ01.	1.5	4
66	Photovoltaic application of Si nanoparticles fabricated by multihollow plasma discharge CVD: Dye and Si co-sensitized solar cells. Japanese Journal of Applied Physics, 2015, 54, 01AD02.	1.5	4
67	Morphological control of nanostructured Ge films in high Ar-gas-pressure plasma sputtering process for Li ion batteries. Japanese Journal of Applied Physics, 2022, 61, SA1002.	1.5	4
68	Pâ€149: Analysis of Optical Emission Spectra from ACâ€PDP Operated at Lower Voltage. Digest of Technical Papers SID International Symposium, 2008, 39, 1762-1765.	0.3	3
69	Liquid-crystal phase transition by electron shower in a direct current complex plasma. Physics of Plasmas, 2009, 16, .	1.9	3
70	Combinatorial Deposition of Microcrystalline Silicon Films Using Multihollow Discharge Plasma Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2012, 51, 01AD02.	1.5	3
71	Plasma-enhanced reactive linear sputtering source for formation of silicon-based thin films. Review of Scientific Instruments, 2018, 89, 083902.	1.3	3
72	ZnO:Al Thin Films with Buffer Layers Fabricated via Nitrogen Mediated Crystallization: Effects of N₂/Ar Gas Flow Rate Ratio. Transactions of the Materials Research Society of Japan, 2012, 37, 165-168.	0.2	3

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73	Deposition of clusterâ€free Pâ€doped aâ€Si:H films using SiH₄+PH₃ multiâ€hollow discharge plasma CVD. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 3013-3016.	0.8	2
74	Deposition of Cluster-Free B-doped Hydrogenated Amorphous Silicon Films Using SiH$_{4}$+B$_{10}$H$_{14}$ Multi-Hollow Discharge Plasma Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2012, 51, 01AD03.	1.5	2
75	Flux Control of Carbon Nanoparticles Generated due to Interactions between Hydrogen Plasmas and Graphite Using DC-Biased Substrates. Japanese Journal of Applied Physics, 2013, 52, 11NA08.	1.5	2
76	Nanostructure Control of Si and Ge Quantum Dots Based Solar Cells Using Plasma Processes. Materials Science Forum, 0, 783-786, 2022-2027.	0.3	2
77	Dust Hour Glass in a Capacitive RF Discharge. IEEE Transactions on Plasma Science, 2014, 42, 2672-2673.	1.3	2
78	Dynamic Properties of Helium Atmospheric Dielectric-Barrier-Discharge Plasma Jet. Journal of Nanoscience and Nanotechnology, 2015, 15, 2324-2329.	0.9	2
79	Photoluminescence of Si nanoparticles synthesized using multi-hollow discharge plasma CVD. , 2010, , .		1
80	Characteristics of stable a-Si:H Schottoky cells fabricated by suppressing cluster deposition. Materials Research Society Symposia Proceedings, 2012, 1426, 377-382.	0.1	1
81	Characteristics of Crystalline Silicon/Si Quantum Dot/Poly(3,4-ethylenedioxythiophene) Hybrid Solar Cells. Japanese Journal of Applied Physics, 2013, 52, 11NA05.	1.5	1
82	Effects of Ar addition on breakdown voltage in a Si(CH<inf>3</inf>)<inf>2</inf>(OCH<inf>3</inf>)<inf>2</inf> RF discharge. , 2010, , .		0
83	Deposition profiles of microcrystalline silicon films using multi-hollow discharge plasma CVD. , 2010, , .		0
84	Cluster-free B-doped a-Si:H films deposited using SiH<inf>4</inf> + B<inf>10</inf>H<inf>14</inf> multi-hollow discharges. , 2010, , .		0
85	Keynote speech I: Fluctuation control for plasma nanotechnologies. , 2010, , .		0
86	The Optical Analysis and Application of Size-controllable Si Quantum Dots Fabricated by Multi-hollow Discharge Plasma Chemical Vapor Deposition. Materials Research Society Symposia Proceedings, 2012, 1426, 313-318.	0.1	0
87	Discharge Characteristics of Plasma Display Panels with SrCaO Protective Layer Manufactured Using “All-in-Vacuum” Process. Materials Transactions, 2012, 53, 440-445.	1.2	0
88	Deposition of Carbon Films on PMMA Using H-assisted Plasma CVD. , 2014, , .		0
89	Study on the Crystal Growth Mechanism of ZnO Films Fabricated Via Nitrogen Mediated Crystallization.. , 2014, , .		0
90	Performance enhancement of dye and Si quantum dot hybrid nanostructured solar cell with TiO₂ barrier. Transactions of the Materials Research Society of Japan, 2014, 39, 321-324.	0.2	0

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91	Deposition of Germanium Crystalline Nanoparticle Composite Films by Using Reactive Dusty Plasma Process and their Application for Quantum-Dot Solar Cells. Journal of Smart Processing, 2015, 4, 6-11.	0.1	0
92	Effects of H2 Gas Addition on Structure of Ge Nanoparticle Films Deposited by High-Pressure RF Magnetron Sputtering Method. , 2014, , .		0
93	Combinatorial Plasma CVD of Si Nanoparticle Composite Films for Band Gap Control. , 2014, , .		0
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