Tetsuji Shimizu

List of Publications by Year
in descending order

73 papers	3,929 citations	201674 27 h-index	118850 62 g-index
73 all docs	73 docs citations	73 times ranked	3013 citing authors

#	Article	IF	Citations
1	Plasma chemistry model of surface microdischarge in humid air and dynamics of reactive neutral species. Journal Physics D: Applied Physics, 2012, 45, 425201.	2.8	412
2	Cold Atmospheric Air Plasma Sterilization against Spores and Other Microorganisms of Clinical Interest. Applied and Environmental Microbiology, 2012, 78, 5077-5082.	3.1	303
3	Bactericidal effects of non-thermal argon plasma in vitro, in biofilms and in the animal model of infected wounds. Journal of Medical Microbiology, 2011, 60, 75-83.	1.8	293
4	Cold Atmospheric Plasma (CAP) Changes Gene Expression of Key Molecules of the Wound Healing Machinery and Improves Wound Healing In Vitro and In Vivo. PLoS ONE, 2013, 8, e79325.	2.5	265
5	Restoration of Sensitivity in Chemo â€" Resistant Glioma Cells by Cold Atmospheric Plasma. PLoS ONE, 2013, 8, e64498.	2.5	182
6	Characterization of Microwave Plasma Torch for Decontamination. Plasma Processes and Polymers, 2008, 5, 577-582.	3.0	174
7	Cold atmospheric plasma, a new strategy to induce senescence in melanoma cells. Experimental Dermatology, 2013, 22, 284-289.	2.9	174
8	Cold atmospheric plasma devices for medical issues. Expert Review of Medical Devices, 2013, 10, 367-377.	2.8	166
9	Plasma medicine: possible applications in dermatology. JDDG - Journal of the German Society of Dermatology, 2010, 8, 968-976.	0.8	165
10	The dynamics of ozone generation and mode transition in air surface micro-discharge plasma at atmospheric pressure. New Journal of Physics, 2012, 14, 103028.	2.9	161
11	Inactivation of Surface-Borne Microorganisms and Increased Germination of Seed Specimen by Cold Atmospheric Plasma. Food and Bioprocess Technology, 2014, 7, 645-653.	4.7	160
12	Decolonisation of MRSA, S. aureus and E. coli by Cold-Atmospheric Plasma Using a Porcine Skin Model In Vitro. PLoS ONE, 2012, 7, e34610.	2.5	148
13	Randomized placeboâ€controlled human pilot study of cold atmospheric argon plasma on skin graft donor sites. Wound Repair and Regeneration, 2013, 21, 800-807.	3.0	126
14	Effects of Cold Atmospheric Plasma (CAP) on ÃŸ-Defensins, Inflammatory Cytokines, and Apoptosis-Related Molecules in Keratinocytes In Vitro and In Vivo. PLoS ONE, 2015, 10, e0120041.	2.5	98
15	Contact-Free Inactivation of Candida albicans Biofilms by Cold Atmospheric Air Plasma. Applied and Environmental Microbiology, 2012, 78, 4242-4247.	3.1	96
16	Red blood cell coagulation induced by low-temperature plasma treatment. Archives of Biochemistry and Biophysics, 2016, 605, 95-101.	3.0	93
17	Cold Atmospheric Plasma. Archives of Dermatology, 2011, 147, 388.	1.4	88
18	Plasma-Medizin: AnwendungsmÃ¶glichkeiten in der Dermatologie. JDDG - Journal of the German Society of Dermatology, 2010, 8, 968-977.	0.8	76

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19	The effect of low-temperature plasma on bacteria as observed by repeated AFM imaging. New Journal of Physics, 2009, 11, 115023.	2.9	62
20	Cold Atmospheric Plasma: A Promising Complementary Therapy for Squamous Head and Neck Cancer. PLoS ONE, 2015, 10, e0141827.	2.5	54
21	Formation of thermal flow fields and chemical transport in air and water by atmospheric plasma. New Journal of Physics, 2011, 13, 053025.	2.9	52
22	Electron temperature control by varying size of slits made in a grid. Applied Physics Letters, 2000, 76, 547-549.	3.3	47
23	Contact-free inactivation of Trichophyton rubrum and Microsporum canis by cold atmospheric plasma treatment. Future Microbiology, 2013, 8, 1097-1106.	2.0	38
24	Cold Atmospheric Plasma for Surface Disinfection. Plasma Processes and Polymers, 2012, 9, 585-589.	3.0	37
25	Characterization of Lowâ€Temperature Microwave Plasma Treatment With and Without UV Light for Disinfection. Plasma Processes and Polymers, 2010, 7, 288-293.	3.0	33
26	Contact-free cold atmospheric plasma treatment of Deinococcus radiodurans. Journal of Industrial Microbiology and Biotechnology, 2012, 39, 1367-1375.	3.0	33
27	Bactericidal Agents Produced by Surface Micro-Discharge (SMD) Plasma by Controlling Gas Compositions. Plasma Processes and Polymers, 2014, 11, 426-436.	3.0	30
28	Cold atmospheric plasma â€“ A new technology for spacecraft component decontamination. Planetary and Space Science, 2014, 90, 60-71.	1.7	29
29	Benefits of applying low-temperature plasma treatment to wound care and hemostasis from the viewpoints of physics and pathology. Journal Physics D: Applied Physics, 2017, 50, 503001.	2.8	25
30	Progress and perspectives in dry processes for nanoscale feature fabrication: fine pattern transfer and high-aspect-ratio feature formation. Japanese Journal of Applied Physics, 2019, 58, SE0802.	1.5	24
31	Effects of cold atmospheric plasma on mucosal tissue culture. Journal Physics D: Applied Physics, 2013, 46, 045401.	2.8	22
32	High quality diamond formation by electron temperature control in methaneâ€“hydrogen plasma. Plasma Sources Science and Technology, 2003, 12, S21-S25.	3.1	19
33	Decontamination of Nosocomial Bacteria IncludingClostridium difficileSpores on Dry Inanimate Surface by Cold Atmospheric Plasma. Plasma Processes and Polymers, 2014, 11, 974-984.	3.0	17
34	Wound treatment by low-temperature atmospheric plasmas and issues in plasma engineering for plasma medicine. Japanese Journal of Applied Physics, 2020, 59, 120501.	1.5	16
35	Disinfection Through Different Textiles Using Lowâ€Temperature Atmospheric Pressure Plasma. Plasma Processes and Polymers, 2012, 9, 792-798.	3.0	14
36	Development of plasma-on-chip: Plasma treatment for individual cells cultured in media. Japanese Journal of Applied Physics, 2016, 55, 01AF01.	1.5	14

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37	Plasma-on-chip device for stable irradiation of cells cultured in media with a low-temperature atmospheric pressure plasma. Archives of Biochemistry and Biophysics, 2016, 605, 11-18.	3.0	12
38	Transport Mechanism of Chemical Species in a Pin-water Atmospheric Discharge driven by Negative Voltage. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2011, 24, 421-427.	0.3	11
39	Applications in plasma medicine: a SWOT approach. Composite Interfaces, 2012, 19, 231-238.	2.3	11
40	Effects of cold atmospheric plasma (CAP) on bacteria and mucosa of the upper aerodigestive tract. Auris Nasus Larynx, 2019, 46, 294-301.	1.2	11
41	Measurements of emission-propagation phenomena in low-energy atmospheric-pressure helium plasma. Plasma Sources Science and Technology, 2018, 27, 05LT02.	3.1	10
42	Plasma afterglow circulation apparatus for decontamination of spacecraft equipment. AIP Advances, 2018, 8, .	1.3	10
43	Striation phenomena in a low temperature atmospheric pressure neon plasma jet by optical emission spectroscopy. Physics of Plasmas, 2020, 27, .	1.9	9
44	Diamond-particles levitated in a reactive plasma. Diamond and Related Materials, 2003, 12, 374-377.	3.9	8
45	Reviews of low-temperature atmospheric pressure plasma for studying hemostasis and international standardization. Japanese Journal of Applied Physics, 2021, 60, 020502.	1.5	8
46	Effects of electron temperature on the quality of a-Si:H and Î¼c-Si film. Thin Solid Films, 2002, 407, 7-11.	1.8	7
47	Surface Microdischarge Plasma for Disinfection. Plasma Medicine, 2017, 7, 175-185.	0.6	7
48	Potential formation on dielectric surface by an atmospheric pressure helium plasma jet. Japanese Journal of Applied Physics, 2019, 58, 090906.	1.5	7
49	Progress and perspectives in dry processes for leading-edge manufacturing of devices: toward intelligent processes and virtual product development. Japanese Journal of Applied Physics, 2019, 58, SE0804.	1.5	7
50	Electrical characteristics of a low-temperature, atmospheric-pressure helium plasma jet. AIP Advances, 2021, 11, .	1.3	7
51	High and broadband sensitivity front-side illuminated InGaAs photo field-effect transistors (photoFETs) with SWIR transparent conductive oxide (TCO) gate. Applied Physics Letters, 2021, 119, .	3.3	7
52	Reasons Why We Need Cold Atmospheric Plasmas in Bacteria-Related Diseases in Medicine. Plasma Medicine, 2012, 2, 85-96.	0.6	6
53	InGaAs photo field-effect-transistors (PhotoFETs) on half-inch Si wafer using layer transfer technology. Japanese Journal of Applied Physics, 2020, 59, SGGE03.	1.5	6
54	Plasmabehandlung von Ulzera. , 2016, , 63-71.		5

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55	Effect of electrical conductivity of water on plasma-driven gas flow by needle-water discharge at atmospheric pressure. Journal of Electrostatics, 2020, 104, 103422.	1.9	5
56	Progress and perspectives in dry processes for emerging multidisciplinary applications: how can we improve our use of dry processes?. Japanese Journal of Applied Physics, 2019, 58, SE0803.	1.5	4
57	Non-contact measurement of electric charges on water surface supplied with plasma. Journal of Electrostatics, 2020, 103, 103414.	1.9	4
58	Low Temperature Atmospheric Argon Plasma: Diagnostics and Medical Applications. NATO Science for Peace and Security Series A: Chemistry and Biology, 2012, , 163-178.	0.5	3
59	Plasmaâ€onâ€Chip : device for nonâ€thermal atmospheric pressure plasma irradiation to single cells. Electronics and Communications in Japan, 2020, 103, 43-48.	0.5	3
60	Measurements of nitrogen atom density in a microwaveâ€excited plasma jet produced under moderate pressures. IEEJ Transactions on Electrical and Electronic Engineering, 2020, 15, 1281-1287.	1.4	3
61	Effects of electric charges on serum protein aggregation induced by a low temperature atmospheric pressure plasma. Journal Physics D: Applied Physics, 2021, 54, 215201.	2.8	3
62	Dynamics of flow in albumin solution treated by low-temperature atmospheric pressure helium plasma jet. AIP Advances, 2020, 10, 125216.	1.3	3
63	The approach to diamond growth on levitating seed particles. Applied Surface Science, 2007, 254, 177-180.	6.1	2
64	Electric potential developed by single-pulse needle-water discharge. Applied Physics Express, 2018, 11, 016201.	2.4	2
65	Albumin aggregation using low-temperature atmospheric pressure helium plasma jet in argon and air atmosphere. Japanese Journal of Applied Physics, 2022, 61, SI1016.	1.5	1
66	Potential formation on floating metal plate treated by low-temperature atmospheric pressure plasma jet. Journal of Electrostatics, 2022, 117, 103715.	1.9	1
67	Bactericidal effect in different gas compositions using Surface Micro-Discharge (SMD) plasma. , 2012, , .		0
68	Growth inhibition effect on Trypanosoma brucei gambiense by the oxidative stress supplied from low-temperature plasma at atmospheric pressure. Japanese Journal of Applied Physics, 2021, 60, 020601.	1.5	0
69	215 Flow field analysis of a plasma flow at atmospheric pressure in the vicinity of water surface. The Proceedings of Conference of Tohoku Branch, 2010, 2010.45, 230-231.	0.0	0
70	313 Thermal flow analysis of a plasma flow at atmospheric pressure in air and water. The Proceedings of the Symposium on Environmental Engineering, 2011, 2011.21, 206-207.	0.0	0
71	S052012 Driving mechanism of gas flow by gaseous-liquid plasma. The Proceedings of Mechanical Engineering Congress Japan, 2013, 2013, _S052012-1-_S052012-2.	0.0	0
72	<i>Plasma-on-Chip</i>: Device for Non-thermal Atmospheric Pressure Plasma Irradiation to Single Cells. IEEJ Transactions on Electronics, Information and Systems, 2020, 140, 452-456.	0.2	0

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73	Transparent Conductive Oxide (TCO) Gated Ingaas Mosfets for Front-Side Illuminated Short-Wave Infrared Detection. ECS Meeting Abstracts, 2022, MA2022-01, 1282-1282.	0.0	0