Vaclav Prukner

List of Publications by Year
in descending order

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67	709	567281 15	610901 24
papers	citations	h-index	g-index

67	67	67	684
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamics of macro- and micro-bubbles induced by nanosecond discharge in liquid water. Plasma Sources Science and Technology, 2022, 31, 015005.	3.1	6
2	Demonstration of Dynamics of Nanosecond Discharge in Liquid Water Using Four-Channel Time-Resolved ICCD Microscopy. Plasma, 2021, 4, 183-200.	1.8	8
3	Direct treatment of pepper (Capsicum annuum L.) and melon (Cucumis melo) seeds by amplitude-modulated dielectric barrier discharge in air. Journal of Applied Physics, 2021, 129, .	2.5	11
4	Shockwaves evolving on nanosecond timescales around individual micro-discharge filaments in deionised water. Journal Physics D: Applied Physics, 2021, 54, 285202.	2.8	4
5	On the air atmospheric pressure plasma treatment effect on the physiology, germination and seedlings of basil seeds. Journal Physics D: Applied Physics, 2020, 53, 104001.	2.8	23
6	On the inactivation of Bacillus subtilis spores by surface streamer discharge in humid air caused by reactive species. Journal Physics D: Applied Physics, 2020, 53, 245203.	2.8	9
7	Picosecond interferometry and analysis of pressure fields around nanosecond microdischarge filaments that develop in deionized water. Japanese Journal of Applied Physics, 2020, 59, SHHA08.	1.5	9
8	Emerging and expanding streamer head in low-pressure air. Plasma Sources Science and Technology, 2020, 29, 03LT01.	3.1	9
9	Investigation of the initial phases of nanosecond discharges in liquid water. Plasma Sources Science and Technology, 2020, 29, 064001.	3.1	16
10	Multi-hollow surface dielectric barrier discharge: an ozone generator with flexible performance and supreme efficiency. Plasma Sources Science and Technology, 2020, 29, 095014.	3.1	36
11	Disentangling dark and luminous phases of nanosecond discharges developing in liquid water. Plasma Sources Science and Technology, 2020, 29, 095001.	3.1	8
12	Evolution of N(⁴S) atoms produced under nitrogen streamer conditions: time-resolved TALIF study at reduced pressures. Plasma Sources Science and Technology, 2019, 28, 125004.	3.1	10
13	Influence of Duty Cycle on Ozone Generation and Discharge Using Volume Dielectric Barrier Discharge. Plasma Chemistry and Plasma Processing, 2018, 38, 355-364.	2.4	17
14	Nanosecond imaging and emission spectroscopy of argon streamer micro-discharge developing in coplanar surface DBD. Plasma Sources Science and Technology, 2018, 27, 055019.	3.1	9
15	Etching of polymers, proteins and bacterial spores by atmospheric pressure DBD plasma in air. Journal Physics D: Applied Physics, 2017, 50, 135201.	2.8	35
16	Reduction of microbial contamination and improvement of germination of sweet basil (Ocimum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 50, 305401.	2.8	40
17	Evolution of N₂(A³ $Sigma _{{m u}}^{+}$) in streamer discharges: influence of oxygen admixtures on formation of low vibrational levels. Journal Physics D: Applied Physics, 2017, 50, 504002.	2.8	19
18	Radially and temporally resolved electric field of positive streamers in air and modelling of the induced plasma chemistry. Plasma Sources Science and Technology, 2016, 25, 045021.	3.1	28

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19	Deposition of Poly(Ethylene Oxide)â€Like Plasma Polymers on Inner Surfaces of Cavities by Means of Atmosphericâ€Pressure SDBDâ€Based Jet. Plasma Processes and Polymers, 2016, 13, 823-833.	3.0	7
20	Spontaneous and artificial direct nanostructuring of solid surface by extreme ultraviolet laser with nanosecond pulses. Laser and Particle Beams, 2016, 34, 11-22.	1.0	3
21	Stress response ofEscherichia coliinduced by surface streamer discharge in humid air. Journal Physics D: Applied Physics, 2016, 49, 075401.	2.8	11
22	LIF study of N₂(A³$mathbf{Sigma}_{ext{u}}^{+}$,v= 0â€“10) vibrational kinetics under nitrogen streamer conditions. Journal Physics D: Applied Physics, 2015, 48, 265202.	2.8	24
23	Repetitive XUV Discharge-Pumped Laser at 46.9 nm. Springer Proceedings in Physics, 2014, , 231-234.	0.2	0
24	Optical diagnostics of streamers: from laboratory micro-scale to upper-atmospheric large-scale discharges. Journal of Physics: Conference Series, 2014, 550, 012037.	0.4	3
25	Generation and application of the soft X-ray laser beam based on capillary discharge. Journal of Physics: Conference Series, 2014, 511, 012035.	0.4	4
26	An extreme ultraviolet interferometer suitable to generate dense interference pattern. Proceedings of SPIE, 2014, , .	0.8	0
27	Formation of ${m N}_{2}(A,^{3}Sigma_{{m u}}^{+}$,v= 0â€“3) metastable species in decaying nitrogen streamer. Journal Physics D: Applied Physics, 2013, 46, 485205.	2.8	10
28	A new method of determination of ablation threshold contour in the spot of focused XUV laser beam of nanosecond duration. , 2013, , .		5
29	Application of EUV optics to surface modification of materials. , 2013, , .		3
30	Beam characteristics of CAPEX XUV argon laser. , 2013, , .		1
31	Nano-structuring of solid surface by extreme ultraviolet Ar8+ laser. Laser and Particle Beams, 2012, 30, 57-63.	1.0	19
32	Surface DBD for Deposition of PEOâ€Like Plasma Polymers. Plasma Processes and Polymers, 2012, 9, 83-89.	3.0	13
33	PEOâ€like Plasma Polymers Prepared by Atmospheric Pressure Surface Dielectric Barrier Discharge. Plasma Processes and Polymers, 2012, 9, 782-791.	3.0	21
34	Ozone Production Using a Power Modulated Surface Dielectric Barrier Discharge in Dry Synthetic Air. Plasma Chemistry and Plasma Processing, 2012, 32, 743-754.	2.4	56
35	Optical and electrical characteristics of a single surface DBD micro-discharge produced in atmospheric-pressure nitrogen and synthetic air. Plasma Sources Science and Technology, 2011, 20, 025009.	3.1	14
36	ICCD microscopic imaging of a single micro-discharge in surface coplanar DBD geometry: determination of the luminous diameter of N₂and Ar streamers. Plasma Sources Science and Technology, 2011, 20, 025010.	3.1	14

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37	Repetitive XUV laser based on the fast capillary discharge. , 2011, , .		4
38	Influence of Power Modulation on Ozone Production Using an AC Surface Dielectric Barrier Discharge in Oxygen. Plasma Chemistry and Plasma Processing, 2010, 30, 607-617.	2.4	58
39	A potential environment for lasing below 15Ânm initiated by exploding wire in water. Laser and Particle Beams, 2010, 28, 61-67.	1.0	13
40	{m N}_2 left({A,^3Sigma_{m u}^+} ight) behaviour in a N₂â€“NO surface dielectric barrier discharge in the modulated ac regime at atmospheric pressure. Journal Physics D: Applied Physics, 2010, 43, 124003.	2.8	22
41	Exploding Wire in Water as a Potential Source of Amplified EUV-radiation. , 2009, , .		0
42	Gas-filled-capillary discharge experiment. , 2009, , .		0
43	Amplification of spontaneous emission of neon-like argon in a fast gas-filled capillary discharge. Plasma Physics Reports, 2008, 34, 162-168.	0.9	15
44	Ag wire explosion in water - a potential source of coherent soft X-ray radiation. , 2008, , .		0
45	Particle emission of discharge-based soft S-ray lasers. , 2008, , .		0
46	Ways to discharge-based soft X-ray lasers with the wavelength Î»<15Ânm. Laser and Particle Beams, 2008, 26, 167-178.	1.0	16
47	High Resolved Spectra of Pulse High Current Capillary Discharge Plasma. , 2008, , .		1
48	CAPEX-U Device - Driver for Discharge-Based Soft X-ray Lasers with Â¿ ≪ 15 nm. , 2007, , .		0
49	CAPEX-U device - driver for discharge-based soft x-ray lasers with λ ≪ 15 nm. , 2007, , .		0
50	Recent progress in discharge-based soft x-ray lasers at IPP ASci CR. Proceedings of SPIE, 2007, , .	0.8	4
51	Experiment CAPEX-U: Present and Future. AIP Conference Proceedings, 2006, , .	0.4	0
52	Pulsed High-Current Experiments at IPP ASci CR Prague. AIP Conference Proceedings, 2006, , .	0.4	0
53	Application of the Interactive system for the Atomic Spectra Interpretation to the Argon-Filled-Capillary Discharge. AIP Conference Proceedings, 2006, , .	0.4	1
54	Four-channel laser-triggered spark gap. European Physical Journal D, 2006, 56, B218-B222.	0.4	2

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55	Research on high current pulse discharges at IPP ASci CR. European Physical Journal D, 2006, 56, B259-B266.	0.4	7
56	Corona-like multistreamer discharge in water for cylindrical shock wave generation. European Physical Journal D, 2006, 56, B342-B348.	0.4	2
57	Comparing of calculated and experimental results of CAPEX-U device. European Physical Journal D, 2006, 56, B371-B376.	0.4	10
58	Modification of alumina-capillary inner-surface by pulse high-current discharge. European Physical Journal D, 2006, 56, B564-B570.	0.4	1
59	Electrical Parameters of High Current Capillary Discharge Device. International Power Modulator Symposium and High-Voltage Workshop, 2006, , .	0.0	0
60	Soft X-ray emission of a fast-capillary-discharge device. Plasma Devices and Operations, 2005, 13, 105-109.	0.6	24
61	Rules for Identification of Amplified Spontaneous Emission at 46.9 NM in Argon Filled Capillaries. IEEE International Conference on Plasma Science, 2005, , .	0.0	0
62	Strong Amplification of Ne-like AR line in the Source Based on Capillary Discharge. , 2005, , .		4
63	Gas-filled laser-triggered spark gap. European Physical Journal D, 2004, 54, C309-C313.	0.4	7
64	Interactive system for the interpretation of atomic spectra. European Physical Journal D, 2004, 54, C314-C320.	0.4	3
65	Design of a laser-triggered driver for fast capillary discharge. European Physical Journal D, 2004, 54, C321-C325.	0.4	7
66	Role of pre-pulse in gas-filled-capillary soft X-ray source. European Physical Journal D, 2004, 54, C334-C343.	0.4	2
67	Influence of initial conditions on capillary discharge device Capex 2. , 0, , .		1