Sander Nijdam

List of Publications by Year
in descending order

71 papers	2,018 citations	236912 25 h-index	254170 43 g-index
75 all docs	75 docs citations	75 times ranked	1379 citing authors

#	Article	IF	Citations
1	A Model for Positive Corona Inception From Charged Ellipsoidal Thundercloud Hydrometeors. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	3
2	Investigating CO₂ streamer inception in repetitive pulsed discharges. Plasma Sources Science and Technology, 2022, 31, 055007.	3.1	3
3	Comparing simulations and experiments of positive streamers in air: steps toward model validation. Plasma Sources Science and Technology, 2021, 30, 095002.	3.1	23
4	Effects of a negative corona discharge on subsequent positive streamers. Journal Physics D: Applied Physics, 2021, 54, 485202.	2.8	3
5	Radio Emission Reveals Inner Meter-Scale Structure of Negative Lightning Leader Steps. Physical Review Letters, 2020, 124, 105101.	7.8	28
6	Biogas combustion with various oxidizers in a nanosecond DBD microplasma burner. Experimental Thermal and Fluid Science, 2020, 118, 110166.	2.7	16
7	Characterizing streamer branching in N2â€“O2 mixtures by 2D peak-finding. Plasma Sources Science and Technology, 2020, 29, 03LT02.	3.1	4
8	The physics of streamer discharge phenomena. Plasma Sources Science and Technology, 2020, 29, 103001.	3.1	207
9	Distribution of inception times in repetitive pulsed discharges in synthetic air. Plasma Sources Science and Technology, 2020, 29, 115010.	3.1	10
10	Decay of the electron density and the electron collision frequency between successive discharges of a pulsed plasma jet in N₂. Plasma Sources Science and Technology, 2019, 28, 035020.	3.1	22
11	The importance of thermal dissociation in CO₂ microwave discharges investigated by power pulsing and rotational Raman scattering. Plasma Sources Science and Technology, 2019, 28, 055015.	3.1	55
12	Transition mechanism of negative DC corona modes in atmospheric air: from Trichel pulses to pulseless glow. Plasma Sources Science and Technology, 2019, 28, 055017.	3.1	36
13	The effect of DC voltage polarity on ionic wind in ambient air for cooling purposes. Plasma Sources Science and Technology, 2018, 27, 055021.	3.1	41
14	Burning velocity measurement of lean methane-air flames in a new nanosecond DBD microplasma burner platform. Experimental Thermal and Fluid Science, 2018, 95, 18-26.	2.7	31
15	Characteristics of a novel nanosecond DBD microplasma reactor for flow applications. Plasma Sources Science and Technology, 2018, 27, 055014.	3.1	12
16	Positive double-pulse streamers: how pulse-to-pulse delay influences initiation and propagation of subsequent discharges. Plasma Sources Science and Technology, 2018, 27, 125003.	3.1	19
17	How the alternating degeneracy in rotational Raman spectra of CO2and C2H2reveals the vibrational temperature. Applied Optics, 2018, 57, 5694.	1.8	10
18	Plasma forces on microparticles on a surface: an experimental investigation. Plasma Sources Science and Technology, 2017, 26, 075010.	3.1	0

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19	Spatiotemporally resolved imaging of streamer discharges in air generated in a wire-cylinder reactor with (sub)nanosecond voltage pulses. Plasma Sources Science and Technology, 2017, 26, 075009.	3.1	22
20	Electric field measurements on plasma bullets in N₂using four-wave mixing. Plasma Sources Science and Technology, 2017, 26, 115006.	3.1	19
21	A self-consistent model of ionic wind generation by negative corona discharges in air with experimental validation. Plasma Sources Science and Technology, 2017, 26, 095005.	3.1	56
22	The influence of the Ar/O₂ratio on the electron density and electron temperature in microwave discharges. Plasma Sources Science and Technology, 2017, 26, 105008.	3.1	7
23	Numerical Modelling of Ionic Wind Generation By Negative Corona Discharge in Ambient Air With Experimental Validation*. , 2017, , .		0
24	Comment on â€˜The effect of single-particle charge limits on charge distributions in dusty plasmasâ€™. Journal Physics D: Applied Physics, 2016, 49, 388001.	2.8	5
25	Dust on a surface in a plasma: A charge simulation. Physics of Plasmas, 2016, 23, 043703.	1.9	14
26	Interaction of nanosecond ultraviolet laser pulses with reactive dusty plasma. Applied Physics Letters, 2016, 108, .	3.3	3
27	Conclusive evidence of abrupt coagulation inside the void during cyclic nanoparticle formation in reactive plasma. Applied Physics Letters, 2016, 109, .	3.3	14
28	When and why are streamers attracted to dielectric surfaces?. , 2016, , .		0
29	Coherent and incoherent Thomson scattering on an argon/hydrogen microwave plasma torch with transient behaviour. Plasma Sources Science and Technology, 2016, 25, 055018.	3.1	11
30	Pulsed positive discharges in air at moderate pressures near a dielectric rod. Plasma Sources Science and Technology, 2016, 25, 055021.	3.1	13
31	Start-up of a pulsed plasma jet: From branching to guided streamers. , 2016, , .		0
32	The role of free electrons in the guiding of positive streamers. Plasma Sources Science and Technology, 2016, 25, 044001.	3.1	41
33	Laser-induced incandescence applied to dusty plasmas. Journal Physics D: Applied Physics, 2016, 49, 295206.	2.8	12
34	Triboelectric and plasma charging of microparticles. Europhysics Letters, 2016, 114, 64004.	2.0	4
35	Thomson scattering on non-equilibrium low density plasmas: principles, practice and challenges. Plasma Physics and Controlled Fusion, 2015, 57, 014026.	2.1	59
36	Positive streamers in air of varying density: experiments on the scaling of the excitation density. Journal Physics D: Applied Physics, 2015, 48, 055205.	2.8	7

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37	Fast and interrupted expansion in cyclic void growth in dusty plasma. Journal Physics D: Applied Physics, 2015, 48, 035204.	2.8	27
38	Streamer knotwilg branching: sudden transition in morphology of positive streamers in high-purity nitrogen. Journal Physics D: Applied Physics, 2015, 48, 355202.	2.8	4
39	Spatio-temporal dynamics of a pulsed microwave argon plasma: ignition and afterglow. Plasma Sources Science and Technology, 2015, 24, 015015.	3.1	36
40	On the interplay of gas dynamics and the electromagnetic field in an atmospheric Ar/H₂microwave plasma torch. Plasma Sources Science and Technology, 2015, 24, 025030.	3.1	20
41	Nanosecond repetitively pulsed discharges in N₂â€“O₂mixtures: inception cloud and streamer emergence. Journal Physics D: Applied Physics, 2015, 48, 175201.	2.8	36
42	Streamer discharges can move perpendicularly to the electric field. New Journal of Physics, 2014, 16, 103038.	2.9	42
43	Stroboscopic imaging of streamers propagating along dielectric surfaces. , 2014, , .		0
44	Investigation of positive streamers by double-pulse experiments, effects of repetition rate and gas mixture. Plasma Sources Science and Technology, 2014, 23, 025008.	3.1	89
45	Ultra-fast pulsed microwave plasma breakdown: evidence of various ignition modes. Plasma Sources Science and Technology, 2014, 23, 012001.	3.1	20
46	Stroboscopic Images of Streamers Through Air and Over Dielectric Surfaces. IEEE Transactions on Plasma Science, 2014, 42, 2400-2401.	1.3	11
47	Exploring the temporally resolved electron density evolution in extreme ultra-violet induced plasmas. Journal Physics D: Applied Physics, 2014, 47, 302001.	2.8	29
48	Inception and propagation of positive streamers in high-purity nitrogen: effects of the voltage rise rate. Journal Physics D: Applied Physics, 2013, 46, 045202.	2.8	20
49	Pulsed microwave plasmas in Argon: A surprising lack of effects due to fast power modulation. , 2013, , .		1
50	Streamers in air splitting into three branches. Europhysics Letters, 2013, 103, 25002.	2.0	13
51	Development of positive streamers in air. , 2013, , .		0
52	Double pulse streamer experiments. , 2013, , .		0
53	Electrical diagnostics in a HV corona streamer discharge setup: Improved current measurement through electromagnetic frequency response analysis. , 2012, , .		0
54	A Peculiar Streamer Morphology Created by a Complex Voltage Pulse. IEEE Transactions on Plasma Science, 2011, 39, 2216-2217.	1.3	27

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55	Multiple scales in streamer discharges, with an emphasis on moving boundary approximations. Nonlinearity, 2011, 24, C1-C26.	1.4	44
56	Feather-Like Structures in Positive Streamers Interpreted as Electron Avalanches. Japanese Journal of Applied Physics, 2011, 50, 08JA01.	1.5	11
57	Probing background ionization: positive streamers with varying pulse repetition rate and with a radioactive admixture. Journal Physics D: Applied Physics, 2011, 44, 455201.	2.8	86
58	A calibrated integrating sphere setup to determine the infrared spectral radiant flux of high-intensity discharge lamps. Journal Physics D: Applied Physics, 2011, 44, 224007.	2.8	2
59	Feather-Like Structures in Positive Streamers Interpreted as Electron Avalanches. Japanese Journal of Applied Physics, 2011, 50, 08JA01.	1.5	7
60	Review of recent results on streamer discharges and discussion of their relevance for sprites and lightning. Journal of Geophysical Research, 2010, 115, .	3.3	141
61	Comment on â€œNO_x production in laboratory discharges simulating blue jets and red spritesâ€•by H. Peterson et al.. Journal of Geophysical Research, 2010, 115, .	3.3	15
62	Probing photo-ionization: experiments on positive streamers in pure gases and mixtures. Journal Physics D: Applied Physics, 2010, 43, 145204.	2.8	149
63	Sprite discharges on Venus and Jupiterâ€like planets: A laboratory investigation. Journal of Geophysical Research, 2010, 115, .	3.3	39
64	Probing photo-ionization: simulations of positive streamers in varying N₂â€‰:â€‰O₂-mixtures. Journal Physics D: Applied Physics, 2010, 43, 505201.	2.8	126
65	Spectroscopic investigation of wave driven microwave plasmas. Journal of Applied Physics, 2009, 106, .	2.5	9
66	Reconnection and merging of positive streamers in air. Journal Physics D: Applied Physics, 2009, 42, 045201.	2.8	51
67	3D properties of pulsed corona streamers. EPJ Applied Physics, 2009, 47, 22811.	0.7	3
68	Stereo-photography of streamers in air. Applied Physics Letters, 2008, 92, 101502.	3.3	63
69	Surface ionization wave in a plasma focus-like model device. Journal Physics D: Applied Physics, 2008, 41, 215208.	2.8	10
70	Ac electrode diagnostics in ac-operated metal halide lamps. Journal Physics D: Applied Physics, 2008, 41, 144006.	2.8	10
71	Electrode diagnostics and modelling for ceramic metal halide lamps. Journal Physics D: Applied Physics, 2005, 38, 3163-3169.	2.8	44