

# Jan Trieschmann

## List of Publications by Year in descending order

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46  
papers

858  
citations

516710

16  
h-index

501196

28  
g-index

53  
all docs

53  
docs citations

53  
times ranked

547  
citing authors

#	ARTICLE	IF	CITATIONS
1	The 2022 Plasma Roadmap: low temperature plasma science and technology. Journal Physics D: Applied Physics, 2022, 55, 373001.	2.8	139
2	The effect of the driving frequency on the confinement of beam electrons and plasma density in low-pressure capacitive discharges. Plasma Sources Science and Technology, 2015, 24, 024002.	3.1	80
3	Electron dynamics in low pressure capacitively coupled radio frequency discharges. Journal of Applied Physics, 2020, 127, .	2.5	74
4	Kinetic interpretation of resonance phenomena in low pressure capacitively coupled radio frequency plasmas. Physics of Plasmas, 2016, 23, .	1.9	70
5	The effect of realistic heavy particle induced secondary electron emission coefficients on the electron power absorption dynamics in single- and dual-frequency capacitively coupled plasmas. Plasma Sources Science and Technology, 2017, 26, 085006.	3.1	56
6	Ion energy distribution functions behind the sheaths of magnetized and non-magnetized radio frequency discharges. Journal Physics D: Applied Physics, 2013, 46, 084016.	2.8	41
7	Disparity between current and voltage driven capacitively coupled radio frequency discharges. Plasma Sources Science and Technology, 2018, 27, 125010.	3.1	30
8	Kinetic simulation of filament growth dynamics in memristive electrochemical metallization devices. Journal of Applied Physics, 2015, 118, .	2.5	26
9	Multi frequency matching for voltage waveform tailoring. Plasma Sources Science and Technology, 2018, 27, 095012.	3.1	26
10	Plasma polymerization at different positions in an asymmetric ethylene discharge. Journal Physics D: Applied Physics, 2011, 44, 475201.	2.8	25
11	Machine learning plasma-surface interface for coupling sputtering and gas-phase transport simulations. Plasma Sources Science and Technology, 2019, 28, 035002.	3.1	25
12	On the physics of a large CCP discharge. Plasma Sources Science and Technology, 2016, 25, 025020.	3.1	24
13	The influence of the relative phase between the driving voltages on electron heating in asymmetric dual frequency capacitive discharges. Plasma Sources Science and Technology, 2010, 19, 045001.	3.1	21
14	Transport of sputtered particles in capacitive sputter sources. Journal of Applied Physics, 2015, 118, 033302.	2.5	19
15	Continuum and kinetic simulations of the neutral gas flow in an industrial physical vapor deposition reactor. Surface and Coatings Technology, 2013, 237, 176-181.	4.8	18
16	Analytic model of the energy distribution function for highly energetic electrons in magnetron plasmas. Journal of Applied Physics, 2015, 117, 023305.	2.5	17
17	Experimental retrieval of the kinetic parameters of a dye in a solid film. Optics Express, 2011, 19, 18253.	3.4	15
18	Correlation between sputter deposition parameters and I-V characteristics in double-barrier memristive devices. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2019, 37, 061203.	1.2	14

#	ARTICLE	IF	CITATIONS
19	Consistent simulation of capacitive radio-frequency discharges and external matching networks. Plasma Sources Science and Technology, 2018, 27, 105017.	3.1	13
20	Micro atmospheric pressure plasma jets excited in He/O <sub>2</sub> by voltage waveform tailoring: a study based on a numerical hybrid model and experiments. Plasma Sources Science and Technology, 2021, 30, 064001.	3.1	13
21	Efficient plasma-surface interaction surrogate model for sputtering processes based on autoencoder neural networks. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2022, 40, .	1.2	13
22	Combined experimental and theoretical description of direct current magnetron sputtering of Al by Ar and Ar/N <sub>2</sub> plasma. Plasma Sources Science and Technology, 2018, 27, 054003.	3.1	9
23	Non-linear effects and electron heating dynamics in radio-frequency capacitively coupled plasmas with a non-uniform transverse magnetic field. Physics of Plasmas, 2021, 28, 053505.	1.9	9
24	Species transport on the target during high power impulse magnetron sputtering. Applied Physics Letters, 2017, 110, 081603.	3.3	8
25	Neutral gas simulation on the influence of rotating spokes on gas rarefaction in high-power impulse magnetron sputtering. Contributions To Plasma Physics, 2018, 58, 394-403.	1.1	8
26	Generalized Method for Charge-Transfer Equilibration in Reactive Molecular Dynamics. Journal of Chemical Theory and Computation, 2021, 17, 6691-6704.	5.3	7
27	Influence of Ar/Kr ratio and pulse parameters in a Cr-N high power pulse magnetron sputtering process on plasma and coating properties. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	2.1	6
28	Particle-in-Cell/ Test-Particle Simulations of Technological Plasmas: Sputtering Transport in Capacitive Radio Frequency Discharges. Plasma Processes and Polymers, 2017, 14, 1600140.	3.0	6
29	A generic method for equipping arbitrary rf discharge simulation frameworks with external lumped element circuits. Journal of Applied Physics, 2019, 125, .	2.5	6
30	Stochastic behavior of an interface-based memristive device. Journal of Applied Physics, 2022, 131, .	2.5	6
31	Scattering of magnetized electrons at the boundary of low temperature plasmas. Plasma Sources Science and Technology, 2018, 27, 025011.	3.1	5
32	Mitigation of EC breakdown in the gyrotron transmission line of the ITER Collective Thomson Scattering diagnostic via a Split Biased Waveguide. Journal of Instrumentation, 2019, 14, C11009-C11009.	1.2	5
33	Ion dynamics in capacitively coupled argon-xenon discharges. Plasma Sources Science and Technology, 2021, 30, 065019.	3.1	5
34	Numerical modeling of active plasmonic metamaterials. Proceedings of SPIE, 2011, , .	0.8	4
35	Nanoporous SiO <sub>x</sub> plasma polymer films as carrier for liquid-infused surfaces. Plasma Processes and Polymers, 2022, 19, .	3.0	4
36	Improved homogeneity of plasma and coating properties using a lance matrix gas distribution in MW-PECVD. Journal of Coatings Technology Research, 2019, 16, 573-583.	2.5	3

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37	Kinetic bandgap analysis of plasma photonic crystals. Journal of Applied Physics, 2018, 124, 173302.	2.5	2
38	Kinetic simulation of electron cyclotron resonance assisted gas breakdown in split-biased waveguides for ITER collective Thomson scattering diagnostic. Physics of Plasmas, 2021, 28, 082505.	1.9	2
39	Confinement of highly energetic electron beams in low pressure capacitive discharges. , 2015, , .		1
40	Kinetic analysis of negative power deposition in inductive low pressure plasmas. Plasma Sources Science and Technology, 2017, 26, 024004.	3.1	1
41	Time Domain Model of a Gain Medium Fitted to Pump-Probe Experiments. , 2011, , .		0
42	Global modeling of hiPIMS systems: Transition from homogeneous to self organized discharges. , 2014, , .		0
43	Analytic model of the energy distribution for energetic electrons in HiPIMS. , 2015, , .		0
44	Hysteresis effects and confinement of beam electrons in capacitive discharges. , 2016, , .		0
45	Validation And Verification Of A Kinetic Heavy Particle Transport Model. , 2017, , .		0
46	10.1063/5.0003114.6. , 2020, , .		0