Carlos M Ferreira

List of Publications by Year
in descending order

104	5,147	61977	85537
papers	citations	43 h-index	71 g-index

104	104	104	2003
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Airâ€“water â€˜tornadoâ€™-type microwave plasmas applied for sugarcane biomass treatment. Journal Physics D: Applied Physics, 2014, 47, 055201.	2.8	16
2	Plasmas for environmental issues: from hydrogen production to 2D materials assembly. Plasma Sources Science and Technology, 2014, 23, 063002.	3.1	76
3	Microwave plasmas applied for the synthesis of free standing graphene sheets. Journal Physics D: Applied Physics, 2014, 47, 385501.	2.8	79
4	Microwave N₂-Ar Plasma Torch. Journal of Physics: Conference Series, 2014, 516, 012004.	0.4	1
5	Energetic Hydrogen Atoms in High Frequency Plasmas. Journal of Physics: Conference Series, 2014, 516, 012003.	0.4	1
6	Hydrogen production from methanol reforming inÂmicrowave â€œtornadoâ€•type plasma. International Journal of Hydrogen Energy, 2013, 38, 9145-9157.	7.1	69
7	Ethanol reforming into hydrogen-rich gas applying microwave â€˜tornadoâ€™-type plasma. International Journal of Hydrogen Energy, 2013, 38, 14512-14530.	7.1	41
8	Microwave plasma based single step method for free standing graphene synthesis at atmospheric conditions. Applied Physics Letters, 2013, 103, 134101.	3.3	67
9	Hydrogen production from alcohol reforming in a microwave â€˜tornadoâ€™-type plasma. Plasma Sources Science and Technology, 2013, 22, 065001.	3.1	40
10	Comparisons of sets of electronâ€“neutral scattering cross sections and swarm parameters in noble gases: I. Argon. Journal Physics D: Applied Physics, 2013, 46, 334001.	2.8	70
11	Comparisons of sets of electronâ€“neutral scattering cross sections and swarm parameters in noble gases: II. Helium and neon. Journal Physics D: Applied Physics, 2013, 46, 334002.	2.8	61
12	Vacuum ultraviolet emission from microwave Ar-H2 plasmas. Applied Physics Letters, 2013, 102, .	3.3	9
13	Microwave plasma source operating with atmospheric pressure air-water mixtures. Journal of Applied Physics, 2012, 112, .	2.5	27
14	Airâ€“water microwave plasma torch as a NO source for biomedical applications. Chemical Physics, 2012, 398, 248-254.	1.9	19
15	Energetic hydrogen atoms in wave driven discharges. Applied Physics Letters, 2011, 99, 041503.	3.3	4
16	Microwave N2â€“Ar plasma torch. I. Modeling. Journal of Applied Physics, 2011, 109, .	2.5	34
17	Microwave plasma torches driven by surface wave applied for hydrogen production. International Journal of Hydrogen Energy, 2011, 36, 345-354.	7.1	76
18	Microwave N2â€“Ar plasma torch. II. Experiment and comparison with theory. Journal of Applied Physics, 2011, 109, .	2.5	22

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19	Microwave air plasma source at atmospheric pressure: Experiment and theory. Journal of Applied Physics, 2010, 108, .	2.5	44
20	Spectroscopic investigation of wave driven microwave plasmas. Journal of Applied Physics, 2009, 106, .	2.5	9
21	Hot hydrogen atoms in a water-vapor microwave plasma source. International Journal of Hydrogen Energy, 2009, 34, 9585-9590.	7.1	8
22	Hot and super-hot hydrogen atoms in microwave plasma. Applied Physics Letters, 2009, 95, .	3.3	10
23	Modelling of large-scale microwave plasma sources. Journal Physics D: Applied Physics, 2009, 42, 194016.	2.8	16
24	Microwave plasma torches driven by surface waves. Plasma Sources Science and Technology, 2008, 17, 024004.	3.1	11
25	Spatial structure of a slot-antenna excited microwave N2â€“Ar plasma source. Journal of Applied Physics, 2008, 103, 103304.	2.5	31
26	Nitrogen dissociation in low-pressure microwave plasmas. Journal of Physics: Conference Series, 2007, 71, 012010.	0.4	15
27	Hydrogen Balmer-Î± line broadening in a microwave plasma source. Plasma Sources Science and Technology, 2007, 16, S52-S56.	3.1	11
28	Spectroscopic determination of H, He, and H2 temperatures in a large-scale microwave plasma source. Journal of Applied Physics, 2007, 101, 063306.	2.5	20
29	Large-scale Ar and N2â€“Ar microwave plasma sources. Journal Physics D: Applied Physics, 2006, 39, 2747-2753.	2.8	16
30	A large-scale Ar plasma source excited by a TM/sub 330/ mode. IEEE Transactions on Plasma Science, 2005, 33, 866-875.	1.3	14
31	Molecular dissociation in N2â€“H2 microwave discharges. Plasma Sources Science and Technology, 2005, 14, 19-31.	3.1	56
32	A large-volume N2â€“Ar microwave plasma source based on surface waves. Vacuum, 2004, 76, 343-346.	3.5	1
33	Modeling of wave driven molecular (H/sub 2/, N/sub 2/, A/sub 2/-Ar) discharges as atomic sources. IEEE Transactions on Plasma Science, 2003, 31, 645-658.	1.3	27
34	On the self-consistent modeling of a traveling wave sustained nitrogen discharge. Journal of Applied Physics, 2002, 91, 2648-2661.	2.5	73
35	New Trends in the Kinetic Modeling of Discharges in Low Pressure Molecular Gases. , 2002, , 391-407.		0
36	Wave-driven molecular discharges as sources of active species. , 2002, 4460, 99.		1

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37	Wave driven N2â€“Ar discharge. I. Self-consistent theoretical model. Journal of Applied Physics, 2002, 91, 5622-5631.	2.5	78
38	Wave driven N2â€“Ar discharge. II. Experiment and comparison with theory. Journal of Applied Physics, 2002, 91, 5632-5639.	2.5	54
39	Kinetics of metastable atoms and molecules in N2 microwave discharges. Vacuum, 2002, 69, 171-176.	3.5	26
40	Nitrogen dissociation in N2â€“Ar microwave plasmas. Vacuum, 2002, 69, 177-181.	3.5	11
41	Emission spectroscopy of a surface wave sustained N2â^'H2 discharge. Vacuum, 2002, 69, 189-193.	3.5	5
42	A laser photodetachment technique for the measurement of H[sup â^'] in a high frequency traveling wave discharge. Review of Scientific Instruments, 2001, 72, 1680.	1.3	8
43	Effect of gas heating on the spatial structure of a traveling wave sustained Ar discharge. Journal of Applied Physics, 2001, 90, 4921-4928.	2.5	28
44	Kinetic theory of low-temperature plasmas in molecular gases. Plasma Physics and Controlled Fusion, 2000, 42, B165-B188.	2.1	22
45	Electron kinetics in atomic and molecular plasmas. Plasma Sources Science and Technology, 2000, 9, 528-540.	3.1	42
46	Plasma Kinetics in Atmospheric Gases. Springer Series on Atomic, Optical, and Plasma Physics, 2000, , .	0.2	528
47	Simulation of pulsed high-frequency breakdown in hydrogen. Journal of Applied Physics, 2000, 88, 3170-3181.	2.5	8
48	A travelling wave sustained hydrogen discharge: modelling and experiment. Plasma Sources Science and Technology, 2000, 9, 295-303.	3.1	36
49	Kinetics of Free Electrons. Springer Series on Atomic, Optical, and Plasma Physics, 2000, , 59-83.	0.2	0
50	Electron Rate Coefficients. Springer Series on Atomic, Optical, and Plasma Physics, 2000, , 119-154.	0.2	1
51	Electronic State Relaxation Rates. Springer Series on Atomic, Optical, and Plasma Physics, 2000, , 155-165.	0.2	0
52	Interactions of Gas Phase Species with Surfaces. Springer Series on Atomic, Optical, and Plasma Physics, 2000, , 193-208.	0.2	0
53	Discharges in Pure N2 and O2. Springer Series on Atomic, Optical, and Plasma Physics, 2000, , 209-228.	0.2	0
54	Discharges in N2â€”O2 Mixtures. Springer Series on Atomic, Optical, and Plasma Physics, 2000, , 229-250.	0.2	1

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55	Modelling of low-pressure surface wave discharges in flowing oxygen: II. Power dissipation and gas heating. Plasma Sources Science and Technology, 1999, 8, 31-36.	3.1	22
56	On the axial structure of a nitrogen surface wave sustained discharge: Theory and experiment. Journal of Applied Physics, 1999, 85, 49-62.	2.5	52
57	Experimental investigation of surface wave propagation in collisional plasma columns. Journal of Applied Physics, 1999, 85, 2528-2533.	2.5	16
58	Numerical modeling of the constriction of the dc positive column in rare gases. Physical Review E, 1999, 59, 3571-3582.	2.1	70
59	Travelling Wave Discharges in Nitrogen: Modelling and Experiment. , 1999, , 311-334.		3
60	Self-consistent kinetic model of low-pressure - flowing discharges: I. Volume processes. Plasma Sources Science and Technology, 1998, 7, 363-378.	3.1	195
61	Spatially resolved experimental investigation of a surface wave sustained discharge in nitrogen. Journal of Applied Physics, 1998, 83, 4602-4609.	2.5	45
62	Modelling of low-pressure surface wave discharges in flowing oxygen: I. Electrical properties and species concentrations. Plasma Sources Science and Technology, 1998, 7, 524-536.	3.1	47
63	Self-Consistent Modeling of Volume and Surface Processes in Air Plasma. AIAA Journal, 1998, 36, 1643-1651.	2.6	26
64	Self-consistent kinetic model of low-pressure - flowing discharges: II. Surface processes and densities of N, H, species. Plasma Sources Science and Technology, 1998, 7, 379-388.	3.1	90
65	A self-contained modelling and experimental study of surface wave produced argon discharges in a coaxial setup with a central metallic cylinder: II. Experiment. Plasma Sources Science and Technology, 1997, 6, 101-110.	3.1	8
66	Self-consistent kinetic model of a surface-wave-sustained discharge in nitrogen. Journal Physics D: Applied Physics, 1997, 30, 2663-2676.	2.8	39
67	A self-contained modelling and experimental study of surface wave produced argon discharges in a coaxial setup with a central metallic cylinder: I. Modelling. Plasma Sources Science and Technology, 1997, 6, 29-38.	3.1	4
68	Self-contained solution to the spatially inhomogeneous electron Boltzmann equation in a cylindrical plasma positive column. Physical Review E, 1997, 55, 890-906.	2.1	77
69	Calculated data on electron transport and excitation rate coefficients in and discharges. Plasma Sources Science and Technology, 1997, 6, 220-230.	3.1	16
70	Surface kinetics of N and O atoms in discharges. Journal Physics D: Applied Physics, 1996, 29, 1021-1031.	2.8	129
71	Multicomponent Reactive Gas Dynamic Model for Low-Pressure Discharges in Flowing Oxygen. , 1996, , 485-494.		1
72	Experimental and theoretical investigation of a N2-O2DC flowing glow discharge. Journal Physics D: Applied Physics, 1995, 28, 738-747.	2.8	90

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73	Kinetic Modeling of Microwave Discharges. NATO ASI Series Series B: Physics, 1993, , 313-337.	0.2	5
74	A collisional-radiative model for microwave discharges in helium at low and intermediate pressures. Journal Physics D: Applied Physics, 1992, 25, 1713-1732.	2.8	86
75	Effects of electron-electron collisions on the characteristics of DC and microwave discharges in argon at low pressures. Journal Physics D: Applied Physics, 1992, 25, 960-966.	2.8	61
76	Electron and heavy-particle kinetics in the low pressure oxygen positive column. Journal Physics D: Applied Physics, 1991, 24, 290-300.	2.8	119
77	Electron kinetics in weakly ionized helium under DC and HF applied electric fields. Journal Physics D: Applied Physics, 1991, 24, 581-592.	2.8	69
78	Vibrational distribution of N2(a1Pig) in a DC glow discharge. Journal Physics D: Applied Physics, 1991, 24, 1758-1764.	2.8	11
79	A consistent model of the low pressure oxygen positive column. Journal Physics D: Applied Physics, 1991, 24, 775-778.	2.8	13
80	Selfâ€consistent modeling of surface wave produced discharges at low pressures. Journal of Applied Physics, 1991, 70, 4147-4158.	2.5	72
81	Non-equilibrium kinetics in nitrogen discharges: a comparative analysis of two theoretical approaches. Journal Physics D: Applied Physics, 1990, 23, 1371-1383.	2.8	58
82	Theory of High â€" Frequency Discharges. NATO ASI Series Series B: Physics, 1990, , 187-212.	0.2	5
83	Spectroscopy and Kinetics of an Oxygen Glow Discharge. NATO ASI Series Series B: Physics, 1990, , 571-579.	0.2	3
84	Electron excitation rates and transport parameters in high-frequency N2discharges. Journal Physics D: Applied Physics, 1989, 22, 76-82.	2.8	60
85	Electron and vibrational kinetics in the hydrogen positive column. Journal Physics D: Applied Physics, 1989, 22, 1680-1691.	2.8	100
86	A basic self-contained model of a plasma column sustained by a weakly damped surface wave. Journal Physics D: Applied Physics, 1989, 22, 705-708.	2.8	21
87	Electron excitation rates and transport parameters in direct-current N2discharges. Journal Physics D: Applied Physics, 1989, 22, 67-75.	2.8	69
88	Kinetic model of a DC oxygen glow discharge. Plasma Chemistry and Plasma Processing, 1989, 9, 189-206.	2.4	44
89	The similarity laws for the maintenance field and the absorbed power per electron in low-pressure surface wave produced plasmas and their extension to HF plasmas in general. Physica Scripta, 1988, 38, 382-399.	2.5	115
90	Quasi-neutral theory of positive columns in electronegative gases. Journal Physics D: Applied Physics, 1988, 21, 1403-1413.	2.8	100

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91	Coupled electron energy and vibrational distribution functions in stationary N2discharges. Journal Physics D: Applied Physics, 1986, 19, 17-35.	2.8	168
92	Plasmas Sustained by Surface Waves at Radio and Microwave Frequencies: Basic Processes and Modeling. , 1986, , 431-466.		4
93	Diffusion theory of the lowâ€pressure positive column with twoâ€step ionization from a metastable state.â€‰I. Journal of Applied Physics, 1985, 58, 58-64.	2.5	34
94	Populations in the metastable and the resonance levels of argon and stepwise ionization effects in a lowâ€pressure argon positive column. Journal of Applied Physics, 1985, 57, 82-90.	2.5	267
95	Diffusion theory of the lowâ€pressure positive column with twoâ€step ionization from a metastable state. II. Approximate analytical solutions for planar geometry. Journal of Applied Physics, 1985, 58, 65-68.	2.5	5
96	Characteristics of high-frequency and direct-current argon discharges at low pressures: a comparative analysis. Journal Physics D: Applied Physics, 1984, 17, 1175-1188.	2.8	139
97	Vibrational populations of N2(A3Î£u+) in a pure nitrogen glow discharge. Journal of Physics B: Atomic and Molecular Physics, 1984, 17, 4429-4437.	1.6	76
98	Vibrational populations of N2(B3Îg) in a pure nitrogen glow discharge. Journal of Physics B: Atomic and Molecular Physics, 1984, 17, 4439-4448.	1.6	31
99	Electron transport parameters and excitation rates in argon. Journal Physics D: Applied Physics, 1983, 16, 1611-1621.	2.8	68
100	Modelling of a low-pressure plasma column sustained by a surface wave. Journal Physics D: Applied Physics, 1983, 16, 1673-1685.	2.8	129
101	Modelling of the lowâ€pressure argon positive column. Journal of Applied Physics, 1983, 54, 2261-2271.	2.5	95
102	Electron energy distributions and excitation rates in high-frequency argon discharges. Journal Physics D: Applied Physics, 1983, 16, 2471-2483.	2.8	89
103	Theory of a plasma column sustained by a surface wave. Journal Physics D: Applied Physics, 1981, 14, 1811-1830.	2.8	117
104	Theory of the hollow cathode arc. Journal of Applied Physics, 1978, 49, 2380.	2.5	61