Gabi Daniel Stancu

List of Publications by Year
in descending order

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Version: 2024-02-01

39 papers	1,510 citations	394421 19 h-index	434195 31 g-index
39 all docs	39 docs citations	39 times ranked	1139 citing authors

#	Article	IF	Citations
1	Ultrafast heating and oxygen dissociation in atmospheric pressure air by nanosecond repetitively pulsed discharges. Journal Physics D: Applied Physics, 2013, 46, 464010.	2.8	228
2	Atmospheric pressure plasma diagnostics by OES, CRDS and TALIF. Journal Physics D: Applied Physics, 2010, 43, 124002.	2.8	195
3	Nanosecond repetitively pulsed discharges in air at atmospheric pressureâ€"the glow regime. Plasma Sources Science and Technology, 2009, 18, 045030.	3.1	146
4	Review on VUV to MIR absorption spectroscopy of atmospheric pressure plasma jets. Plasma Sources Science and Technology, 2015, 24, 054001.	3.1	101
5	Argon metastables in HiPIMS: time-resolved tunable diode-laser diagnostics. Plasma Sources Science and Technology, 2012, 21, 025010.	3.1	84
6	Experimental study of the hydrodynamic expansion following a nanosecond repetitively pulsed discharge in air. Applied Physics Letters, 2011, 99, .	3.3	75
7	Detailed study of the plasma-activated catalytic generation of ammonia in N2-H2 plasmas. Journal of Applied Physics, 2007, 101, 043305.	2.5	69
8	Understanding deposition rate loss in high power impulse magnetron sputtering: I. Ionization-driven electric fields. Plasma Sources Science and Technology, 2012, 21, 025005.	3.1	64
9	Time-Resolved CRDS Measurements of the N₂(A³Îž_u⁺) Density Produced by Nanosecond Discharges in Atmospheric Pressure Nitrogen and Air. Journal of Physical Chemistry A, 2010, 114, 201-208.	2.5	54
10	In Situ Monitoring of Silicon Plasma Etching Using a Quantum Cascade Laser Arrangement. Chemical Vapor Deposition, 2007, 13, 351-360.	1.3	45
11	Effects of pulsation frequency and energy deposition on ignition using nanosecond repetitively pulsed discharges. Proceedings of the Combustion Institute, 2017, 36, 4079-4086.	3.9	44
12	Fully ionized nanosecond discharges in air: the thermal spark. Plasma Sources Science and Technology, 2020, 29, 085003.	3.1	43
13	Hydrodynamic regimes induced by nanosecond pulsed discharges in air: mechanism of vorticity generation. Journal Physics D: Applied Physics, 2019, 52, 364001.	2.8	35
14	Argon metastables in HiPIMS: validation of the ionization region model by direct comparison to time resolved tunable diode-laser diagnostics. Plasma Sources Science and Technology, 2015, 24, 045011.	3.1	33
15	Spatial evolution of the plasma kernel produced by nanosecond discharges in air. Journal Physics D: Applied Physics, 2019, 52, 295203.	2.8	33
16	Cumulative effect of successive nanosecond repetitively pulsed discharges on the ignition of lean mixtures. Proceedings of the Combustion Institute, 2019, 37, 5553-5560.	3.9	29
17	Are the argon metastables important in high power impulse magnetron sputtering discharges?. Physics of Plasmas, 2015, 22, .	1.9	26
18	Large-volume excitation of air, argon, nitrogen and combustible mixtures by thermal jets produced by nanosecond spark discharges. Plasma Sources Science and Technology, 2017, 26, 04LT01.	3.1	25

#	Article	IF	Citations
19	Two-photon absorption laser induced fluorescence: rate and density-matrix regimes for plasma diagnostics. Plasma Sources Science and Technology, 2020, 29, 054001.	3.1	25
20	Plasma-assisted combustion with nanosecond discharges. I: Discharge effects characterization in the burnt gases of a lean flame. Plasma Sources Science and Technology, 2022, 31, 045029.	3.1	22
21	Images of a Nanosecond Repetitively Pulsed Glow Discharge Between Two Point Electrodes in Air at 300 K and at Atmospheric Pressure. IEEE Transactions on Plasma Science, 2011, 39, 2254-2255.	1.3	19
22	Ultrafast Heating in Nanosecond Discharges in Atmospheric Pressure Air. , 2012, , .		13
23	Microwave air plasmas in capillaries at low pressure II. Experimental investigation. Journal Physics D: Applied Physics, 2016, 49, 435202.	2.8	12
24	Quenching rate of N(2P) atoms in a nitrogen afterglow at atmospheric pressure. Journal Physics D: Applied Physics, 2018, 51, 314001.	2.8	12
25	Improved flow conditions in diamond hot filament CVDâ€"Promising deposition results and gas phase characterization by laser absorption spectroscopy. Vacuum, 2007, 81, 619-626.	3.5	11
26	The role of excited electronic states in ambient air ionization by a nanosecond discharge. Plasma Sources Science and Technology, 2021, 30, 035008.	3.1	11
27	N₂(A) as the source of excited species of N₂, N and O in a flowing afterglow of N₂/NO mixture at atmospheric pressure. Plasma Sources Science and Technology, 2011, 20, 025005.	3.1	9
28	On the arc transition mechanism in nanosecond air discharges. , 2019, , .		9
29	High-spatial resolution measurements of NO density and temperature by Mid-IR QCLAS in open-air confined plasmas. Journal Physics D: Applied Physics, 2017, 50, 274004.	2.8	6
30	Measurement of the Transition Dipole Moment of the First Hot Band of the Î½2 Mode of the Methyl Radical by Diode Laser Spectroscopy. Journal of Physical Chemistry A, 2008, 112, 6285-6288.	2.5	5
31	Role of the excited electronic states in the ionization of ambient air by a nanosecond discharge. , 2020, , .		5
32	Investigation of atmospheric pressure nitrogen plasmas by cavity ring down spectroscopy. Journal of Physics: Conference Series, 2009, 157, 012005.	0.4	4
33	Hydrodynamic and thermal effects of continuous microwave-sustained plasma in capillary tubes. Plasma Sources Science and Technology, 2015, 24, 065007.	3.1	4
34	Ground-State Atomic Nitrogen Measurements using fs-TALIF in High-Pressure NRP Discharges. , 2020, , .		4
35	Quantitative fs-TALIF in high-pressure NRP discharges: calibration using VUV absorption spectroscopy. Plasma Sources Science and Technology, 2022, 31, 015004.	3.1	4
36	Femtosecond Two-Photon Absorption Laser Induced Fluorescence (fs-TALIF) Imaging of Atomic Nitrogen in Nanosecond Repetitive Discharges. , 2019, , .		3

#	Article	IF	Citations
37	Hydrodynamic effects induced by nanosecond sparks in air and air/fuel mixtures. , 2017, , .		2
38	Plasma power balance: methodology and investigations of microwave capillary discharges. Plasma Sources Science and Technology, 2022, 31, 055003.	3.1	1
39	Nonequilibrium plasma-assisted combustion: advanced spectroscopic methods for fundamental studies. , 2017, , .		0