Manuel Gamero-Castano

List of Publications by Year
in descending order

60 papers	2,097 citations	257357 24 h-index	233338 45 g-index
60 all docs	60 docs citations	60 times ranked	1123 citing authors

#	Article	IF	Citations
1	Source of heavy molecular ions based on Taylor cones of ionic liquids operating in the pure ion evaporation regime. Journal of Applied Physics, 2003, 94, 3599-3605.	1.1	300
2	Electrospray as a Source of Nanoparticles for Efficient Colloid Thrusters. Journal of Propulsion and Power, 2001, 17, 977-987.	1.3	231
3	Mechanisms of electrospray ionization of singly and multiply charged salt clusters. Analytica Chimica Acta, 2000, 406, 67-91.	2.6	136
4	Direct measurement of ion evaporation kinetics from electrified liquid surfaces. Journal of Chemical Physics, 2000, 113, 815-832.	1.2	131
5	Kinetics of small ion evaporation from the charge and mass distribution of multiply charged clusters in electrosprays. Journal of Mass Spectrometry, 2000, 35, 790-803.	0.7	106
6	A CONDENSATION NUCLEUS COUNTER (CNC) SENSITIVE TO SINGLY CHARGED SUB-NANOMETER PARTICLES. Journal of Aerosol Science, 2000, 31, 757-772.	1.8	97
7	Electric measurements of charged sprays emitted by cone-jets. Journal of Fluid Mechanics, 2002, 459, 245-276.	1.4	89
8	A torsional balance for the characterization of microNewton thrusters. Review of Scientific Instruments, 2003, 74, 4509-4514.	0.6	82
9	Electric-Field-Induced Ion Evaporation from Dielectric Liquid. Physical Review Letters, 2002, 89, 147602.	2.9	64
10	The structure of electrospray beams in vacuum. Journal of Fluid Mechanics, 2008, 604, 339-368.	1.4	58
11	Ion-induced nucleation: Measurement of the effect of embryoâ€™s size and charge state on the critical supersaturation. Journal of Chemical Physics, 2002, 117, 3345-3353.	1.2	51
12	Characterization of the electrosprays of 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl) imide in vacuum. Physics of Fluids, 2008, 20, .	1.6	51
13	Induction charge detector with multiple sensing stages. Review of Scientific Instruments, 2007, 78, 043301.	0.6	48
14	Tandem mobility mass spectrometry study of electrosprayed tetraheptyl ammonium bromide clusters. Journal of the American Society for Mass Spectrometry, 2005, 16, 717-732.	1.2	40
15	Pressure-Induced Amorphization in Silicon Caused by the Impact of Electrosprayed Nanodroplets. Physical Review Letters, 2010, 105, 145701.	2.9	38
16	Numerical simulation of electrospraying in the cone-jet mode. Journal of Fluid Mechanics, 2019, 859, 247-267.	1.4	37
17	Retarding potential and induction charge detectors in tandem for measuring the charge and mass of nanodroplets. Review of Scientific Instruments, 2009, 80, 053301.	0.6	34
18	Microfabricated Electrospray Thruster Array with High Hydraulic Resistance Channels. Journal of Propulsion and Power, 2017, 33, 984-991.	1.3	34

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19	Characterization of a Six-Emitter Colloid Thruster Using a Torsional Balance. Journal of Propulsion and Power, 2004, 20, 736-741.	1.3	30
20	Energy dissipation in electrosprays and the geometric scaling of the transition region of coneâ€“jets. Journal of Fluid Mechanics, 2010, 662, 493-513.	1.4	29
21	Electrosprays of highly conducting liquids: A study of droplet and ion emission based on retarding potential and time-of-flight spectrometry. Physical Review Fluids, 2021, 6, .	1.0	29
22	Modulations in the Abundance of Salt Clusters in Electrosprays. Analytical Chemistry, 2000, 72, 1426-1429.	3.2	28
23	Sputtering yields of Si, SiC, and B4C under nanodroplet bombardment at normal incidence. Journal of Applied Physics, 2009, 106, 054305.	1.1	28
24	On the current emitted by Taylor cone-jets of electrolytes in vacuo: Implications for liquid metal ion sources. Journal of Applied Physics, 1998, 83, 2428-2434.	1.1	24
25	Sputtering of silicon by a beamlet of electrosprayed nanodroplets. Applied Surface Science, 2009, 255, 8556-8561.	3.1	23
26	Colloid Micro-Newton Thruster Development for the ST7-DRS and LISA Missions. , 2005, , .		22
27	The minimum flow rate of electrosprays in the cone-jet mode. Journal of Fluid Mechanics, 2019, 876, 553-572.	1.4	20
28	Amorphization of silicon induced by nanodroplet impact: A molecular dynamics study. Journal of Applied Physics, 2012, 112, .	1.1	17
29	Sputtering of Si, SiC, InAs, InP, Ge, GaAs, GaSb, and GaN by electrosprayed nanodroplets. Journal of Applied Physics, 2013, 114, .	1.1	14
30	Ammonium Electrolytes Quench Ion Evaporation in Colloidal Propulsion. Journal of Propulsion and Power, 2004, 20, 728-735.	1.3	13
31	Dissipation in cone-jet electrosprays and departure from isothermal operation. Physical Review E, 2019, 99, 061101.	0.8	13
32	The influence of the projectile's velocity and diameter on the amorphization of silicon by electrosprayed nanodroplets. Journal of Applied Physics, 2013, 114, 034304.	1.1	11
33	Amorphization of hard crystalline materials by electrosprayed nanodroplet impact. Journal of Applied Physics, 2014, 116, .	1.1	11
34	The effect of the molecular mass on the sputtering by electrosprayed nanodroplets. Applied Surface Science, 2015, 344, 163-170.	3.1	11
35	Study of the electrostatic jet initiation in near-field electrospinning. Journal of Colloid and Interface Science, 2019, 543, 106-113.	5.0	11
36	A numerical simulation of coaxial electrosprays. Journal of Fluid Mechanics, 2020, 885, .	1.4	11

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37	Atomistic modeling of the sputtering of silicon by electrosprayed nanodroplets. Journal of Applied Physics, 2014, 116, 054303.	1.1	10
38	Electrospray propulsion: Modeling of the beams of droplets and ions of highly conducting propellants. Journal of Applied Physics, 2022, 131, .	1.1	10
39	Electrospray as a source of nanoparticles for efficient colloid thrusters. , 2000, , .		9
40	Micro Newton Colloid Thruster System Development for ST7-DRS Mission. , 2003, , .		9
41	Disturbance reduction system: testing technology for precision formation control. , 2003, , .		9
42	The Effect of the Molecular Mass on the Sputtering of Si, SiC, Ge, and GaAs by Electrosprayed Nanodroplets at Impact Velocities up to 17Âkm/s. Aerosol Science and Technology, 2015, 49, 256-266.	1.5	9
43	Electron field emission from carbon nanotubes, and its relevance in space applications. , 2000, , .		8
44	Molecular dynamics of nanodroplet impact: The effect of the projectileâ€™s molecular mass on sputtering. AIP Advances, 2016, 6, .	0.6	8
45	Disturbance reduction system: testing technology for drag-free operation. , 2003, 4856, 9.		7
46	Ultrafast physical sputtering of GaN by electrosprayed nanodroplet beams. Materials Letters, 2015, 159, 110-113.	1.3	7
47	Controlled joule-heating of suspended glassy carbon wires for localized chemical vapor deposition. Carbon, 2020, 156, 329-338.	5.4	6
48	Colloid thrusters for the new millennium, ST7 DRS mission. , 0, , .		5
49	Colloid Thruster Propellant Stability After Radiation Exposure. , 2003, , .		4
50	Using a Torsional Balance to Characterize Thrust at Micro Newton Levels. , 2003, , .		3
51	Molecular dynamics of nanodroplet impact: The effect of particle resolution in the projectile model. AIP Advances, 2019, 9, .	0.6	3
52	Investigation of the electrostatic focusing of beams of electrosprayed nanodroplets for microfabrication applications. AIP Advances, 2019, 9, 125006.	0.6	3
53	Conformal CVD of WO3â˜’ on electrospun carbon nanofiber mats assisted by Joule heating. Carbon, 2022, 195, 27-34.	5.4	3
54	Leaky-dielectric phase field model for the axisymmetric breakup of an electrified jet. Physical Review Fluids, 2022, 7, .	1.0	3

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55	Plasma Potential Measurements in the Plume of a Colloid Micro-Newton Thruster. , 2006, , .		2
56	Plasma Activated Bonding for an Enhanced Alignment Electrostatic Lens. International Symposium on Microelectronics, 2016, 2016, 000075-000078.	0.3	2
57	Energy barrier for ion field emission from a dielectric liquid sphere. Physical Review E, 2022, 105, .	0.8	2
58	Characterization and Modeling of Colloid Thruster Beams. , 2006, , .		1
59	Charge Detection Mass Spectrometer with Integrated Retarding Potential Analyzer for Study of Colloid Thruster Plumes. , 2007, , .		1
60	Comment on â€œEnhanced Stability of Electrohydrodynamic Jets through Gas Ionizationâ€: Physical Review Letters, 2008, 101, 059401; author reply 059402.	2.9	1