Andre Anders

List of Publications by Year
in descending order

		16451	24258
416 papers	16,305 citations	64 h-index	110 g-index
427 all docs	427 docs citations	427 times ranked	7777 citing authors

#	Article	IF	Citations
1	A structure zone diagram including plasma-based deposition and ion etching. Thin Solid Films, 2010, 518, 4087-4090.	1.8	641
2	Dynamically Modulating the Surface Plasmon Resonance of Doped Semiconductor Nanocrystals. Nano Letters, 2011, 11, 4415-4420.	9.1	491
3	Cathodic Arcs. Springer Series on Atomic, Optical, and Plasma Physics, 2008, , .	0.2	443
4	Nanoindentation and Nanoscratching of Hard Carbon Coatings for Magnetic Disks. Materials Research Society Symposia Proceedings, 1995, 383, 447.	0.1	356
5	Ion flux from vacuum arc cathode spots in the absence and presence of a magnetic field. Journal of Applied Physics, 2002, 91, 4824-4832.	2.5	342
6	Ion charge state distributions of vacuum arc plasmas: The origin of species. Physical Review E, 1997, 55, 969-981.	2.1	300
7	High power impulse magnetron sputtering: Current-voltage-time characteristics indicate the onset of sustained self-sputtering. Journal of Applied Physics, 2007, 102, .	2.5	287
8	Tutorial: Reactive high power impulse magnetron sputtering (R-HiPIMS). Journal of Applied Physics, 2017, 121, .	2.5	275
9	Hardness, elastic modulus, and structure of very hard carbon films produced by cathodicâ€arc deposition with substrate pulse biasing. Applied Physics Letters, 1996, 68, 779-781.	3.3	255
10	Metal plasma immersion ion implantation and deposition: a review. Surface and Coatings Technology, 1997, 93, 158-167.	4.8	239
11	Ion velocities in vacuum arc plasmas. Journal of Applied Physics, 2000, 88, 5618-5622.	2.5	229
12	Discharge physics of high power impulse magnetron sputtering. Surface and Coatings Technology, 2011, 205, S1-S9.	4.8	225
13	Regulation of the Î±â€secretase ADAM10 by its prodomain and proprotein convertases. FASEB Journal, 2001, 15, 1837-1839.	0.5	220
14	Approaches to rid cathodic arc plasmas of macro- and nanoparticles: a review. Surface and Coatings Technology, 1999, 120-121, 319-330.	4.8	206
15	A discussion on the absence of plasma in spark plasma sintering. Scripta Materialia, 2009, 60, 835-838.	5.2	204
16	Review of cathodic arc deposition technology at the start of the new millennium. Surface and Coatings Technology, 2000, 133-134, 78-90.	4.8	203
17	A review comparing cathodic arcs and high power impulse magnetron sputtering (HiPIMS). Surface and Coatings Technology, 2014, 257, 308-325.	4.8	200
18	Comparative surface and nano-tribological characteristics of nanocomposite diamond-like carbon thin films doped by silver. Applied Surface Science, 2008, 255, 2551-2556.	6.1	174

#	Article	IF	Citations
19	Transport of vacuum arc plasmas through magnetic macroparticle filters. Plasma Sources Science and Technology, 1995, 4, 1-12.	3.1	173
20	Deposition rates of high power impulse magnetron sputtering: Physics and economics. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 783-790.	2.1	172
21	Ion charge state distributions in high current vacuum arc plasmas in a magnetic field. IEEE Transactions on Plasma Science, 1996, 24, 1174-1183.	1.3	162
22	Plasma-based ion implantation and deposition: a review of physics, technology, and applications. IEEE Transactions on Plasma Science, 2005, 33, 1944-1959.	1.3	156
23	Metal plasma immersion ion implantation and deposition using vacuum arc plasma sources. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 815.	1.6	151
24	Drifting localization of ionization runaway: Unraveling the nature of anomalous transport in high power impulse magnetron sputtering. Journal of Applied Physics, 2012, 111, 053304.	2.5	143
25	Pulsed dye laser diagnostics of vacuum arc cathode spots. IEEE Transactions on Plasma Science, 1992, 20, 466-472.	1.3	142
26	The absence of plasma in â€œspark plasma sinteringâ€. Journal of Applied Physics, 2008, 104, .	2.5	142
27	Effect of vacuum arc deposition parameters on the properties of amorphous carbon thin films. Surface and Coatings Technology, 1994, 68-69, 388-393.	4.8	132
28	Resonant Inelastic Scattering Spectra of Free Molecules with Vibrational Resolution. Physical Review Letters, 2010, 104, 193002.	7.8	126
29	Plasma and ion sources in large area coating: A review. Surface and Coatings Technology, 2005, 200, 1893-1906.	4.8	123
30	`Triggerless' triggering of vacuum arcs. Journal Physics D: Applied Physics, 1998, 31, 584-587.	2.8	119
31	Drift Compression of an Intense Neutralized Ion Beam. Physical Review Letters, 2005, 95, 234801.	7.8	118
32	Fundamentals of pulsed plasmas for materials processing. Surface and Coatings Technology, 2004, 183, 301-311.	4.8	116
33	Macroparticleâ€free thin films produced by an efficient vacuum arc deposition technique. Journal of Applied Physics, 1993, 74, 4239-4241.	2.5	107
34	Xiphophorus As An In Vivo Model for Studies on Normal and Defective Control of Oncogenes. Advances in Cancer Research, 1984, 42, 191-275.	5.0	105
35	On the macroparticle flux from vacuum arc cathode spots. IEEE Transactions on Plasma Science, 1993, 21, 440-446.	1.3	103
36	Effect of intrinsic growth stress on the Raman spectra of vacuumâ€arcâ€deposited amorphous carbon films. Applied Physics Letters, 1995, 66, 3444-3446.	3.3	102

#	Article	IF	Citations
37	Atomic scale heating in cathodic arc plasma deposition. Applied Physics Letters, 2002, 80, 1100-1102.	3.3	98
38	Effect of duct bias on transport of vacuum arc plasmas through curved magnetic filters. Journal of Applied Physics, 1994, 75, 4900-4905.	2.5	96
39	Correlation between cathode properties, burning voltage, and plasma parameters of vacuum arcs. Journal of Applied Physics, 2001, 89, 7764-7771.	2.5	95
40	Energetic deposition using filtered cathodic arc plasmas. Vacuum, 2002, 67, 673-686.	3.5	92
41	Structure and properties of silver-containing a-C(H) films deposited by plasma immersion ion implantation. Surface and Coatings Technology, 2008, 202, 3675-3682.	4.8	87
42	The â€˜recycling trapâ€™: a generalized explanation of discharge runaway in high-power impulse magnetron sputtering. Journal Physics D: Applied Physics, 2012, 45, 012003.	2.8	85
43	Measurements of the total ion flux from vacuum arc cathode spots. IEEE Transactions on Plasma Science, 2005, 33, 1532-1536.	1.3	84
44	Self-sputtering runaway in high power impulse magnetron sputtering: The role of secondary electrons and multiply charged metal ions. Applied Physics Letters, 2008, 92, .	3.3	84
45	Plasma synthesis of metallic and composite thin films with atomically mixed substrate bonding. Nuclear Instruments & Methods in Physics Research B, 1993, 80-81, 1281-1287.	1.4	83
46	Streaming metal plasma generation by vacuum arc plasma guns. Review of Scientific Instruments, 1998, 69, 801-803.	1.3	83
47	Gas rarefaction and the time evolution of long high-power impulse magnetron sputtering pulses. Plasma Sources Science and Technology, 2012, 21, 045004.	3.1	82
48	Ion energy distribution functions of vacuum arc plasmas. Journal of Applied Physics, 2003, 93, 1899-1906.	2.5	81
49	From plasma immersion ion implantation to deposition: a historical perspective on principles and trends. Surface and Coatings Technology, 2002, 156, 3-12.	4.8	79
50	Physics of arcing, and implications to sputter deposition. Thin Solid Films, 2006, 502, 22-28.	1.8	78
51	A Theoretical Analysis of Vacuum Arc Thruster and Vacuum Arc Ion Thruster Performance. IEEE Transactions on Plasma Science, 2008, 36, 2167-2179.	1.3	76
52	Plasma potential mapping of high power impulse magnetron sputtering discharges. Journal of Applied Physics, 2012, 111, .	2.5	75
53	Drifting potential humps in ionization zones: The â€œpropeller bladesâ€•of high power impulse magnetron sputtering. Applied Physics Letters, 2013, 103, .	3.3	75
54	Hydrogen uptake in alumina thin films synthesized from an aluminum plasma stream in an oxygen ambient. Applied Physics Letters, 1999, 74, 200-202.	3.3	73

#	Article	IF	Citations
55	Metal plasmas for the fabrication of nanostructures. Journal Physics D: Applied Physics, 2007, 40, 2272-2284.	2.8	73
56	Compression and strong rarefaction in high power impulse magnetron sputtering discharges. Journal of Applied Physics, 2010, 108, .	2.5	73
57	Self-organization and self-limitation in high power impulse magnetron sputtering. Applied Physics Letters, 2012, 100, .	3.3	73
58	Self-Sputtering Far above the Runaway Threshold: An Extraordinary Metal-Ion Generator. Physical Review Letters, 2009, 102, 045003.	7.8	72
59	On sheath energization and Ohmic heating in sputtering magnetrons. Plasma Sources Science and Technology, 2013, 22, 045005.	3.1	72
60	Gasless sputtering: Opportunities for ultraclean metallization, coatings in space, and propulsion. Applied Physics Letters, 2008, 92, .	3.3	71
61	Origin of the Delayed Current Onset in High-Power Impulse Magnetron Sputtering. IEEE Transactions on Plasma Science, 2010, 38, 3028-3034.	1.3	71
62	S-shaped magnetic macroparticle filter for cathodic arc deposition. IEEE Transactions on Plasma Science, 1997, 25, 670-674.	1.3	69
63	Inductive energy storage driven vacuum arc thruster. Review of Scientific Instruments, 2002, 73, 925-927.	1.3	69
64	Plasma potential of a moving ionization zone in DC magnetron sputtering. Journal of Applied Physics, 2017, 121, .	2.5	69
65	The working principle of the hollow-anode plasma source. Plasma Sources Science and Technology, 1995, 4, 571-575.	3.1	68
66	The fractal nature of vacuum arc cathode spots. IEEE Transactions on Plasma Science, 2005, 33, 1456-1464.	1.3	67
67	Smoothing of ultrathin silver films by transition metal seeding. Solid State Communications, 2006, 140, 225-229.	1.9	67
68	On modes of arc cathode operation. IEEE Transactions on Plasma Science, 1991, 19, 20-24.	1.3	66
69	Results on intense beam focusing and neutralization from the neutralized beam experiment. Physics of Plasmas, 2004, 11, 2890-2898.	1.9	64
70	The evolution of ion charge states in cathodic vacuum arc plasmas: a review. Plasma Sources Science and Technology, 2012, 21, 035014.	3.1	62
71	Time dependence of vacuum arc parameters. IEEE Transactions on Plasma Science, 1993, 21, 305-311.	1.3	60
72	Recent advances in surface processing with metal plasma and ion beams. Surface and Coatings Technology, 1999, 112, 271-277.	4.8	60

#	Article	IF	Citations
73	Crystal structure and properties of CdxZn1â^'xO alloys across the full composition range. Applied Physics Letters, 2013, 102, .	3.3	60
74	Room Temperature Oxide Deposition Approach to Fully Transparent, Allâ€Oxide Thinâ€Film Transistors. Advanced Materials, 2015, 27, 6090-6095.	21.0	57
75	Emission spectroscopy of low-current vacuum arcs. Journal Physics D: Applied Physics, 1991, 24, 1986-1992.	2.8	56
76	Pulsed vacuum-arc ion source operated with a â€œtriggerlessâ€•arc initiation method. Review of Scientific Instruments, 2000, 71, 827-829.	1.3	56
77	Observation of Ti4+ ions in a high power impulse magnetron sputtering plasma. Applied Physics Letters, 2008, 93, .	3.3	56
78	Ultrathin diamond-like carbon films deposited by filtered carbon vacuum arcs. IEEE Transactions on Plasma Science, 2001, 29, 768-775.	1.3	55
79	Transparent and conductive indium doped cadmium oxide thin films prepared by pulsed filtered cathodic arc deposition. Applied Surface Science, 2013, 265, 738-744.	6.1	55
80	On the road to self-sputtering in high power impulse magnetron sputtering: particle balance and discharge characteristics. Plasma Sources Science and Technology, 2014, 23, 025017.	3.1	55
81	Focused injection of vacuum arc plasmas into curved magnetic filters. Journal of Applied Physics, 1994, 75, 4895-4899.	2.5	54
82	Macroparticle filtering of high-current vacuum arc plasmas. IEEE Transactions on Plasma Science, 1997, 25, 660-664.	1.3	54
83	A periodic table of ion charge-state distributions observed in the transition region between vacuum sparks and vacuum arcs. IEEE Transactions on Plasma Science, 2001, 29, 393-398.	1.3	54
84	Self-sustained self-sputtering: a possible mechanism for the superdense glow phase of a pseudospark. IEEE Transactions on Plasma Science, 1995, 23, 275-282.	1.3	53
85	Coalescence of nanometer silver islands on oxides grown by filtered cathodic arc deposition. Applied Physics Letters, 2003, 82, 1634-1636.	3.3	53
86	Production of neutrals and their effects on the ion charge states in cathodic vacuum arc plasmas. Journal of Applied Physics, 2007, 102, .	2.5	53
87	Genetic basis of susceptibility for development of neoplasms following treatment with N-methyl-N-nitrosourea (MNU) or X-rays in the platyfish/swordtail system. Experientia, 1978, 34, 780-782.	1.2	51
88	Frozen state of ionisation in a cathodic plasma jet of a vacuum arc. Journal Physics D: Applied Physics, 1988, 21, 213-215.	2.8	51
89	Effect of the pulse repetition rate on the composition and ion charge-state distribution of pulsed vacuum arcs. IEEE Transactions on Plasma Science, 1998, 26, 220-226.	1.3	51
90	Cathodic arcs: Fractal voltage and cohesive energy rule. Applied Physics Letters, 2005, 86, 211503.	3.3	51

#	Article	IF	Citations
91	High power impulse magnetron sputtering and related discharges: Scalable plasma sources for plasma-based ion implantation and deposition. Surface and Coatings Technology, 2010, 204, 2864-2868.	4.8	51
92	Spectroscopic imaging of self-organization in high power impulse magnetron sputtering plasmas. Applied Physics Letters, 2013, 103, .	3.3	51
93	Localized heating of electrons in ionization zones: Going beyond the Penning-Thornton paradigm in magnetron sputtering. Applied Physics Letters, 2014, 105, 244104.	3.3	51
94	Width, structure and stability of sheaths in metal plasma immersion ion implantation and deposition: measurements and analytical considerations. Surface and Coatings Technology, 2001, 136, 85-92.	4.8	50
95	Asymmetric particle fluxes from drifting ionization zones in sputtering magnetrons. Plasma Sources Science and Technology, 2014, 23, 025007.	3.1	49
96	Model for explosive electron emission in a pseudospark â€˜â€˜superdense glowâ€™â€™. Physical Review Letters, 1993, 71, 364-367.	7.8	48
97	Magnetic field effect on the sheath thickness in plasma immersion ion implantation. Applied Physics Letters, 2002, 81, 1183-1185.	3.3	48
98	High quality ZnO:Al transparent conducting oxide films synthesized by pulsed filtered cathodic arc deposition. Thin Solid Films, 2010, 518, 3313-3319.	1.8	48
99	Ion charge state distributions of pulsed vacuum arc plasmas in strong magnetic fields. Review of Scientific Instruments, 1998, 69, 1332-1335.	1.3	46
100	Optimizing the deposition rate and ionized flux fraction by tuning the pulse length in high power impulse magnetron sputtering. Plasma Sources Science and Technology, 2020, 29, 05LT01.	3.1	46
101	Formation of metal oxides by cathodic arc deposition. Surface and Coatings Technology, 1995, 76-77, 167-173.	4.8	45
102	Recent advances in vacuum arc ion sources. Surface and Coatings Technology, 1996, 84, 550-556.	4.8	45
103	Progress in beam focusing and compression for warm-dense matter experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 606, 75-82.	1.6	45
104	Plasma flares in high power impulse magnetron sputtering. Applied Physics Letters, 2012, 101, .	3.3	45
105	Brightness distribution and current density of vacuum arc cathode spots. Journal Physics D: Applied Physics, 1992, 25, 1591-1599.	2.8	44
106	Enhanced ion charge states in vacuum arc plasmas using a â€œcurrent spikeâ€•method. Review of Scientific Instruments, 2000, 71, 701-703.	1.3	44
107	Angularly resolved measurements of ion energy of vacuum arc plasmas. Applied Physics Letters, 2002, 80, 2457-2459.	3.3	44
108	Etiology of cancer as studied in the platyfish-swordtail system. Biochimica Et Biophysica Acta: Reviews on Cancer, 1978, 516, 61-95.	7.4	43

#	Article	IF	Citations
109	Electron emission from pseudospark cathodes. Journal of Applied Physics, 1994, 76, 1494-1502.	2.5	43
110	Structural, optical, and electrical properties of WOx(Ny) films deposited by reactive dual magnetron sputtering. Surface and Coatings Technology, 2006, 201, 2977-2983.	4.8	43
111	Extractable, elevated ion charge states in the transition regime from vacuum sparks to high current vacuum arcs. Applied Physics Letters, 2008, 92, .	3.3	43
112	Twist filter for the removal of macroparticles from cathodic arc plasmas. Surface and Coatings Technology, 2000, 133-134, 96-100.	4.8	42
113	Spatial distribution of average charge state and deposition rate in high power impulse magnetron sputtering of copper. Journal Physics D: Applied Physics, 2008, 41, 135210.	2.8	42
114	Determining the nonparabolicity factor of the CdO conduction band using indium doping and the Drude theory. Journal Physics D: Applied Physics, 2012, 45, 425302.	2.8	42
115	Insights into â€œnear-frictionless carbon filmsâ€• Journal of Applied Physics, 2004, 95, 7765-7771.	2.5	40
116	Growth and decay of macroparticles: A feasible approach to clean vacuum arc plasmas?. Journal of Applied Physics, 1997, 82, 3679-3688.	2.5	39
117	Charge-state-resolved ion energy distribution functions of cathodic vacuum arcs: A study involving the plasma potential and biased plasmas. Journal of Applied Physics, 2007, 101, 043304.	2.5	39
118	Pressure ionization: its role in metal vapour vacuum arc plasmas and ion sources. Plasma Sources Science and Technology, 1992, 1, 263-270.	3.1	38
119	Characterization of a low-energy constricted-plasma source. Review of Scientific Instruments, 1998, 69, 1340-1343.	1.3	38
120	Effect of multiple current spikes on the enhancement of ion charge states of vacuum arc plasmas. Journal of Applied Physics, 2000, 87, 8345-8350.	2.5	38
121	Coalescence of magnetron-sputtered silver islands affected by transition metal seeding (Ni, Cr, Nb, Zr,) Tj ETQq1 1 0.784314 rgBT /Ov	1.8	38
122	Local Electronic Structure of Functional Groups in Glycine As Anion, Zwitterion, and Cation in Aqueous Solution. Journal of Physical Chemistry B, 2009, 113, 16002-16006.	2.6	38
123	Plasma â€œanti-assistanceâ€•and â€œself-assistanceâ€•to high power impulse magnetron sputtering. Journal of Applied Physics, 2009, 105, .	2.5	38
124	Micro-propulsion based on vacuum arcs. Journal of Applied Physics, 2019, 125, .	2.5	38
125	Evolution of the plasma composition of a high power impulse magnetron sputtering system studied with a time-of-flight spectrometer. Journal of Applied Physics, 2009, 105, .	2.5	37
126	Fermi level stabilization and band edge energies in CdxZn1â^'xO alloys. Journal of Applied Physics, 2014, 115, .	2.5	37

#	Article	IF	Citations
127	Design and characterization of a neutralized-transport experiment for heavy-ion fusion. Physical Review Special Topics: Accelerators and Beams, 2004, 7, .	1.8	36
128	Propagation direction reversal of ionization zones in the transition between high and low current magnetron sputtering. Applied Physics Letters, 2014, 105, .	3.3	36
129	Metal ion implantation: Conventional versus immersion. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 823.	1.6	35
130	Charge-state-resolved ion energy distributions of aluminum vacuum arcs in the absence and presence of a magnetic field. Journal of Applied Physics, 2005, 97, 103306.	2.5	35
131	Dopant-induced band filling and bandgap renormalization in CdOâ€‰:â€‰In films. Journal Physics D: Applied Physics, 2013, 46, 195102.	2.8	35
132	Hollowâ€anode plasma source for molecular beam epitaxy of gallium nitride. Review of Scientific Instruments, 1996, 67, 905-907.	1.3	34
133	Influence of argon and oxygen on charge-state-resolved ion energy distributions of filtered aluminum arcs. Journal of Applied Physics, 2006, 99, 123303.	2.5	34
134	On the deactivation of the dopant and electronic structure in reactively sputtered transparent Al-doped ZnO thin films. Journal Physics D: Applied Physics, 2010, 43, 132003.	2.8	34
135	Achieving high mobility ZnOâ€‰:â€‰Al at very high growth rates by dc filtered cathodic arc deposition. Journal Physics D: Applied Physics, 2011, 44, 232003.	2.8	34
136	Chemistry, phase formation, and catalytic activity of thin palladium-containing oxide films synthesized by plasma-assisted physical vapor deposition. Surface and Coatings Technology, 2011, 205, S171-S177.	4.8	33
137	Evaluation of species-specific score cutoff values of routinely isolated clinically relevant bacteria using a direct smear preparation for matrix-assisted laser desorption/ionization time-of-flight mass spectrometry-based bacterial identification. European Journal of Clinical Microbiology and Infectious Diseases, 2012, 31, 1109-1119.	2.9	33
138	Temporal development of the plasma composition of a pulsed aluminum plasma stream in the presence of oxygen. Applied Physics Letters, 1999, 75, 612-614.	3.3	32
139	Designing advanced filters for macroparticle removal from cathodic arc plasmas. Plasma Sources Science and Technology, 1999, 8, 488-493.	3.1	32
140	Electronic structure and conductivity of nanocomposite metal (Au, Ag, Cu, Mo)-containing amorphous carbon films. Solid State Sciences, 2009, 11, 1742-1746.	3.2	32
141	Modeling of optical and energy performance of tungsten-oxide-based electrochromic windows including their intermediate states. Solar Energy Materials and Solar Cells, 2013, 108, 129-135.	6.2	32
142	High ion charge states in a highâ€current, shortâ€pulse, vacuum arc ion source. Review of Scientific Instruments, 1996, 67, 1202-1204.	1.3	31
143	Plasma fluctuations, local partial Saha equilibrium, and the broadening of vacuum-arc ion charge state distributions. IEEE Transactions on Plasma Science, 1999, 27, 1060-1067.	1.3	31
144	Tracking down the origin of arc plasma science-II. early continuous discharges. IEEE Transactions on Plasma Science, 2003, 31, 1060-1069.	1.3	31

#	Article	IF	Citations
145	Velocity distribution of carbon macroparticles generated by pulsed vacuum arcs. Plasma Sources Science and Technology, 1999, 8, 567-571.	3.1	30
146	Efficient, compact power supply for repetitively pulsed, â€œtriggerlessâ€•cathodic arcs. Review of Scientific Instruments, 1999, 70, 4532-4535.	1.3	29
147	Magnetic-field-dependent plasma composition of a pulsed aluminum arc in an oxygen ambient. Applied Physics Letters, 2001, 78, 150-152.	3.3	29
148	Observation of self-sputtering in energetic condensation of metal ions. Applied Physics Letters, 2004, 85, 6137-6139.	3.3	29
149	Vacuum arc cathode spot parameters from highâ€resolution luminosity measurements. Journal of Applied Physics, 1992, 71, 4763-4770.	2.5	28
150	Breakdown of the high-voltage sheath in metal plasma immersion ion implantation. Applied Physics Letters, 2000, 76, 28-30.	3.3	28
151	Time-dependence of ion charge State distributions of vacuum arcs: an interpretation involving atoms and charge exchange collisions. IEEE Transactions on Plasma Science, 2005, 33, 205-209.	1.3	28
152	Charge state dependence of cathodic vacuum arc ion energy and velocity distributions. Applied Physics Letters, 2006, 89, 141502.	3.3	28
153	Filtered cathodic arc deposition with ion-species-selective bias. Review of Scientific Instruments, 2007, 78, 063901.	1.3	28
154	Mo-containing tetrahedral amorphous carbon deposited by dual filtered cathodic vacuum arc with selective pulsed bias voltage. Nuclear Instruments & Methods in Physics Research B, 2007, 259, 867-870.	1.4	28
155	Structural, optical, and electrical properties of indium-doped cadmium oxide films prepared by pulsed filtered cathodic arc deposition. Journal of Materials Science, 2013, 48, 3789-3797.	3.7	28
156	Influence of ionisation zone motion in high power impulse magnetron sputtering on angular ion flux and NbO_{<i>x</i>}film growth. Plasma Sources Science and Technology, 2016, 25, 015022.	3.1	28
157	Phase tailoring of tantalum thin films deposited in deep oscillation magnetron sputtering mode. Surface and Coatings Technology, 2017, 314, 97-104.	4.8	27
158	Reduced atomic shadowing in HiPIMS: Role of the thermalized metal ions. Applied Surface Science, 2018, 433, 934-944.	6.1	27
159	Foundations of physical vapor deposition with plasma assistance. Plasma Sources Science and Technology, 2022, 31, 083001.	3.1	27
160	Puzzling differences in bismuth and lead plasmas: Evidence for the significant role of neutrals in cathodic vacuum arcs. Applied Physics Letters, 2007, 91, .	3.3	25
161	Ion energies in high power impulse magnetron sputtering with and without localized ionization zones. Applied Physics Letters, 2015, 106, .	3.3	25
162	Genetics of susceptibility in the platyfish/swordtail tumor system to develop fibrosarcoma and rhabdomyosarcoma following treatment with N-methyl-N-nitrosourea (MNU). Zeitschrift FÃ¼r Krebsforschung Und Klinische Onkologie, 1978, 91, 301-315.	0.8	24

#	Article	IF	Citations
163	High-resolution imaging of vacuum arc cathode spots. IEEE Transactions on Plasma Science, 1996, 24, 69-70.	1.3	24
164	Spectra and energy levels of Yb3+ in AlN. Journal of Applied Physics, 2009, 106, 013106.	2.5	24
165	Direct observation of spoke evolution in magnetron sputtering. Applied Physics Letters, 2017, 111, .	3.3	24
166	Effects of Nonâ€Ideality and Nonâ€Equilibrium in the Cathode Spot Plasma of Vacuum Arcs. Contributions To Plasma Physics, 1989, 29, 537-543.	1.1	23
167	Neutralized transport experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 544, 225-235.	1.6	23
168	A space-charge-neutralizing plasma for beam drift compression. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 606, 22-30.	1.6	23
169	Distance-dependent plasma composition and ion energy in high power impulse magnetron sputtering. Journal Physics D: Applied Physics, 2010, 43, 275204.	2.8	23
170	Models of DNA-dye-complexes: Energy transfer and molecular structures as evaluated by laser excitation. Applied Physics Berlin, 1979, 18, 333-338.	1.4	22
171	Measurement of total ion current from vacuum arc plasma sources. Review of Scientific Instruments, 2006, 77, 03B504.	1.3	22
172	Observation of multiple charge states and high ion energies in high-power impulse magnetron sputtering (HiPIMS) and burst HiPIMS using a LaB₆target. Plasma Sources Science and Technology, 2014, 23, 035001.	3.1	22
173	Vacuum arc ion sources: Some vacuum arc basics and recent results (invited). Review of Scientific Instruments, 1994, 65, 1253-1258.	1.3	21
174	Increasing the retained dose by plasma immersion ion implantation and deposition. Nuclear Instruments & Methods in Physics Research B, 1995, 102, 132-135.	1.4	21
175	Energetics of vacuum arc cathode spots. Applied Physics Letters, 2001, 78, 2837-2839.	3.3	21
176	Tracking down the origin of arc plasma science I. early pulsed and oscillating discharges. IEEE Transactions on Plasma Science, 2003, 31, 1052-1059.	1.3	21
177	Time and material dependence of the voltage noise generated by cathodic vacuum arcs. Journal Physics D: Applied Physics, 2005, 38, 4184-4190.	2.8	21
178	Plasma biasing to control the growth conditions of diamond-like carbon. Surface and Coatings Technology, 2007, 201, 4628-4632.	4.8	21
179	Ion acceleration and cooling in gasless self-sputtering. Applied Physics Letters, 2010, 97, .	3.3	21
180	Epitaxy of Ultrathin NiSi2 Films with Predetermined Thickness. Electrochemical and Solid-State Letters, 2011, 14, H268.	2.2	21

#	Article	IF	Citations
181	2-D mathematical modeling for a large electrochromic windowâ€"Part I. Solar Energy Materials and Solar Cells, 2014, 120, 1-8.	6.2	21
182	Evidence for breathing modes in direct current, pulsed, and high power impulse magnetron sputtering plasmas. Applied Physics Letters, 2016, 108, .	3.3	21
183	Plasma studies of a linear magnetron operating in the range from DC to HiPIMS. Journal of Applied Physics, 2018, 123, 043302.	2.5	21
184	Surface modification of magnetic recording heads by plasma immersion ion implantation and deposition. Journal of Applied Physics, 1994, 76, 1656-1664.	2.5	20
185	Mechanical Properties of Amorphous Hard Carbon Films Prepared by Cathodic ARC Deposition. Materials Research Society Symposia Proceedings, 1995, 383, 453.	0.1	20
186	Temporal development of the composition of Zr and Cr cathodic arc plasma streams in a N2 environment. Journal of Applied Physics, 2003, 94, 1414-1419.	2.5	20
187	Combined filtered cathodic arc etching pretreatmentâ€"magnetron sputter deposition of highly adherent CrN films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 543-550.	2.1	20
188	Electronic Structure of Water Molecules Confined in a Micelle Lattice. Journal of Physical Chemistry B, 2009, 113, 8201-8205.	2.6	20
189	Ion Charge State Distributions of Al and Cr in Cathodic Arc Plasmas From Composite Cathodes in Vacuum, Argon, Nitrogen, and Oxygen. IEEE Transactions on Plasma Science, 2013, 41, 1929-1937.	1.3	20
190	Unravelling the ion-energy-dependent structure evolution and its implications for the elastic properties of (V,Al)N thin films. Acta Materialia, 2021, 214, 117003.	7.9	20
191	Influence of the magnetic field on the discharge physics of a high power impulse magnetron sputtering discharge. Journal Physics D: Applied Physics, 2022, 55, 015202.	2.8	20
192	Cathodic arc deposition of copper oxide thin films. Surface and Coatings Technology, 1996, 78, 168-172.	4.8	19
193	Vacuum-arc-generated macroparticles in the nanometer range. IEEE Transactions on Plasma Science, 1999, 27, 1030-1033.	1.3	19
194	Ion charge state distributions of alloy-cathode vacuum arc plasmas. IEEE Transactions on Plasma Science, 1999, 27, 911-914.	1.3	19
195	Characterization of a linear venetian-blind macroparticle filter for cathodic vacuum arcs. IEEE Transactions on Plasma Science, 1999, 27, 1197-1202.	1.3	19
196	Drifting Ionization Zone in DC Magnetron Sputtering Discharges at Very Low Currents. IEEE Transactions on Plasma Science, 2014, 42, 2578-2579.	1.3	19
197	Tunable Bragg filters with a phase transition material defect layer. Optics Express, 2016, 24, 20365.	3.4	19
198	Magnetic-field-dependent plasma composition of a pulsed arc in a high-vacuum ambient. Applied Physics Letters, 2000, 76, 1531-1533.	3.3	18

#	Article	IF	Citations
199	Bias and self-bias of magnetic macroparticle filters for cathodic arc plasmas. Journal of Applied Physics, 2003, 93, 8890-8897.	2.5	18
200	Energetic deposition of metal ions: observation of self-sputtering and limited sticking for off-normal angles of incidence. Journal Physics D: Applied Physics, 2010, 43, 065206.	2.8	18
201	A Plasma Lens for Magnetron Sputtering. IEEE Transactions on Plasma Science, 2011, 39, 2528-2529.	1.3	18
202	Size and composition-controlled fabrication of thermochromic metal oxide nanocrystals. Journal Physics D: Applied Physics, 2013, 46, 362001.	2.8	18
203	Estimating electron drift velocities in magnetron discharges. Vacuum, 2013, 89, 53-56.	3.5	18
204	Controlling ion fluxes during reactive sputter-deposition of SnO2:F. Journal of Applied Physics, 2014, 116, .	2.5	18
205	Element- and charge-state-resolved ion energies in the cathodic arc plasma from composite AlCr cathodes in argon, nitrogen and oxygen atmospheres. Surface and Coatings Technology, 2015, 272, 309-321.	4.8	18
206	Validity conditions for complete and partial local thermodynamic equilibrium of nonhydrogenic level systems and their application to copper vapor arcs in vacuum. IEEE Transactions on Plasma Science, 1989, 17, 653-656.	1.3	17
207	Effect of pretreatment process parameters on diamond nucleation on unscratched silicon substrates coated with amorphous carbon films. Journal of Applied Physics, 1996, 79, 485-492.	2.5	17
208	Arc-discharge ion sources for heavy ion fusion. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 464, 569-575.	1.6	17
209	Antibacterial efficacy of advanced silver-amorphous carbon coatings deposited using the pulsed dual cathodic arc technique. Journal of Physics: Conference Series, 2010, 252, 012012.	0.4	17
210	On how to measure the probabilities of target atom ionization and target ion back-attraction in high-power impulse magnetron sputtering. Journal of Applied Physics, 2021, 129, .	2.5	17
211	Effects of X-irradiation on the genetically-determined melanoma system of xiphophorin fish. Experientia, 1971, 27, 695-697.	1.2	16
212	Energy transfer in nucleic acid-dye complexes. Optics Communications, 1978, 26, 339-342.	2.1	16
213	Surface modification of nickel battery electrodes by cobalt plasma immersion ion implantation and deposition. Surface and Coatings Technology, 1996, 85, 75-79.	4.8	16
214	Results from energetic electron beam metal vapor vacuum arc and Z-discharge plasma metal vapor vacuum arc: Development of new sources of intense high charge state heavy-ion beams. Review of Scientific Instruments, 1998, 69, 798-800.	1.3	16
215	Magnetic system for producing uniform coatings using a filtered cathodic arc. Plasma Sources Science and Technology, 2001, 10, 606-613.	3.1	16
216	Imaging the separation of cathodic arc plasma and macroparticles in curved magnetic filters. IEEE Transactions on Plasma Science, 2002, 30, 108-109.	1.3	16

#	Article	IF	Citations
217	Functionalization of hydrogen-free diamond-like carbon films using open-air dielectric barrier discharge atmospheric plasma treatments. Applied Surface Science, 2008, 254, 5323-5328.	6.1	16
218	Electrochromically switched, gas-reservoir metal hydride devices with application to energy-efficient windows. Thin Solid Films, 2008, 517, 1021-1026.	1.8	16
219	Physical limits for high ion charge states in pulsed discharges in vacuum. Journal of Applied Physics, 2009, 105, 043303.	2.5	16
220	Plasma of Vacuum Discharges: The Pursuit of Elevating Metal Ion Charge States, Including a Recent Record of Producing Bi¹³⁺. IEEE Transactions on Plasma Science, 2015, 43, 2310-2317.	1.3	16
221	Sputtering of pure boron using a magnetron without a radio-frequency supply. Review of Scientific Instruments, 2017, 88, 043506.	1.3	16
222	Cathode mode transition in high-pressure discharge lamps at start-up. Lighting Research & Technology, 1990, 22, 111-115.	0.1	15
223	Vacuum arc ion source with filtered plasma for macroparticleâ€free implantation. Review of Scientific Instruments, 1994, 65, 1319-1321.	1.3	15
224	Development of hard carbon coatings for thin-film tape heads. IEEE Transactions on Magnetics, 1995, 31, 2976-2978.	2.1	15
225	Surface resistivity tailoring of ceramics by metal ion implantation. Surface and Coatings Technology, 1998, 103-104, 46-51.	4.8	15
226	Measurements of secondary electrons emitted from conductive substrates under high-current metal ion bombardment. Surface and Coatings Technology, 2001, 136, 111-116.	4.8	15
227	The kinetic energy of carbon ions in vacuum arc plasmas: A comparison of measuring techniques. Journal of Applied Physics, 2004, 96, 970-974.	2.5	15
228	Simulations and experiments of intense ion beam current density compression in space and time. Physics of Plasmas, 2009, 16, 056701.	1.9	15
229	Adding high time resolution to charge-state-specific ion energy measurements for pulsed copper vacuum arc plasmas. Plasma Sources Science and Technology, 2015, 24, 045010.	3.1	15
230	Ion beam sputtering of silicon: Energy distributions of sputtered and scattered ions. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	2.1	15
231	On the electron energy distribution function in the high power impulse magnetron sputtering discharge. Plasma Sources Science and Technology, 2021, 30, 045011.	3.1	15
232	X ray-induced mutations of the genetically-determined melanoma system of xiphophorin fish. Experientia, 1971, 27, 931-932.	1.2	14
233	Vacuum-spark metal ion source based on a modified Marx generator. IEEE Transactions on Plasma Science, 1997, 25, 718-721.	1.3	14
234	Free-boundary vacuum arc plasma jet expansion in a curved magnetic field. IEEE Transactions on Plasma Science, 1999, 27, 613-619.	1.3	14

#	Article	IF	Citations
235	Charge state and time resolved plasma composition of a pulsed zirconium arc in a nitrogen environment. Journal of Applied Physics, 2004, 96, 4793-4799.	2.5	14
236	Physical properties of erbium implanted tungsten oxide films deposited by reactive dual magnetron sputtering. Thin Solid Films, 2007, 515, 5264-5269.	1.8	14
237	Effects of ozone oxidation on interfacial and dielectric properties of thin HfO2 films. Journal of Applied Physics, 2008, 104, 054117.	2.5	14
238	Unfiltered and Filtered Cathodic Arc Deposition. , 2010, , 466-531.		14
239	Chopping effect observed at cathodic arc initiation. IEEE Transactions on Plasma Science, 2000, 28, 1303-1304.	1.3	13
240	Further development of low noise vacuum arc ion source. Review of Scientific Instruments, 2002, 73, 735-737.	1.3	13
241	Some effects of magnetic field on a hollow cathode ion source. Review of Scientific Instruments, 2004, 75, 1030-1033.	1.3	13
242	Ion charge state fluctuations in vacuum arcs. Journal Physics D: Applied Physics, 2005, 38, 1021-1028.	2.8	13
243	Material-dependent high-frequency current fluctuations of cathodic vacuum arcs: Evidence for the ecton cutoff of the fractal model. Journal of Applied Physics, 2006, 99, 103301.	2.5	13
244	Electrical properties of a-C: Mo films produced by dual-cathode filtered cathodic arc plasma deposition. Diamond and Related Materials, 2008, 17, 2080-2083.	3.9	13
245	Temporal development of ion beam mean charge state in pulsed vacuum arc ion sources. Review of Scientific Instruments, 2008, 79, 02B301.	1.3	13
246	Thermal decomposition and fractal properties of sputter-deposited platinum oxide thin films. Journal of Materials Research, 2012, 27, 829-836.	2.6	13
247	Insights into surface modification and erosion of multi-element arc cathodes using a novel multilayer cathode design. Journal of Applied Physics, 2020, 127, .	2.5	13
248	Investigations on the mechanism of photodynamic action of different psoralens with DNA. Biophysics of Structure and Mechanism, 1983, 10, 11-30.	1.9	12
249	Low Energy Ion Implantation / Deposition as a Film Synthesis and Bonding Tool. Materials Research Society Symposia Proceedings, 1993, 316, 833.	0.1	12
250	A study of vacuum arc ion velocities using a linear set of probes. Journal Physics D: Applied Physics, 2008, 41, 205210.	2.8	12
251	Broad, intense, quiescent beam of singly charged metal ions obtained by extraction from self-sputtering plasma far above the runaway threshold. Journal of Applied Physics, 2009, 106, 023306.	2.5	12
252	Cohesive Energy Rule for Vacuum Arcs. , 2002, , 1-14.		12

#	Article	IF	Citations
253	Lichtenberg Figures on Dielectrics in Gases and in Vacuum. Beitrage Aus Der Plasmaphysik, 1985, 25, 315-328.	0.1	11
254	Ion charge state distributions of pulsed vacuum arcs-interpretation of their temporal development. IEEE Transactions on Plasma Science, 1998, 26, 118-119.	1.3	11
255	Ion implantation post-processing of amorphous carbon films. Diamond and Related Materials, 1999, 8, 451-456.	3.9	11
256	Determination of the specific ion erosion of the vacuum arc cathode by measuring the total ion current from the discharge plasma. Technical Physics, 2006, 51, 1311-1315.	0.7	11
257	Neutralized drift compression experiments with a high-intensity ion beam. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 577, 223-230.	1.6	11
258	Dense Metal Plasma in a Solenoid for Ion Beam Neutralization. IEEE Transactions on Plasma Science, 2011, 39, 1386-1393.	1.3	11
259	Synthesis of unattainable ion implantation profiles â€" â€˜Pseudo-implantationâ€™. Nuclear Instruments & Methods in Physics Research B, 1995, 106, 646-650.	1.4	10
260	Paragenetic suppressors of suppressor genes - a new class of oncodeterminants. Journal of Cancer Research and Clinical Oncology, 1999, 125, 123-133.	2.5	10
261	Time-resolved emittance of a bismuth ion beam from a pulsed vacuum arc ion source. Journal of Applied Physics, 2003, 93, 2298-2300.	2.5	10
262	Low-energy linear oxygen plasma source. Review of Scientific Instruments, 2007, 78, 043304.	1.3	10
263	Optical and magnetic properties of GaN epilayers implanted with ytterbium. Journal of Rare Earths, 2010, 28, 931-935.	4.8	10
264	A self-sputtering ion source: A new approach to quiescent metal ion beams. Review of Scientific Instruments, 2010, 81, 02B306.	1.3	10
265	A synchronized emissive probe for time-resolved plasma potential measurements of pulsed discharges. Review of Scientific Instruments, 2011, 82, 093505.	1.3	10
266	Identification of Ternary Phases in TiBC/aâ€C Nanocomposite Thin Films: Influence on the Electrical and Optical Properties. Plasma Processes and Polymers, 2011, 8, 579-588.	3.0	10
267	Smoothing of Discharge Inhomogeneities at High Currents in Gasless High Power Impulse Magnetron Sputtering. IEEE Transactions on Plasma Science, 2014, 42, 2856-2857.	1.3	10
268	Time-resolved ion energy and charge state distributions in pulsed cathodic arc plasmas of Nbâˆ'Al cathodes in high vacuum. Plasma Sources Science and Technology, 2018, 27, 055007.	3.1	10
269	Erosion and cathodic arc plasma of Nbâ€"Al cathodes: composite versus intermetallic. Plasma Sources Science and Technology, 2020, 29, 025022.	3.1	10
270	High-resolution observation of cathode spots in a magnetically steered vacuum arc plasma source. Plasma Sources Science and Technology, 2021, 30, 095005.	3.1	10

#	Article	IF	Citations
271	Vacuum arc deposition of multilayer X-ray mirrors. Surface and Coatings Technology, 1993, 61, 257-261.	4.8	9
272	Pressure-Controlled GaN MBE Growth Using a Hollow Anode Nitrogen Ion Source. Materials Research Society Symposia Proceedings, 1996, 449, 221.	0.1	9
273	High energy implantation with high-charge-state ions in a vacuum arc ion implanter. Nuclear Instruments & Methods in Physics Research B, 1997, 127-128, 779-781.	1.4	9
274	Interaction of vacuum-arc-generated macroparticles with a liquid surface. Applied Physics Letters, 1998, 73, 3199-3201.	3.3	9
275	Plasma chemistry fluctuations in a reactive arc plasma in the presence of magnetic fields. Applied Physics Letters, 2002, 80, 4109-4111.	3.3	9
276	Reducing ion-beam noise of vacuum arc ion sources. Review of Scientific Instruments, 2002, 73, 732-734.	1.3	9
277	Flexible system for multiple plasma immersion ion implantation-deposition processes. Review of Scientific Instruments, 2003, 74, 5137-5140.	1.3	9
278	Effect of Ion Mass and Charge State on Transport of Vacuum Arc Plasmas Through a Biased Magnetic Filter. IEEE Transactions on Plasma Science, 2004, 32, 433-439.	1.3	9
279	Instability of a low-pressure hollow-cathode discharge in a magnetic field. Plasma Physics Reports, 2005, 31, 978-983.	0.9	9
280	Impact of Annealing on the Conductivity of Amorphous Carbon Films Incorporating Copper and Gold Nanoparticles Deposited by Pulsed Dual Cathodic Arc. Plasma Processes and Polymers, 2009, 6, S438.	3.0	9
281	Deep oxidation of methane on particles derived from YSZ-supported Pdâ€“Pt-(O) coatings synthesized by Pulsed Filtered Cathodic Arc. Catalysis Communications, 2009, 10, 1410-1413.	3.3	9
282	Compact vacuum arc micro-thruster for small satellite systems. , 2001, , .		8
283	Structural and optical evaluation of WOxNy films deposited by reactive magnetron sputtering. Journal of Physics and Chemistry of Solids, 2007, 68, 2227-2232.	4.0	8
284	Physics of plasmaâ€based ion implantation & deposition (PBIID) and high power impulse magnetron sputtering (HIPIMS): A comparison. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 965-970.	1.8	8
285	Film Deposition by Energetic Condensation. Springer Series on Atomic, Optical, and Plasma Physics, 2008, , 363-407.	0.2	8
286	Preparation of high transmittance ZnO:Al film by pulsed filtered cathodic arc technology and rapid thermal annealing. Applied Surface Science, 2011, 257, 7019-7022.	6.1	8
287	Boron-rich plasma by high power impulse magnetron sputtering of lanthanum hexaboride. Journal of Applied Physics, 2012, 112, .	2.5	8
288	Physics of high power impulse magnetron sputtering discharges. , 2020, , 265-332.		8

#	ARTICLE	IF	CITATIONS
289	Vanadium oxide coatings to self-regulate current sharing in high-temperature superconducting cables and magnets. Journal of Applied Physics, 2020, 128, .	2.5	8
290	Cathode spot behavior in nitrogen and oxygen gaseous atmospheres and concomitant cathode surface modifications. Surface and Coatings Technology, 2021, 421, 127441.	4.8	8
291	Focusing and neutralization of intense beams. , 0, , .		7
292	Synthesis of Ultrathin Ta-C Films by Twist-Filtered Cathodic Arc Carbon Plasmas. Materials Research Society Symposia Proceedings, 2001, 675, 1.	0.1	7
293	The Physics of Cathode Processes. Springer Series on Atomic, Optical, and Plasma Physics, 2008, , 75-174.	0.2	7
294	Supersonic metal plasma impact on a surface: an optical investigation of the pre-surface region. Journal Physics D: Applied Physics, 2010, 43, 135201.	2.8	7
295	Measurements of the Ion Species of Cathodic Arc Plasma in an Axial Magnetic Field. IEEE Transactions on Plasma Science, 2011, 39, 1272-1276.	1.3	7
296	Modelling of target effects in reactive HIPIMS. IOP Conference Series: Materials Science and Engineering, 2012, 39, 012008.	0.6	7
297	Properties of cathodic arc deposited high-temperature superconducting composite thin films on Ag substrates. Physica C: Superconductivity and Its Applications, 1996, 270, 173-179.	1.2	6
298	Low-energy ion assisted deposition of epitaxial gallium nitride films. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 406-410.	1.4	6
299	Generation of Multiply Charged Ions in the Plasma of a Vacuum Arc Discharge. Russian Physics Journal, 2001, 44, 912-920.	0.4	6
300	Beneficial silver: antibacterial nanocomposite Ag-DLC coating to reduce osteolysis of orthopaedic implants. Journal of Physics: Conference Series, 2010, 252, 012005.	0.4	6
301	Analysis of Bulk and Thin Film Model Samples Intended for Investigating the Strain Sensitivity of Niobium-Tin. IEEE Transactions on Applied Superconductivity, 2011, 21, 2550-2553.	1.7	6
302	Efficient, Low Cost Synthesis of Sodium Platinum Bronze Na_{<i>x</i>}Pt₃O₄. Chemistry of Materials, 2012, 24, 2429-2432.	6.7	6
303	Temporal evolution of ion energy distribution functions and ion charge states of Cr and Cr-Al pulsed arc plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, 061301.	2.1	6
304	Properties of secondary particles for ion beam sputtering of silicon using low-energy oxygen ions. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 033011.	2.1	6
305	Cathodic Arc Sources. Springer Series on Atomic, Optical, and Plasma Physics, 2008, , 227-263.	0.2	6
306	High-quality transparent conductive indium oxide film deposition by reactive pulsed magnetron sputtering: Determining the limits of substrate heating. Applied Surface Science, 2022, 585, 152604.	6.1	6

#	Article	IF	Citations
307	Neutralized transport of high intensity beams. , 0, , .		5
308	XY females caused by X-irradiation. Experientia, 1969, 25, 871-871.	1.2	5
309	Microcalorimetric investigations of the metabolism of isolated human epidermis. Archives of Dermatological Research, 1979, 265, 173-180.	1.9	5
310	Study of an Underexpanded Plasma Jet. Beitrage Aus Der Plasmaphysik, 1987, 27, 203-221.	0.1	5
311	Joining of Metal Films to Carbon-Carbon Composite Material by Metal Plasma Immersion Ion Implantation. Materials Research Society Symposia Proceedings, 1993, 314, 205.	0.1	5
312	Diamond growth on hard carbon films. Diamond and Related Materials, 1996, 5, 1080-1086.	3.9	5
313	The effect of additional ion/plasma assistance in CNx-film deposition based on a filtered cathodic arc. Thin Solid Films, 1997, 311, 151-156.	1.8	5
314	High energy metal ion implantation using a novel, broad-beam, Marx-generator-based ion source â€œMagisâ€• Nuclear Instruments & Methods in Physics Research B, 1997, 127-128, 992-995.	1.4	5
315	Evaluation of the plasma distribution of a quasi-linear constricted plasma source. IEEE Transactions on Plasma Science, 1999, 27, 82-83.	1.3	5
316	Study of Low-Energy Ion Assisted Epitaxy of Gan Films: Influence of the Initial Growth Rate. Materials Research Society Symposia Proceedings, 1999, 585, 239.	0.1	5
317	Cathodic Vacuum Arc Plasma of Thallium. IEEE Transactions on Plasma Science, 2007, 35, 516-517.	1.3	5
318	The electronic structure of tungsten oxide thin films prepared by pulsed cathodic arc deposition and plasma-assisted pulsed magnetron sputtering. Journal of Physics Condensed Matter, 2008, 20, 175216.	1.8	5
319	A summary of recent experimental research on ion energy and charge states of pulsed vacuum arcs. , 2008, , .		5
320	Influence of Ar gas pressure on ion energy and charge state distributions in pulsed cathodic arc plasmas from Nbâ€“Al cathodes studied with high time resolution. Journal Physics D: Applied Physics, 2019, 52, 055201.	2.8	5
321	High-resolution observation of cathodic arc spots in a magnetically steered arc plasma source in low pressure argon, nitrogen, and oxygen atmospheres. Journal of Applied Physics, 2021, 130, .	2.5	5
322	Film Synthesis on Powders by Cathodic ARC Plasma Deposition. Materials Research Society Symposia Proceedings, 1995, 388, 215.	0.1	4
323	Preparation of cathodic arc deposited HTSC Bi/sub 2/Sr/sub 2/CaCu/sub 2/O/sub 8+y/-Ag composite thin films on Ag substrates. IEEE Transactions on Applied Superconductivity, 1995, 5, 2011-2014.	1.7	4
324	A filamentless ion source for materials processing. Review of Scientific Instruments, 1998, 69, 880-882.	1.3	4

#	Article	IF	Citations
325	Recent advances in high current vacuum arc ion sources for heavy ion fusion. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 464, 576-581.	1.6	4
326	MBE growth of (In)GaAsN on GaAs using a constricted DC plasma source. Semiconductor Science and Technology, 2001, 16, 413-419.	2.0	4
327	Asymmetric injection of cathodic arc plasma into a macroparticle filter. Journal of Applied Physics, 2004, 95, 7602-7606.	2.5	4
328	Optical properties of ferromagnetic ytterbiumâ€doped IIIâ€nitride epilayers. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2185-2187.	0.8	4
329	Improved structural and electrical properties of thin ZnO:Al films by dc filtered cathodic arc deposition. Journal of Materials Research, 2012, 27, 857-862.	2.6	4
330	Ion energies in vacuum arcs: A critical review of data and theories leading to traveling potential humps. , 2014, , .		4
331	Unusual Cathode Erosion Patterns Observed for Steered Arc Sources. IEEE Transactions on Plasma Science, 2014, 42, 2602-2603.	1.3	4
332	Properties of secondary ions in ion beam sputtering of Ga2O3. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	4
333	Electron transport in high power impulse magnetron sputtering at low and high working gas pressure. Journal of Applied Physics, 2021, 130, .	2.5	4
334	Dynamics and 2D temperature distribution of plasma obtained by femtosecond laser-induced breakdown. Journal Physics D: Applied Physics, 2022, 55, 125204.	2.8	4
335	Study of an Underexpanded Plasma Jet II. Diagnostics with Microwaves. Contributions To Plasma Physics, 1988, 28, 537-542.	1.1	3
336	Thermal instability of a super-high-pressure xenon discharge. IEEE Transactions on Plasma Science, 1991, 19, 324-328.	1.3	3
337	Electrode behaviour of pulsed high-pressure sodium lamps. Lighting Research & Technology, 1991, 23, 81-84.	0.1	3
338	Influence of a strong pulsed magnetic field on the charge state distribution of ions in a vacuum arc plasma. , 0, , .		3
339	Compact vacuum arc thruster for small satellite systems. , 0, , .		3
340	Measurement of total ion flux in vacuum are discharges. , 0, , .		3
341	Biocompatible Silver-containing a-C:H and a-C coatings: A Comparative Study. Materials Research Society Symposia Proceedings, 2006, 950, 1.	0.1	3
342	Studies of III-Nitride Superlattice Structures Implanted with Lanthanide Ions. Materials Research Society Symposia Proceedings, 2008, 1111, 1.	0.1	3

#	Article	IF	Citations
343	Inverted end-Hall-type low-energy high-current gaseous ion source. Review of Scientific Instruments, 2008, 79, 02B302.	1.3	3
344	Phase transitions in vacuum arcs in the context of liquid metal arc sources. , 2012, , .		3
345	Role of Reaction Intermediate Diffusion on the Performance of Platinum Electrodes in Solid Acid Fuel Cells. Catalysts, 2021, 11, 1065.	3.5	3
346	Recombination of a Xenon Plasma Jet. Beitrage Aus Der Plasmaphysik, 1987, 27, 373-398.	0.1	2
347	Surface resistivity tailoring of ceramic accelerator components. , 0, , .		2
348	New Developments in Metal Ion Implantation by Vacuum Arc Ion Sources and Metal Plasma Immersion. Materials Research Society Symposia Proceedings, 1995, 396, 467.	0.1	2
349	Predicting ion charge state distributions of vacuum arc plasmas. , 0, , .		2
350	Vacuum-arc-generated macro particles in the nanometer range. , 0, , .		2
351	Developing high brightness beams for heavy ion driven inertial fusion. Review of Scientific Instruments, 2002, 73, 1084-1086.	1.3	2
352	MeV-ion beam analysis of the interface between filtered cathodic arc-deposited a-carbon and single crystalline silicon. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 5175-5179.	1.4	2
353	Measurements of the asymmetric dynamic sheath around a pulse biased sphere immersed in flowing metal plasma. Plasma Sources Science and Technology, 2008, 17, 035030.	3.1	2
354	Surface transformation of graphite or diamond following Highly Charged Ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 678-682.	1.4	2
355	Micropropulsion Based on Vacuum Arc Physics and Technology: A Review. , 2016, , .		2
356	Properties of gallium oxide thin films grown by ion beam sputter deposition at room temperature. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	2.1	2
357	A high-voltage surface effect on dielectrics in vacuum. Journal Physics D: Applied Physics, 1986, 19, L75-L77.	2.8	1
358	Vacuum-arc plasma deposition: macroparticle filtering, scaling, and other problems. , 1994, , .		1
359	Guest Editorial Special Issue On Vacuum Discharge Plasmas. IEEE Transactions on Plasma Science, 1997, 25, 519-520.	1.3	1
360	Plasma fluctuations, local partial Saha equilibrium, and the broadening of vacuum-arc ion charge state distributions. , 0, , .		1

#	Article	IF	Citations
361	Results from ZMEVVA: A new source for heavy-ion accelerators. , 0, , .		1
362	Recent study of ion charge state distribution in vacuum arc ion sources. , 0, , .		1
363	Increasing the ion charge states in vacuum arc plasmas by arc current spikes. , 0, , .		1
364	A periodic table of ion charge state distributions observed in the transition region between vacuum sparks and vacuum arcs. , 0, , .		1
365	Two-dimensional sample temperature modeling in separation by plasma implantation of oxygen (SPIMOX) process. IEEE Transactions on Plasma Science, 2002, 30, 423-427.	1.3	1
366	Cathodic are spots: Ignition probability as a a fundamental concept to describe spot types, phases, and motion. , 0, , .		1
367	Fourier Analysis of Fast Vacuum Arc Parameters. , 2006, , .		1
368	Reactive Deposition. Springer Series on Atomic, Optical, and Plasma Physics, 2008, , 409-428.	0.2	1
369	Sputtering in vacuum: A technology for ultraclean metallization and space propulsion. , 2008, , .		1
370	High charge state ions extracted from metal plasmas in the transition regime from vacuum spark to high current vacuum arc. , 2008, , .		1
371	Some Applications of Cathodic Arc Coatings. Springer Series on Atomic, Optical, and Plasma Physics, 2008, , 429-490.	0.2	1
372	Hollow Plasma in a Solenoid. IEEE Transactions on Plasma Science, 2011, 39, 2888-2889.	1.3	1
373	High Rate Deposition of High Quality ZnO:Al by Filtered Cathodic Arc. Materials Research Society Symposia Proceedings, 2011, 1315, 1.	0.1	1
374	Charge state distributions of Al and Cr cathodic arc plasmas. , 2012, , .		1
375	Editorial: Raising the barâ€"Providing a home. Journal of Applied Physics, 2015, 117, 010401.	2.5	1
376	Serving a scientific community in an evolving research landscape. Journal of Applied Physics, 2020, 127, .	2.5	1
377	Meeting todayâ€™s needs in applied physics publishing. Journal of Applied Physics, 2021, 129, .	2.5	1
378	Increasing the retained dose by plasma immersion ion implantation and deposition. Nuclear Instruments & Methods in Physics Research B, 1995, 102, 132-135.	1.4	1

#	Article	IF	Citations
379	The Interelectrode Plasma. Springer Series on Atomic, Optical, and Plasma Physics, 2008, , 175-225.	0.2	1
380	A Brief History of Cathodic Arc Coating. Springer Series on Atomic, Optical, and Plasma Physics, 2008, , 7-74.	0.2	1
381	Macroparticle Filters. Springer Series on Atomic, Optical, and Plasma Physics, 2008, , 299-362.	0.2	1
382	In-situ deposition of sacrificial layers during ion implantation: concept and simulation. , 1996, , 1089-1092.		1
383	On the population density of the argon excited levels in a high power impulse magnetron sputtering discharge. Physics of Plasmas, 2022, 29, 023506.	1.9	1
384	Orthotopic and heterotopic autotransplantation of the rat kidney. Research in Experimental Medicine, 1978, 172, 123-129.	0.7	0
385	Ion formation in vacuum arc cathode spots. , 0, , .		0
386	Copper Oxide Films Formed By Reactive Cathodic Arc Deposition. , 0, , .		0
387	High Charge State Metal Ion Production In Vacuum Arc Ion Sources. , 0, , .		0
388	Plasma and Ion Beam Tools for Enhanced Battery Electrode Performance. Materials Research Society Symposia Proceedings, 1996, 438, 543.	0.1	0
389	Peristaltic ion source (invited). Review of Scientific Instruments, 1996, 67, 956-958.	1.3	0
390	Ultrathin diamondlike carbon films deposited by filtered carbon vacuum arcs. , 0, , .		0
391	The sheath around biased objects immersed in streaming vacuum arc plasmas. , 0, , .		0
392	Enhancement of high-charge-state ions in vacuum arc ion sources. , 0, , .		0
393	Guest editorial special issue on vacuum discharge plasmas. IEEE Transactions on Plasma Science, 2001, 29, 654-656.	1.3	0
394	Magnetic field effect on the sheath in plasma immersion ion implantation. , 0, , .		0
395	Effect of self-bias on transport of vacuum arc plasmas through magnetic filters. , 0, , .		0
396	A Source of Ultra-Low-Energy High Intensity Gaseous Ions Based on Discharge with Electron Injection. IEEE International Conference on Plasma Science, 2005, , .	0.0	0

#	Article	IF	Citations
397	Luminescence Properties of Dy Implanted AlN Thin Films. ECS Meeting Abstracts, 2006, , .	0.0	0
398	Source of Low-Energy High-Current Gaseous Ion Flow Based on a Discharge with Electron Injection. , 2007, , .		0
399	Macroparticles. Springer Series on Atomic, Optical, and Plasma Physics, 2008, , 265-298.	0.2	0
400	Modification of Surface and Tribological Properties of DLC Films by Adding Silver Content. , 2008, , .		0
401	Structural and spectroscopic studies of InGaN/GaN quantum structures implanted with rare earth ions. , 2009, , .		0
402	Ion species and charge states of vacuum arc plasma with gas feed and longitudinal magnetic field. , 2010, , .		0
403	A seemingly simple task: Filling a solenoid volume in vacuum with dense plasma. , 2010, , .		0
404	Optical studies of strained InGaN/GaN quantum structures implanted with europium for red light emitting diodes. , 2011, , .		0
405	Editorial: Journal of Applied Physics in a changing world of scientific publication. Journal of Applied Physics, 2014, 116, 010401.	2.5	0
406	Dyke Award - Ffor distinguished work on discharges and electrical insulation in vacuum. , 2014, , .		0
407	Editorial: Celebrating the 85th Anniversary of Journal of Applied Physics. Journal of Applied Physics, 2016, 119, 010401.	2.5	0
408	Structural and Optical Studies of InGaN/GaN Superlattices Implanted with Eu Ions. MRS Advances, 2017, 2, 179-187.	0.9	0
409	Time and Energy-resolved Average Ion Charge States in Pulsed Cathodic Vacuum Arc Plasmas of Nb-A1 Cathodes as a Function of Ar Pressure. , 2018, , .		0
410	Emission Methods of Experimental Investigations of Ion Velocities in Vacuum Arc Plasmas. , 2002, , 105-113.		0
411	Synthesis of unattainable ion implantation profiles â€“ â€˜Pseudo-implantation'. , 1996, , 646-650.		0
412	Optics of Human Skin: UV Effects Investigated with Dye Lasers. , 1997, , 205-210.		0
413	All-solid-state tunable Bragg filters based on a phase transition material. , 2017, , .		0
414	Streak image observations of vacuum arc spots in a magnetically steered arc plasma source. , 2021, , .		0

#	Article	IF	Citations
415	10.1063/5.0088430.1. , 2022, , .		0
416	Building on excellence and reputation, a more inclusive <i>Journal of Applied Physics</i> evolves. Journal of Applied Physics, 2022, 131, .	2.5	0