Mauritius C M Van De Sanden

List of Publications by Year
in descending order

469 papers	19,894 citations	12303 69 h-index	18075 120 g-index
478 all docs	478 docs citations	478 times ranked	13295 citing authors

#	Article	IF	Citations
1	The 2017 Plasma Roadmap: Low temperature plasma science and technology. Journal Physics D: Applied Physics, 2017, 50, 323001.	1.3	710
2	Plasma-Assisted Atomic Layer Deposition: Basics, Opportunities, and Challenges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	0.9	678
3	Ultralow surface recombination of c-Si substrates passivated by plasma-assisted atomic layer deposited Al2O3. Applied Physics Letters, 2006, 89, 042112.	1.5	646
4	On the c-Si surface passivation mechanism by the negative-charge-dielectric Al2O3. Journal of Applied Physics, 2008, 104, .	1.1	479
5	Silicon surface passivation by atomic layer deposited Al2O3. Journal of Applied Physics, 2008, 104, .	1.1	415
6	Surface passivation of highâ€efficiency silicon solar cells by atomicâ€layerâ€deposited Al₂O₃. Progress in Photovoltaics: Research and Applications, 2008, 16, 461-466.	4.4	414
7	Excellent passivation of highly doped p-type Si surfaces by the negative-charge-dielectric Al2O3. Applied Physics Letters, 2007, 91, .	1.5	370
8	Optical constants of graphene measured by spectroscopic ellipsometry. Applied Physics Letters, 2010, 97, .	1.5	348
9	Determining the material structure of microcrystalline silicon from Raman spectra. Journal of Applied Physics, 2003, 94, 3582-3588.	1.1	325
10	High efficiency n-type Si solar cells on Al2O3-passivated boron emitters. Applied Physics Letters, 2008, 92, .	1.5	316
11	In situspectroscopic ellipsometry as a versatile tool for studying atomic layer deposition. Journal Physics D: Applied Physics, 2009, 42, 073001.	1.3	249
12	Vacancies and voids in hydrogenated amorphous silicon. Applied Physics Letters, 2003, 82, 1547-1549.	1.5	246
13	Plasma-assisted atomic layer deposition of Al2O3 moisture permeation barriers on polymers. Applied Physics Letters, 2006, 89, 081915.	1.5	244
14	Plasma and Thermal ALD of Al[sub 2]O[sub 3] in a Commercial 200â€mm ALD Reactor. Journal of the Electrochemical Society, 2007, 154, G165.	1.3	237
15	Influence of the Deposition Temperature on the c-Si Surface Passivation by Al[sub 2]O[sub 3] Films Synthesized by ALD and PECVD. Electrochemical and Solid-State Letters, 2010, 13, H76.	2.2	198
16	Waveguide Nanowire Superconducting Single-Photon Detectors Fabricated on GaAs and the Study of Their Optical Properties. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 1-10.	1.9	188
17	Silicon surface passivation by ultrathin Al₂O₃ films synthesized by thermal and plasma atomic layer deposition. Physica Status Solidi - Rapid Research Letters, 2010, 4, 10-12.	1.2	185
18	Hydrogen induced passivation of Si interfaces by Al2O3 films and SiO2/Al2O3 stacks. Applied Physics Letters, 2010, 97, .	1.5	168

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19	Conformality of Plasma-Assisted ALD: Physical Processes and Modeling. Journal of the Electrochemical Society, 2010, 157, G241.	1.3	157
20	Plasmaâ€driven dissociation of CO₂ for fuel synthesis. Plasma Processes and Polymers, 2017, 14, 1600126.	1.6	152
21	Low Temperature Plasma-Enhanced Atomic Layer Deposition of Metal Oxide Thin Films. Journal of the Electrochemical Society, 2010, 157, P66.	1.3	151
22	Influence of the Oxidant on the Chemical and Field-Effect Passivation of Si by ALD Al[sub 2]O[sub 3]. Electrochemical and Solid-State Letters, 2011, 14, H1.	2.2	151
23	Controlling the fixed charge and passivation properties of Si(100)/Al2O3 interfaces using ultrathin SiO2 interlayers synthesized by atomic layer deposition. Journal of Applied Physics, 2011, 110, .	1.1	150
24	Taming microwave plasma to beat thermodynamics in CO₂ dissociation. Faraday Discussions, 2015, 183, 233-248.	1.6	150
25	Stability of Al2O3 and Al2O3/a-SiNx:H stacks for surface passivation of crystalline silicon. Journal of Applied Physics, 2009, 106, .	1.1	145
26	In Situ Observation of Nanoparticle Exsolution from Perovskite Oxides: From Atomic Scale Mechanistic Insight to Nanostructure Tailoring. ACS Nano, 2019, 13, 12996-13005.	7.3	144
27	The 2022 Plasma Roadmap: low temperature plasma science and technology. Journal Physics D: Applied Physics, 2022, 55, 373001.	1.3	139
28	Thermodynamic generalization of the Saha equation for a two-temperature plasma. Physical Review A, 1989, 40, 5273-5276.	1.0	138
29	Influence of annealing and Al2O3 properties on the hydrogen-induced passivation of the Si/SiO2 interface. Journal of Applied Physics, 2012, 111, .	1.1	133
30	Negative charge and charging dynamics in Al2O3 films on Si characterized by second-harmonic generation. Journal of Applied Physics, 2008, 104, .	1.1	131
31	Relation of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Si</mml:mi><mml:mo>î—¸</mml:mo><mml:mi mathvariant="normal">H</mml:mi></mml:mrow></mml:math>stretching frequency to the nanostructural<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Si</mml:mi><mml:mo>î—¸</mml:mo><mml:mi	1.1	123
32	Surface chemistry of plasma-assisted atomic layer deposition of Al2O3 studied by infrared spectroscopy. Applied Physics Letters, 2008, 92, .	1.5	117
33	Role of field-effect on c-Si surface passivation by ultrathin (2â€“20 nm) atomic layer deposited Al2O3. Applied Physics Letters, 2010, 96, .	1.5	117
34	A combined Thomsonâ€“Rayleigh scattering diagnostic using an intensified photodiode array. Review of Scientific Instruments, 1992, 63, 3369-3377.	0.6	113
35	Plasma chemistry aspects of a-Si:H deposition using an expanding thermal plasma. Journal of Applied Physics, 1998, 84, 2426-2435.	1.1	111
36	Surface reactions during atomic layer deposition of Pt derived from gas phase infrared spectroscopy. Applied Physics Letters, 2009, 95, .	1.5	111

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37	Atomic layer deposition for nanostructured Li-ion batteries. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	0.9	111
38	Deposition of TiN and HfO2 in a commercial 200mm remote plasma atomic layer deposition reactor. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 1357-1366.	0.9	107
39	Remote Plasma ALD of Platinum and Platinum Oxide Films. Electrochemical and Solid-State Letters, 2009, 12, G34.	2.2	107
40	Oxygen Evolution at Hematite Surfaces: The Impact of Structure and Oxygen Vacancies on Lowering the Overpotential. Journal of Physical Chemistry C, 2016, 120, 18201-18208.	1.5	107
41	Evolution of the electrical and structural properties during the growth of Al doped ZnO films by remote plasma-enhanced metalorganic chemical vapor deposition. Journal of Applied Physics, 2007, 102, 043709.	1.1	106
42	Reaction mechanisms during plasma-assisted atomic layer deposition of metal oxides: A case study for Al2O3. Journal of Applied Physics, 2008, 103, .	1.1	101
43	Influence of the high-temperature â€œfiringâ€•step on high-rate plasma deposited silicon nitride films used as bulk passivating antireflection coatings on silicon solar cells. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 2123.	1.6	99
44	In situ reaction mechanism studies of plasma-assisted atomic layer deposition of Al2O3. Applied Physics Letters, 2006, 89, 131505.	1.5	99
45	Hydrogenated amorphous silicon deposited at very high growth rates by an expanding Arâ€“H2â€“SiH4 plasma. Journal of Applied Physics, 2001, 89, 2404-2413.	1.1	98
46	Conformal Coverage of Poly(3,4-ethylenedioxythiophene) Films with Tunable Nanoporosity via Oxidative Chemical Vapor Deposition. ACS Nano, 2008, 2, 1959-1967.	7.3	97
47	In situspectroscopic ellipsometry study on the growth of ultrathin TiN films by plasma-assisted atomic layer deposition. Journal of Applied Physics, 2006, 100, 023534.	1.1	96
48	Efficient Plasma Route to Nanostructure Materials: Case Study on the Use of m-WO₃ for Solar Water Splitting. ACS Applied Materials & Interfaces, 2013, 5, 7621-7625.	4.0	96
49	Substrate-biasing during plasma-assisted atomic layer deposition to tailor metal-oxide thin film growth. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	95
50	CO and byproduct formation during CO2 reduction in dielectric barrier discharges. Journal of Applied Physics, 2014, 116, .	1.1	95
51	Low-Temperature Deposition of TiN by Plasma-Assisted Atomic Layer Deposition. Journal of the Electrochemical Society, 2006, 153, G956.	1.3	93
52	Argon-hydrogen plasma jet investigated by active and passive spectroscopic means. Physical Review E, 1994, 49, 4397-4406.	0.8	90
53	Homogeneous CO₂ conversion by microwave plasma: Wave propagation and diagnostics. Plasma Processes and Polymers, 2017, 14, 1600120.	1.6	90
54	Surface textured ZnO films for thin film solar cell applications by expanding thermal plasma CVD. Thin Solid Films, 2001, 392, 226-230.	0.8	89

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55	Anomalous fast recombination in hydrogen plasmas involving rovibrational excitation. Physical Review E, 1993, 48, 2098-2102.	0.8	87
56	Deposition of TiN and TaN by Remote Plasma ALD for Cu and Li Diffusion Barrier Applications. Journal of the Electrochemical Society, 2008, 155, G287.	1.3	86
57	Recombination of argon in an expanding plasma jet. Physical Review E, 1993, 47, 2792-2797.	0.8	85
58	Optical and mechanical properties of plasmaâ€beamâ€deposited amorphous hydrogenated carbon. Journal of Applied Physics, 1996, 80, 5986-5995.	1.1	84
59	Formation of cationic silicon clusters in a remote silane plasma and their contribution to hydrogenated amorphous silicon film growth. Journal of Applied Physics, 1999, 86, 4029-4039.	1.1	78
60	The behaviour of heavy particles in the expanding plasma jet in argon. Plasma Sources Science and Technology, 1994, 3, 501-510.	1.3	77
61	Excellent Si surface passivation by low temperature SiO₂ using an ultrathin Al₂O₃ capping film. Physica Status Solidi - Rapid Research Letters, 2011, 5, 22-24.	1.2	77
62	Fluid modelling of CO2 dissociation in a dielectric barrier discharge. Journal of Applied Physics, 2016, 119, .	1.1	77
63	Synthesis andin situcharacterization of low-resistivity TaNx films by remote plasma atomic layer deposition. Journal of Applied Physics, 2007, 102, 083517.	1.1	75
64	In situ spectroscopic ellipsometry growth studies on the Al-doped ZnO films deposited by remote plasma-enhanced metalorganic chemical vapor deposition. Journal of Applied Physics, 2008, 103, .	1.1	73
65	Ion and Photon Surface Interaction during Remote Plasma ALD of Metal Oxides. Journal of the Electrochemical Society, 2011, 158, G88.	1.3	73
66	Surface passivation of phosphorusâ€diffused n⁺â€type emitters by plasmaâ€assisted atomicâ€layer deposited Al₂O₃. Physica Status Solidi - Rapid Research Letters, 2012, 6, 4-6.	1.2	73
67	Time evolution of vibrational temperatures in a CO₂glow discharge measured with infrared absorption spectroscopy. Plasma Sources Science and Technology, 2017, 26, 115008.	1.3	73
68	Highly efficient microcrystalline silicon solar cells deposited from a pure SiH4 flow. Applied Physics Letters, 2005, 87, 263503.	1.5	71
69	Plasma for electrification of chemical industry: a case study on CO₂reduction. Plasma Physics and Controlled Fusion, 2018, 60, 014019.	0.9	71
70	Absolute densities of N and excited N2 in a N2 plasma. Applied Physics Letters, 2003, 83, 4918-4920.	1.5	70
71	Local deposition of high-purity Pt nanostructures by combining electron beam induced deposition and atomic layer deposition. Journal of Applied Physics, 2010, 107, 116102.	1.1	70
72	The influence of partial surface discharging on the electrical characterization of DBDs. Plasma Sources Science and Technology, 2015, 24, 015016.	1.3	70

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73	The argon-hydrogen expanding plasma: model and experiments. Plasma Sources Science and Technology, 1995, 4, 74-85.	1.3	68
74	Amorphous silicon solar cells on natively textured ZnO grown by PECVD. Thin Solid Films, 2001, 392, 315-319.	0.8	68
75	Temperature dependence of the surface roughness evolution during hydrogenated amorphous silicon film growth. Applied Physics Letters, 2003, 82, 865-867.	1.5	68
76	High and intermediate temperature sodiumâ€“sulfur batteries for energy storage: development, challenges and perspectives. RSC Advances, 2019, 9, 5649-5673.	1.7	68
77	Effective passivation of Si surfaces by plasma deposited SiOx/a-SiNx:H stacks. Applied Physics Letters, 2011, 98, .	1.5	67
78	B-spline parametrization of the dielectric function applied to spectroscopic ellipsometry on amorphous carbon. Journal of Applied Physics, 2009, 106, .	1.1	66
79	Dielectric Properties of Thermal and Plasma-Assisted Atomic Layer Deposited Al[sub 2]O[sub 3] Thin Films. Journal of the Electrochemical Society, 2011, 158, G21.	1.3	65
80	Film growth precursors in a remote SiH[sub 4] plasma used for high-rate deposition of hydrogenated amorphous silicon. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 2153.	0.9	63
81	Detection of CH in an expanding argon/acetylene plasma using cavity ring down absorption spectroscopy. Chemical Physics Letters, 1999, 310, 405-410.	1.2	61
82	Cavity ring down study of the densities and kinetics of Si and SiH in a remote Ar-H2-SiH4 plasma. Journal of Applied Physics, 2001, 89, 2065-2073.	1.1	61
83	Effect of substrate conditions on the plasma beam deposition of amorphous hydrogenated carbon. Journal of Applied Physics, 1997, 82, 2643-2654.	1.1	59
84	On the formation mechanisms of the diffuse atmospheric pressure dielectric barrier discharge in CVD processes of thin silica-like films. Plasma Sources Science and Technology, 2009, 18, 045021.	1.3	59
85	Optical emission spectroscopy as a tool for studying, optimizing, and monitoring plasma-assisted atomic layer deposition processes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 77-87.	0.9	59
86	Self-Regulated Plasma Heat Flux Mitigation Due to Liquid Sn Vapor Shielding. Physical Review Letters, 2016, 116, 135002.	2.9	59
87	Scaling of Si and GaAs trench etch rates with aspect ratio, feature width, and substrate temperature. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1995, 13, 92.	1.6	58
88	An expanding thermal plasma for deposition of surface textured ZnO:Al with focus on thin film solar cell applications. Applied Surface Science, 2001, 173, 40-43.	3.1	58
89	Plasma beam deposited amorphous hydrogenated carbon: Improved film quality at higher growth rate. Applied Physics Letters, 1996, 69, 152-154.	1.5	57
90	High current diffuse dielectric barrier discharge in atmospheric pressure air for the deposition of thin silica-like films. Applied Physics Letters, 2010, 96, .	1.5	57

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91	Direct characterization of nanocrystal size distribution using Raman spectroscopy. Journal of Applied Physics, 2013, 114, 134310.	1.1	57
92	Molecular dynamics simulations for the growth of diamond-like carbon films from low kinetic energy species. Diamond and Related Materials, 2004, 13, 1873-1881.	1.8	56
93	Measurement of absolute radical densities in a plasma using modulated-beam line-of-sight threshold ionization mass spectrometry. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 71-81.	0.9	55
94	The importance of thermal dissociation in CO₂ microwave discharges investigated by power pulsing and rotational Raman scattering. Plasma Sources Science and Technology, 2019, 28, 055015.	1.3	55
95	Composition and bonding structure of plasmaâ€assisted ALD Al₂O₃ films. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 976-979.	0.8	53
96	Towards Rollâ€toâ€Roll Deposition of High Quality Moisture Barrier Films on Polymers by Atmospheric Pressure Plasma Assisted Process. Plasma Processes and Polymers, 2015, 12, 545-554.	1.6	53
97	Co-electrolysis of H2O and CO2 on exsolved Ni nanoparticles for efficient syngas generation at controllable H2/CO ratios. Applied Catalysis B: Environmental, 2019, 258, 117950.	10.8	53
98	Diagnostics of the magnetized lowâ€pressure hydrogen plasma jet: Molecular regime. Journal of Applied Physics, 1996, 80, 1312-1324.	1.1	52
99	Symmetrical Exsolution of Rh Nanoparticles in Solid Oxide Cells for Efficient Syngas Production from Greenhouse Gases. ACS Catalysis, 2020, 10, 1278-1288.	5.5	52
100	Plasma chemistry during the deposition of a-C:H films and its influence on film properties. Diamond and Related Materials, 2003, 12, 90-97.	1.8	51
101	Smooth and Selfâ€Similar SiO₂â€like Films on Polymers Synthesized in Rollâ€toâ€Roll Atmospheric Pressureâ€PECVD for Gas Diffusion Barrier Applications. Plasma Processes and Polymers, 2010, 7, 635-639.	1.6	51
102	Atomic layer deposition of Ru from CpRu(CO)2Et using O2 gas and O2 plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	0.9	51
103	Cross section for the mutual neutralization reactionH2++Hâ^', calculated in a multiple-crossing Landau-Zener approximation. Physical Review A, 1995, 51, 3362-3365.	1.0	50
104	Surface hydride composition of plasma deposited hydrogenated amorphous silicon: in situ infrared study of ion flux and temperature dependence. Surface Science, 2003, 530, 1-16.	0.8	50
105	Quasi-Ice Monolayer on Atomically Smooth AmorphousSiO2at Room Temperature Observed with a High-Finesse Optical Resonator. Physical Review Letters, 2005, 95, 166104.	2.9	50
106	Cavity ring down detection of SiH3 in a remote SiH4 plasma and comparison with model calculations and mass spectrometry. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 467-476.	0.9	49
107	Plasma-assisted atomic layer deposition of TiN/Al2O3 stacks for metal-oxide-semiconductor capacitor applications. Journal of Applied Physics, 2009, 106, .	1.1	49
108	Surface reaction probability during fast deposition of hydrogenated amorphous silicon with a remote silane plasma. Journal of Applied Physics, 2000, 87, 3313-3320.	1.1	47

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109	Abstraction of atomic hydrogen by atomic deuterium from an amorphous hydrogenated silicon surface. Journal of Chemical Physics, 2002, 117, 10805-10816.	1.2	47
110	Threshold ionization mass spectrometry of reactive species in remote Arâ•C2H2 expanding thermal plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 1400-1412.	0.9	46
111	Atmospheric Pressure Barrier Discharge Deposition of Silica-Like Films on Polymeric Substrates. Plasma Processes and Polymers, 2007, 4, S440-S444.	1.6	46
112	High Quality SiO₂â€like Layers by Large Area Atmospheric Pressure Plasma Enhanced CVD: Deposition Process Studies by Surface Analysis. Plasma Processes and Polymers, 2009, 6, 693-702.	1.6	46
113	Substrate Biasing during Plasma-Assisted ALD for Crystalline Phase-Control of TiO2 Thin Films. Electrochemical and Solid-State Letters, 2011, 15, G1-G3.	2.2	46
114	Characterization of plasma beam deposited amorphous hydrogenated silicon. Applied Physics Letters, 1995, 67, 491-493.	1.5	45
115	High-rate plasma-deposited SiO2 films for surface passivation of crystalline silicon. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 1823-1830.	0.9	45
116	Implications of thermo-chemical instability on the contracted modes in CO₂ microwave plasmas. Plasma Sources Science and Technology, 2020, 29, 025005.	1.3	45
117	Plasma Activated Electrochemical Ammonia Synthesis from Nitrogen and Water. ACS Energy Letters, 2021, 6, 313-319.	8.8	44
118	Oscillatory vapour shielding of liquid metal walls in nuclear fusion devices. Nature Communications, 2017, 8, 192.	5.8	43
119	Hydrogen poor cationic silicon clusters in an expanding argonâ€“hydrogenâ€“silane plasma. Applied Physics Letters, 1998, 72, 2397-2399.	1.5	42
120	The heating mechanism of electrons in the shock front of an expanding plasma. Plasma Sources Science and Technology, 1994, 3, 511-520.	1.3	41
121	Time-resolved cavity ringdown study of the Si and SiH3 surface reaction probability during plasma deposition of a-Si:H at different substrate temperatures. Journal of Applied Physics, 2004, 96, 4094-4106.	1.1	41
122	Electrochemical Activation of Atomic Layer-Deposited Cobalt Phosphate Electrocatalysts for Water Oxidation. ACS Catalysis, 2021, 11, 2774-2785.	5.5	41
123	Industrial high-rate (â¼45 nm/s) deposited silicon nitride yielding high-quality bulk and surface passivation under optimum anti-reflection coating conditions. Progress in Photovoltaics: Research Applications, 2005, 13, 705-716.	4.4	40
124	Real-time study of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>a</mml:mi><mml:mtext>â”</mml:mtext><mml:mi mathvariant="normal">Si</mml:mi><mml:mo>:</mml:mo><mml:mi mathvariant="normal">H</mml:mi><mml:mo>â•</mml:mo><mml:mi>c</mml:mi><mml:mtext>â”</mml:mtext><mml:mi mathvariant="normal">Si</mml:mi></mml:mrow></mml:math>heterointerface formation and epitaxial Si growth by spectroscopic ellipsometry, infrared spectroscopy, and second-harmonic generation. Phy	1.1	40
125	Surface Hydride Composition of Plasma-Synthesized Si Nanoparticles. Journal of Physical Chemistry C, 2011, 115, 20375-20379.	1.5	40
126	Nanostructuring of Iron Surfaces by Low-Energy Helium Ions. ACS Applied Materials & Interfaces, 2014, 6, 3462-3468.	4.0	40

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127	Quantum Magnetoconductance of a Nondegenerate Two-Dimensional Electron Gas. Europhysics Letters, 1988, 6, 75-80.	0.7	39
128	Production Mechanisms of NH and NH₂ Radicals in N₂â^'H₂ Plasmas. Journal of Physical Chemistry A, 2007, 111, 11460-11472.	1.1	39
129	The atomic hydrogen flux to silicon growth flux ratio during microcrystalline silicon solar cell deposition. Applied Physics Letters, 2008, 93, 111914.	1.5	39
130	Surface Modifications Induced by High Fluxes of Low Energy Helium Ions. Scientific Reports, 2015, 5, 9779.	1.6	39
131	High-rate deposition of a-SiNx:H for photovoltaic applications by the expanding thermal plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 1704-1715.	0.9	38
132	Optical second-harmonic generation in thin film systems. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 1519-1537.	0.9	38
133	Effect of ion bombardment on the a-Si:H based surface passivation of c-Si surfaces. Applied Physics Letters, 2011, 98, .	1.5	38
134	Quality improvement of plasma-beam-deposited amorphous hydrogenated carbon with higher growth rate. Plasma Sources Science and Technology, 1996, 5, 492-498.	1.3	37
135	Argon ion-induced dissociation of acetylene in an expanding Ar/C2H2 plasma. Applied Physics Letters, 1999, 74, 2927-2929.	1.5	37
136	Direct and highly sensitive measurement of defect-related absorption in amorphous silicon thin films by cavity ringdown spectroscopy. Applied Physics Letters, 2004, 84, 3079-3081.	1.5	37
137	The effect of ion-surface and ion-bulk interactions during hydrogenated amorphous silicon deposition. Journal of Applied Physics, 2007, 102, 073523.	1.1	37
138	Real time in situ spectroscopic ellipsometry of the growth and plasmonic properties of au nanoparticles on SiO2. Nano Research, 2012, 5, 513-520.	5.8	37
139	Four ways to determine the electron density in low-temperature plasmas. Physical Review E, 1994, 49, 2272-2275.	0.8	36
140	Ultrahigh throughput plasma processing of free standing silicon nanocrystals with lognormal size distribution. Journal of Applied Physics, 2013, 113, .	1.1	36
141	CO₂ Conversion in Nonuniform Discharges: Disentangling Dissociation and Recombination Mechanisms. Journal of Physical Chemistry C, 2020, 124, 16806-16819.	1.5	36
142	Stationary supersonic plasma expansion: continuum fluid mechanics versus direct simulation Monte Carlo method. Journal Physics D: Applied Physics, 2002, 35, 1362-1372.	1.3	35
143	Time-resolved cavity ring-down spectroscopic study of the gas phase and surface loss rates of Si and SiH3 plasma radicals. Chemical Physics Letters, 2002, 360, 189-193.	1.2	35
144	Plasma diagnostic study of silicon nitride film growth in a remote Arâ€“H2â€“N2â€“SiH4 plasma: Role of N and SiHn radicals. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 96-106.	0.9	35

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145	Atmospheric glow stabilization. Do we need pre-ionization?. Surface and Coatings Technology, 2005, 200, 46-50.	2.2	35
146	On the hexamethyldisiloxane dissociation paths in a remote Ar-fed expanding thermal plasma. Plasma Sources Science and Technology, 2006, 15, 421-431.	1.3	35
147	On the role of nanoporosity in controlling the performance of moisture permeation barrier layers. Microporous and Mesoporous Materials, 2014, 188, 163-171.	2.2	35
148	Insight into CO₂ Dissociation in Plasma from Numerical Solution of a Vibrational Diffusion Equation. Journal of Physical Chemistry C, 2017, 121, 19568-19576.	1.5	35
149	Plasma-Activated Electrolysis for Cogeneration of Nitric Oxide and Hydrogen from Water and Nitrogen. ACS Energy Letters, 2019, 4, 2091-2095.	8.8	35
150	Emission spectroscopy on a supersonically expanding argon/silane plasma. Journal of Applied Physics, 1992, 71, 4156-4163.	1.1	34
151	Effect of hydrogen on the growth of thin hydrogenated amorphous carbon films from thermal energy radicals. Applied Physics Letters, 2006, 88, 141922.	1.5	34
152	Accurate control of ion bombardment in remote plasmas using pulse-shaped biasing. Journal of Applied Physics, 2009, 106, 073303.	1.1	34
153	Fast deposition of amorphous carbon films by an expanding cascaded arc plasma jet. Journal of Applied Physics, 1995, 78, 528-540.	1.1	33
154	Temperature dependence of the surface reactivity of SiH3 radicals and the surface silicon hydride composition during amorphous silicon growth. Surface Science, 2003, 547, L865-L870.	0.8	33
155	Analysis of the expanding thermal argonâ€“oxygen plasma gas phase. Plasma Sources Science and Technology, 2003, 12, 539-553.	1.3	33
156	Improvement of hydrogenated amorphous silicon properties with increasing contribution of SiH3 to film growth. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 1027-1029.	0.9	32
157	Role of carbon atoms in the remote plasma deposition of hydrogenated amorphous carbon. Journal of Applied Physics, 2003, 94, 6932-6938.	1.1	32
158	Transient depletion of source gases during materials processing: a case study on the plasma deposition of microcrystalline silicon. New Journal of Physics, 2007, 9, 280-280.	1.2	32
159	Initiated-chemical vapor deposition of organosilicon layers: Monomer adsorption, bulk growth, and process window definition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	0.9	32
160	Amorphous hydrogenated carbon nitride films deposited via an expanding thermal plasma at high growth rates. Thin Solid Films, 1998, 333, 29-34.	0.8	31
161	In situprobing of surface hydrides on hydrogenated amorphous silicon using attenuated total reflection infrared spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 781-789.	0.9	31
162	Threshold ionization mass spectrometry study of hydrogenated amorphous carbon films growth precursors. Chemical Physics Letters, 2005, 402, 37-42.	1.2	31

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163	Plasma-assisted atomic layer deposition of TiN monitored byin situspectroscopic ellipsometry. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, L5-L8.	0.9	31
164	Microcrystalline silicon deposition: Process stability and process control. Thin Solid Films, 2007, 515, 7455-7459.	0.8	31
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