

W M M Erwin Kessels

List of Publications by Year in descending order

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457
papers

21,205
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#	ARTICLE	IF	CITATIONS
1	Plasma-Assisted Atomic Layer Deposition: Basics, Opportunities, and Challenges. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2011, 29, .	0.9	678
2	Status and prospects of Al ₂ O ₃ -based surface passivation schemes for silicon solar cells. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012, 30, .	0.9	659
3	Ultralow surface recombination of c-Si substrates passivated by plasma-assisted atomic layer deposited Al ₂ O ₃ . <i>Applied Physics Letters</i> , 2006, 89, 042112.	1.5	646
4	On the c-Si surface passivation mechanism by the negative-charge-dielectric Al ₂ O ₃ . <i>Journal of Applied Physics</i> , 2008, 104, .	1.1	479
5	Silicon surface passivation by atomic layer deposited Al ₂ O ₃ . <i>Journal of Applied Physics</i> , 2008, 104, .	1.1	415
6	Surface passivation of high-efficiency silicon solar cells by atomic-layer-deposited Al ₂ O ₃ . <i>Progress in Photovoltaics: Research and Applications</i> , 2008, 16, 461-466.	4.4	414
7	Excellent passivation of highly doped p-type Si surfaces by the negative-charge-dielectric Al ₂ O ₃ . <i>Applied Physics Letters</i> , 2007, 91, .	1.5	370
8	Determining the material structure of microcrystalline silicon from Raman spectra. <i>Journal of Applied Physics</i> , 2003, 94, 3582-3588.	1.1	325
9	High efficiency n-type Si solar cells on Al ₂ O ₃ -passivated boron emitters. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	316
10	The use of atomic layer deposition in advanced nanopatterning. <i>Nanoscale</i> , 2014, 6, 10941-10960.	2.8	304
11	Passivating Contacts for Crystalline Silicon Solar Cells: From Concepts and Materials to Prospects. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 373-388.	1.5	285
12	<i>In situ</i> spectroscopic ellipsometry as a versatile tool for studying atomic layer deposition. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 073001.	1.3	249
13	From the Bottom-Up: Toward Area-Selective Atomic Layer Deposition with High Selectivity. <i>Chemistry of Materials</i> , 2019, 31, 2-12.	3.2	248
14	Vacancies and voids in hydrogenated amorphous silicon. <i>Applied Physics Letters</i> , 2003, 82, 1547-1549.	1.5	246
15	Plasma-assisted atomic layer deposition of Al ₂ O ₃ moisture permeation barriers on polymers. <i>Applied Physics Letters</i> , 2006, 89, 081915.	1.5	244
16	Flexible Perovskite Photovoltaic Modules and Solar Cells Based on Atomic Layer Deposited Compact Layers and UV-irradiated TiO ₂ Scaffolds on Plastic Substrates. <i>Advanced Energy Materials</i> , 2015, 5, 1401808.	10.2	241
17	Plasma and Thermal ALD of Al ₂ O ₃ in a Commercial 200-mm ALD Reactor. <i>Journal of the Electrochemical Society</i> , 2007, 154, G165.	1.3	237
18	Influence of the Deposition Temperature on the c-Si Surface Passivation by Al ₂ O ₃ Films Synthesized by ALD and PECVD. <i>Electrochemical and Solid-State Letters</i> , 2010, 13, H76.	2.2	198

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19	Silicon surface passivation by ultrathin Al ₂ O ₃ films synthesized by thermal and plasma atomic layer deposition. <i>Physica Status Solidi - Rapid Research Letters</i> , 2010, 4, 10-12.	1.2	185
20	Atomic layer deposition for photovoltaics: applications and prospects for solar cell manufacturing. <i>Semiconductor Science and Technology</i> , 2012, 27, 074002.	1.0	178
21	Hydrogen induced passivation of Si interfaces by Al ₂ O ₃ films and SiO ₂ /Al ₂ O ₃ stacks. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	168
22	Conformality of Plasma-Assisted ALD: Physical Processes and Modeling. <i>Journal of the Electrochemical Society</i> , 2010, 157, G241.	1.3	157
23	Low Temperature Plasma-Enhanced Atomic Layer Deposition of Metal Oxide Thin Films. <i>Journal of the Electrochemical Society</i> , 2010, 157, P66.	1.3	151
24	Influence of the Oxidant on the Chemical and Field-Effect Passivation of Si by ALD Al ₂ O ₃ . <i>Electrochemical and Solid-State Letters</i> , 2011, 14, H1.	2.2	151
25	Controlling the fixed charge and passivation properties of Si(100)/Al ₂ O ₃ interfaces using ultrathin SiO ₂ interlayers synthesized by atomic layer deposition. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	150
26	Atomic layer deposition for perovskite solar cells: research status, opportunities and challenges. <i>Sustainable Energy and Fuels</i> , 2017, 1, 30-55.	2.5	150
27	Status and prospects of plasma-assisted atomic layer deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019, 37, .	0.9	148
28	Stability of Al ₂ O ₃ and Al ₂ O ₃ /a-SiN _x :H stacks for surface passivation of crystalline silicon. <i>Journal of Applied Physics</i> , 2009, 106, .	1.1	145
29	Supported Core/Shell Bimetallic Nanoparticles Synthesis by Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2012, 24, 2973-2977.	3.2	142
30	Area-Selective Atomic Layer Deposition of SiO ₂ Using Acetylacetone as a Chemoselective Inhibitor in an ABC-Type Cycle. <i>ACS Nano</i> , 2017, 11, 9303-9311.	7.3	136
31	Influence of annealing and Al ₂ O ₃ properties on the hydrogen-induced passivation of the Si/SiO ₂ interface. <i>Journal of Applied Physics</i> , 2012, 111, .	1.1	133
32	Negative charge and charging dynamics in Al ₂ O ₃ films on Si characterized by second-harmonic generation. <i>Journal of Applied Physics</i> , 2008, 104, .	1.1	131
33	Plasma-Assisted ALD for the Conformal Deposition of SiO ₂ : Process, Material and Electronic Properties. <i>Journal of the Electrochemical Society</i> , 2012, 159, H277-H285.	1.3	127
34	Influence of Oxygen Exposure on the Nucleation of Platinum Atomic Layer Deposition: Consequences for Film Growth, Nanopatterning, and Nanoparticle Synthesis. <i>Chemistry of Materials</i> , 2013, 25, 1905-1911.	3.2	123
35	Surface chemistry of plasma-assisted atomic layer deposition of Al ₂ O ₃ studied by infrared spectroscopy. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	117
36	Role of field-effect on c-Si surface passivation by ultrathin (≈20 nm) atomic layer deposited Al ₂ O ₃ . <i>Applied Physics Letters</i> , 2010, 96, .	1.5	117

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37	Atomic Layer Etching: What Can We Learn from Atomic Layer Deposition?. ECS Journal of Solid State Science and Technology, 2015, 4, N5023-N5032.	0.9	115
38	Plasma chemistry aspects of a-Si:H deposition using an expanding thermal plasma. Journal of Applied Physics, 1998, 84, 2426-2435.	1.1	111
39	Surface reactions during atomic layer deposition of Pt derived from gas phase infrared spectroscopy. Applied Physics Letters, 2009, 95, .	1.5	111
40	Atomic layer deposition for nanostructured Li-ion batteries. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	0.9	111
41	Atomic layer deposition of molybdenum oxide from (N<i>t</i>Bu) ₂ (NMe ₂) ₂ Mo and O ₂ plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	0.9	111
42	Deposition of TiN and HfO ₂ 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
43	Remote Plasma ALD of Platinum and Platinum Oxide Films. Electrochemical and Solid-State Letters, 2009, 12, C34.	2.2	107
44	Catalytic Combustion and Dehydrogenation Reactions during Atomic Layer Deposition of Platinum. Chemistry of Materials, 2012, 24, 1752-1761.	3.2	107
45	Reaction mechanisms during plasma-assisted atomic layer deposition of metal oxides: A case study for Al ₂ O ₃ . Journal of Applied Physics, 2008, 103, .	1.1	101
46	Ultra-Thin Aluminium Oxide Films Deposited by Plasma-Enhanced Atomic Layer Deposition for Corrosion Protection. Journal of the Electrochemical Society, 2011, 158, C132.	1.3	100
47	Influence of the high-temperature "firing" 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
48	In situ reaction mechanism studies of plasma-assisted atomic layer deposition of Al ₂ O ₃ . Applied Physics Letters, 2006, 89, 131505.	1.5	99
49	Atomic Layer Deposition of LiCoO ₂ Thin-Film Electrodes for All-Solid-State Li-Ion Micro-Batteries. Journal of the Electrochemical Society, 2013, 160, A3066-A3071.	1.3	99
50	Hydrogenated amorphous silicon deposited at very high growth rates by an expanding Ar⁺H ₂ ⁻SiH ₄ plasma. Journal of Applied Physics, 2001, 89, 2404-2413.	1.1	98
51	In situ spectroscopic 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
52	Nucleation and growth of Pt atomic layer deposition on Al ₂ O ₃ substrates using (methylcyclopentadienyl)-trimethyl platinum and O ₂ plasma. Journal of Applied Physics, 2011, 109, .	1.1	96
53	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
54	Low-Temperature Deposition of TiN by Plasma-Assisted Atomic Layer Deposition. Journal of the Electrochemical Society, 2006, 153, G956.	1.3	93

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55	Low-temperature atomic layer deposition of MoO _x for silicon heterojunction solar cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015, 9, 393-396.	1.2	93
56	Low-temperature plasma-enhanced atomic layer deposition of 2-D MoS ₂ : large area, thickness control and tuneable morphology. <i>Nanoscale</i> , 2018, 10, 8615-8627.	2.8	90
57	Area-Selective Atomic Layer Deposition of Metal Oxides on Noble Metals through Catalytic Oxygen Activation. <i>Chemistry of Materials</i> , 2018, 30, 663-670.	3.2	90
58	On the growth mechanism of a-Si:H. <i>Thin Solid Films</i> , 2001, 383, 154-160.	0.8	89
59	Low-Temperature Plasma-Assisted Atomic-Layer-Deposited SnO ₂ as an Electron Transport Layer in Planar Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 30367-30378.	4.0	88
60	Energy-enhanced atomic layer deposition for more process and precursor versatility. <i>Coordination Chemistry Reviews</i> , 2013, 257, 3254-3270.	9.5	87
61	Deposition of TiN and TaN by Remote Plasma ALD for Cu and Li Diffusion Barrier Applications. <i>Journal of the Electrochemical Society</i> , 2008, 155, G287.	1.3	86
62	Atomic Layer Deposition of Silicon Nitride from Bis(<i>tert</i> -butylamino)silane and N ₂ Plasma. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 19857-19862.	4.0	86
63	Atomic layer deposition of Pd and Pt nanoparticles for catalysis: on the mechanisms of nanoparticle formation. <i>Nanotechnology</i> , 2016, 27, 034001.	1.3	86
64	Atomic Layer Deposition for Graphene Device Integration. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700232.	1.9	85
65	Tuning Material Properties of Oxides and Nitrides by Substrate Biasing during Plasma-Enhanced Atomic Layer Deposition on Planar and 3D Substrate Topographies. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 13158-13180.	4.0	85
66	History of atomic layer deposition and its relationship with the American Vacuum Society. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2013, 31, .	0.9	84
67	Hydrogen passivation of poly-Si/SiO _x contacts for Si solar cells using Al ₂ O ₃ studied with deuterium. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	80
68	Plasma-assisted atomic layer deposition of nickel oxide as hole transport layer for hybrid perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 12532-12543.	2.7	80
69	Formation of cationic silicon clusters in a remote silane plasma and their contribution to hydrogenated amorphous silicon film growth. <i>Journal of Applied Physics</i> , 1999, 86, 4029-4039.	1.1	78
70	Excellent Si surface passivation by low temperature SiO ₂ using an ultrathin Al ₂ O ₃ capping film. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011, 5, 22-24.	1.2	77
71	Identifying parasitic current pathways in CIGS solar cells by modelling dark <i>J</i> - <i>V</i> response. <i>Progress in Photovoltaics: Research and Applications</i> , 2015, 23, 1516-1525.	4.4	76
72	Synthesis and characterization of low-resistivity TaNx films by remote plasma atomic layer deposition. <i>Journal of Applied Physics</i> , 2007, 102, 083517.	1.1	75

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73	Enhanced Doping Efficiency of Al-Doped ZnO by Atomic Layer Deposition Using Dimethylaluminum Isopropoxide as an Alternative Aluminum Precursor. <i>Chemistry of Materials</i> , 2013, 25, 4619-4622.	3.2	75
74	Ion and Photon Surface Interaction during Remote Plasma ALD of Metal Oxides. <i>Journal of the Electrochemical Society</i> , 2011, 158, G88.	1.3	73
75	Surface passivation of phosphorus-diffused n-type emitters by plasma-assisted atomic-layer deposited Al ₂ O ₃ . <i>Physica Status Solidi - Rapid Research Letters</i> , 2012, 6, 4-6.	1.2	73
76	Al ₂ O ₃ /TiO ₂ nano-pattern antireflection coating with ultralow surface recombination. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	73
77	Electron Scattering and Doping Mechanisms in Solid-Phase-Crystallized In ₂ O ₃ :H Prepared by Atomic Layer Deposition. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 16723-16729.	4.0	72
78	Low-Temperature Plasma-Assisted Atomic Layer Deposition of Silicon Nitride Moisture Permeation Barrier Layers. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 22525-22532.	4.0	72
79	Highly efficient microcrystalline silicon solar cells deposited from a pure SiH ₄ flow. <i>Applied Physics Letters</i> , 2005, 87, 263503.	1.5	71
80	Area-Selective Deposition of Ruthenium by Combining Atomic Layer Deposition and Selective Etching. <i>Chemistry of Materials</i> , 2019, 31, 3878-3882.	3.2	71
81	Local deposition of high-purity Pt nanostructures by combining electron beam induced deposition and atomic layer deposition. <i>Journal of Applied Physics</i> , 2010, 107, 116102.	1.1	70
82	Remote Plasma Atomic Layer Deposition of Co ₃ O ₄ Thin Films. <i>Journal of the Electrochemical Society</i> , 2011, 158, G92.	1.3	70
83	Room-Temperature Atomic Layer Deposition of Platinum. <i>Chemistry of Materials</i> , 2013, 25, 1769-1774.	3.2	70
84	Temperature dependence of the surface roughness evolution during hydrogenated amorphous silicon film growth. <i>Applied Physics Letters</i> , 2003, 82, 865-867.	1.5	68
85	Effective Surface Passivation of InP Nanowires by Atomic-Layer-Deposited Al ₂ O ₃ with PO _x Interlayer. <i>Nano Letters</i> , 2017, 17, 6287-6294.	4.5	68
86	Effective passivation of Si surfaces by plasma deposited SiO _x /a-SiN _x :H stacks. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	67
87	Electrical transport and Al doping efficiency in nanoscale ZnO films prepared by atomic layer deposition. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	67
88	Advanced process technologies: Plasma, direct-write, atmospheric pressure, and roll-to-roll ALD. <i>MRS Bulletin</i> , 2011, 36, 907-913.	1.7	66
89	Plasma-enhanced and thermal atomic layer deposition of Al ₂ O ₃ using dimethylaluminum isopropoxide, [Al(CH ₃) ₂ (¹ / ₄ -O <i>i</i> -Pr)] ₂ , as an alternative aluminum precursor. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012, 30, .	0.9	66
90	Dielectric Properties of Thermal and Plasma-Assisted Atomic Layer Deposited Al ₂ O ₃ Thin Films. <i>Journal of the Electrochemical Society</i> , 2011, 158, G21.	1.3	65

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91	Energetic ions during plasma-enhanced atomic layer deposition and their role in tailoring material properties. <i>Plasma Sources Science and Technology</i> , 2019, 28, 024002.	1.3	65
92	Uniform Atomic Layer Deposition of Al ₂ O ₃ on Graphene by Reversible Hydrogen Plasma Functionalization. <i>Chemistry of Materials</i> , 2017, 29, 2090-2100.	3.2	64
93	Atomic-layer deposited Nb ₂ O ₅ as transparent passivating electron contact for c-Si solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018, 184, 98-104.	3.0	64
94	Film growth precursors in a remote SiH ₄ plasma used for high-rate deposition of hydrogenated amorphous silicon. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2000, 18, 2153.	0.9	63
95	Room-temperature ALD of Metal Oxide Thin Films by Energy-enhanced ALD. <i>Chemical Vapor Deposition</i> , 2013, 19, 125-133.	1.4	63
96	3D negative electrode stacks for integrated all-solid-state lithium-ion microbatteries. <i>Journal of Materials Chemistry</i> , 2010, 20, 3703.	6.7	62
97	Nanopatterning by direct-write atomic layer deposition. <i>Nanoscale</i> , 2012, 4, 4477.	2.8	62
98	Atomic Layer Deposition of High-Purity Palladium Films from Pd(hfac) ₂ and H ₂ and O ₂ Plasmas. <i>Journal of Physical Chemistry C</i> , 2014, 118, 8702-8711.	1.5	62
99	Cavity ring down study of the densities and kinetics of Si and SiH in a remote Ar-H ₂ -SiH ₄ plasma. <i>Journal of Applied Physics</i> , 2001, 89, 2065-2073.	1.1	61
100	Sub-nanometer dimensions control of core/shell nanoparticles prepared by atomic layer deposition. <i>Nanotechnology</i> , 2015, 26, 094002.	1.3	60
101	Material properties of LPCVD processed n-type polysilicon passivating contacts and its application in PERPoly industrial bifacial solar cells. <i>Energy Procedia</i> , 2017, 124, 635-642.	1.8	60
102	Effect of substrate conditions on the plasma beam deposition of amorphous hydrogenated carbon. <i>Journal of Applied Physics</i> , 1997, 82, 2643-2654.	1.1	59
103	Optical emission spectroscopy as a tool for studying, optimizing, and monitoring plasma-assisted atomic layer deposition processes. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2010, 28, 77-87.	0.9	59
104	Area-Selective Atomic Layer Deposition of In ₂ O ₃ :H Using a 1/4-Plasma Printer for Local Area Activation. <i>Chemistry of Materials</i> , 2017, 29, 921-925.	3.2	59
105	Surface Loss in Ozone-Based Atomic Layer Deposition Processes. <i>Chemistry of Materials</i> , 2011, 23, 2381-2387.	3.2	58
106	Direct-Write Atomic Layer Deposition of High-Quality Pt Nanostructures: Selective Growth Conditions and Seed Layer Requirements. <i>Journal of Physical Chemistry C</i> , 2013, 117, 10788-10798.	1.5	58
107	Redeposition in plasma-assisted atomic layer deposition: Silicon nitride film quality ruled by the gas residence time. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	58
108	High mobility In ₂ O ₃ :H transparent conductive oxides prepared by atomic layer deposition and solid phase crystallization. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014, 8, 987-990.	1.2	57

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109	Explorative studies of novel silicon surface passivation materials: Considerations and lessons learned. <i>Solar Energy Materials and Solar Cells</i> , 2018, 188, 182-189.	3.0	57
110	Edge-Site Nanoengineering of WS_2 by Low-Temperature Plasma-Enhanced Atomic Layer Deposition for Electrocatalytic Hydrogen Evolution. <i>Chemistry of Materials</i> , 2019, 31, 5104-5115.	3.2	57
111	Atomic Layer Deposited Molybdenum Oxide for the Hole-selective Contact of Silicon Solar Cells. <i>Energy Procedia</i> , 2016, 92, 443-449.	1.8	56
112	Ultralow Surface Recombination Velocity in Passivated InGaAs/InP Nanopillars. <i>Nano Letters</i> , 2017, 17, 2627-2633.	4.5	56
113	Atomic Layer Deposition. , 2015, , 1101-1134.		55
114	What is limiting low-temperature atomic layer deposition of Al_2O_3 ? A vibrational sum-frequency generation study. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	55
115	Influence of the SiO_2 interlayer thickness on the density and polarity of charges in $Si/SiO_2/Al_2O_3$ stacks as studied by optical second-harmonic generation. <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	54
116	Role of Surface Termination in Atomic Layer Deposition of Silicon Nitride. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3610-3614.	2.1	54
117	Composition and bonding structure of plasma-assisted ALD Al_2O_3 films. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 976-979.	0.8	53
118	Comparative study of ALD SiO_2 thin films for optical applications. <i>Optical Materials Express</i> , 2016, 6, 660.	1.6	53
119	On the hydrogenation of Poly-Si passivating contacts by Al_2O_3 and SiN thin films. <i>Solar Energy Materials and Solar Cells</i> , 2020, 215, 110592.	3.0	53
120	Atomic layer deposition of Ru from $CpRu(CO)_2Et$ using O_2 gas and O_2 plasma. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2011, 29, .	0.9	51
121	Electrocatalytic activity of atomic layer deposited Pt-Ru catalysts onto N-doped carbon nanotubes. <i>Journal of Catalysis</i> , 2014, 311, 481-486.	3.1	51
122	Surface hydride composition of plasma deposited hydrogenated amorphous silicon: in situ infrared study of ion flux and temperature dependence. <i>Surface Science</i> , 2003, 530, 1-16.	0.8	50
123	Quasi-Ice Monolayer on Atomically Smooth Amorphous SiO_2 at Room Temperature Observed with a High-Finesse Optical Resonator. <i>Physical Review Letters</i> , 2005, 95, 166104.	2.9	50
124	Cavity ring down detection of SiH_3 in a remote SiH_4 plasma and comparison with model calculations and mass spectrometry. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2001, 19, 467-476.	0.9	49
125	Plasma-assisted atomic layer deposition of TiN/Al_2O_3 stacks for metal-oxide-semiconductor capacitor applications. <i>Journal of Applied Physics</i> , 2009, 106, .	1.1	49
126	Co_3O_4 as anode material for thin film micro-batteries prepared by remote plasma atomic layer deposition. <i>Journal of Power Sources</i> , 2012, 203, 72-77.	4.0	49

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127	Enhancement of the photocurrent and efficiency of CdTe solar cells suppressing the front contact reflection using a highly-resistive ZnO buffer layer. <i>Solar Energy Materials and Solar Cells</i> , 2019, 191, 78-82.	3.0	49
128	Atomic-Layer-Deposited Transparent Electrodes for Silicon Heterojunction Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2014, 4, 1387-1396.	1.5	48
129	Atomic layer deposition of B-doped ZnO using triisopropyl borate as the boron precursor and comparison with Al-doped ZnO. <i>Journal of Materials Chemistry C</i> , 2015, 3, 3095-3107.	2.7	48
130	Surface reaction probability during fast deposition of hydrogenated amorphous silicon with a remote silane plasma. <i>Journal of Applied Physics</i> , 2000, 87, 3313-3320.	1.1	47
131	Substrate Biasing during Plasma-Assisted ALD for Crystalline Phase-Control of TiO ₂ Thin Films. <i>Electrochemical and Solid-State Letters</i> , 2011, 15, G1-G3.	2.2	46
132	Cathode encapsulation of organic light emitting diodes by atomic layer deposited Al ₂ O ₃ films and Al ₂ O ₃ /a-SiN _x :H stacks. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012, 30, .	0.9	46
133	Large area, patterned growth of 2D MoS ₂ and lateral MoS ₂ heterostructures for nano- and opto-electronic applications. <i>Nanotechnology</i> , 2020, 31, 255603.	1.3	46
134	High-rate plasma-deposited SiO ₂ films for surface passivation of crystalline silicon. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2006, 24, 1823-1830.	0.9	45
135	Area-Selective Atomic Layer Deposition of Two-Dimensional WS ₂ Nanolayers. , 2020, 2, 511-518.		45
136	High hole drift mobility in a-Si:H deposited at high growth rates for solar cell application. <i>Journal of Non-Crystalline Solids</i> , 2000, 266-269, 380-384.	1.5	44
137	Influence of transparent conductive oxides on passivation of a-Si:H/c-Si heterojunctions as studied by atomic layer deposited Al-doped ZnO. <i>Semiconductor Science and Technology</i> , 2014, 29, 122001.	1.0	44
138	Atomic Layer Deposition of Wet-Etch Resistant Silicon Nitride Using Di(<i>i</i> -butylamino)silane and N ₂ Plasma on Planar and 3D Substrate Topographies. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 1858-1869.	4.0	43
139	Hydrogen poor cationic silicon clusters in an expanding argon-hydrogen-silane plasma. <i>Applied Physics Letters</i> , 1998, 72, 2397-2399.	1.5	42
140	Area-Selective Atomic Layer Deposition of TiN Using Aromatic Inhibitor Molecules for Metal/Dielectric Selectivity. <i>Chemistry of Materials</i> , 2020, 32, 7788-7795.	3.2	42
141	Time-resolved cavity ringdown study of the Si and SiH ₃ surface reaction probability during plasma deposition of a-Si:H at different substrate temperatures. <i>Journal of Applied Physics</i> , 2004, 96, 4094-4106.	1.1	41
142	Revisiting the growth mechanism of atomic layer deposition of Al ₂ O ₃ : A vibrational sum-frequency generation study. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017, 35, .	0.9	41
143	Electrochemical Activation of Atomic Layer-Deposited Cobalt Phosphate Electrocatalysts for Water Oxidation. <i>ACS Catalysis</i> , 2021, 11, 2774-2785.	5.5	41
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