Stacey F Bent

List of Publications by Year
in descending order

298 papers	19,610 citations	10979 71 h-index	13758 129 g-index
310 all docs	310 docs citations	310 times ranked	18920 citing authors

#	Article	IF	Citations
1	A brief review of atomic layer deposition: from fundamentals to applications. Materials Today, 2014, 17, 236-246.	8.3	1,335
2	23.6%-efficient monolithic perovskite/silicon tandem solar cells with improved stability. Nature Energy, 2017, 2, .	19.8	1,204
3	Perovskite-perovskite tandem photovoltaics with optimized band gaps. Science, 2016, 354, 861-865.	6.0	1,107
4	A rigorous electrochemical ammonia synthesis protocol with quantitative isotope measurements. Nature, 2019, 570, 504-508.	13.7	1,006
5	Organic functionalization of group IV semiconductor surfaces: principles, examples, applications, and prospects. Surface Science, 2002, 500, 879-903.	0.8	511
6	The surface as molecular reagent: organic chemistry at the semiconductor interface. Progress in Surface Science, 2003, 73, 1-56.	3.8	355
7	Rational solvent molecule tuning for high-performance lithium metal battery electrolytes. Nature Energy, 2022, 7, 94-106.	19.8	336
8	Active MnO_x Electrocatalysts Prepared by Atomic Layer Deposition for Oxygen Evolution and Oxygen Reduction Reactions. Advanced Energy Materials, 2012, 2, 1269-1277.	10.2	298
9	Overcoming Redox Reactions at Perovskite-Nickel Oxide Interfaces to Boost Voltages in Perovskite Solar Cells. Joule, 2020, 4, 1759-1775.	11.7	284
10	Ultralow Loading Pt Nanocatalysts Prepared by Atomic Layer Deposition on Carbon Aerogels. Nano Letters, 2008, 8, 2405-2409.	4.5	244
11	Selective metal deposition at graphene line defects by atomic layer deposition. Nature Communications, 2014, 5, 4781.	5.8	243
12	Design of low bandgap tinâ€“lead halide perovskite solar cells to achieve thermal, atmospheric and operational stability. Nature Energy, 2019, 4, 939-947.	19.8	235
13	Encapsulating perovskite solar cells to withstand damp heat and thermal cycling. Sustainable Energy and Fuels, 2018, 2, 2398-2406.	2.5	231
14	Creating Highly Active Atomic Layer Deposited NiO Electrocatalysts for the Oxygen Evolution Reaction. Advanced Energy Materials, 2015, 5, 1500412.	10.2	217
15	REACTIVITY OF THE GERMANIUM SURFACE: Chemical Passivation and Functionalization. Annual Review of Physical Chemistry, 2006, 57, 467-495.	4.8	207
16	Minimizing Current and Voltage Losses to Reach 25% Efficient Monolithic Two-Terminal Perovskiteâ€“Silicon Tandem Solar Cells. ACS Energy Letters, 2018, 3, 2173-2180.	8.8	194
17	Attaching Organic Layers to Semiconductor Surfaces. Journal of Physical Chemistry B, 2002, 106, 2830-2842.	1.2	180
18	Intrinsic Selectivity and Structure Sensitivity of Rhodium Catalysts for C₂₊ Oxygenate Production. Journal of the American Chemical Society, 2016, 138, 3705-3714.	6.6	179

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19	Synthesis of Doped, Ternary, and Quaternary Materials by Atomic Layer Deposition: A Review. Chemistry of Materials, 2019, 31, 1142-1183.	3.2	179
20	Vibrational Spectroscopic Studies of Dielsâ˘'Alder Reactions with the Si(100)-2Ã—1 Surface as a Dienophile. Journal of the American Chemical Society, 1997, 119, 11100-11101.	6.6	170
21	Tinâ€"lead halide perovskites with improved thermal and air stability for efficient all-perovskite tandem solar cells. Sustainable Energy and Fuels, 2018, 2, 2450-2459.	2.5	167
22	Suspension electrolyte with modified Li+ solvation environment for lithium metal batteries. Nature Materials, 2022, 21, 445-454.	13.3	155
23	Nanoengineering and interfacial engineering of photovoltaics by atomic layer deposition. Nanoscale, 2011, 3, 3482.	2.8	154
24	Proton Transfer Reactions on Semiconductor Surfaces. Journal of the American Chemical Society, 2002, 124, 4027-4038.	6.6	152
25	Understanding chemical and physical mechanisms in atomic layer deposition. Journal of Chemical Physics, 2020, 152, 040902.	1.2	143
26	Chemistry for Positive Pattern Transfer Using Area-Selective Atomic Layer Deposition. Advanced Materials, 2006, 18, 1086-1090.	11.1	142
27	Investigation of Self-Assembled Monolayer Resists for Hafnium Dioxide Atomic Layer Deposition. Chemistry of Materials, 2005, 17, 536-544.	3.2	141
28	Reactions of methylamines at the Si(100)-2Ã—1 surface. Journal of Chemical Physics, 2001, 114, 10170-10180.	1.2	130
29	Aqueous bath process for deposition of Cu2ZnSnS4 photovoltaic absorbers. Thin Solid Films, 2011, 519, 2488-2492.	0.8	130
30	Self-assembled monolayer resist for atomic layer deposition of HfO2 and ZrO2 high-Îº gate dielectrics. Applied Physics Letters, 2004, 84, 4017-4019.	1.5	128
31	Layer-by-Layer Growth on Ge(100) via Spontaneous Urea Coupling Reactions. Journal of the American Chemical Society, 2005, 127, 6123-6132.	6.6	127
32	Area-Selective ALD with Soft Lithographic Methods: Using Self-Assembled Monolayers to Direct Film Deposition. Journal of Physical Chemistry C, 2009, 113, 17613-17625.	1.5	124
33	Area-Selective Atomic Layer Deposition Assisted by Self-Assembled Monolayers: A Comparison of Cu, Co, W, and Ru. Chemistry of Materials, 2019, 31, 1635-1645.	3.2	122
34	Achieving area-selective atomic layer deposition on patterned substrates by selective surface modification. Applied Physics Letters, 2005, 86, 191910.	1.5	121
35	Self-Correcting Process for High Quality Patterning by Atomic Layer Deposition. ACS Nano, 2015, 9, 8710-8717.	7.3	119
36	Self-Assembly Based Plasmonic Arrays Tuned by Atomic Layer Deposition for Extreme Visible Light Absorption. Nano Letters, 2013, 13, 3352-3357.	4.5	118

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37	Fabrication of organic interfacial layers by molecular layer deposition: Present status and future opportunities. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	112
38	NEXAFS studies of adsorption of benzene on Si(100)-2Ã—1. Surface Science, 1998, 411, 286-293.	0.8	109
39	Application of Atomic Layer Deposition of Platinum to Solid Oxide Fuel Cells. Chemistry of Materials, 2008, 20, 3897-3905.	3.2	108
40	Effect of Al₂O₃ Recombination Barrier Layers Deposited by Atomic Layer Deposition in Solid-State CdS Quantum Dot-Sensitized Solar Cells. Journal of Physical Chemistry C, 2013, 117, 5584-5592.	1.5	108
41	Formation of Organic Nanoscale Laminates and Blends by Molecular Layer Deposition. ACS Nano, 2010, 4, 331-341.	7.3	105
42	Dielsâ€“Alder reactions of butadienes with the Si(100)-2Ã—1 surface as a dienophile: Vibrational spectroscopy, thermal desorption and near edge x-ray absorption fine structure studies. Journal of Chemical Physics, 1998, 108, 4599-4606.	1.2	102
43	Applications of atomic layer deposition and chemical vapor deposition for perovskite solar cells. Energy and Environmental Science, 2020, 13, 1997-2023.	15.6	102
44	Optical modeling of wide-bandgap perovskite and perovskite/silicon tandem solar cells using complex refractive indices for arbitrary-bandgap perovskite absorbers. Optics Express, 2018, 26, 27441.	1.7	102
45	Thin collagen film scaffolds for retinal epithelial cell culture. Biomaterials, 2007, 28, 1486-1494.	5.7	101
46	Tandem Coreâ€“Shell Siâ€“Ta₃N₅ Photoanodes for Photoelectrochemical Water Splitting. Nano Letters, 2016, 16, 7565-7572.	4.5	99
47	A New Resist for Area Selective Atomic and Molecular Layer Deposition on Metalâ€“Dielectric Patterns. Journal of Physical Chemistry C, 2014, 118, 10957-10962.	1.5	97
48	A Versatile Method for Ammonia Detection in a Range of Relevant Electrolytes via Direct Nuclear Magnetic Resonance Techniques. ACS Catalysis, 2019, 9, 5797-5802.	5.5	97
49	Effects of Self-Assembled Monolayers on Solid-State CdS Quantum Dot Sensitized Solar Cells. ACS Nano, 2011, 5, 1495-1504.	7.3	93
50	Area-Selective Atomic Layer Deposition of Metal Oxides on Noble Metals through Catalytic Oxygen Activation. Chemistry of Materials, 2018, 30, 663-670.	3.2	90
51	Functionalization of Diamond(100) by Dielsâˆ'Alder Chemistry. Journal of the American Chemical Society, 2000, 122, 744-745.	6.6	88
52	Competition and Selectivity of Organic Reactions on Semiconductor Surfaces:Â Reaction of Unsaturated Ketones on Si(100)-2Ã—1 and Ge(100)-2Ã—1. Journal of the American Chemical Society, 2002, 124, 8990-9004.	6.6	87
53	Comparative Study of Titanium Dioxide Atomic Layer Deposition on Silicon Dioxide and Hydrogen-Terminated Silicon. Journal of Physical Chemistry C, 2010, 114, 10498-10504.	1.5	86
54	Growth of Pt Nanowires by Atomic Layer Deposition on Highly Ordered Pyrolytic Graphite. Nano Letters, 2013, 13, 457-463.	4.5	86

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55	Periodic Trends in Organic Functionalization of Group IV Semiconductor Surfaces. Accounts of Chemical Research, 2010, 43, 346-355.	7.6	85
56	Reactions of Cyclic Aliphatic and Aromatic Amines on Ge(100)-2Ã—1 and Si(100)-2Ã—1. Journal of Physical Chemistry B, 2003, 107, 4982-4996.	1.2	84
57	Tin oxide atomic layer deposition from tetrakis(dimethylamino)tin and water. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	82
58	Selective Deposition of Dielectrics: Limits and Advantages of Alkanethiol Blocking Agents on Metalâ€"Dielectric Patterns. ACS Applied Materials & Interfaces, 2016, 8, 33264-33272.	4.0	82
59	Improved light management in planar silicon and perovskite solar cells using PDMS scattering layer. Solar Energy Materials and Solar Cells, 2017, 173, 59-65.	3.0	82
60	Opportunities for Atomic Layer Deposition in Emerging Energy Technologies. ACS Energy Letters, 2019, 4, 908-925.	8.8	81
61	Effect of plasma interactions with low-Îº films as a function of porosity, plasma chemistry, and temperature. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 395.	1.6	80
62	Nanoengineering Heterogeneous Catalysts by Atomic Layer Deposition. Annual Review of Chemical and Biomolecular Engineering, 2017, 8, 41-62.	3.3	80
63	Carboxylic Acid Chemistry at the Ge(100)-2 Ã— 1 Interface:Â Bidentate Bridging Structure Formation on a Semiconductor Surface. Journal of the American Chemical Society, 2006, 128, 770-779.	6.6	78
64	A Process for Topographically Selective Deposition on 3D Nanostructures by Ion Implantation. ACS Nano, 2016, 10, 4451-4458.	7.3	78
65	Atomic Layer Deposition (ALD) Co-Deposited Ptâˆ'Ru Binary and Pt Skin Catalysts for Concentrated Methanol Oxidation. Chemistry of Materials, 2010, 22, 3024-3032.	3.2	76
66	Atomic Layer Deposition of CdS Quantum Dots for Solidâ€State Quantum Dot Sensitized Solar Cells. Advanced Energy Materials, 2011, 1, 1169-1175.	10.2	76
67	Atomic layer deposition of vanadium oxide to reduce parasitic absorption and improve stability in nâ€"iâ€"p perovskite solar cells for tandems. Sustainable Energy and Fuels, 2019, 3, 1517-1525.	2.5	76
68	A Theoretical Study of the Structure and Thermochemistry of 1,3-Butadiene on the Ge/Si(100)-2 Ã— 1 Surface. Journal of Physical Chemistry A, 2000, 104, 2457-2462.	1.1	74
69	Electron Enrichment in 3d Transition Metal Oxide Hetero-Nanostructures. Nano Letters, 2011, 11, 3855-3861.	4.5	74
70	Area-Selective Atomic Layer Deposition of Platinum on YSZ Substrates Using Microcontact Printed SAMs. Journal of the Electrochemical Society, 2007, 154, D648.	1.3	73
71	Atomic layer deposition in nanostructured photovoltaics: tuning optical, electronic and surface properties. Nanoscale, 2015, 7, 12266-12283.	2.8	73
72	Microstructure-Dependent Nucleation in Atomic Layer Deposition of Pt on TiO₂. Chemistry of Materials, 2012, 24, 279-286.	3.2	72

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73	Recent Advances in Atomic Layer Deposition. Chemistry of Materials, 2016, 28, 1943-1947.	3.2	72
74	Deposition of Ultrathin Polythiourea Films by Molecular Layer Deposition. Chemistry of Materials, 2010, 22, 5563-5569.	3.2	71
75	Molecular Layer Deposition of Functional Thin Films for Advanced Lithographic Patterning. ACS Applied Materials & Interfaces, 2011, 3, 505-511.	4.0	71
76	Example of a Thermodynamically Controlled Reaction on a Semiconductor Surface:Â Acetone on Ge(100)-2 Ã— 1. Journal of Physical Chemistry B, 2001, 105, 12559-12565.	1.2	69
77	The Artificial Synapse Chip: A Flexible Retinal Interface Based on Directed Retinal Cell Growth and Neurotransmitter Stimulation. Artificial Organs, 2003, 27, 975-985.	1.0	69
78	Nanoscale Limitations in Metal Oxide Electrocatalysts for Oxygen Evolution. Nano Letters, 2014, 14, 5853-5857.	4.5	69
79	A Highly Active Molybdenum Phosphide Catalyst for Methanol Synthesis from CO and CO₂. Angewandte Chemie - International Edition, 2018, 57, 15045-15050.	7.2	69
80	Sequential Regeneration of Selfâ€Assembled Monolayers for Highly Selective Atomic Layer Deposition. Advanced Materials Interfaces, 2016, 3, 1600464.	1.9	67
81	Determination of human lens capsule permeability and its feasibility as a replacement for Bruch's membrane. Biomaterials, 2006, 27, 1670-1678.	5.7	66
82	Rh-MnO Interface Sites Formed by Atomic Layer Deposition Promote Syngas Conversion to Higher Oxygenates. ACS Catalysis, 2017, 7, 5746-5757.	5.5	66
83	Heads or Tails: Which Is More Important in Molecular Self-Assembly?. ACS Nano, 2007, 1, 10-12.	7.3	64
84	Atomic layer deposition of ZnS via in situ production of H2S. Thin Solid Films, 2010, 518, 5400-5408.	0.8	64
85	Incomplete elimination of precursor ligands during atomic layer deposition of zinc-oxide, tin-oxide, and zinc-tin-oxide. Journal of Chemical Physics, 2017, 146, 052802.	1.2	64
86	Atomic Layer Deposition of CdS Films. Chemistry of Materials, 2010, 22, 4669-4678.	3.2	62
87	Interfacial Effects of Tin Oxide Atomic Layer Deposition in Metal Halide Perovskite Photovoltaics. Advanced Energy Materials, 2018, 8, 1800591.	10.2	62
88	ALD Resist Formed by Vapor-Deposited Self-Assembled Monolayers. Langmuir, 2007, 23, 1160-1165.	1.6	61
89	Strong Coupling of Plasmon and Nanocavity Modes for Dual-Band, Near-Perfect Absorbers and Ultrathin Photovoltaics. ACS Photonics, 2016, 3, 456-463.	3.2	61
90	Highly Stable Monolayer Resists for Atomic Layer Deposition on Germanium and Silicon. Chemistry of Materials, 2006, 18, 3733-3741.	3.2	60

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91	Effect of Backbone Chemistry on the Structure of Polyurea Films Deposited by Molecular Layer Deposition. Chemistry of Materials, 2017, 29, 1192-1203.	3.2	59
92	Evidence for a Retro-Dielsâ˜Alder Reaction on a Single Crystalline Surface:Â Butadienes on Ge(100). Journal of the American Chemical Society, 1998, 120, 7377-7378.	6.6	58
93	Semiconductor surface functionalization for advances in electronics, energy conversion, and dynamic systems. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	58
94	Improving Performance in Colloidal Quantum Dot Solar Cells by Tuning Band Alignment through Surface Dipole Moments. Journal of Physical Chemistry C, 2015, 119, 2996-3005.	1.5	58
95	Nucleation-Controlled Growth of Nanoparticles by Atomic Layer Deposition. Chemistry of Materials, 2012, 24, 4051-4059.	3.2	57
96	Localized Neurotransmitter Release for Use in a Prototype Retinal Interface. , 2003, 44, 3144.		56
97	Efficiency enhancement of solid-state PbS quantum dot-sensitized solar cells with Al2O3 barrier layer. Journal of Materials Chemistry A, 2013, 1, 7566.	5.2	56
98	Improving Area-Selective Molecular Layer Deposition by Selective SAM Removal. ACS Applied Materials & Interfaces, 2014, 6, 17831-17836.	4.0	53
99	Interaction of C6Cyclic Hydrocarbons with a Si(100)-2Ã—1 Surface:Â Adsorption and Hydrogenation Reactionsâ€. Journal of Physical Chemistry B, 2000, 104, 3000-3007.	1.2	52
100	Tuning the reactivity of semiconductor surfaces by functionalization with amines of different basicity. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 956-960.	3.3	51
101	Cycloaddition of Cyclopentadiene and Dicyclopentadiene on Si(100)-2Ã—1:Â Comparison of Monomer and Dimer Adsorption. Journal of Physical Chemistry B, 1999, 103, 6803-6808.	1.2	50
102	Thin film characterization of zinc tin oxide deposited by thermal atomic layer deposition. Thin Solid Films, 2014, 556, 186-194.	0.8	50
103	Vapor transport deposition and epitaxy of orthorhombic SnS on glass and NaCl substrates. Applied Physics Letters, 2013, 103, .	1.5	49
104	Cross-Linked Ultrathin Polyurea Films via Molecular Layer Deposition. Macromolecules, 2013, 46, 5638-5643.	2.2	49
105	The Molybdenum Oxide Interface Limits the High-Temperature Operational Stability of Unencapsulated Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2349-2360.	8.8	49
106	Adsorption of ethylene on the Ge(100)-2Ã—1 surface: Coverage and time-dependent behavior. Journal of Chemical Physics, 1999, 110, 10545-10553.	1.2	48
107	Catalysts with Pt Surface Coating by Atomic Layer Deposition for Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2010, 157, B793.	1.3	48
108	Growth characteristics, material properties, and optical properties of zinc oxysulfide films deposited by atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	0.9	48

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109	Infrared spectroscopy of methyl groups on silicon. Chemical Physics Letters, 1996, 263, 1-7.	1.2	47
110	Interface Engineering in Inorganic-Absorber Nanostructured Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 348-360.	2.1	47
111	<i>In situ</i> observation of phase changes of a silica-supported cobalt catalyst for the Fischerâ€“Tropsch process by the development of a synchrotron-compatible <i>inÂsitu/operando</i> powder X-ray diffraction cell. Journal of Synchrotron Radiation, 2018, 25, 1673-1682.	1.0	47
112	Enhanced Nucleation of Atomic Layer Deposited Contacts Improves Operational Stability of Perovskite Solar Cells in Air. Advanced Energy Materials, 2019, 9, 1902353.	10.2	47
113	Next generation nanopatterning using small molecule inhibitors for area-selective atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	46
114	An X-ray Photoelectron Spectroscopy Primer for Solid Electrolyte Interphase Characterization in Lithium Metal Anodes. ACS Energy Letters, 2022, 7, 2540-2546.	8.8	46
115	Spatial control over atomic layer deposition using microcontact-printed resists. Surface and Coatings Technology, 2007, 201, 8799-8807.	2.2	45
116	Correlating Growth Characteristics in Atomic Layer Deposition with Precursor Molecular Structure: The Case of Zinc Tin Oxide. Chemistry of Materials, 2014, 26, 2795-2802.	3.2	45
117	Applications of ALD MnO to electrochemical water splitting. Physical Chemistry Chemical Physics, 2015, 17, 14003-14011.	1.3	44
118	The effect of filament temperature on the gaseous radicals in the hot wire decomposition of silane. Thin Solid Films, 2001, 395, 36-41.	0.8	42
119	Photochemical Covalent Attachment of Alkene-Derived Monolayers onto Hydroxyl-Terminated Silica. Langmuir, 2009, 25, 11592-11597.	1.6	41
120	Effect of O₃ on Growth of Pt by Atomic Layer Deposition. Journal of Physical Chemistry C, 2014, 118, 12325-12332.	1.5	41
121	ALD of Ultrathin Ternary Oxide Electrocatalysts for Water Splitting. ACS Catalysis, 2015, 5, 1609-1616.	5.5	41
122	Understanding Structureâ€“Property Relationships of MoO₃-Promoted Rh Catalysts for Syngas Conversion to Alcohols. Journal of the American Chemical Society, 2019, 141, 19655-19668.	6.6	41
123	Competition and Selectivity in the Reaction of Nitriles on Ge(100)â^'2Ã—1. Journal of the American Chemical Society, 2003, 125, 4928-4936.	6.6	40
124	Nanostructuring Materials for Solar-to-Hydrogen Conversion. Journal of Physical Chemistry C, 2014, 118, 21301-21315.	1.5	40
125	TiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>-SnO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>:F interfacial electronic structure investigated by soft x-ray absorption spectroscopy. Physical Review B, 2012, 85, .	1.1	39
126	Formation of Alkanethiolate Self-Assembled Monolayers at Halide-Terminated Ge Surfaces. Langmuir, 2009, 25, 2013-2025.	1.6	38

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127	ALD Growth Characteristics of ZnS Films Deposited from Organozinc and Hydrogen Sulfide Precursors. Langmuir, 2010, 26, 11899-11906.	1.6	37
128	The importance of dye chemistry and TiCl4 surface treatment in the behavior of Al2O3 recombination barrier layers deposited by atomic layer deposition in solid-state dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2012, 14, 12130.	1.3	37
129	Area Selective Molecular Layer Deposition of Polyurea Films. ACS Applied Materials & Interfaces, 2013, 5, 13391-13396.	4.0	37
130	Revealing and Elucidating ALDâ€Derived Control of Lithium Plating Microstructure. Advanced Energy Materials, 2020, 10, 2002736.	10.2	37
131	Bonding and Thermal Reactivity in Thin a-SiC:H Films Grown by Methylsilane CVD. Journal of Physical Chemistry B, 1997, 101, 9195-9205.	1.2	36
132	Probing radicals in hot wire decomposition of silane using single photon ionization. Applied Physics Letters, 2001, 78, 1784-1786.	1.5	36
133	Influence of organozinc ligand design on growth and material properties of ZnS and ZnO deposited by atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	0.9	36
134	The low temperature atomic layer deposition of ruthenium and the effect of oxygen exposure. Journal of Materials Chemistry, 2012, 22, 25154.	6.7	36
135	Reactions of Nitriles at Semiconductor Surfaces. Journal of Physical Chemistry B, 2003, 107, 12256-12267.	1.2	35
136	The influence of filament material on radical production in hot wire chemical vapor deposition of a-Si:H. Thin Solid Films, 2005, 485, 126-134.	0.8	34
137	Deep recombination centers in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">u</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>ZnSnS</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math>revealed by screened-exchange hybrid density functional theory. Physical Review B, 2015, 92, .	1.1	34
138	Effect of a Methyl-Protecting Group on the Adsorption of Pyrrolidine on Si(100)-2 Ã— 1. Journal of Physical Chemistry B, 2001, 105, 3295-3299.	1.2	33
139	Sulfur versus Oxygen Reactivity of Organic Molecules at the Ge(100)-2Ã—1 Surface. Journal of the American Chemical Society, 2009, 131, 7005-7015.	6.6	33
140	Highly Textured Tin(II) Sulfide Thin Films Formed from Sheetlike Nanocrystal Inks. Chemistry of Materials, 2014, 26, 7106-7113.	3.2	33
141	Atomic and Molecular Layer Deposition of Hybrid Moâ€"Thiolate Thin Films with Enhanced Catalytic Activity. Advanced Functional Materials, 2018, 28, 1800852.	7.8	32
142	Formation and Ripening of Self-Assembled Multilayers from the Vapor-Phase Deposition of Dodecanethiol on Copper Oxide. Chemistry of Materials, 2018, 30, 5694-5703.	3.2	32
143	Mechanistic Study of Nucleation Enhancement in Atomic Layer Deposition by Pretreatment with Small Organometallic Molecules. Chemistry of Materials, 2020, 32, 315-325.	3.2	32
144	Directed Retinal Nerve Cell Growth for Use in a Retinal Prosthesis Interface. , 2004, 45, 4132.		31

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145	Area-Selective Atomic Layer Deposition on Chemically Similar Materials: Achieving Selectivity on Oxide/Oxide Patterns. Chemistry of Materials, 2021, 33, 513-523.	3.2	31
146	Controlling Atomic Layer Deposition of TiO₂ in Aerogels through Surface Functionalization. Chemistry of Materials, 2009, 21, 1989-1992.	3.2	30
147	TiO₂ Conduction Band Modulation with In₂O₃ Recombination Barrier Layers in Solid-State Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2013, 117, 24138-24149.	1.5	30
148	Bifacial solar cell with SnS absorber by vapor transport deposition. Applied Physics Letters, 2014, 105, .	1.5	30
149	The Role of Aluminum in Promoting Niâ€“Feâ€“OOH Electrocatalysts for the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2019, 2, 3488-3499.	2.5	30
150	Role of Precursor Choice on Area-Selective Atomic Layer Deposition. Chemistry of Materials, 2021, 33, 3926-3935.	3.2	30
151	Ethylenediamine on Ge(100)-2 Ã— 1:Â The Role of Interdimer Interactions. Journal of Physical Chemistry B, 2005, 109, 19817-19822.	1.2	29
152	Quantifying Geometric Strain at the PbS QD-TiO₂ Anode Interface and Its Effect on Electronic Structures. Nano Letters, 2015, 15, 7829-7836.	4.5	29
153	Understanding the Active Sites of CO Hydrogenation on Ptâ€“Co Catalysts Prepared Using Atomic Layer Deposition. Journal of Physical Chemistry C, 2018, 122, 2184-2194.	1.5	29
154	Synthesis of a Hybrid Nanostructure of ZnO-Decorated MoS₂ by Atomic Layer Deposition. ACS Nano, 2020, 14, 1757-1769.	7.3	29
155	Detecting free radicals during the hot wire chemical vapor deposition of amorphous silicon carbide films using single-source precursors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 542-549.	0.9	27
156	In Vacuo Photoemission Studies of Platinum Atomic Layer Deposition Using Synchrotron Radiation. Journal of Physical Chemistry Letters, 2013, 4, 176-179.	2.1	27
157	Highly Stable Ultrathin Carbosiloxane Films by Molecular Layer Deposition. Journal of Physical Chemistry C, 2013, 117, 19967-19973.	1.5	27
158	Structural evolution of platinum thin films grown by atomic layer deposition. Journal of Applied Physics, 2014, 116, .	1.1	27
159	Formation of Continuous Pt Films on the Graphite Surface by Atomic Layer Deposition with Reactive O₃. Chemistry of Materials, 2015, 27, 6802-6809.	3.2	27
160	Molecular Layer Deposition of a Highly Stable Silicon Oxycarbide Thin Film Using an Organic Chlorosilane and Water. ACS Applied Materials & Interfaces, 2018, 10, 24266-24274.	4.0	27
161	Spectroscopic and thermal studies of a-SiC:H film growth: Comparison of mono-, tri-, and tetramethylsilane. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 1658-1663.	0.9	26
162	Increased Quantum Dot Loading by pH Control Reduces Interfacial Recombination in Quantum-Dot-Sensitized Solar Cells. ACS Nano, 2015, 9, 8321-8334.	7.3	26

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