

# Hyungjun Kim

## List of Publications by Year in descending order

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280  
papers

12,882  
citations

20817

60  
h-index

30922

102  
g-index

293  
all docs

293  
docs citations

293  
times ranked

17071  
citing authors

#	ARTICLE	IF	CITATIONS
1	MoS <sub>2</sub> Nanosheet Phototransistors with Thickness-Modulated Optical Energy Gap. Nano Letters, 2012, 12, 3695-3700.	9.1	1,221
2	Applications of atomic layer deposition to nanofabrication and emerging nanodevices. Thin Solid Films, 2009, 517, 2563-2580.	1.8	533
3	Improvement of Gas-Sensing Performance of Large-Area Tungsten Disulfide Nanosheets by Surface Functionalization. ACS Nano, 2016, 10, 9287-9296.	14.6	351
4	Layer-Controlled, Wafer-Scale, and Conformal Synthesis of Tungsten Disulfide Nanosheets Using Atomic Layer Deposition. ACS Nano, 2013, 7, 11333-11340.	14.6	324
5	Dye-Sensitized MoS <sub>2</sub> Photodetector with Enhanced Spectral Photoresponse. ACS Nano, 2014, 8, 8285-8291.	14.6	268
6	Facile CO <sub>2</sub> Electro-Reduction to Formate via Oxygen Bidentate Intermediate Stabilized by High-Index Planes of Bi Dendrite Catalyst. ACS Catalysis, 2017, 7, 5071-5077.	11.2	263
7	Controllable synthesis of molybdenum tungsten disulfide alloy for vertically composition-controlled multilayer. Nature Communications, 2015, 6, 7817.	12.8	188
8	Exciton dynamics in atomically thin MoS <sub>2</sub> : Interexcitonic interaction and broadening kinetics. Physical Review B, 2013, 88, .	3.2	173
9	NiO Resistive Random Access Memory Nanocapacitor Array on Graphene. ACS Nano, 2010, 4, 2655-2658.	14.6	171
10	High performance thin film transistor with low temperature atomic layer deposition nitrogen-doped ZnO. Applied Physics Letters, 2007, 91, .	3.3	166
11	Synthesis of wafer-scale uniform molybdenum disulfide films with control over the layer number using a gas phase sulfur precursor. Nanoscale, 2014, 6, 2821.	5.6	166
12	Synthesis of carbon nanotube-nickel nanocomposites using atomic layer deposition for high-performance non-enzymatic glucose sensing. Biosensors and Bioelectronics, 2015, 63, 325-330.	10.1	150
13	Micropatternable Double-Faced ZnO Nanoflowers for Flexible Gas Sensor. ACS Applied Materials & Interfaces, 2017, 9, 32876-32886.	8.0	147
14	Low-temperature synthesis of 2D MoS <sub>2</sub> on a plastic substrate for a flexible gas sensor. Nanoscale, 2018, 10, 9338-9345.	5.6	142
15	Bifunctional 2D Superlattice Electrocatalysts of Layered Double Hydroxide-Transition Metal Dichalcogenide Active for Overall Water Splitting. ACS Energy Letters, 2018, 3, 952-960.	17.4	140
16	ZnO thin films prepared by atomic layer deposition and rf sputtering as an active layer for thin film transistor. Thin Solid Films, 2008, 516, 1523-1528.	1.8	132
17	Ga-Doped Pt-Ni Octahedral Nanoparticles as a Highly Active and Durable Electrocatalyst for Oxygen Reduction Reaction. Nano Letters, 2018, 18, 2450-2458.	9.1	125
18	Roles of SnX <sub>2</sub> (X = F, Cl, Br) Additives in Tin-Based Halide Perovskites toward Highly Efficient and Stable Lead-Free Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2018, 9, 6024-6031.	4.6	121

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19	Wafer-scale, conformal and direct growth of MoS <sub>2</sub> thin films by atomic layer deposition. Applied Surface Science, 2016, 365, 160-165.	6.1	119
20	Polymeric Carbon Nitride with Localized Aluminum Coordination Sites as a Durable and Efficient Photocatalyst for Visible Light Utilization. ACS Catalysis, 2018, 8, 4241-4256.	11.2	118
21	Highly Uniform Atomic Layer-Deposited MoS <sub>2</sub> @3D-Ni-Foam: A Novel Approach To Prepare an Electrode for Supercapacitors. ACS Applied Materials & Interfaces, 2017, 9, 40252-40264.	8.0	117
22	Improved Sensitivity in Schottky Contacted Two-Dimensional MoS <sub>2</sub> Gas Sensor. ACS Applied Materials & Interfaces, 2019, 11, 38902-38909.	8.0	117
23	A General Strategy to Atomically Dispersed Precious Metal Catalysts for Unravelling Their Catalytic Trends for Oxygen Reduction Reaction. ACS Nano, 2020, 14, 1990-2001.	14.6	116
24	Recovery Improvement for Large-Area Tungsten Diselenide Gas Sensors. ACS Applied Materials & Interfaces, 2018, 10, 23910-23917.	8.0	115
25	Fabrication of rough Al doped ZnO films deposited by low pressure chemical vapor deposition for high efficiency thin film solar cells. Current Applied Physics, 2010, 10, S459-S462.	2.4	110
26	Unipolar stroke, electroosmotic pump carbon nanotube yarn muscles. Science, 2021, 371, 494-498.	12.6	110
27	Intermetallic PtCu Nanoframes as Efficient Oxygen Reduction Electrocatalysts. Nano Letters, 2020, 20, 7413-7421.	9.1	109
28	The properties of plasma-enhanced atomic layer deposition (ALD) ZnO thin films and comparison with thermal ALD. Applied Surface Science, 2011, 257, 3776-3779.	6.1	108
29	Hydrophobicity of Rare Earth Oxides Grown by Atomic Layer Deposition. Chemistry of Materials, 2015, 27, 148-156.	6.7	106
30	Selective electrochemical reduction of nitric oxide to hydroxylamine by atomically dispersed iron catalyst. Nature Communications, 2021, 12, 1856.	12.8	106
31	2D Transition Metal Dichalcogenide Heterostructures for p- and n-Type Photovoltaic Self-Powered Gas Sensor. Advanced Functional Materials, 2020, 30, 2003360.	14.9	102
32	Static and Dynamic Performance of Complementary Inverters Based on Nanosheet In-MoTe <sub>2</sub> p-Channel and MoS <sub>2</sub> n-Channel Transistors. ACS Nano, 2016, 10, 1118-1125.	14.6	98
33	Activity Origin and Multifunctionality of Pt-Based Intermetallic Nanostructures for Efficient Electrocatalysis. ACS Catalysis, 2019, 9, 11242-11254.	11.2	96
34	Heteroepitaxial Ferroelectric ZnSnO <sub>3</sub> Thin Film. Journal of the American Chemical Society, 2009, 131, 8386-8387.	13.7	93
35	UV-Visible Spectroscopic Analysis of Electrical Properties in Alkali Metal-Doped Amorphous Zinc Tin Oxide Thin-Film Transistors. Advanced Materials, 2013, 25, 2994-3000.	21.0	93
36	High-Performance Gas Sensor Using a Large-Area WS <sub>2</sub> Se <sub>2</sub> Alloy for Low-Power Operation Wearable Applications. ACS Applied Materials & Interfaces, 2018, 10, 34163-34171.	8.0	93

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37	On the importance of the electric double layer structure in aqueous electrocatalysis. <i>Nature Communications</i> , 2022, 13, 174.	12.8	92
38	High-Quality Cobalt Thin Films by Plasma-Enhanced Atomic Layer Deposition. <i>Electrochemical and Solid-State Letters</i> , 2006, 9, G323.	2.2	90
39	Exfoliated 2D Lepidocrocite Titanium Oxide Nanosheets for High Sulfur Content Cathodes with Highly Stable Li <sup>+</sup> S Battery Performance. <i>ACS Energy Letters</i> , 2018, 3, 412-419.	17.4	90
40	High-Capacity, Self-Assembled Metal <sup>+</sup> Oxide <sup>-</sup> Semiconductor Decoupling Capacitors. <i>IEEE Electron Device Letters</i> , 2004, 25, 622-624.	3.9	89
41	Thermal and plasma enhanced atomic layer deposition ruthenium and electrical characterization as a metal electrode. <i>Microelectronic Engineering</i> , 2008, 85, 39-44.	2.4	89
42	Graphene as an atomically thin barrier to Cu diffusion into Si. <i>Nanoscale</i> , 2014, 6, 7503-7511.	5.6	89
43	Layer-modulated synthesis of uniform tungsten disulfide nanosheet using gas-phase precursors. <i>Nanoscale</i> , 2015, 7, 1308-1313.	5.6	86
44	Thermal and Plasma-Enhanced ALD of Ta and Ti Oxide Thin Films from Alkylamide Precursors. <i>Electrochemical and Solid-State Letters</i> , 2006, 9, G191.	2.2	83
45	Characteristics and applications of plasma enhanced-atomic layer deposition. <i>Thin Solid Films</i> , 2011, 519, 6639-6644.	1.8	83
46	Nanosheet thickness-modulated MoS <sub>2</sub> dielectric property evidenced by field-effect transistor performance. <i>Nanoscale</i> , 2013, 5, 548-551.	5.6	83
47	Thermal Transformation of Molecular Ni <sup>2+</sup> to N <sub>4</sub> Sites for Enhanced CO <sub>2</sub> Electroreduction Activity. <i>ACS Catalysis</i> , 2020, 10, 10920-10931.	11.2	81
48	Distorted Carbon Nitride Structure with Substituted Benzene Moieties for Enhanced Visible Light Photocatalytic Activities. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 40360-40368.	8.0	80
49	Ru nanostructure fabrication using an anodic aluminum oxide nanotemplate and highly conformal Ru atomic layer deposition. <i>Nanotechnology</i> , 2008, 19, 045302.	2.6	79
50	Atomic Layer Deposition of Ni Thin Films and Application to Area-Selective Deposition. <i>Journal of the Electrochemical Society</i> , 2011, 158, D1.	2.9	79
51	Review of plasma-enhanced atomic layer deposition: Technical enabler of nanoscale device fabrication. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 03DA01.	1.5	79
52	Mixed Valence Perovskite Cs <sub>2</sub> Au <sub>2</sub> Ir <sub>6</sub> : A Potential Material for Thin-Film Pb-Free Photovoltaic Cells with Ultrahigh Efficiency. <i>Advanced Materials</i> , 2018, 30, e1707001.	21.0	79
53	Insight into the Microenvironments of the Metal-Ionic Liquid Interface during Electrochemical CO <sub>2</sub> Reduction. <i>ACS Catalysis</i> , 2018, 8, 2420-2427.	11.2	77
54	Self-Limiting Layer Synthesis of Transition Metal Dichalcogenides. <i>Scientific Reports</i> , 2016, 6, 18754.	3.3	74

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55	Reaction Mechanism of Area-Selective Atomic Layer Deposition for Al <sub>2</sub> O <sub>3</sub> Nanopatterns. ACS Applied Materials & Interfaces, 2017, 9, 41607-41617.	8.0	73
56	Photocatalytic functional coatings of TiO <sub>2</sub> thin films on polymer substrate by plasma enhanced atomic layer deposition. Applied Catalysis B: Environmental, 2009, 91, 628-633.	20.2	70
57	The application of atomic layer deposition for metallization of 65 nm and beyond. Surface and Coatings Technology, 2006, 200, 3104-3111.	4.8	69
58	Synthesis of horizontally aligned ZnO nanowires localized at terrace edges and application for high sensitivity gas sensor. Applied Physics Letters, 2008, 93, .	3.3	67
59	High Quality Area-Selective Atomic Layer Deposition Co Using Ammonia Gas as a Reactant. Journal of the Electrochemical Society, 2010, 157, D10.	2.9	65
60	Evaluation of bone healing with eggshell-derived bone graft substitutes in rat calvaria: A pilot study. Journal of Biomedical Materials Research - Part A, 2008, 87A, 203-214.	4.0	63
61	Synthesis of Few-Layered Graphene Nanoballs with Copper Cores Using Solid Carbon Source. ACS Applied Materials & Interfaces, 2013, 5, 2432-2437.	8.0	62
62	Transfer and Dynamic Inversion of Coassembled Supramolecular Chirality through 2D-Sheet to Rolled-Up Tubular Structure. Journal of the American Chemical Society, 2017, 139, 17711-17714.	13.7	62
63	Improved Synapse Device With MLC and Conductance Linearity Using Quantized Conduction for Neuromorphic Systems. IEEE Electron Device Letters, 2018, 39, 312-315.	3.9	60
64	Dip-Pen Lithography of Ferroelectric PbTiO <sub>3</sub> Nanodots. Journal of the American Chemical Society, 2009, 131, 14676-14678.	13.7	57
65	Growth characteristics and electrical properties of La <sub>2</sub> O <sub>3</sub> gate oxides grown by thermal and plasma-enhanced atomic layer deposition. Thin Solid Films, 2010, 519, 362-366.	1.8	57
66	Monolayered g-C <sub>3</sub> N <sub>4</sub> nanosheet as an emerging cationic building block for bifunctional 2D superlattice hybrid catalysts with controlled defect structures. Applied Catalysis B: Environmental, 2020, 277, 119191.	20.2	56
67	Atomic layer deposition of Y <sub>2</sub> O <sub>3</sub> and yttrium-doped HfO <sub>2</sub> using a newly synthesized Y(iPrCp) <sub>2</sub> (N-iPr-amd) precursor for a high permittivity gate dielectric. Applied Surface Science, 2014, 297, 16-21.	6.1	54
68	Low-temperature Atomic Layer Deposition of TiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , and ZnO Thin Films. Journal of the Korean Physical Society, 2011, 59, 452-457.	0.7	54
69	Zinc-Phosphorus Complex Working as an Atomic Valve for Colloidal Growth of Monodisperse Indium Phosphide Quantum Dots. Chemistry of Materials, 2017, 29, 6346-6355.	6.7	53
70	Molecular Identification of Cr(VI) Removal Mechanism on Vivianite Surface. Environmental Science & Technology, 2018, 52, 10647-10656.	10.0	53
71	Dynamic metal-polymer interaction for the design of chemoselective and long-lived hydrogenation catalysts. Science Advances, 2020, 6, eabb7369.	10.3	53
72	Atomic Layer Deposition ZnO:N Thin Film Transistor: The Effects of N Concentration on the Device Properties. Journal of the Electrochemical Society, 2010, 157, H214.	2.9	52

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73	Highly conductive and flexible fiber for textile electronics obtained by extremely low-temperature atomic layer deposition of Pt. <i>NPG Asia Materials</i> , 2016, 8, e331-e331.	7.9	51
74	Direct imprinting of MoS <sub>2</sub> flakes on a patterned gate for nanosheet transistors. <i>Journal of Materials Chemistry C</i> , 2013, 1, 7803.	5.5	50
75	Activity-Stability Relationship in Au@Pt Nanoparticles for Electrocatalysis. <i>ACS Energy Letters</i> , 2020, 5, 2827-2834.	17.4	49
76	Lattice Engineering to Simultaneously Control the Defect/Stacking Structures of Layered Double Hydroxide Nanosheets to Optimize Their Energy Functionalities. <i>ACS Nano</i> , 2021, 15, 8306-8318.	14.6	49
77	Highly Flexible Hybrid CMOS Inverter Based on Si Nanomembrane and Molybdenum Disulfide. <i>Small</i> , 2016, 12, 5720-5727.	10.0	46
78	Effect oxygen exposure on the quality of atomic layer deposition of ruthenium from bis(cyclopentadienyl)ruthenium and oxygen. <i>Thin Solid Films</i> , 2008, 516, 7345-7349.	1.8	45
79	Low Pressure Chemical Vapor Deposition of Aluminum-Doped Zinc Oxide for Transparent Conducting Electrodes. <i>Journal of the Electrochemical Society</i> , 2011, 158, D495.	2.9	45
80	A composite layer of atomic-layer-deposited Al <sub>2</sub> O <sub>3</sub> and graphene for flexible moisture barrier. <i>Carbon</i> , 2017, 116, 553-561.	10.3	45
81	Poros Metal-Organic Framework CUK-1 for Adsorption Heat Allocation toward Green Applications of Natural Refrigerant Water. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 25778-25789.	8.0	45
82	Atomic layer deposition ZnO:N flexible thin film transistors and the effects of bending on device properties. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	44
83	Growth characteristics and properties of Ga-doped ZnO (GZO) thin films grown by thermal and plasma-enhanced atomic layer deposition. <i>Applied Surface Science</i> , 2014, 295, 260-265.	6.1	44
84	Optical and electrical properties of 2wt.% Al <sub>2</sub> O <sub>3</sub> -doped ZnO films and characteristics of Al-doped ZnO thin-film transistors with ultra-thin gate insulators. <i>Thin Solid Films</i> , 2010, 518, 2808-2811.	1.8	43
85	Nucleation and Growth of the HfO <sub>2</sub> Dielectric Layer for Graphene-Based Devices. <i>Chemistry of Materials</i> , 2015, 27, 5868-5877.	6.7	43
86	Plasma-Enhanced Atomic Layer Deposition of Cobalt Using Cyclopentadienyl Isopropyl Acetamidinato-Cobalt as a Precursor. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 05FA10.	1.5	42
87	Catalytic chemical vapor deposition of large-area uniform two-dimensional molybdenum disulfide using sodium chloride. <i>Nanotechnology</i> , 2017, 28, 465103.	2.6	42
88	Low-temperature direct synthesis of high quality WS <sub>2</sub> thin films by plasma-enhanced atomic layer deposition for energy related applications. <i>Applied Surface Science</i> , 2018, 459, 596-605.	6.1	42
89	Atomic Layer Deposition-Based 2D Transition Metal Chalcogenides: Synthesis, Modulation, and Applications. <i>Advanced Materials</i> , 2021, 33, e2005907.	21.0	42
90	Electronic Structure of Cerium Oxide Gate Dielectric Grown by Plasma-Enhanced Atomic Layer Deposition. <i>Journal of the Electrochemical Society</i> , 2011, 158, G217.	2.9	41

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91	Enhanced Light Stability of InGaZnO Thin-Film Transistors by Atomic-Layer-Deposited $\text{Y}_2\text{O}_3$ with Ozone. ACS Applied Materials & Interfaces, 2018, 10, 2143-2150.	8.0	41
92	$\text{FeNi}_2\text{P}$ Alloy Nanocatalysts with Electron-Deficient Phosphorus Enhancing the Hydrogen Evolution Reaction in Acidic Media. ACS Catalysis, 2020, 10, 11665-11673.	11.2	41
93	Electric Field Mediated Selectivity Switching of Electrochemical $\text{CO}_2$ Reduction from Formate to CO on Carbon Supported Sn. ACS Energy Letters, 2020, 5, 2987-2994.	17.4	41
94	Atomic Layer Deposition of Ruthenium and Ruthenium-oxide Thin Films by Using a $\text{Ru}(\text{EtCp})_2$ Precursor and Oxygen Gas. Journal of the Korean Physical Society, 2009, 55, 32-37.	0.7	41
95	Effect of $\text{Al}_2\text{O}_3$ Deposition on Performance of Top-Gated Monolayer $\text{MoS}_2$ -Based Field Effect Transistor. ACS Applied Materials & Interfaces, 2016, 8, 28130-28135.	8.0	40
96	Uniform, large-area self-limiting layer synthesis of tungsten diselenide. 2D Materials, 2016, 3, 014004.	4.4	40
97	Atomic layer deposition of Y-stabilized $\text{ZrO}_2$ for advanced DRAM capacitors. Journal of Alloys and Compounds, 2017, 722, 307-312.	5.5	40
98	Comparative study of the growth characteristics and electrical properties of atomic-layer-deposited $\text{HfO}_2$ films obtained from metal halide and amide precursors. Journal of Materials Chemistry C, 2018, 6, 7367-7376.	5.5	40
99	Plasma-Enhanced Atomic Layer Deposition of Ni. Japanese Journal of Applied Physics, 2010, 49, 05FA11.	1.5	38
100	High-Throughput Screening to Investigate the Relationship between the Selectivity and Working Capacity of Porous Materials for Propylene/Propane Adsorptive Separation. Journal of Physical Chemistry C, 2016, 120, 24224-24230.	3.1	37
101	Input Voltage Mapping Optimized for Resistive Memory-Based Deep Neural Network Hardware. IEEE Electron Device Letters, 2017, 38, 1228-1231.	3.9	37
102	Superior role of MXene nanosheet as hybridization matrix over graphene in enhancing interfacial electronic coupling and functionalities of metal oxide. Nano Energy, 2018, 53, 841-848.	16.0	36
103	Out-of-plane piezoresponse of monolayer $\text{MoS}_2$ on plastic substrates enabled by highly uniform and layer-controllable CVD. Applied Surface Science, 2019, 487, 1356-1361.	6.1	36
104	Atomic Layer Deposition of Ru Thin Films Using a $\text{Ru}(\text{O})$ Metallorganic Precursor and $\text{O}_2$ . ECS Journal of Solid State Science and Technology, 2013, 2, P47-P53.	1.8	35
105	Highly-conformal p-type copper(I) oxide ( $\text{Cu}_2\text{O}$ ) thin films by atomic layer deposition using a fluorine-free amino-alkoxide precursor. Applied Surface Science, 2015, 349, 673-682.	6.1	35
106	The effect of $\text{La}_2\text{O}_3$ -incorporation in $\text{HfO}_2$ dielectrics on Ge substrate by atomic layer deposition. Applied Surface Science, 2013, 287, 349-354.	6.1	34
107	The electrical properties of low pressure chemical vapor deposition Ga doped ZnO thin films depending on chemical bonding configuration. Applied Surface Science, 2014, 297, 125-129.	6.1	34
108	Atomic Layer Deposition of Co Using $\text{N}_2\text{H}_4$ Plasma as a Reactant. Journal of the Electrochemical Society, 2011, 158, H1179.	2.9	33

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109	Spontaneous Formation of Vertical Magneticâ€Metalâ€Nanorod Arrays During Plasmaâ€Enhanced Atomic Layer Deposition. <i>Small</i> , 2008, 4, 2247-2254.	10.0	32
110	Photocatalytic effect of thermal atomic layer deposition of TiO <sub>2</sub> on stainless steel. <i>Applied Catalysis B: Environmental</i> , 2011, 104, 6-11.	20.2	32
111	n-ZnO:N/p-Si nanowire photodiode prepared by atomic layer deposition. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	32
112	Growth characteristics and electrical properties of SiO <sub>2</sub> thin films prepared using plasma-enhanced atomic layer deposition and chemical vapor deposition with an aminosilane precursor. <i>Journal of Materials Science</i> , 2016, 51, 5082-5091.	3.7	31
113	Growth Characteristics and Film Properties of Cerium Dioxide Prepared by Plasma-Enhanced Atomic Layer Deposition. <i>Journal of the Electrochemical Society</i> , 2011, 158, G169.	2.9	30
114	Molecular oxidation of surface â€CH <sub>3</sub> during atomic layer deposition of Al <sub>2</sub> O <sub>3</sub> with H <sub>2</sub> O, H <sub>2</sub> O <sub>2</sub> , and O <sub>3</sub> : A theoretical study. <i>Applied Surface Science</i> , 2018, 457, 376-380.	6.1	29
115	uMBD: A Materials-Ready Dispersion Correction That Uniformly Treats Metallic, Ionic, and van der Waals Bonding. <i>Journal of the American Chemical Society</i> , 2020, 142, 2346-2354.	13.7	29
116	Synthesis of a Hybrid Nanostructure of ZnO-Decorated MoS <sub>2</sub> by Atomic Layer Deposition. <i>ACS Nano</i> , 2020, 14, 1757-1769.	14.6	29
117	Flat band voltage (VFB) modulation by controlling compositional depth profile in La <sub>2</sub> O <sub>3</sub> /HfO <sub>2</sub> nanolaminate gate oxide. <i>Journal of Applied Physics</i> , 2010, 107, 074109.	2.5	27
118	Selectivity Modulated by Surface Ligands on Cu <sub>2</sub> O/TiO <sub>2</sub> Catalysts for Gas-Phase Photocatalytic Reduction of Carbon Dioxide. <i>Journal of Physical Chemistry C</i> , 2019, 123, 29184-29191.	3.1	27
119	Low-temperature, high-growth-rate ALD of SiO <sub>2</sub> using aminodisilane precursor. <i>Applied Surface Science</i> , 2019, 485, 381-390.	6.1	27
120	Atomic layer deposition of B <sub>2</sub> O <sub>3</sub> /SiO <sub>2</sub> thin films and their application in an efficient diffusion doping process. <i>Journal of Materials Chemistry C</i> , 2014, 2, 5805.	5.5	26
121	Thermodynamics of Multicomponent Perovskites: A Guide to Highly Efficient and Stable Solar Cell Materials. <i>Chemistry of Materials</i> , 2020, 32, 4265-4272.	6.7	26
122	?The Degradation of Deposition Blocking Layer during Area Selective Plasma Enhanced Atomic Layer Deposition of Cobalt. <i>Journal of the Korean Physical Society</i> , 2010, 56, 104-107.	0.7	26
123	Nitride mediated epitaxy of CoSi <sub>2</sub> through self-interlayer-formation of plasma-enhanced atomic layer deposition Co. <i>Applied Physics Letters</i> , 2007, 90, 213509.	3.3	25
124	The Effects of Ultraviolet Exposure on the Device Characteristics of Atomic Layer Deposited-ZnO:N Thin Film Transistors. <i>Journal of the Electrochemical Society</i> , 2011, 158, J150-J154.	2.9	25
125	Low temperature atomic layer deposited Al-doped ZnO thin films and associated semiconducting properties. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2012, 30, 031210.	1.2	25
126	Synthesis of two-dimensional MoS <sub>2</sub> /graphene heterostructure by atomic layer deposition using MoF <sub>6</sub> precursor. <i>Applied Surface Science</i> , 2019, 494, 591-599.	6.1	25



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127	Phase-controlled synthesis of SnO <sub>x</sub> thin films by atomic layer deposition and post-treatment. Applied Surface Science, 2019, 480, 472-477.	6.1	25
128	Atomic layer deposition of a uniform thin film on two-dimensional transition metal dichalcogenides. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	2.1	25
129	Comparative study on atomic layer deposition of HfO <sub>2</sub> via substitution of ligand structure with cyclopentadiene. Journal of Materials Chemistry C, 2020, 8, 1344-1352.	5.5	24
130	Dynamic Transformation of a Ag <sup>+</sup> -Coordinated Supramolecular Nanostructure from a 1D Needle to a 1D Helical Tube via a 2D Ribbon Accompanying the Conversion of Complex Structures. Journal of the American Chemical Society, 2021, 143, 3113-3123.	13.7	24
131	Plasma-enhanced atomic layer deposition of Co using Co(MeCp) <sub>2</sub> precursor. Journal of Energy Chemistry, 2013, 22, 403-407.	12.9	23
132	Multiscale Simulation Method for Quantitative Prediction of Surface Wettability at the Atomistic Level. Journal of Physical Chemistry Letters, 2018, 9, 1750-1758.	4.6	23
133	Growth characteristics and electrical properties of Ta <sub>2</sub> O <sub>5</sub> grown by thermal and O <sub>3</sub> -based atomic layer deposition on TiN substrates for metal-insulator-metal capacitor applications. Thin Solid Films, 2013, 542, 71-75.	1.8	22
134	Coupled self-assembled monolayer for enhancement of Cu diffusion barrier and adhesion properties. RSC Advances, 2014, 4, 60123-60130.	3.6	22
135	Hybrid nanofabrication processes utilizing diblock copolymer nanotemplate prepared by self-assembled monolayer based surface neutralization. Journal of Vacuum Science & Technology B, 2008, 26, 189.	1.3	20
136	Photocatalytic activities of TiO <sub>2</sub> thin films prepared on Galvanized Iron substrate by plasma-enhanced atomic layer deposition. Thin Solid Films, 2010, 518, 4757-4761.	1.8	20
137	In situ surface cleaning on a Ge substrate using TMA and MgCp <sub>2</sub> for HfO <sub>2</sub> -based gate oxides. Journal of Materials Chemistry C, 2015, 3, 4852-4858.	5.5	20
138	Simultaneous Enhanced Efficiency and Stability of Perovskite Solar Cells Using Adhesive Fluorinated Polymer Interfacial Material. ACS Applied Materials & Interfaces, 2021, 13, 35595-35605.	8.0	20
139	Initial Stage Growth during Plasma-Enhanced Atomic Layer Deposition of Cobalt. Chemical Vapor Deposition, 2012, 18, 41-45.	1.3	19
140	Growth characteristics and properties of indium oxide and indium-doped zinc oxide by atomic layer deposition. Thin Solid Films, 2015, 587, 83-87.	1.8	19
141	Nitrogen-doped ZnO/n-Si core-shell nanowire photodiode prepared by atomic layer deposition. Materials Science in Semiconductor Processing, 2015, 33, 154-160.	4.0	19
142	Surface-Localized Sealing of Porous Ultralow-k Dielectric Films with Ultrathin (<math>\leq 2</math> nm) Polymer Coating. ACS Nano, 2017, 11, 7841-7847.	14.6	19
143	The Impact of an Ultrathin Y <sub>2</sub> O <sub>3</sub> Layer on GeO <sub>2</sub> Passivation in Ge MOS Gate Stacks. IEEE Transactions on Electron Devices, 2017, 64, 3303-3307.	3.0	19
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280	Comparative Study of the Growth Characteristics and Electrical Properties of Atomic-layer-deposited W Films Obtained from Newly Synthesized Metalorganic and Halide Precursor. , 2020, , .		0