soo-hyun Kim

List of Publications by Citations

162 papers	3,426 citations	31 h-index	51 g-index
170 ext. papers	3,885 ext. citations	4.9 avg, IF	5.3 L-index

#	Paper	IF	Citations
162	Layer-controlled, wafer-scale, and conformal synthesis of tungsten disulfide nanosheets using atomic layer deposition. *ACS Nano*, **2013**, 7, 11333-40	16.7	272
161	Structural and Electrical Properties of Atomic Layer Deposited Al-Doped ZnO Films. *Advanced Functional Materials*, **2011**, 21, 448-455	15.6	212
160	Synthesis of carbon nanotube-nickel nanocomposites using atomic layer deposition for high-performance non-enzymatic glucose sensing. *Biosensors and Bioelectronics*, **2015**, 63, 325-330	11.8	128
159	Dual functional sensing mechanism in SnO□ZnO core-shell nanowires. *ACS Applied Materials & Interfaces*, **2014**, 6, 8281-7	9.5	113
158	Wafer-scale growth of MoS2 thin films by atomic layer deposition. *Nanoscale*, **2016**, 8, 10792-8	7.7	111
157	Influence of oxidant source on the property of atomic layer deposited Al2O3 on hydrogen-terminated Si substrate. *Thin Solid Films*, **2005**, 476, 252-257	2.2	107
156	Wafer-scale, conformal and direct growth of MoS2 thin films by atomic layer deposition. *Applied Surface Science*, **2016**, 365, 160-165	6.7	96
155	Highly Uniform Atomic Layer-Deposited MoS@3D-Ni-Foam: A Novel Approach To Prepare an Electrode for Supercapacitors. *ACS Applied Materials & Interfaces*, **2017**, 9, 40252-40264	9.5	87
154	Layer-modulated synthesis of uniform tungsten disulfide nanosheet using gas-phase precursors. *Nanoscale*, **2015**, 7, 1308-13	7.7	76
153	Nucleation kinetics of Ru on silicon oxide and silicon nitride surfaces deposited by atomic layer deposition. *Journal of Applied Physics*, **2008**, 103, 113509	2.5	64
152	Chemiresistive sensing behavior of SnO2 (n)-Cu2O (p) core-shell nanowires. *ACS Applied Materials & Interfaces*, **2015**, 7, 15351-8	9.5	61
151	Low Temperature Atomic Layer Deposition of Ruthenium Thin Films Using Isopropylmethylbenzene-Cyclohexadiene-Ruthenium and O[sub 2]. *Electrochemical and Solid-State Letters*, **2009**, 12, D85		57
150	Atomic layer deposited molybdenum disulfide on Si photocathodes for highly efficient photoelectrochemical water reduction reaction. *Journal of Materials Chemistry A*, **2017**, 5, 3304-3310	13	55
149	Fabrication of high-performance p-type thin film transistors using atomic-layer-deposited SnO films. *Journal of Materials Chemistry C*, **2017**, 5, 3139-3145	7.1	53
148	Characterization of Atomic Layer Deposited WN[sub x]C[sub y] Thin Film as a Diffusion Barrier for Copper Metallization. *Journal of the Electrochemical Society*, **2004**, 151, C272	3.9	45
147	Atomic-layer-deposited buffer layers for thin film solar cells using earth-abundant absorber materials: A review. *Solar Energy Materials and Solar Cells*, **2018**, 176, 49-68	6.4	44
146	Thermal Atomic Layer Deposition (ALD) of Ru Films for Cu Direct Plating. *Journal of the Electrochemical Society*, **2011**, 158, D351	3.9	43

145	A Comparative Study of Film Properties of Chemical Vapor Deposited TiN Films as Diffusion Barriers for Cu Metallization. *Journal of the Electrochemical Society*, **1999**, 146, 1455-1460	3.9	43
144	Atomic-layer-deposited WNxCy thin films as diffusion barrier for copper metallization. *Applied Physics Letters*, **2003**, 82, 4486-4488	3.4	42
143	Highly conductive and flexible fiber for textile electronics obtained by extremely low-temperature atomic layer deposition of Pt. *NPG Asia Materials*, **2016**, 8, e331-e331	10.3	41
142	Improved diffusion barrier by stuffing the grain boundaries of TiN with a thin Al interlayer for Cu metallization. *Applied Physics Letters*, **2001**, 79, 2549-2551	3.4	39
141	Hole-Selective CoOx/SiOx/Si Heterojunctions for Photoelectrochemical Water Splitting. *ACS Catalysis*, **2018**, 8, 9755-9764	13.1	39
140	Formation of Ru Nanotubes by Atomic Layer Deposition onto an Anodized Aluminum Oxide Template. *Electrochemical and Solid-State Letters*, **2008**, 11, K61		37
139	Preparation of single-phase SnSe thin-films and modification of electrical properties via stoichiometry control for photovoltaic application. *Journal of Alloys and Compounds*, **2017**, 722, 474-481	5.7	36
138	Enhanced activity of highly conformal and layered tin sulfide (SnS) prepared by atomic layer deposition (ALD) on 3D metal scaffold towards high performance supercapacitor electrode. *Scientific Reports*, **2019**, 9, 10225	4.9	35
137	Atomic layer deposition of Ti-doped ZnO films with enhanced electron mobility. *Journal of Materials Chemistry C*, **2013**, 1, 4761	7.1	35
136	Chemically synthesized Ag-doped SnS films for PV applications. *Ceramics International*, **2016**, 42, 19027-19035	3.1	33
135	Low-temperature direct synthesis of high quality WS2 thin films by plasma-enhanced atomic layer deposition for energy related applications. *Applied Surface Science*, **2018**, 459, 596-605	6.7	33
134	Effect of Al Distribution on Carrier Generation of Atomic Layer Deposited Al-Doped ZnO Films. *Journal of the Electrochemical Society*, **2011**, 158, D277	3.9	33
133	Atomic Layer Deposition of Ru Thin Films Using a Ru(0) Metallorganic Precursor and O2. *ECS Journal of Solid State Science and Technology*, **2013**, 2, P47-P53	2	32
132	Atomic-Layer-Deposited MoN Thin Films on Three-Dimensional Ni Foam as Efficient Catalysts for the Electrochemical Hydrogen Evolution Reaction. *ACS Applied Materials & Interfaces*, **2019**, 11, 17321-17332	9.5	31
131	Atomic layer deposition of ruthenium (Ru) thin films using ethylbenzen-cyclohexadiene Ru(0) as a seed layer for copper metallization. *Thin Solid Films*, **2013**, 546, 2-8	2.2	31
130	Ultrasmooth, High Electron Mobility Amorphous In2Zn0 Films Grown by Atomic Layer Deposition. *Journal of Physical Chemistry C*, **2014**, 118, 408-415	3.8	29
129	Improvement of the Diffusion Barrier Performance of Ru by Incorporating a WN[sub x] Thin Film for Direct-Plateable Cu Interconnects. *Electrochemical and Solid-State Letters*, **2009**, 12, H248		29
128	Highly-conformal p-type copper(I) oxide (Cu2O) thin films by atomic layer deposition using a fluorine-free amino-alkoxide precursor. *Applied Surface Science*, **2015**, 349, 673-682	6.7	28

127	Effects of B[sub 2]H[sub 6] Pretreatment on ALD of W Film Using a Sequential Supply of WF[sub 6] and SiH[sub 4]. *Electrochemical and Solid-State Letters*, **2005**, 8, C155		28
126	Atomic Layer Deposition of Co Using N2H2 Plasma as a Reactant. *Journal of the Electrochemical Society*, **2011**, 158, H1179	3.9	27
125	Atomic Layer Deposition of RuAlO Thin Films as a Diffusion Barrier for Seedless Cu Interconnects. *Electrochemical and Solid-State Letters*, **2011**, 14, D57		27
124	A Bilayer Diffusion Barrier of ALD-Ru/ALD-TaCN for Direct Plating of Cu. *Journal of the Electrochemical Society*, **2008**, 155, H589	3.9	26
123	A Comparative Study of the Atomic-Layer-Deposited Tungsten Thin Films as Nucleation Layers for W-Plug Deposition. *Journal of the Electrochemical Society*, **2006**, 153, G887	3.9	25
122	Highly-conformal nanocrystalline molybdenum nitride thin films by atomic layer deposition as a diffusion barrier against Cu. *Journal of Alloys and Compounds*, **2016**, 663, 651-658	5.7	24
121	Nonvolatile memory characteristics of atomic layer deposited Ru nanocrystals with a SiO2/Al2O3 bilayered tunnel barrier. *Journal of Applied Physics*, **2010**, 107, 013707	2.5	24
120	Atomic Layer Deposition of Ru Nanocrystals with a Tunable Density and Size for Charge Storage Memory Device Application. *Electrochemical and Solid-State Letters*, **2008**, 11, K89		22
119	A controlled growth of WNx and WCx thin films prepared by atomic layer deposition. *Materials Letters*, **2016**, 168, 218-222	3.3	22
118	Atomic layer deposited zinc oxysulfide anodes in Li-ion batteries: an efficient solution for electrochemical instability and low conductivity. *Journal of Materials Chemistry A*, **2018**, 6, 16515-16528	13	21
117	Controlled formation of MoSe2 by MoNx thin film as a diffusion barrier against Se during selenization annealing for CIGS solar cell. *Journal of Alloys and Compounds*, **2015**, 644, 317-323	5.7	21
116	Characteristics of ALD Tungsten Nitride Using B2H6, WF6, and NH3 and Application to Contact Barrier Layer for DRAM. *Journal of the Electrochemical Society*, **2007**, 154, D435	3.9	21
115	Ruthenium and ruthenium dioxide thin films deposited by atomic layer deposition using a novel zero-valent metalorganic precursor, (ethylbenzene)(1,3-butadiene)Ru(0), and molecular oxygen. *Microelectronic Engineering*, **2015**, 137, 16-22	2.5	20
114	Atomic Layer Deposition of Low-Resistivity and High-Density Tungsten Nitride Thin Films Using B[sub 2]H[sub 6], WF[sub 6], and NH[sub 3]. *Electrochemical and Solid-State Letters*, **2006**, 9, C54		20
113	Multilayer diffusion barrier for copper metallization using a thin interlayer metal (M=Ru, Cr, and Zr) between two TiN films. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2003**, 21, 804		20
112	Highly Stable and Effective Doping of Graphene by Selective Atomic Layer Deposition of Ruthenium. *ACS Applied Materials & Interfaces*, **2017**, 9, 701-709	9.5	19
111	Optimization of Al interlayer thickness for the multilayer diffusion barrier scheme in Cu metallization. *Journal of Applied Physics*, **2002**, 92, 1099-1105	2.5	19
110	Low temperature atomic layer deposited molybdenum nitride-Ni-foam composite: An electrode for efficient charge storage. *Electrochemistry Communications*, **2018**, 93, 114-118	5.1	19

109	Formation of Nano-Crystalline Ru-Based Ternary Thin Films by Plasma-Enhanced Atomic Layer Deposition. *Electrochemical and Solid-State Letters*, **2011**, 14, D10		18
108	Atomic layer deposited self-forming Ru-Mn diffusion barrier for seedless Cu interconnects. *Journal of Alloys and Compounds*, **2016**, 686, 1025-1031	5.7	17
107	Atomic layer deposition of Ru thin film using N2/H2 plasma as a reactant. *Thin Solid Films*, **2012**, 520, 6100-6105	2.2	17
106	Pulsed CVD-W Nucleation Layer Using WF[sub 6] and B[sub 2]H[sub 6] for Low Resistivity W. *Journal of the Electrochemical Society*, **2009**, 156, H685	3.9	17
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104	Atomic layer deposited-ZnO@3D-Ni-foam composite for Na-ion battery anode: A novel route for easy and efficient electrode preparation. *Ceramics International*, **2019**, 45, 1084-1092	5.1	17
103	Nitrogen-doped ZnO/n-Si core–shell nanowire photodiode prepared by atomic layer deposition. *Materials Science in Semiconductor Processing*, **2015**, 33, 154-160	4.3	16
102	Phase-controlled growth of cobalt oxide thin films by atomic layer deposition. *Surface and Coatings Technology*, **2018**, 337, 404-410	4.4	16
101	Significant Enhancement of the Dielectric Constant through the Doping of CeO2 into HfO2 by Atomic Layer Deposition. *Journal of the American Ceramic Society*, **2014**, 97, 1164-1169	3.8	16
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99	High efficiency n-ZnO/p-Si core–shell nanowire photodiode based on well-ordered Si nanowire array with smooth surface. *Materials Science in Semiconductor Processing*, **2014**, 27, 297-302	4.3	15
98	ZnO homojunction core–shell nanorods ultraviolet photo-detecting diodes prepared by atomic layer deposition. *Sensors and Actuators A: Physical*, **2014**, 210, 197-204	3.9	15
97	Characterizations of Pulsed Chemical Vapor Deposited-Tungsten Thin Films for Ultrahigh Aspect Ratio W-Plug Process. *Journal of the Electrochemical Society*, **2005**, 152, C408	3.9	15
96	Selective Atomic Layer Deposition of Metals on Graphene for Transparent Conducting Electrode Application. *ACS Applied Materials & Interfaces*, **2020**, 12, 14331-14340	9.5	14
95	Low-Temperature Atomic Layer Deposition of Highly Conformal Tin Nitride Thin Films for Energy Storage Devices. *ACS Applied Materials & Interfaces*, **2019**, 11, 43608-43621	9.5	14
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93	Improvement of Adhesion Performances of CVD-W Films Deposited on B[sub 2]H[sub 6]-Based ALD-W Nucleation Layer. *Electrochemical and Solid-State Letters*, **2009**, 12, H80		14
92	Pulsed CVD of Tungsten Thin Film as a Nucleation Layer for Tungsten Plug-Fill. *Electrochemical and Solid-State Letters*, **2004**, 7, G195		14

91	Effect of Ion Bombardment during Chemical Vapor Deposition of TiN Films. *Journal of the Electrochemical Society*, **2000**, 147, 2711	3.9	14
90	Some Insights into Atomic Layer Deposition of MoNx Using Mo(CO)6 and NH3 and Its Diffusion Barrier Application. *Chemistry of Materials*, **2019**, 31, 8338-8350	9.6	13
89	Thickness-dependent electrochemical response of plasma enhanced atomic layer deposited WS2 anodes in Na-ion battery. *Electrochimica Acta*, **2019**, 322, 134766	6.7	13
88	Growth of highly conformal ruthenium-oxide thin films with enhanced nucleation by atomic layer deposition. *Journal of Alloys and Compounds*, **2014**, 610, 529-539	5.7	13
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85	Atomic layer deposition of WNx thin films using a F-free tungsten metal-organic precursor and NH3 plasma as a Cu-diffusion barrier. *Thin Solid Films*, **2019**, 685, 393-401	2.2	12
84	Phase and Microstructure of ALD-W Films Deposited Using B[sub 2]H[sub 6] and WF[sub 6] and Their Effects on CVD-W Growth. *Journal of the Electrochemical Society*, **2008**, 155, D148	3.9	12
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82	High efficiency n-Si/p-Cu2O core-shell nanowires photodiode prepared by atomic layer deposition of Cu2O on well-ordered Si nanowires array. *Electronic Materials Letters*, **2016**, 12, 404-410	2.9	12
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80	Characteristics of MoSe2 formation during rapid thermal processing of Mo-coated glass. *Thin Solid Films*, **2013**, 535, 206-213	2.2	11
79	Atomic Layer Deposition of Nickel Using a Heteroleptic Ni Precursor with NH and Selective Deposition on Defects of Graphene. *ACS Omega*, **2019**, 4, 11126-11134	3.9	10
78	The effect of ion beam bombardment on the properties of Ta(C)N films deposited from pentakis-diethylamido-tantalum. *Thin Solid Films*, **2002**, 415, 177-186	2.2	10
77	Plasma-free atomic layer deposition of Ru thin films using H2 molecules as a nonoxidizing reactant. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2016**, 34, 031509	2.9	10
76	Atomic layer deposited nanocrystalline tungsten carbides thin films as a metal gate and diffusion barrier for Cu metallization. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2016**, 34, 041504	2.9	10
75	Hydrogen Evolution Reaction by Atomic Layer-Deposited MoN on Porous Carbon Substrates: The Effects of Porosity and Annealing on Catalyst Activity and Stability. *ChemSusChem*, **2020**, 13, 4159-4168	8.3	9
74	Hydrogen plasma-enhanced atomic layer deposition of hydrogenated amorphous carbon thin films. *Surface and Coatings Technology*, **2018**, 344, 12-20	4.4	9

73	Effects of AlOx incorporation into atomic layer deposited Ru thin films: Applications to Cu direct plating technology. *Journal of Alloys and Compounds*, **2013**, 580, 72-81	5.7	9
72	Growth of Highly Conformal TiCx Films Using Atomic Layer Deposition Technique. *Journal of the American Ceramic Society*, **2013**, 96, 1060-1062	3.8	9
71	Effects of phase of underlying W film on chemical vapor deposited-W film growth and applications to contact-plug and bit line processes for memory devices. *Journal of Vacuum Science & Technology B*, **2007**, 25, 1574		9
70	Comparative study on atomic layer deposition of HfO2via substitution of ligand structure with cyclopentadiene. *Journal of Materials Chemistry C*, **2020**, 8, 1344-1352	7.1	9
69	Cu2O quantum dots emitting visible light grown by atomic layer deposition. *Physica B: Condensed Matter*, **2016**, 500, 4-8	2.8	9
68	Growth characteristics of graphene synthesized via chemical vapor deposition using carbon tetrabromide precursor. *Applied Surface Science*, **2015**, 343, 128-132	6.7	8
67	Revealing the Simultaneous Effects of Conductivity and Amorphous Nature of Atomic-Layer-Deposited Double-Anion-Based Zinc Oxysulfide as Superior Anodes in Na-Ion Batteries. *Small*, **2019**, 15, e1900595	11	8
66	Effect of incident angle of target molecules on electrical property of Al-doped ZnO thin films prepared by RF magnetron sputtering. *Current Applied Physics*, **2010**, 10, S286-S289	2.6	8
65	A review on atomic layer deposited buffer layers for Cu(In,Ga)Se2 (CIGS) thin film solar cells: Past, present, and future. *Solar Energy*, **2020**, 209, 515-537	6.8	8
64	TaCx Thin Films Prepared by Atomic Layer Deposition as Diffusion Barriers for Cu Metallization. *Journal of the American Ceramic Society*, **2014**, 97, 127-134	3.8	7
63	Direct Electrodeposition of Cu on Ru-Al2O3Layer. *Journal of the Electrochemical Society*, **2013**, 160, D3057-D3062	3.9	7
62	Characteristics of Plasma-Enhanced Atomic Layer Deposited RuSiN as a Diffusion Barrier against Cu. *Journal of the Electrochemical Society*, **2011**, 158, D657	3.9	7
61	Diffusion Barriers Between Al and Cu for the Cu Interconnect of Memory Devices. *Electrochemical and Solid-State Letters*, **2008**, 11, H127		7
60	Influence of additives upon Cu thin film growth on atomic-layer-deposited Ru layer and trench-filling by direct electrodeposition. *Thin Solid Films*, **2017**, 636, 251-256	2.2	6
59	Evaluation of grating realized via pulse current electroplating combined with atomic layer deposition as an x-ray grating interferometer. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2019**, 37, 030903	2.9	6
58	Atomic Layer Deposition of Ru Thin Films Using a New Beta-Diketonate Ru Precursor and NH3 Plasma as a Reactant. *Journal of Nanoscience and Nanotechnology*, **2015**, 15, 8472-7	1.3	6
57	Growth Enhancement and Nitrogen Loss in ZnOxNy Low-Temperature Atomic Layer Deposition with NH3. *Journal of Physical Chemistry C*, **2015**, 119, 23470-23477	3.8	6
56	The effects of nitrogen incorporation on the properties of atomic layer deposited Ru thin films as a direct-plateable diffusion barrier for Cu interconnect. *Thin Solid Films*, **2014**, 562, 118-125	2.2	6

55	ALD-Grown Al2O3 as a Diffusion Barrier for Stainless Steel Substrates for Flexible Cu(InGa)Se2 Solar Cells. *Molecular Crystals and Liquid Crystals*, **2011**, 551, 147-153	0.5	6
54	Interfacial Adhesion Energy of Ru/AlO Thin Film Deposited by Atomic Layer Deposition between Cu and SiO2: Effect of the Composition of Ru/AlO Thin Film. *Japanese Journal of Applied Physics*, **2012**, 51, 05EB04	1.4	6
53	Rate performance enhancement of lithium-ion battery using precise thickness-controllable-carbon-coated titanium dioxide nanowire array electrode via atomic layer deposition. *Electrochimica Acta*, **2020**, 334, 135596	6.7	6
52	Artificially induced normal ferroelectric behaviour in aerosol deposited relaxor 65PMN-35PT thick films by interface engineering. *Journal of Materials Chemistry C*, **2021**, 9, 3403-3411	7.1	6
51	Sputtered Deposited Carbon-Indium-Zinc Oxide Channel Layers for Use in Thin-Film Transistors. *IEEE Electron Device Letters*, **2014**, 35, 1028-1030	4.4	5
50	A bilayer diffusion barrier of Ru/WSixNy for advanced Cu interconnects. *Thin Solid Films*, **2012**, 521, 73-77	2.2	5
49	Atomic Layer Deposition of Ru for Replacing Cu-Interconnects. *Chemistry of Materials*, **2021**, 33, 5639-5651	9.6	5
48	Effects of annealing on the properties of atomic layer deposited Ru thin films deposited by NH3 and H2 as reactants. *Thin Solid Films*, **2016**, 612, 122-127	2.2	5
47	Atomic layer deposited Mo2N thin films using Mo(CO)6 and NH3 plasma as a Cu diffusion barrier. *Journal of Alloys and Compounds*, **2021**, 858, 158314	5.7	5
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45	Ultralow Loading (Single-Atom and Clusters) of the Pt Catalyst by Atomic Layer Deposition Using Dimethyl ((3,4-η)N,N-dimethyl-3-butene-1-amine-N) Platinum (DDAP) on the High-Surface-Area Substrate for Hydrogen Evolution Reaction. *Advanced Materials Interfaces*, **2021**, 8, 2001508	4.6	5
44	Atomic layer deposition of high-quality Pt thin film as an alternative interconnect replacing Cu. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2020**, 38, 032404	2.9	4
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41	A Study on CVD TaN as a Diffusion Barrier for Cu Interconnects. *Materials Research Society Symposia Proceedings*, **2000**, 612, 671		4
40	Influence of post-annealing on structural, optical and electrical properties of tin nitride thin films prepared by atomic layer deposition. *Applied Surface Science*, **2021**, 538, 147920	6.7	4
39	Cobalt titanium nitride amorphous metal alloys by atomic layer deposition. *Journal of Alloys and Compounds*, **2018**, 737, 684-692	5.7	4
38	Comparative study on growth characteristics and electrical properties of ZrO2 films grown using pulsed plasma-enhanced chemical vapor deposition and plasma-enhanced atomic layer deposition for oxide thin film transistors. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2017**, 35, 031510	2.9	3

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36	The formation of a dielectric SiNxCy sealing layer using an atomic layer deposition technique. *Materials Science in Semiconductor Processing*, **2015**, 29, 139-142	4.3	3
35	Detailed Visualization of Phase Evolution during Rapid Formation of Cu(InGa)Se Photovoltaic Absorber from Mo/CuGa/In/Se Precursors. *Scientific Reports*, **2018**, 8, 3905	4.9	3
34	Vertically and Laterally Self-Aligned Double Layer of Nanocrystals in Nanopatterned Dielectric Layer for Nanocrystal Floating Gate Memory Device. *Electrochemical and Solid-State Letters*, **2010**, 13, H366		3
33	Plasma-Enhanced Atomic Layer Deposition of TaCx Films Using Tris(neopentyl) Tantalum Dichloride and H2 Plasma. *Electrochemical and Solid-State Letters*, **2011**, 14, D89		3
32	Interfacial Adhesion Energy of Ru□AlO Thin Film Deposited by Atomic Layer Deposition between Cu and SiO$_{2}$: Effect of the Composition of Ru□AlO Thin Film. *Japanese Journal of Applied Physics*, **2012**, 51, 05EB04	1.4	3
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29	Low-temperature growth of crystalline Tin(II) monosulfide thin films by atomic layer deposition using a liquid divalent tin precursor. *Applied Surface Science*, **2021**, 565, 150152	6.7	3
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27	Highly Efficient and Stable Iridium Oxygen Evolution Reaction Electrocatalysts Based on Porous Nickel Nanotube Template Enabling Tandem Devices with Solar-to-Hydrogen Conversion Efficiency Exceeding 10.. *Advanced Science*, **2022**, e2104938	13.6	2
26	Atomic Layer Deposition of Iridium Using a Tricarbonyl Cyclopropenyl Precursor and Oxygen. *Chemistry of Materials*,	9.6	2
25	Novel Fabrication of Back Channel Etching Type InGaZnO Thin Film Transistors with MoTa Source/Drain. *Nanoscience and Nanotechnology Letters*, **2016**, 8, 572-576	0.8	2
24	Effects of Ultra-Violet Wet Annealing on Electrical Performance of Back Channel Etching Cu/Mo/IGZO 4 Mask Thin Film Transistor. *Science of Advanced Materials*, **2016**, 8, 2128-2132	2.3	2
23	Facile Synthesis of Zn-Co-S Nanostrip Cluster Arrays on Ni Foam for High-Performance Hybrid Supercapacitors.. *Nanomaterials*, **2021**, 11,	5.4	2
22	Atomic Layer Deposition of Al2O3 Thin Films Using Dimethyl Aluminum sec-Butoxide and H2O Molecules. *Korean Journal of Materials Research*, **2016**, 26, 430-437	0.2	2
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20	Atomic layer deposition of tungsten and tungsten-based compounds using WCl5 and various reactants selected by density functional theory. *Applied Surface Science*, **2021**, 563, 150373	6.7	2

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18	Cu direct electrodeposition using step current for superfilling on Ru-Al2O3 layer. *Electrochimica Acta*, **2014**, 147, 371-379	6.7	1
17	**2017**,		1
16	Ru/WNxBilayers as Diffusion Barriers for Cu Interconnects. *Japanese Journal of Applied Physics*, **2011**, 50, 05EA08	1.4	1
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