Sang Woon Lee

List of Publications by Year
in descending order

41 papers	2,368 citations	279798 23 h-index	289244 40 g-index
41 all docs	41 docs citations	41 times ranked	3111 citing authors

#	Article	IF	Citations
1	A route for an improved hydrogen sensing window using ZnO decorated Pt/AlGaN/GaN HEMT sensors. Ceramics International, 2022, 48, 23590-23597.	4.8	2
2	Alternative Surface Reaction Route in the Atomic Layer Deposition of Titanium Nitride Thin Films for Electrode Applications. ACS Applied Electronic Materials, 2021, 3, 999-1005.	4.3	16
3	MAX-Phase Films Overcome Scaling Limitations to the Resistivity of Metal Thin Films. ACS Applied Materials & Interfaces, 2021, 13, 61809-61817.	8.0	6
4	Chemical mechanism of formation of two-dimensional electron gas at the Al2O3/TiO2 interface by atomic layer deposition. Materials Today Advances, 2021, 12, 100195.	5.2	4
5	In Situ Observation of Two-Dimensional Electron Gas Creation at the Interface of an Atomic Layer-Deposited Al₂O₃/TiO₂ Thin-Film Heterostructure. Chemistry of Materials, 2020, 32, 7662-7669.	6.7	29
6	Influences of Process Temperature on a Phase of Ga 2 O 3 Thin Films Grown by Atomic Layer Deposition on Sapphire. Bulletin of the Korean Chemical Society, 2020, 41, 1190-1193.	1.9	5
7	Highâ€Performance, Transparent Thin Film Hydrogen Gas Sensor Using 2D Electron Gas at Interface of Oxide Thin Film Heterostructure Grown by Atomic Layer Deposition. Advanced Functional Materials, 2019, 29, 1807760.	14.9	61
8	Highly Uniform Resistive Switching Performances Using Two-Dimensional Electron Gas at a Thin-Film Heterostructure for Conductive Bridge Random Access Memory. ACS Applied Materials & Interfaces, 2019, 11, 30028-30036.	8.0	24
9	Gas Sensors: Highâ€Performance, Transparent Thin Film Hydrogen Gas Sensor Using 2D Electron Gas at Interface of Oxide Thin Film Heterostructure Grown by Atomic Layer Deposition (Adv. Funct. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlo	14.9	61
10	Sub-microsecond response time deep-ultraviolet photodetectors using Î±-Ga2O3 thin films grown via low-temperature atomic layer deposition. Journal of Alloys and Compounds, 2019, 780, 400-407.	5.5	52
11	Enhanced nucleation and growth of HfO2 thin films grown by atomic layer deposition on graphene. Journal of Alloys and Compounds, 2018, 742, 676-682.	5.5	6
12	Broadband Omnidirectional Diffuse Mirrors with Hierarchically Designed All-Dielectric Surfaces. ACS Photonics, 2018, 5, 752-758.	6.6	4
13	Field-Effect Device Using Quasi-Two-Dimensional Electron Gas in Mass-Producible Atomic-Layer-Deposited Al₂O₃/TiO₂ Ultrathin (<10 nm) Film Heterostructures. ACS Nano, 2018, 12, 10403-10409.	14.6	46
14	AlGaN/GaN high-electron-mobility transistor pH sensor with extended gate platform. AIP Advances, 2018, 8, .	1.3	29
15	High Contrast Detection of Waterâ€Filled Terahertz Nanotrenches. Advanced Optical Materials, 2018, 6, 1800582.	7.3	16
16	Comparison of the Atomic Layer Deposition of Tantalum Oxide Thin Films Using Ta(N^tBu)(NEt₂)₃, Ta(N^tBu)(NEt₂)₂Cp, and H₂O. ACS Applied Materials & Interfaces, 2017, 9, 537-547.	8.0	23
17	Research Update: Diode performance of the Pt/Al2O3/two-dimensional electron gas/SrTiO3 structure and its time-dependent resistance evolution. APL Materials, 2017, 5, .	5.1	8
18	High-Responsivity Deep-Ultraviolet-Selective Photodetectors Using Ultrathin Gallium Oxide Films. ACS Photonics, 2017, 4, 2937-2943.	6.6	132

#	Article	IF	Citations
19	Influences of Graphene Surface Treatment Temperature on a Growth of Al2 O3 Film by Atomic Layer Deposition on Graphene. Bulletin of the Korean Chemical Society, 2017, 38, 1038-1041.	1.9	3
20	Carbon Nanotubes as Etching Masks for the Formation of Polymer Nanostructures. ACS Applied Materials & Interfaces, 2017, 9, 44053-44059.	8.0	5
21	Two-Dimensional Electron Gas at SrTiO₃-Based Oxide Heterostructures via Atomic Layer Deposition. Journal of Nanomaterials, 2016, 2016, 1-9.	2.7	2
22	Enhanced Nucleation of High-k Dielectrics on Graphene by Atomic Layer Deposition. Chemistry of Materials, 2016, 28, 7268-7275.	6.7	27
23	Reflection properties of nano textured distributed Bragg mirrors. , 2015, , .		0
24	Improved Initial Growth Behavior of SrO and SrTiO₃ Films Grown by Atomic Layer Deposition Using {Sr(demamp)(tmhd)}₂ as Sr-Precursor. Chemistry of Materials, 2015, 27, 3881-3891.	6.7	32
25	X-ray absorption spectroscopy elucidates the impact of structural disorder on electron mobility in amorphous zinc-tin-oxide thin films. Applied Physics Letters, 2014, 104, .	3.3	19
26	Improved Cu₂Oâ€Based Solar Cells Using Atomic Layer Deposition to Control the Cu Oxidation State at the pâ€n Junction. Advanced Energy Materials, 2014, 4, 1301916.	19.5	142
27	Overcoming Efficiency Limitations of SnSâ€Based Solar Cells. Advanced Energy Materials, 2014, 4, 1400496.	19.5	508
28	Origin of the self-limited electron densities at Al2O3/SrTiO3 heterostructures grown by atomic layer deposition â€“ oxygen diffusion model. Nanoscale, 2013, 5, 8940.	5.6	24
29	Atomic Layer Deposition of SrTiO₃ Films with Cyclopentadienyl-Based Precursors for Metalâ€“Insulatorâ€“Metal Capacitors. Chemistry of Materials, 2013, 25, 953-961.	6.7	69
30	Creation and Control of Two-Dimensional Electron Gas Using Al-Based Amorphous Oxides/SrTiO₃ Heterostructures Grown by Atomic Layer Deposition. Nano Letters, 2012, 12, 4775-4783.	9.1	149
31	Controlling the initial growth behavior of SrTiO3 films by interposing Al2O3 layers between the film and the Ru substrate. Journal of Materials Chemistry, 2012, 22, 15037.	6.7	19
32	Study on Initial Growth Behavior of RuO₂ Film Grown by Pulsed Chemical Vapor Deposition: Effects of Substrate and Reactant Feeding Time. Chemistry of Materials, 2012, 24, 1407-1414.	6.7	23
33	Improvement in the leakage current characteristic of metal-insulator-metal capacitor by adopting RuO2 film as bottom electrode. Applied Physics Letters, 2011, 99, .	3.3	58
34	Role of Interfacial Reaction in Atomic Layer Deposition of TiO₂ Thin Films Using Ti(O-iPr)₂(tmhd)₂ on Ru or RuO₂ Substrates. Chemistry of Materials, 2011, 23, 976-983.	6.7	26
35	Atomic Layer Deposition of SrTiO₃ Thin Films with Highly Enhanced Growth Rate for Ultrahigh Density Capacitors. Chemistry of Materials, 2011, 23, 2227-2236.	6.7	112
36	Capacitors with an Equivalent Oxide Thickness of <0.5 nm for Nanoscale Electronic Semiconductor Memory. Advanced Functional Materials, 2010, 20, 2989-3003.	14.9	189

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37	Growth of RuO₂ Thin Films by Pulsed-Chemical Vapor Deposition Using RuO₄ Precursor and 5% H₂ Reduction Gas. Chemistry of Materials, 2010, 22, 5700-5706.	6.7	40
38	Chemical Vapor Deposition of Ru Thin Films with an Enhanced Morphology, Thermal Stability, and Electrical Properties Using a RuO₄ Precursor. Chemistry of Materials, 2009, 21, 207-209.	6.7	57
39	Alâ€Doped TiO₂ Films with Ultralow Leakage Currents for Next Generation DRAM Capacitors. Advanced Materials, 2008, 20, 1429-1435.	21.0	281
40	Enhanced electrical properties of SrTiO3 thin films grown by atomic layer deposition at high temperature for dynamic random access memory applications. Applied Physics Letters, 2008, 92, 222903.	3.3	112
41	Atomic Layer Deposition of Ru Thin Films Using 2,4-(dimethylpentadienyl)(ethylcyclopentadienyl) Ru by a Liquid Injection System. Applications of Ferroelectrics, IEEE International Symposium on, 2007, , .	0.0	1