

Steven George

List of Publications by Citations

Source: <https://exaly.com/author-pdf/7302171/steven-george-publications-by-citations.pdf>

Version: 2024-04-23

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

449
papers

33,459
citations

90
h-index

165
g-index

481
ext. papers

35,650
ext. citations

5.3
avg, IF

7.75
L-index

#	Paper	IF	Citations
449	Atomic layer deposition: an overview. <i>Chemical Reviews</i> , 2010 , 110, 111-31	68.1	3955
448	Low-Temperature Al ₂ O ₃ Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2004 , 16, 639-645	9.6	1102
447	Surface Chemistry for Atomic Layer Growth. <i>The Journal of Physical Chemistry</i> , 1996 , 100, 13121-13131		594
446	Electrical characterization of thin Al ₂ O ₃ films grown by atomic layer deposition on silicon and various metal substrates. <i>Thin Solid Films</i> , 2002 , 413, 186-197	2.2	558
445	Conformal Coating on Ultrahigh-Aspect-Ratio Nanopores of Anodic Alumina by Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2003 , 15, 3507-3517	9.6	511
444	Hydrogen desorption kinetics from monohydride and dihydride species on silicon surfaces. <i>Physical Review B</i> , 1988 , 37, 8234-8243	3.3	481
443	Viscous flow reactor with quartz crystal microbalance for thin film growth by atomic layer deposition. <i>Review of Scientific Instruments</i> , 2002 , 73, 2981-2987	1.7	461
442	Al ₂ O ₃ thin film growth on Si(100) using binary reaction sequence chemistry. <i>Thin Solid Films</i> , 1997 , 292, 135-144	2.2	439
441	Ultrathin direct atomic layer deposition on composite electrodes for highly durable and safe Li-ion batteries. <i>Advanced Materials</i> , 2010 , 22, 2172-6	24	423
440	Surface chemistry of Al ₂ O ₃ deposition using Al(CH ₃) ₃ and H ₂ O in a binary reaction sequence. <i>Surface Science</i> , 1995 , 322, 230-242	1.8	376
439	Fe ₃ O ₄ Nanoparticles Confined in Mesocellular Carbon Foam for High Performance Anode Materials for Lithium-Ion Batteries. <i>Advanced Functional Materials</i> , 2011 , 21, 2430-2438	15.6	370
438	Ca test of Al ₂ O ₃ gas diffusion barriers grown by atomic layer deposition on polymers. <i>Applied Physics Letters</i> , 2006 , 89, 031915	3.4	350
437	Nucleation and Growth during Al ₂ O ₃ Atomic Layer Deposition on Polymers. <i>Chemistry of Materials</i> , 2005 , 17, 5625-5634	9.6	347
436	Ultrathin coatings on nano-LiCoO ₂ for Li-ion vehicular applications. <i>Nano Letters</i> , 2011 , 11, 414-8	11.5	322
435	Gas diffusion barriers on polymers using Al ₂ O ₃ atomic layer deposition. <i>Applied Physics Letters</i> , 2006 , 88, 051907	3.4	322
434	Gas Diffusion Barriers on Polymers Using Multilayers Fabricated by Al ₂ O ₃ and Rapid SiO ₂ Atomic Layer Deposition. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 4573-4580	3.8	314
433	Growth of ZnO/Al ₂ O ₃ Alloy Films Using Atomic Layer Deposition Techniques. <i>Chemistry of Materials</i> , 2003 , 15, 1020-1028	9.6	311

432	Enhanced Stability of LiCoO ₂ Cathodes in Lithium-Ion Batteries Using Surface Modification by Atomic Layer Deposition. <i>Journal of the Electrochemical Society</i> , 2010 , 157, A75	3.9	295
431	Surface chemistry for molecular layer deposition of organic and hybrid organic-inorganic polymers. <i>Accounts of Chemical Research</i> , 2009 , 42, 498-508	24.3	292
430	Ultra-low thermal conductivity in W/Al ₂ O ₃ nanolaminates. <i>Science</i> , 2004 , 303, 989-90	33.3	292
429	Comparison of hydrogen desorption kinetics from Si(111)7 \times 7 and Si(100)2 \times 1. <i>Surface Science</i> , 1991 , 258, 166-176	1.8	271
428	Molecular Layer Deposition of Alucone Polymer Films Using Trimethylaluminum and Ethylene Glycol. <i>Chemistry of Materials</i> , 2008 , 20, 3315-3326	9.6	264
427	Spatial atomic layer deposition: A route towards further industrialization of atomic layer deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012 , 30, 010802	2.9	248
426	Al ₂ O ₃ Atomic Layer Deposition with Trimethylaluminum and Ozone Studied by in Situ Transmission FTIR Spectroscopy and Quadrupole Mass Spectrometry. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 19530-19539	3.8	244
425	ZnO/Al ₂ O ₃ nanolaminates fabricated by atomic layer deposition: growth and surface roughness measurements. <i>Thin Solid Films</i> , 2002 , 414, 43-55	2.2	227
424	Condensation and evaporation of water on ice surfaces. <i>The Journal of Physical Chemistry</i> , 1992 , 96, 8502-8509	2.24	
423	Desorption kinetics of hydrogen and deuterium from Si(111) 7 \times 7 studied using laser-induced thermal desorption. <i>Journal of Chemical Physics</i> , 1988 , 89, 1709-1718	3.9	223
422	H ₂ O Condensation Coefficient and Refractive Index for Vapor-Deposited Ice from Molecular Beam and Optical Interference Measurements. <i>The Journal of Physical Chemistry</i> , 1996 , 100, 4988-4995		219
421	Three-dimensional Ni/TiO ₂ nanowire network for high areal capacity lithium ion microbattery applications. <i>Nano Letters</i> , 2012 , 12, 655-60	11.5	212
420	Al ₂ O ₃ and TiO ₂ atomic layer deposition on copper for water corrosion resistance. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 4593-601	9.5	207
419	Improved Functionality of Lithium-Ion Batteries Enabled by Atomic Layer Deposition on the Porous Microstructure of Polymer Separators and Coating Electrodes. <i>Advanced Energy Materials</i> , 2012 , 2, 1022-1027	21.8	182
418	Gas diffusion ultrabarriers on polymer substrates using Al ₂ O ₃ atomic layer deposition and SiN plasma-enhanced chemical vapor deposition. <i>Journal of Applied Physics</i> , 2009 , 106, 023533	2.5	180
417	Atomic layer deposition of ultrathin and conformal Al ₂ O ₃ films on BN particles. <i>Thin Solid Films</i> , 2000 , 371, 95-104	2.2	180
416	Thermal Stability of Hydroxyl Groups on a Well-Defined Silica Surface. <i>The Journal of Physical Chemistry</i> , 1995 , 99, 4639-4647		180
415	Growth of SiO ₂ at room temperature with the use of catalyzed sequential half-reactions. <i>Science</i> , 1997 , 278, 1934-6	33.3	179

414	Electrochemical effects of ALD surface modification on combustion synthesized LiNi _{1/3} Mn _{1/3} Co _{1/3} O ₂ as a layered-cathode material. <i>Journal of Power Sources</i> , 2011 , 196, 3317-3324	8.9	178
413	Unexpected Improved Performance of ALD Coated LiCoO ₂ /Graphite Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2013 , 3, 213-219	21.8	174
412	Atomic Layer Deposition of Al ₂ O ₃ Films on Polyethylene Particles. <i>Chemistry of Materials</i> , 2004 , 16, 5602-5609	3.5	171
411	Atomic Layer Deposition of TiO ₂ on Graphene for Supercapacitors. <i>Journal of the Electrochemical Society</i> , 2012 , 159, A364-A369	3.9	167
410	FTIR studies of H ₂ O and D ₂ O decomposition on porous silicon surfaces. <i>Surface Science</i> , 1991 , 245, 360-372	3.2	166
409	Atomic-layer deposition of wear-resistant coatings for microelectromechanical devices. <i>Applied Physics Letters</i> , 2003 , 82, 2883-2885	3.4	160
408	Atomic layer deposition of tungsten using sequential surface chemistry with a sacrificial stripping reaction. <i>Thin Solid Films</i> , 2000 , 360, 145-153	2.2	157
407	Using atomic layer deposition to hinder solvent decomposition in lithium ion batteries: first-principles modeling and experimental studies. <i>Journal of the American Chemical Society</i> , 2011 , 133, 14741-54	16.4	152
406	The mechanical properties of atomic layer deposited alumina for use in micro- and nano-electromechanical systems. <i>Sensors and Actuators A: Physical</i> , 2006 , 130-131, 419-429	3.9	151
405	Effect of Al ₂ O ₃ Coating on Stabilizing LiNi _{0.4} Mn _{0.4} Co _{0.2} O ₂ Cathodes. <i>Chemistry of Materials</i> , 2015 , 27, 6146-6154	9.6	149
404	Reversible high-capacity Si nanocomposite anodes for lithium-ion batteries enabled by molecular layer deposition. <i>Advanced Materials</i> , 2014 , 26, 1596-601	24	146
403	Critical tensile and compressive strains for cracking of Al ₂ O ₃ films grown by atomic layer deposition. <i>Journal of Applied Physics</i> , 2011 , 109, 084305	2.5	146
402	Molecular layer deposition of poly(p-phenylene terephthalamide) films using terephthaloyl chloride and p-phenylenediamine. <i>Langmuir</i> , 2008 , 24, 2081-9	4	146
401	Progress and future directions for atomic layer deposition and ALD-based chemistry. <i>MRS Bulletin</i> , 2011 , 36, 865-871	3.2	145
400	Surface chemistry and film growth during TiN atomic layer deposition using TDMAT and NH ₃ . <i>Thin Solid Films</i> , 2003 , 436, 145-156	2.2	145
399	Atomic Layer Deposition of SiO ₂ and TiO ₂ in Alumina Tubular Membranes: Pore Reduction and Effect of Surface Species on Gas Transport. <i>Langmuir</i> , 2000 , 16, 7435-7444	4	142
398	Molecular Layer Deposition of Nylon 66 Films Examined Using in Situ FTIR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 8509-8517	3.8	141
397	Nanoscale Interface Modification of LiCoO ₂ by Al ₂ O ₃ Atomic Layer Deposition for Solid-State Li Batteries. <i>Journal of the Electrochemical Society</i> , 2012 , 159, A1120-A1124	3.9	140

396	Adsorption of H ₂ O on a Single-Crystal Al ₂ O ₃ (0001) Surface. <i>Journal of Physical Chemistry B</i> , 1998 , 102, 7008-7015	3.4	135
395	Effects of laser pulse characteristics and thermal desorption parameters on laser induced thermal desorption. <i>Surface Science</i> , 1986 , 167, 341-362	1.8	132
394	Surface diffusion of hydrogen on Ru(001) studied using laser-induced thermal desorption. <i>Journal of Chemical Physics</i> , 1986 , 85, 1676-1680	3.9	131
393	Atomic layer deposited protective coatings for micro-electromechanical systems. <i>Sensors and Actuators A: Physical</i> , 2003 , 103, 100-108	3.9	130
392	Thickness dependence of sensor response for CO gas sensing by tin oxide films grown using atomic layer deposition. <i>Sensors and Actuators B: Chemical</i> , 2008 , 135, 152-160	8.5	124
391	Atomic layer growth of SiO ₂ on Si(100) using SiCl ₄ and H ₂ O in a binary reaction sequence. <i>Surface Science</i> , 1995 , 334, 135-152	1.8	124
390	ALD of SiO ₂ at Room Temperature Using TEOS and H ₂ O with NH ₃ as the Catalyst. <i>Journal of the Electrochemical Society</i> , 2004 , 151, G528	3.9	122
389	Atomic layer deposition of SiO ₂ at room temperature using NH ₃ -catalyzed sequential surface reactions. <i>Surface Science</i> , 2000 , 447, 81-90	1.8	120
388	SiO ₂ Atomic Layer Deposition Using Tris(dimethylamino)silane and Hydrogen Peroxide Studied by in Situ Transmission FTIR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 8249-8257	3.8	119
387	Properties of ZnO/Al ₂ O ₃ Alloy Films Grown Using Atomic Layer Deposition Techniques. <i>Journal of the Electrochemical Society</i> , 2003 , 150, G339	3.9	119
386	Oxidation kinetics of Si(111) 7 x 7 in the submonolayer regime. <i>Physical Review B</i> , 1989 , 40, 7739-7749	3.3	119
385	ZrO ₂ film growth by chemical vapor deposition using zirconium tetra-tert- butoxide. <i>Thin Solid Films</i> , 1999 , 348, 90-98	2.2	118
384	Atomic layer controlled deposition of Al ₂ O ₃ films using binary reaction sequence chemistry. <i>Applied Surface Science</i> , 1996 , 107, 128-136	6.7	117
383	Conformal surface coatings to enable high volume expansion Li-ion anode materials. <i>ChemPhysChem</i> , 2010 , 11, 2124-30	3.2	115
382	Rotary reactor for atomic layer deposition on large quantities of nanoparticles. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2007 , 25, 67-74	2.9	114
381	Synthesis of ZnO quantum dot/graphene nanocomposites by atomic layer deposition with high lithium storage capacity. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 7319-7326	13	109
380	Growth and Properties of Hybrid Organic-Inorganic Metalcone Films Using Molecular Layer Deposition Techniques. <i>Advanced Functional Materials</i> , 2013 , 23, 532-546	15.6	109
379	Effects of Atomic Layer Deposition of Al ₂ O ₃ on the Li[Li _{0.20} Mn _{0.54} Ni _{0.13} Co _{0.13}]O ₂ Cathode for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2011 , 158, A1298	3.9	108

378	Atomic layer etching of Al ₂ O ₃ using sequential, self-limiting thermal reactions with Sn(acac) ₂ and hydrogen fluoride. <i>ACS Nano</i> , 2015 , 9, 2061-70	16.7	104
377	Molecular Layer Deposition of Hybrid Organic-Inorganic Polymer Films using Diethylzinc and Ethylene Glycol. <i>Chemical Vapor Deposition</i> , 2009 , 15, 112-121		103
376	Protection of polymer from atomic-oxygen erosion using Al ₂ O ₃ atomic layer deposition coatings. <i>Thin Solid Films</i> , 2008 , 516, 4036-4039	2.2	102
375	Nanocoating Individual Silica Nanoparticles by Atomic Layer Deposition in a Fluidized Bed Reactor. <i>Chemical Vapor Deposition</i> , 2005 , 11, 420-425		102
374	Surface diffusion of n-alkanes on Ru(001). <i>Journal of Chemical Physics</i> , 1990 , 92, 5136-5143	3.9	102
373	Alucone Alloys with Tunable Properties Using Alucone Molecular Layer Deposition and Al ₂ O ₃ Atomic Layer Deposition. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 3250-3257	3.8	100
372	Nanocoating individual cohesive boron nitride particles in a fluidized bed by ALD. <i>Powder Technology</i> , 2004 , 142, 59-69	5.2	100
371	Surface-coating regulated lithiation kinetics and degradation in silicon nanowires for lithium ion battery. <i>ACS Nano</i> , 2015 , 9, 5559-66	16.7	99
370	Atomic layer deposition of iron(III) oxide on zirconia nanoparticles in a fluidized bed reactor using ferrocene and oxygen. <i>Thin Solid Films</i> , 2009 , 517, 1874-1879	2.2	99
369	Conformal nanocoating of zirconia nanoparticles by atomic layer deposition in a fluidized bed reactor. <i>Nanotechnology</i> , 2005 , 16, S375-81	3.4	97
368	Pseudocapacitance of Amorphous TiO ₂ Thin Films Anchored to Graphene and Carbon Nanotubes Using Atomic Layer Deposition. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 22497-22508	3.8	95
367	The mechanical robustness of atomic-layer- and molecular-layer-deposited coatings on polymer substrates. <i>Journal of Applied Physics</i> , 2009 , 105, 093527	2.5	94
366	Atomic layer deposition of boron nitride using sequential exposures of BCl ₃ and NH ₃ . <i>Thin Solid Films</i> , 2002 , 413, 16-25	2.2	94
365	Adsorption and desorption kinetics for SiCl ₄ on Si(111)7 \times 7. <i>Journal of Chemical Physics</i> , 1990 , 93, 2827-2835		94
364	Charge Storage in Cation Incorporated δ MnO ₂ . <i>Chemistry of Materials</i> , 2015 , 27, 1172-1180	9.6	93
363	Atomic layer controlled growth of SiO ₂ films using binary reaction sequence chemistry. <i>Applied Physics Letters</i> , 1997 , 70, 1092-1094	3.4	92
362	In ₂ S ₃ Atomic Layer Deposition and Its Application as a Sensitizer on TiO ₂ Nanotube Arrays for Solar Energy Conversion. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 8032-8039	3.8	91
361	In situ transmission electron microscopy probing of native oxide and artificial layers on silicon nanoparticles for lithium ion batteries. <i>ACS Nano</i> , 2014 , 8, 11816-23	16.7	90

360	Novel Processing to Produce Polymer/Ceramic Nanocomposites by Atomic Layer Deposition. <i>Journal of the American Ceramic Society</i> , 2007 , 90, 57-63	3.8	90
359	Mesoporous catalytic membranes: Synthetic control of pore size and wall composition. <i>Catalysis Letters</i> , 2005 , 102, 127-130	2.8	90
358	Desorption product yields following Cl ₂ adsorption on Si(111)7 × 7: Coverage and temperature dependence. <i>Surface Science</i> , 1991 , 249, 92-104	1.8	90
357	Prospects for Thermal Atomic Layer Etching Using Sequential, Self-Limiting Fluorination and Ligand-Exchange Reactions. <i>ACS Nano</i> , 2016 , 10, 4889-94	16.7	90
356	Molecular Layer Deposition of Titanicene Films using TiCl ₄ and Ethylene Glycol or Glycerol: Growth and Properties. <i>Chemistry of Materials</i> , 2012 , 24, 2854-2863	9.6	89
355	Molecular Layer Deposition of Hybrid Organic/Inorganic Alucone Polymer Films Using a Three-Step ABC Reaction Sequence. <i>Chemistry of Materials</i> , 2009 , 21, 5365-5374	9.6	89
354	Effect of thermal annealing and surface coverage on porous silicon photoluminescence. <i>Applied Physics Letters</i> , 1992 , 61, 1414-1416	3.4	89
353	Adsorption and desorption kinetics for SiH ₂ Cl ₂ on Si(111) 7 × 7. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1992 , 10, 324-333	2.9	89
352	Desorption of H ₂ O from a hydroxylated single-crystal Al ₂ O ₃ (0001) surface. <i>Surface Science</i> , 1998 , 416, 341-353	1.8	88
351	Atomic layer deposition on gram quantities of multi-walled carbon nanotubes. <i>Nanotechnology</i> , 2009 , 20, 255602	3.4	87
350	Nucleation and growth of Pt atomic layer deposition on Al ₂ O ₃ substrates using (methylcyclopentadienyl)-trimethyl platinum and O ₂ plasma. <i>Journal of Applied Physics</i> , 2011 , 109, 084333	2.5	87
349	Atomic layer controlled growth of Si ₃ N ₄ films using sequential surface reactions. <i>Surface Science</i> , 1998 , 418, L14-L19	1.8	86
348	Monte Carlo studies of diffusion on inhomogeneous surfaces. <i>Journal of Chemical Physics</i> , 1988 , 88, 4052-4061	3.9	86
347	Protecting polymers in space with atomic layer deposition coatings. <i>ACS Applied Materials & Interfaces</i> , 2010 , 2, 2515-20	9.5	85
346	Vibro-fluidization of fine boron nitride powder at low pressure. <i>Powder Technology</i> , 2001 , 121, 195-204	5.2	85
345	Tin Monosulfide Thin Films Grown by Atomic Layer Deposition Using Tin 2,4-Pentanedionate and Hydrogen Sulfide. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 17597-17603	3.8	83
344	Steady-state and transient photoconductivity in c-axis GaN nanowires grown by nitrogen-plasma-assisted molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2010 , 107, 034318	2.5	83
343	Ultralow thermal conductivity of atomic/molecular layer-deposited hybrid organic-inorganic zincene thin films. <i>Nano Letters</i> , 2013 , 13, 5594-9	11.5	82

342	Nucleation and growth during tungsten atomic layer deposition on SiO ₂ surfaces. <i>Thin Solid Films</i> , 2001 , 386, 41-52	2.2	81
341	TiO ₂ atomic layer deposition on ZrO ₂ particles using alternating exposures of TiCl ₄ and H ₂ O. <i>Applied Surface Science</i> , 2004 , 226, 393-404	6.7	80
340	Surface diffusion of carbon monoxide on Ru(001) studied using laser-induced thermal desorption. <i>Surface Science</i> , 1989 , 208, 441-462	1.8	80
339	Multilayer and functional coatings on carbon nanotubes using atomic layer deposition. <i>Applied Physics Letters</i> , 2005 , 87, 123110	3.4	79
338	Adsorption and desorption kinetics of H ₂ O on a fully hydroxylated SiO ₂ surface. <i>Surface Science</i> , 1996 , 364, 61-78	1.8	79
337	Kinetics of desorption, adsorption, and surface diffusion of CO ₂ on MgO(100). <i>Surface Science</i> , 1992 , 261, 141-154	1.8	79
336	Inhomogeneous broadening of vibrational linewidths in polyatomic liquids. <i>Journal of Chemical Physics</i> , 1980 , 73, 5573-5583	3.9	79
335	X-ray Reflectivity Characterization of ZnO/Al ₂ O ₃ Multilayers Prepared by Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2002 , 14, 2276-2282	9.6	76
334	Coating Fine Nickel Particles with Al ₂ O ₃ Utilizing an Atomic Layer Deposition-Fluidized Bed Reactor (ALD-FFBR). <i>Journal of the American Ceramic Society</i> , 2004 , 87, 762-765	3.8	75
333	Atomic layer deposition of amorphous TiO ₂ on graphene as an anode for Li-ion batteries. <i>Nanotechnology</i> , 2013 , 24, 424002	3.4	74
332	Thermal Atomic Layer Etching of SiO by a "Conversion-Etch" Mechanism Using Sequential Reactions of Trimethylaluminum and Hydrogen Fluoride. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 10296-10307	9.5	73
331	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, 050818	2.9	73
330	Surface and Bulk Diffusion of H ₂ ¹⁸ O on Single-Crystal H ₂ ¹⁶ O Ice Multilayers. <i>The Journal of Physical Chemistry</i> , 1996 , 100, 15460-15469		73
329	Thermo-mechanical properties of alumina films created using the atomic layer deposition technique. <i>Sensors and Actuators A: Physical</i> , 2010 , 164, 58-67	3.9	72
328	Temperature-Induced Apparent Mass Changes Observed during Quartz Crystal Microbalance Measurements of Atomic Layer Deposition. <i>Analytical Chemistry</i> , 2003 , 75, 4975-4982	7.8	71
327	Atomic layer controlled deposition of SiO ₂ and Al ₂ O ₃ using ABAB binary reaction sequence chemistry. <i>Applied Surface Science</i> , 1994 , 82-83, 460-467	6.7	71
326	Diethylsilane Decomposition on Silicon Surfaces Studied Using Transmission FTIR Spectroscopy. <i>Journal of the Electrochemical Society</i> , 1992 , 139, 537-543	3.9	71
325	Atomic Layer Etching of HfO ₂ Using Sequential, Self-Limiting Thermal Reactions with Sn(acac) ₂ and HF. <i>ECS Journal of Solid State Science and Technology</i> , 2015 , 4, N5013-N5022	2	70

324	Highly Conductive and Transparent Hybrid Organic-Inorganic Zinc Oxide Thin Films Using Atomic and Molecular Layer Deposition. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 24784-24791	3.8	69
323	Introduction: Heterogeneous Catalysis. <i>Chemical Reviews</i> , 1995 , 95, 475-476	68.1	69
322	Surface chemistry and infrared absorbance changes during ZnO atomic layer deposition on ZrO ₂ and BaTiO ₃ particles. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2005 , 23, 118-125	2.9	68
321	Quartz crystal microbalance studies of Al ₂ O ₃ atomic layer deposition using trimethylaluminum and water at 125 degrees C. <i>Journal of Physical Chemistry A</i> , 2010 , 114, 1281-9	2.8	67
320	Atomic Layer Deposition of SiO ₂ Films on BN Particles Using Sequential Surface Reactions. <i>Chemistry of Materials</i> , 2000 , 12, 3472-3480	9.6	67
319	Unexpected high power performance of atomic layer deposition coated Li[Ni _{1/3} Mn _{1/3} Co _{1/3}] ₂ O ₂ cathodes. <i>Journal of Power Sources</i> , 2014 , 254, 190-197	8.9	66
318	Ultrathin oxide films by atomic layer deposition on graphene. <i>Nano Letters</i> , 2012 , 12, 3706-10	11.5	66
317	Modification of Porous Alumina Membranes Using Al ₂ O ₃ Atomic Layer Controlled Deposition. <i>Chemistry of Materials</i> , 1997 , 9, 707-714	9.6	66
316	SnO ₂ atomic layer deposition on ZrO ₂ and Al nanoparticles: Pathway to enhanced thermite materials. <i>Powder Technology</i> , 2005 , 156, 154-163	5.2	65
315	Trimethylaluminum as the Metal Precursor for the Atomic Layer Etching of Al ₂ O ₃ Using Sequential, Self-Limiting Thermal Reactions. <i>Chemistry of Materials</i> , 2016 , 28, 2994-3003	9.6	65
314	Atomic Layer Deposition of MgO Using Bis(ethylcyclopentadienyl)magnesium and H ₂ O. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 1939-1946	3.8	64
313	Interaction of HCl with Ice: Investigation of the Predicted Trihydrate, Hexahydrate, and Monolayer Regimes. <i>Journal of Physical Chemistry A</i> , 1997 , 101, 4979-4986	2.8	64
312	Biocompatibility of atomic layer-deposited alumina thin films. <i>Journal of Biomedical Materials Research - Part A</i> , 2008 , 87, 100-6	5.4	64
311	Coverage dependence of the surface diffusion coefficient for hydrogen on Ru(001). <i>Surface Science</i> , 1987 , 191, 108-120	1.8	64
310	General Trends for Bulk Diffusion in Ice and Surface Diffusion on Ice. <i>Journal of Physical Chemistry A</i> , 2002 , 106, 6309-6318	2.8	63
309	Selectivity in Thermal Atomic Layer Etching Using Sequential, Self-Limiting Fluorination and Ligand-Exchange Reactions. <i>Chemistry of Materials</i> , 2016 , 28, 7657-7665	9.6	63
308	Refractive index and density of vapor-deposited ice. <i>Geophysical Research Letters</i> , 1995 , 22, 3493-3496	4.9	62
307	Atomic layer deposition of MnO using Bis(ethylcyclopentadienyl)manganese and H ₂ O. <i>Thin Solid Films</i> , 2009 , 517, 5658-5665	2.2	61

306	Metalcones: hybrid organic-inorganic films fabricated using atomic and molecular layer deposition techniques. <i>Journal of Nanoscience and Nanotechnology</i> , 2011 , 11, 7948-55	1.3	61
305	Tantalum Nitride Atomic Layer Deposition Using (tert-Butylimido)tris(diethylamido)tantalum and Hydrazine. <i>Journal of the Electrochemical Society</i> , 2008 , 155, D508	3.9	60
304	Synthesis of a Novel Porous Polymer/Ceramic Composite Material by Low-Temperature Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2007 , 19, 5388-5394	9.6	60
303	Atomic Layer Deposition of Tungsten Nitride Films Using Sequential Surface Reactions. <i>Journal of the Electrochemical Society</i> , 2000 , 147, 1175	3.9	60
302	Atomic Layer Deposition of AlF ₃ Using Trimethylaluminum and Hydrogen Fluoride. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 14185-14194	3.8	59
301	Nucleation and growth during the atomic layer deposition of W on Al ₂ O ₃ and Al ₂ O ₃ on W. <i>Thin Solid Films</i> , 2004 , 467, 16-27	2.2	59
300	Kinetics of the WF ₆ and Si ₂ H ₆ surface reactions during tungsten atomic layer deposition. <i>Surface Science</i> , 2001 , 479, 121-135	1.8	59
299	Surface diffusion of hydrogen on sulfur-covered Ru(001) surfaces studied using laser-induced thermal desorption. <i>Surface Science</i> , 1988 , 194, 457-474	1.8	59
298	Thermal Atomic Layer Etching of ZnO by a [Conversion-Etch] Mechanism Using Sequential Exposures of Hydrogen Fluoride and Trimethylaluminum. <i>Chemistry of Materials</i> , 2017 , 29, 1183-1191	9.6	57
297	Surface diffusion of hydrogen on carbon-covered Ru(001) surfaces studied using laser-induced thermal desorption. <i>Journal of Chemical Physics</i> , 1987 , 87, 2340-2345	3.9	57
296	Tungsten atomic layer deposition on polymers. <i>Thin Solid Films</i> , 2008 , 516, 6175-6185	2.2	56
295	SiO ₂ film growth at low temperatures by catalyzed atomic layer deposition in a viscous flow reactor. <i>Thin Solid Films</i> , 2005 , 491, 43-53	2.2	56
294	Mechanism of Pyridine-Catalyzed SiO ₂ Atomic Layer Deposition Studied by Fourier Transform Infrared Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 219-226	3.8	55
293	Analysis of Al ₂ O ₃ Atomic Layer Deposition on ZrO ₂ Nanoparticles in a Rotary Reactor. <i>Chemical Vapor Deposition</i> , 2007 , 13, 491-498		55
292	Quartz crystal microbalance study of tungsten atomic layer deposition using WF ₆ and Si ₂ H ₆ . <i>Thin Solid Films</i> , 2005 , 488, 103-110	2.2	55
291	Singlet and triplet exciton percolation in benzene isotopic mixed crystals. <i>Journal of Chemical Physics</i> , 1977 , 67, 4941-4947	3.9	54
290	Desorption kinetics of C ₆₀ multilayers from Al ₂ O ₃ (0001). <i>Chemical Physics Letters</i> , 1991 , 186, 450-455	2.5	53
289	Decomposition of NH ₃ on Si(111) 7 \times 7 studied using laser-induced thermal desorption. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1989 , 7, 1303		53

288	Determination of absolute photon yields under single-collision conditions. <i>Journal of Chemical Physics</i> , 1977 , 67, 1024	3.9	53
287	Amorphous vanadium oxide coating on graphene by atomic layer deposition for stable high energy lithium ion anodes. <i>Chemical Communications</i> , 2014 , 50, 10703-6	5.8	52
286	Molecular Layer Deposition of Zirconium and ZrO ₂ /Zirconium Alloy Films: Growth and Properties. <i>Chemical Vapor Deposition</i> , 2013 , 19, 204-212		52
285	Thermal Atomic Layer Etching of Titanium Nitride Using Sequential, Self-Limiting Reactions: Oxidation to TiO ₂ and Fluorination to Volatile TiF ₄ . <i>Chemistry of Materials</i> , 2017 , 29, 8202-8210	9.6	52
284	Nanocoating hybrid polymer films on large quantities of cohesive nanoparticles by molecular layer deposition. <i>AIChE Journal</i> , 2009 , 55, 1030-1039	3.6	52
283	Nanoparticle Coating for Advanced Optical, Mechanical and Rheological Properties. <i>Advanced Functional Materials</i> , 2007 , 17, 3175-3181	15.6	52
282	SiO ₂ Chemical Vapor Deposition at Room Temperature Using SiCl ₄ and H ₂ O with an NH ₃ Catalyst. <i>Journal of the Electrochemical Society</i> , 2000 , 147, 2658	3.9	52
281	Atomic layer deposition of Al ₂ O ₃ and SiO ₂ on BN particles using sequential surface reactions. <i>Applied Surface Science</i> , 2000 , 162-163, 280-292	6.7	51
280	Real refractive indices of infrared-characterized nitric-acid/ice films: Implications for optical measurements of polar stratospheric clouds. <i>Journal of Geophysical Research</i> , 1994 , 99, 25655		51
279	Adsorption, desorption, and surface diffusion kinetics of NH ₃ on MgO(100). <i>Journal of Chemical Physics</i> , 1991 , 95, 8521-8531	3.9	51
278	Mechanism of Thermal Al ₂ O ₃ Atomic Layer Etching Using Sequential Reactions with Sn(acac) ₂ and HF. <i>Chemistry of Materials</i> , 2015 , 27, 3648-3657	9.6	50
277	Optimization and Structural Characterization of W/Al ₂ O ₃ Nanolaminates Grown Using Atomic Layer Deposition Techniques. <i>Chemistry of Materials</i> , 2005 , 17, 3475-3485	9.6	50
276	In situ examination of tin oxide atomic layer deposition using quartz crystal microbalance and Fourier transform infrared techniques. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2005 , 23, 581-588	2.9	50
275	Effects of coadsorbed carbon monoxide on the surface diffusion of hydrogen on Ru(001). <i>Journal of Chemical Physics</i> , 1988 , 89, 5242-5250	3.9	50
274	Thermal atomic layer etching of crystalline aluminum nitride using sequential, self-limiting hydrogen fluoride and Sn(acac) ₂ reactions and enhancement by H ₂ and Ar plasmas. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016 , 34, 050603	2.9	50
273	Stabilizing an amorphous V ₂ O ₅ /carbon nanotube paper electrode with conformal TiO ₂ coating by atomic layer deposition for lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 537-544	13	49
272	Molecular Layer Deposition for Surface Modification of Lithium-Ion Battery Electrodes. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600762	4.6	49
271	Amorphous Ultrathin SnO ₂ Films by Atomic Layer Deposition on Graphene Network as Highly Stable Anodes for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 27735-42	9.5	49

270	CO gas sensing by ultrathin tin oxide films grown by atomic layer deposition using transmission FTIR spectroscopy. <i>Journal of Physical Chemistry A</i> , 2008 , 112, 9211-9	2.8	48
269	In situ resistivity measurements during the atomic layer deposition of ZnO and W thin films. <i>Applied Physics Letters</i> , 2002 , 81, 180-182	3.4	48
268	Coating Solution for High-Voltage Cathode: ALD Atomic Layer Deposition for Freestanding LiCoO Electrodes with High Energy Density and Excellent Flexibility. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 9614-9619	9.5	47
267	Metal-insulator-metal diodes: role of the insulator layer on the rectification performance. <i>Advanced Materials</i> , 2013 , 25, 1301-8	24	47
266	WO and W Thermal Atomic Layer Etching Using "Conversion-Fluorination" and "Oxidation-Conversion-Fluorination" Mechanisms. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 34435-34447	9.5	47
265	Atomic Layer Deposition of LiOH and Li ₂ CO ₃ Using Lithium t-Butoxide as the Lithium Source. <i>ECS Transactions</i> , 2010 , 33, 223-229	1	47
264	Enhancing the nucleation of palladium atomic layer deposition on Al ₂ O ₃ using trimethylaluminum to prevent surface poisoning by reaction products. <i>Applied Physics Letters</i> , 2009 , 95, 143106	3.4	47
263	Alternative dielectric films for rf MEMS capacitive switches deposited using atomic layer deposited Al ₂ O ₃ /ZnO alloys. <i>Sensors and Actuators A: Physical</i> , 2007 , 135, 262-272	3.9	47
262	In Situ Monitoring of Atomic Layer Controlled Pore Reduction in Alumina Tubular Membranes Using Sequential Surface Reactions. <i>Chemistry of Materials</i> , 1998 , 10, 3941-3950	9.6	47
261	Refractive Indices of Amorphous and Crystalline HNO ₃ /H ₂ O Films Representative of Polar Stratospheric Clouds. <i>The Journal of Physical Chemistry</i> , 1994 , 98, 4358-4364		47
260	Amorphous Ultrathin TiO ₂ Atomic Layer Deposition Films on Carbon Nanotubes as Anodes for Lithium Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2015 , 162, A974-A981	3.9	46
259	Nucleation period, surface roughness, and oscillations in mass gain per cycle during W atomic layer deposition on Al ₂ O ₃ . <i>Journal of Applied Physics</i> , 2009 , 105, 074309	2.5	46
258	Surface poisoning in the nucleation and growth of palladium atomic layer deposition with Pd(hfac) ₂ and formalin. <i>Thin Solid Films</i> , 2011 , 519, 5339-5347	2.2	46
257	Improved nucleation of TiN atomic layer deposition films on SiLK low-k polymer dielectric using an Al ₂ O ₃ atomic layer deposition adhesion layer. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2003 , 21, 1099		46
256	ATOMIC LAYER DEPOSITION OF SiO ₂ USING CATALYZED AND UNCATALYZED SELF-LIMITING SURFACE REACTIONS. <i>Surface Review and Letters</i> , 1999 , 06, 435-448	1.1	46
255	Ammonia decomposition on silicon surfaces studied using transmission Fourier transform infrared spectroscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1991 , 9, 2222-2230	2.9	46
254	Diethylsilane on silicon surfaces: Adsorption and decomposition kinetics. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1992 , 10, 221		46
253	Isotope effect in the surface diffusion of hydrogen and deuterium on Ru(001). <i>Surface Science</i> , 1987 , 188, 312-320	1.8	46

252	Improved Mechanical Integrity of ALD-Coated Composite Electrodes for Li-Ion Batteries. <i>Electrochemical and Solid-State Letters</i> , 2011 , 14, A29		45
251	Picosecond studies of the temperature dependence of homogeneous and inhomogeneous vibrational linewidth broadening in liquid acetonitrile. <i>Journal of Chemical Physics</i> , 1984 , 80, 83-94	3.9	45
250	Importance of trimethylaluminum diffusion in three-step ABC molecular layer deposition using trimethylaluminum, ethanolamine, and maleic anhydride. <i>Langmuir</i> , 2010 , 26, 19045-51	4	44
249	Ultrahigh x-ray reflectivity from W/Al_2O_3 multilayers fabricated using atomic layer deposition. <i>Applied Physics Letters</i> , 2006 , 88, 013116	3.4	44
248	Atomically controlled growth of tungsten and tungsten nitride using sequential surface reactions. <i>Applied Surface Science</i> , 2000 , 162-163, 479-491	6.7	44
247	Porous silicon photoluminescence versus HF etching: No correlation with surface hydrogen species. <i>Applied Physics Letters</i> , 1993 , 62, 1493-1495	3.4	44
246	The decomposition of methanol on Ru(001) studied using laser induced thermal desorption. <i>Journal of Chemical Physics</i> , 1987 , 87, 1936-1947	3.9	44
245	Atomic Layer Deposition of Metal Fluorides Using HFBryridine as the Fluorine Precursor. <i>Chemistry of Materials</i> , 2016 , 28, 2022-2032	9.6	44
244	Rapid SiO ₂ Atomic Layer Deposition Using Tris(tert-pentoxy)silanol. <i>Chemistry of Materials</i> , 2008 , 20, 7031-7043	9.6	43
243	Gas phase reaction products during tungsten atomic layer deposition using WF ₆ and Si ₂ H ₆ . <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2004 , 22, 1811		43
242	Porous Fe ₂ O ₃ nanorods anchored on nitrogen-doped graphenes and ultrathin Al ₂ O ₃ coating by atomic layer deposition for long-lived lithium ion battery anode. <i>Carbon</i> , 2014 , 76, 141-147	10.4	42
241	Alucone interlayers to minimize stress caused by thermal expansion mismatch between Al ₂ O ₃ films and Teflon substrates. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 1165-73	9.5	42
240	Pyrolysis of Titanicone Molecular Layer Deposition Films as Precursors for Conducting TiO ₂ /Carbon Composite Films. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 17442-17450	3.8	42
239	Electroplating to visualize defects in Al ₂ O ₃ thin films grown using atomic layer deposition. <i>Thin Solid Films</i> , 2009 , 517, 3269-3272	2.2	42
238	Surface Modification of Titania Nanoparticles Using Ultrathin Ceramic Films. <i>Journal of the American Ceramic Society</i> , 2006 , 89, 3070-3075	3.8	42
237	Mechanisms of Thermal Atomic Layer Etching. <i>Accounts of Chemical Research</i> , 2020 , 53, 1151-1160	24.3	41
236	Growth of continuous and ultrathin platinum films on tungsten adhesion layers using atomic layer deposition techniques. <i>Applied Physics Letters</i> , 2012 , 101, 111601	3.4	41
235	Barrier properties of polymer/alumina nanocomposite membranes fabricated by atomic layer deposition. <i>Journal of Membrane Science</i> , 2008 , 322, 105-112	9.6	41

234	Pyrolysis of Alucone Molecular Layer Deposition Films Studied Using In Situ Transmission Fourier Transform Infrared Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 14603-14612	3.8	40
233	Molecular layer deposition of aluminum alkoxide polymer films using trimethylaluminum and glycidol. <i>Langmuir</i> , 2011 , 27, 15155-64	4	39
232	Alumina atomic layer deposition nanocoatings on primary diamond particles using a fluidized bed reactor. <i>Diamond and Related Materials</i> , 2008 , 17, 185-189	3.5	39
231	Laser-induced desorption of H ₂ from Si(111)7 × 7. <i>Surface Science</i> , 1991 , 248, 158-172	1.8	39
230	Investigation of the defect density in ultra-thin Al ₂ O ₃ films grown using atomic layer deposition. <i>Surface and Coatings Technology</i> , 2011 , 205, 3334-3339	4.4	38
229	Critical tensile strain and water vapor transmission rate for nanolaminate films grown using Al ₂ O ₃ atomic layer deposition and alucone molecular layer deposition. <i>Applied Physics Letters</i> , 2012 , 101, 2341034	1.3	38
228	A simplified method to determine the coverage dependence of surface diffusion coefficients. <i>Surface Science</i> , 1986 , 172, 509-523	1.8	38
227	Molybdenum Atomic Layer Deposition Using MoF ₆ and Si ₂ H ₆ as the Reactants. <i>Chemistry of Materials</i> , 2011 , 23, 1668-1678	9.6	37
226	Thermomechanical properties of aluminum alkoxide (alucone) films created using molecular layer deposition. <i>Acta Materialia</i> , 2009 , 57, 5083-5092	8.4	37
225	Diffusion of HDO into Single-Crystal H ₂ 16O Ice Multilayers: Comparison with H ₂ 18O. <i>Journal of Physical Chemistry B</i> , 1997 , 101, 6127-6131	3.4	37
224	Conformal hydrophobic coatings prepared using atomic layer deposition seed layers and non-chlorinated hydrophobic precursors. <i>Journal of Micromechanics and Microengineering</i> , 2005 , 15, 984-992	2.9	37
223	Heating rates required for laser induced thermal desorption studies of surface reaction kinetics. <i>Surface Science</i> , 1987 , 182, L215-L220	1.8	37
222	Decomposition of H ₂ O ON Si(111)7 × 7 studied using laser-induced thermal desorption. <i>Surface Science</i> , 1989 , 221, 565-589	1.8	36
221	Growth and properties of hafnicon and HfO(2)/hafnicon nanolaminate and alloy films using molecular layer deposition techniques. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 16880-7	9.5	35
220	Surface chemistry of In ₂ O ₃ deposition using In(CH ₃) ₃ and H ₂ O in a binary reaction sequence. <i>Applied Surface Science</i> , 1997 , 112, 205-215	6.7	35
219	Surface diffusion and desorption of pentane isomers on ruthenium(001). <i>The Journal of Physical Chemistry</i> , 1990 , 94, 6792-6797		35
218	Capillary evaporation on micromembrane-enhanced microchannel wicks with atomic layer deposited silica. <i>Applied Physics Letters</i> , 2013 , 103, 151602	3.4	34
217	Diffusion Kinetics of HCl Hydrates in Ice Measured Using Infrared Laser Resonant Desorption Depth-Profiling. <i>Journal of Physical Chemistry A</i> , 2001 , 105, 5155-5164	2.8	34

216	Coverage dependent surface diffusion of noble gases and methane on Pt(111). <i>Surface Science</i> , 1993 , 297, 27-39	1.8	34
215	Effect of HF Pressure on Thermal Al ₂ O ₃ Atomic Layer Etch Rates and Al ₂ O ₃ Fluorination. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 10346-10355	3.8	33
214	Atomic layer deposition of ultrathin platinum films on tungsten atomic layer deposition adhesion layers: Application to high surface area substrates. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015 , 33, 01A130	2.9	33
213	Structure and Reactivity of Alucone-Coated Films on Si and Li(x)Si(y) Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 11948-55	9.5	33
212	Spatial atomic layer deposition on flexible substrates using a modular rotating cylinder reactor. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015 , 33, 01A132	2.9	33
211	Sodium Charge Storage in Thin Films of MnO ₂ Derived by Electrochemical Oxidation of MnO Atomic Layer Deposition Films. <i>Journal of the Electrochemical Society</i> , 2015 , 162, A2753-A2761	3.9	33
210	Depth-profiling and diffusion measurements in ice films using infrared laser resonant desorption. <i>Analytical Chemistry</i> , 2000 , 72, 5590-9	7.8	33
209	Surface and bulk diffusion of HDO on ultrathin single-crystal ice multilayers on Ru(001). <i>Journal of Chemical Physics</i> , 1998 , 108, 2197-2207	3.9	33
208	A simple and versatile liquid nitrogen cooled cryostat on a differentially pumped rotary feedthrough. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1986 , 4, 2394-2395 ⁹		33
207	Competition between AlO atomic layer etching and AlF atomic layer deposition using sequential exposures of trimethylaluminum and hydrogen fluoride. <i>Journal of Chemical Physics</i> , 2017 , 146, 052819	3.9	32
206	Thermal Atomic Layer Etching of Silicon Using O ₂ , HF, and Al(CH ₃) ₃ as the Reactants. <i>Chemistry of Materials</i> , 2018 , 30, 8465-8475	9.6	32
205	Surface modification of acetaminophen particles by atomic layer deposition. <i>International Journal of Pharmaceutics</i> , 2017 , 525, 160-174	6.5	31
204	Band Diagram and Rate Analysis of Thin Film Spinel LiMn ₂ O ₄ Formed by Electrochemical Conversion of ALD-Grown MnO. <i>Advanced Functional Materials</i> , 2016 , 26, 7895-7907	15.6	31
203	Atomic Layer Etching of AlF ₃ Using Sequential, Self-Limiting Thermal Reactions with Sn(acac) ₂ and Hydrogen Fluoride. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 25385-25393	3.8	31
202	DYNAMIC ICE SURFACE IN THE POLAR STRATOSPHERE. <i>Surface Review and Letters</i> , 1997 , 04, 771-780	1.1	31
201	Surface diffusion of xenon on Pt(111). <i>Journal of Chemical Physics</i> , 1993 , 98, 9115-9125	3.9	31
200	Molecular Layer Deposition of Conductive Hybrid Organic-Inorganic Thin Films Using Diethylzinc and Hydroquinone. <i>ECS Transactions</i> , 2010 , 33, 191-195	1	30
199	Surface diffusion of potassium on Ru(001). <i>Surface Science</i> , 1993 , 294, 185-196	1.8	30

198	Coverage dependence of n-butane surface diffusion on a stepped Ru(001) surface. <i>Surface Science</i> , 1992 , 261, 129-140	1.8	30
197	Coverage-dependent surface diffusion expected from a multiple-site hopping model. <i>Surface Science</i> , 1991 , 241, 369-377	1.8	30
196	Attenuation of hydrogen radicals traveling under flowing gas conditions through tubes of different materials. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2006 , 24, 486-496	2.9	29
195	Fluorescence quenching of the phenanthrene excimer on Al ₂ O ₃ (0001): Coverage and distance dependence. <i>Journal of Chemical Physics</i> , 1990 , 93, 2836-2847	3.9	29
194	Electron Enhanced Growth of Crystalline Gallium Nitride Thin Films at Room Temperature and 100 °C Using Sequential Surface Reactions. <i>Chemistry of Materials</i> , 2016 , 28,	9.6	29
193	Thermal atomic layer etching of HfO ₂ using HF for fluorination and TiCl ₄ for ligand-exchange. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 061504	2.9	29
192	Enhanced Methanol Oxidation with Annealed Atomic Layer Deposited Platinum Nanoparticles on Carbon Nanotubes. <i>Journal of the Electrochemical Society</i> , 2016 , 163, F1-F10	3.9	28
191	Evaluating Al ₂ O ₃ gas diffusion barriers grown directly on Ca films using atomic layer deposition techniques. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2013 , 31, 01A122	2.9	28
190	Surface Sensitive Studies of the Reactive Uptake of Chlorine Nitrate on Ice. <i>Journal of Physical Chemistry A</i> , 1997 , 101, 9954-9963	2.8	28
189	Effect of HNO ₃ and HCl on D ₂ O Desorption Kinetics from Crystalline D ₂ O Ice. <i>Journal of Physical Chemistry A</i> , 1998 , 102, 10280-10288	2.8	28
188	FTIR studies of water and ammonia decomposition on silicon surfaces. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1990 , 54-55, 1085-1095	1.7	28
187	Surface diffusion of tetramethylsilane and neopentane on Ru(001). <i>Surface Science</i> , 1990 , 233, 293-307	1.8	28
186	Silicon algae with carbon topping as thin-film anodes for lithium-ion microbatteries by a two-step facile method. <i>Journal of Power Sources</i> , 2015 , 274, 252-259	8.9	27
185	Atomic Layer Deposition of Platinum Nanoparticles on Titanium Oxide and Tungsten Oxide Using Platinum(II) Hexafluoroacetylacetonate and Formalin as the Reactants. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 8960-8970	3.8	27
184	MOSFETs Made From GaN Nanowires With Fully Conformal Cylindrical Gates. <i>IEEE Nanotechnology Magazine</i> , 2012 , 11, 479-482	2.6	27
183	Fluorescent tags to visualize defects in Al ₂ O ₃ thin films grown using atomic layer deposition. <i>Thin Solid Films</i> , 2009 , 517, 6794-6797	2.2	27
182	Adsorption and desorption of HCl on a single-crystal Al ₂ O ₃ (0001) surface. <i>Surface Science</i> , 2000 , 450, 64-77	1.8	27
181	X-ray mirrors on flexible polymer substrates fabricated by atomic layer deposition. <i>Thin Solid Films</i> , 2007 , 515, 7177-7180	2.2	26

180	Isothermal Desorption Kinetics of Crystalline H ₂ O, H ₂ ¹⁸ O, and D ₂ O Ice Multilayers. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 3871-3877	3.4	26
179	Critical Test of Vibrational Dephasing Theories in Liquids by Use of Selective, Coherent, Picosecond Stokes Scattering. <i>Physical Review Letters</i> , 1980 , 44, 737-740	7.4	26
178	Thermal atomic layer etching: A review. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 030801	2.9	26
177	Thermal Atomic Layer Etching of Al ₂ O ₃ , HfO ₂ , and ZrO ₂ Using Sequential Hydrogen Fluoride and Dimethylaluminum Chloride Exposures. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 18455-18466	3.8	25
176	Molecular layer deposition on carbon nanotubes. <i>ACS Nano</i> , 2013 , 7, 7812-23	16.7	25
175	Utilization of Al ₂ O ₃ Atomic Layer Deposition for Li Ion Pathways in Solid State Li Batteries. <i>Journal of the Electrochemical Society</i> , 2015 , 162, A344-A349	3.9	25
174	Modification of Opal Photonic Crystals Using Al ₂ O ₃ Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2006 , 18, 3562-3570	9.6	25
173	Intrinsic stress development and microstructure evolution of Au/Cr/Si multilayer thin films subject to annealing. <i>Scripta Materialia</i> , 2005 , 52, 873-879	5.6	25
172	Distance dependence of electronic energy transfer between donor and acceptor adlayers: p-terphenyl and 9,10-diphenylanthracene. <i>Journal of Chemical Physics</i> , 1994 , 100, 1968-1980	3.9	25
171	GaN nanowire functionalized with atomic layer deposition techniques for enhanced immobilization of biomolecules. <i>Langmuir</i> , 2010 , 26, 18382-91	4	24
170	Surface diffusion of hydrogen on Ru(001): transition state theory calculations. <i>Chemical Physics Letters</i> , 1987 , 135, 381-386	2.5	24
169	Volatile Etch Species Produced during Thermal Al ₂ O ₃ Atomic Layer Etching. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 287-299	3.8	24
168	Spatial atomic layer deposition on flexible porous substrates: ZnO on anodic aluminum oxide films and Al ₂ O ₃ on Li ion battery electrodes. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016 , 34, 01A146	2.9	24
167	Cross-linked aluminum dioxybenzene coating for stabilization of silicon electrodes. <i>Nano Energy</i> , 2016 , 22, 202-210	17.1	24
166	Thermal atomic layer etching of crystalline GaN using sequential exposures of XeF ₂ and BCl ₃ . <i>Applied Physics Letters</i> , 2019 , 114, 243103	3.4	23
165	Growth and Characterization of Al ₂ O ₃ Atomic Layer Deposition Films on sp ² -Graphitic Carbon Substrates Using NO ₂ /Trimethylaluminum Pretreatment. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 12030-7	9.5	23
164	Adsorption and desorption kinetics of tetrakis(dimethylamino)titanium and dimethylamine on TiN surfaces. <i>Applied Surface Science</i> , 1999 , 137, 113-124	6.7	23
163	Effect of HNO ₃ and HCl on H ₂ O Diffusion on Crystalline D ₂ O Ice Multilayers. <i>Journal of Physical Chemistry B</i> , 1999 , 103, 4366-4376	3.4	23

162	Electron-Enhanced Atomic Layer Deposition of Boron Nitride Thin Films at Room Temperature and 100 °C. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 9455-9464	3.8	22
161	ALD tungsten NEMS switches and tunneling devices. <i>Sensors and Actuators A: Physical</i> , 2011 , 166, 269-276	9	22
160	(Invited) Molecular Layer Deposition of Flexible, Transparent and Conductive Hybrid Organic-Inorganic Thin Films. <i>ECS Transactions</i> , 2011 , 41, 271-277	1	22
159	Adsorption and decomposition of trichlorosilane and trichlorogermane on porous silicon and Si(100)2×1 surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1995 , 13, 1-10	2.9	22
158	Summary Abstract: Surface diffusion of cycloalkanes on Ru(001). <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1988 , 6, 856-857	2.9	22
157	Rapid atomic layer etching of Al ₂ O ₃ using sequential exposures of hydrogen fluoride and trimethylaluminum with no purging. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 061508	2.9	22
156	Progress and prospects in nanoscale dry processes: How can we control atomic layer reactions?. <i>Japanese Journal of Applied Physics</i> , 2017 , 56, 06HA02	1.4	21
155	HWCVD MoO ₃ nanoparticles and a-Si for next generation Li-ion anodes. <i>Thin Solid Films</i> , 2011 , 519, 4495-4497	2.4	21
154	Evaluating operating conditions for continuous atmospheric atomic layer deposition using a multiple slit gas source head. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012 , 30, 01A136	2.9	21
153	Thermo-mechanical evolution of multilayer thin films: Part I. Mechanical behavior of Au/Cr/Si microcantilevers. <i>Thin Solid Films</i> , 2007 , 515, 3208-3223	2.2	21
152	Ion-Exchangeable Functional Binders and Separator for High Temperature Performance of Li _{1.1} Mn _{1.86} Mg _{0.04} O ₄ Spinel Electrodes in Lithium Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2013 , 160, A2234-A2243	3.9	20
151	In-situ inspection of cracking in atomic-layer-deposited barrier films on surface and in buried structures. <i>Thin Solid Films</i> , 2011 , 520, 251-257	2.2	20
150	Metalcone and Metalcone/Metal Oxide Alloys Grown Using Atomic and Molecular Layer Deposition. <i>ECS Transactions</i> , 2011 , 41, 131-138	1	20
149	Isothermal H ₂ desorption kinetics from Si(100) 2×1: dependence on disilane and atomic hydrogen precursors. <i>Applied Surface Science</i> , 1994 , 82-83, 410-416	6.7	20
148	Anisotropic diffusion of n-butane on a stepped Ru(001) surface. <i>Journal of Chemical Physics</i> , 1992 , 96, 808-816	3.9	20
147	Modeling silicon epitaxial growth with SiH ₂ Cl ₂ . <i>Journal of Crystal Growth</i> , 1993 , 130, 162-172	1.6	20
146	In Situ Thermal Atomic Layer Etching for Sub-5 nm InGaAs Multigate MOSFETs. <i>Nano Letters</i> , 2019 , 19, 5159-5166	11.5	19
145	H ₂ O vapor transmission rate through polyethylene naphthalate polymer using the electrical Ca test. <i>Journal of Physical Chemistry A</i> , 2013 , 117, 12026-34	2.8	19

144	Sacrificial layers for air gaps in NEMS using alucone molecular layer deposition. <i>Sensors and Actuators A: Physical</i> , 2009 , 155, 8-15	3.9	19
143	Surface diffusion of hydrogen on a stepped Ru(001) surface. <i>Surface Science</i> , 1995 , 325, 151-162	1.8	19
142	Anisotropy and coverage dependence of CO surface diffusion on Ru(S)-[15(001) $\sqrt{2}$ (100)]. <i>Surface Science</i> , 1994 , 302, 280-294	1.8	19
141	Adsorption and decomposition of diethylgermane on Si(111) $\sqrt{7}$. <i>Applied Physics Letters</i> , 1992 , 60, 2002-2004	3.4	19
140	Thermal atomic layer etching of silicon nitride using an oxidation and conversion etch mechanism. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 022607	2.9	18
139	Nucleation and growth of tantalum nitride atomic layer deposition on Al ₂ O ₃ using TBTDET and hydrogen radicals. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2009 , 27, 716-724	2.9	18
138	Micromachined resonators of high Q-factor based on atomic layer deposited alumina. <i>Sensors and Actuators A: Physical</i> , 2009 , 154, 229-237	3.9	18
137	Origin of non-zero-order H ₂ O desorption kinetics from crystalline ice multilayers on Ru(001). <i>Surface Science</i> , 1999 , 423, 145-159	1.8	18
136	Disorder-order transition and energy transfer in phenanthrene adlayers on alumina (11.hivin.20). <i>The Journal of Physical Chemistry</i> , 1989 , 93, 3276-3282		18
135	Spatial molecular layer deposition of polyamide thin films on flexible polymer substrates using a rotating cylinder reactor. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 01A117	2.9	17
134	Ultra-thin 3D nano-devices from atomic layer deposition on polyimide. <i>Advanced Materials</i> , 2014 , 26, 3962-7	24	17
133	Atomic Layer Deposition of Zn(O,S) Alloys Using Diethylzinc with H ₂ O and H ₂ S: Effect of Exchange Reactions. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 18643-18652	3.8	17
132	Infrared spectroscopic study of atomic layer deposition mechanism for hafnium silicate thin films using HfCl ₂ [N(SiMe ₃) ₂] ₂ and H ₂ O. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2004 , 22, 2392-2397	2.9	17
131	Xenon diffusion on a stepped Pt(11,11,9) surface. <i>Journal of Chemical Physics</i> , 1994 , 101, 3287-3297	3.9	17
130	CO desorption kinetics from clean and sulfur-covered Ru(001) surfaces. <i>Journal of Chemical Physics</i> , 1990 , 92, 4483-4490	3.9	17
129	First Transistor Demonstration of Thermal Atomic Layer Etching: InGaAs FinFETs with sub-5 nm Fin-width Featuring in situ ALE-ALD 2018 ,		17
128	SF ₄ as the Fluorination Reactant for Al ₂ O ₃ and VO ₂ Thermal Atomic Layer Etching. <i>Chemistry of Materials</i> , 2019 , 31, 3624-3635	9.6	16
127	Spatial atomic layer deposition for coating flexible porous Li-ion battery electrodes. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 01A123	2.9	16

126	Thermo-mechanical evolution of multilayer thin films: Part II. Microstructure evolution in Au/Cr/Si microcantilevers. <i>Thin Solid Films</i> , 2007 , 515, 3224-3240	2.2	16
125	FTIR studies reveal that silicon-containing laser-induced desorption products are surface reaction intermediates. <i>Chemical Physics Letters</i> , 1991 , 176, 128-134	2.5	16
124	Temperature-dependent absolute fluorescence quantum yield of C60 multilayers. <i>Chemical Physics Letters</i> , 1993 , 214, 50-56	2.5	16
123	Electron-enhanced atomic layer deposition of silicon thin films at room temperature. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 01A118	2.9	15
122	ZnO quantum dots-graphene composite for efficient ultraviolet sensing. <i>Materials Letters</i> , 2013 , 112, 165-168	3.3	15
121	Suppression of inelastic deformation of nanocoated thin film microstructures. <i>Journal of Applied Physics</i> , 2004 , 95, 8216-8225	2.5	15
120	Infrared Resonant Desorption of H ₂ O from Ice Multilayers. <i>Journal of Physical Chemistry B</i> , 1998 , 102, 788-794	3.4	15
119	Sample manipulator employing a gas-thermal switch designed for high pressure experiments in an ultrahigh vacuum apparatus. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1995 , 13, 493-496	2.9	15
118	Adsorption kinetics for ethylsilane, diethylsilane, and diethylgermane on Si(111) 7 \times 7. <i>Journal of Chemical Physics</i> , 1993 , 98, 7485-7495	3.9	15
117	Surface diffusion and desorption kinetics for perfluoro-n-butane on Ru(001). <i>Journal of Chemical Physics</i> , 1991 , 94, 4001-4008	3.9	15
116	Summary Abstract: Surface diffusion of CO on Ru(001) studied using laser-induced thermal desorption. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1988 , 6, 794-795	2.9	15
115	Theory for selective-vibrational-dephasing experiments with the use of transient stimulated Raman scattering in high laser depletion. <i>Physical Review A</i> , 1983 , 28, 863-878	2.6	15
114	Spatial Molecular Layer Deposition of Ultrathin Polyamide To Stabilize Silicon Anodes in Lithium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2019 , 2, 4135-4143	6.1	14
113	Effect of crystallinity on thermal atomic layer etching of hafnium oxide, zirconium oxide, and hafnium zirconium oxide. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 022608	2.9	14
112	Rapid Growth of Crystalline Mn ₅ O ₈ by Self-Limited Multilayer Deposition using Mn(EtCp) ₂ and O ₃ . <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 18560-9	9.5	14
111	Tungsten atomic layer deposition on cobalt nanoparticles. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2008 , 26, 430-437	2.9	14
110	HBr Uptake on Ice: Uptake Coefficient, H ₂ O/HBr Hydrate Formation, and H ₂ O Desorption Kinetics. <i>Journal of Physical Chemistry A</i> , 2001 , 105, 694-702	2.8	14
109	Adsorption and decomposition of dichlorosilane on porous silicon surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1995 , 13, 35-41	2.9	14

108	Surface diffusion of carbon monoxide and potassium coadsorbed on Ru(001): Confirmation of a 1:1 CO:K trapping interaction. <i>Journal of Chemical Physics</i> , 1996 , 104, 7313-7324	3.9	14
107	A comparison of different experimental configurations in pulsed laser induced molecular fluorescence. <i>Analytical Chemistry</i> , 1978 , 50, 616-620	7.8	14
106	Thermal etching of AlF ₃ and thermal atomic layer etching of Al ₂ O ₃ . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 022603	2.9	13
105	Atomic layer deposition-A novel method for the ultrathin coating of minitables. <i>International Journal of Pharmaceutics</i> , 2017 , 531, 47-58	6.5	13
104	Thermomechanical response of bare and Al ₂ O ₃ -nanocoated Au/Si bilayer beams for microelectromechanical systems. <i>Journal of Materials Research</i> , 2003 , 18, 1575-1587	2.5	13
103	Properties of atomic-layer-deposited Al ₂ O ₃ /ZnO dielectric films grown at low temperature for RF MEMS 2005 , 5715, 159		13
102	Effect of Sodium on HCl Hydrate Diffusion in Ice: Evidence for Anion Trapping. <i>Journal of Physical Chemistry A</i> , 2002 , 106, 5114-5119	2.8	13
101	Ethyl group decomposition kinetics following adsorption of diethylsilane, diethylgermane, and ethylsilane on Si(111)-(7 × 7). <i>Surface Science</i> , 1993 , 291, 337-348	1.8	13
100	Reaction kinetics of GeCl ₄ on Si(111)-(7 × 7). <i>Surface Science</i> , 1992 , 278, 383-396	1.8	13
99	Coverage-dependent electronic absorption spectrum of pyrene on Al ₂ O ₃ (1120). <i>Chemical Physics Letters</i> , 1989 , 159, 599-604	2.5	13
98	Temperature-programmed spectroscopy for surface kinetic analysis: Absorption and laser-induced fluorescence techniques. <i>Surface Science</i> , 1988 , 197, L246-L252	1.8	13
97	Mitigating irreversible capacity losses from carbon agents via surface modification. <i>Journal of Power Sources</i> , 2015 , 275, 605-611	8.9	12
96	Hemispherical micro-resonators from atomic layer deposition. <i>Journal of Micromechanics and Microengineering</i> , 2014 , 24, 125028	2	12
95	Ultrafast metal-insulator varistors based on tunable Al ₂ O ₃ tunnel junctions. <i>Applied Physics Letters</i> , 2008 , 92, 164101	3.4	12
94	Reaction kinetics of H ₂ O with chlorinated Si(111)-(7 × 7) and porous silicon surfaces. <i>Surface Science</i> , 1996 , 364, 367-379	1.8	12
93	Infrared resonant desorption of butane from Al ₂ O ₃ (1120): Evidence for an ordered adlayer from vibrational mode selectivity. <i>Journal of Chemical Physics</i> , 1989 , 90, 3389-3395	3.9	12
92	Surface nucleation in the crystallization kinetics of phenanthrene multilayers on Al ₂ O ₃ (1120). <i>Surface Science</i> , 1989 , 207, L961-L970	1.8	12
91	Probing the Atomic-Scale Structure of Amorphous Aluminum Oxide Grown by Atomic Layer Deposition. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 22804-22814	9.5	12

90	Efficient Capacitive Deionization Using Thin Film Sodium Manganese Oxide. <i>Journal of the Electrochemical Society</i> , 2018 , 165, A2330-A2339	3.9	11
89	Porous Silicon Photoluminescence Versus HF Etching: No Correlation with Surface Hydrogen Species. <i>Materials Research Society Symposia Proceedings</i> , 1992 , 283, 191		11
88	Analysis of high-Q, gallium nitride nanowire resonators in response to deposited thin films. <i>Sensors and Actuators A: Physical</i> , 2011 , 165, 59-65	3.9	10
87	H ₂ O adsorption kinetics on Si(111)7x7 and Si(111)7x7 modified by laser annealing. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1995 , 13, 1853-1860	2.9	10
86	Desorption kinetics and excimer formation of pyrene on Al ₂ O ₃ (112 0). <i>Journal of Chemical Physics</i> , 1989 , 91, 5778-5785	3.9	10
85	Comparison of H ₂ Desorption Kinetics from Si(111)7x7 and Si(100)2x1. <i>Materials Research Society Symposia Proceedings</i> , 1990 , 204, 319		10
84	Laser induced photoelectrochemistry. Dependence of photoemission-related currents on laser characteristics. <i>The Journal of Physical Chemistry</i> , 1978 , 82, 1818-1827		10
83	Waterless TiO ₂ atomic layer deposition using titanium tetrachloride and titanium tetraisopropoxide. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2014 , 32, 01A114	2.9	9
82	Atomic layer deposition (ALD) technology for reliable RF MEMS		9
81	Adsorption and decomposition of diethyldiethoxysilane on silicon surfaces: New possibilities for SiO ₂ deposition. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1995 , 13, 865		9
80	Thermal Atomic Layer Etching of Gallium Oxide Using Sequential Exposures of HF and Various Metal Precursors. <i>Chemistry of Materials</i> , 2020 , 32, 5937-5948	9.6	8
79	Improving Powder Characteristics by Surface Modification Using Atomic Layer Deposition. <i>Organic Process Research and Development</i> , 2019 , 23, 2362-2368	3.9	8
78	UV absorption spectra of H ₂ O/HNO ₃ films. <i>Geophysical Research Letters</i> , 1996 , 23, 2757-2760	4.9	8
77	Surface diffusion of H and CO on Cu/Ru(001): evidence for long-range trapping by copper islands. <i>Chemical Physics</i> , 1995 , 201, 273-286	2.3	8
76	Dependence of inhomogeneous vibrational linewidth broadening on attractive forces from local liquid number densities. <i>Journal of Chemical Physics</i> , 1982 , 77, 4781-4783	3.9	8
75	Area-selective molecular layer deposition of nylon 6,2 polyamide: Growth on carbon and inhibition on silica. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 023204	2.9	8
74	Doped Si nanoparticles with conformal carbon coating and cyclized-polyacrylonitrile network as high-capacity and high-rate lithium-ion battery anodes. <i>Nanotechnology</i> , 2015 , 26, 365401	3.4	7
73	Growth of cobalt films at room temperature using sequential exposures of cobalt tricarbonyl nitrosyl and low energy electrons. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 060906	2.9	7

72	Growth of Zirconium on Nanoporous Alumina Using Molecular Layer Deposition. <i>Jom</i> , 2014 , 66, 649-653	2.1	7
71	Atomic layer deposition Al_2O_3 diffusion barriers to eliminate the memory effect in beta-gamma radioxenon detectors. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2013 , 296, 541-549	1.5	7
70	Oxidation Kinetics of Calcium Films by Water Vapor and Their Effect on Water Vapor Transmission Rate Measurements. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 29322-29332	3.8	7
69	Effect of sulfur on the decomposition kinetics of methanol on Ru(001). <i>Surface Science</i> , 1990 , 226, 42-50	1.8	7
68	Passively mode-locked Nd:glass laser oscillator optimized for TEM00 selectivity and long term stability and reliability. <i>Review of Scientific Instruments</i> , 1981 , 52, 852-857	1.7	7
67	Enhanced Stability of LiCoO_2 Cathodes in Lithium-ion Batteries Using Surface Modification by Atomic Layer Deposition. <i>Journal of the Korean Ceramic Society</i> , 2010 , 47, 61-65	2.2	7
66	Molecular Layer Deposition of Hybrid Organic/Inorganic Films 2012 , 83-107		6
65	Multilayer coating method for x-ray reflectivity enhancement of polysilicon micro-mirrors at 1.54- μm wavelength 2005 ,		6
64	H_2O and HCl adsorption on single crystal $\text{Al}_2\text{O}_3(0001)$ at stratospheric temperatures. <i>Applied Surface Science</i> , 2001 , 171, 21-33	6.7	6
63	Surface diffusion of H and CO on Cu/Ru(001): evidence for long-range trapping by copper islands. <i>Chemical Physics</i> , 1996 , 205, 23-36	2.3	6
62	Coverage-dependent electronic absorption spectrum of phenanthrene on alumina (0001) and butane multilayer surfaces. <i>The Journal of Physical Chemistry</i> , 1991 , 95, 839-844		6
61	Effect of Surface Coverage on Porous Silicon Photoluminescence: Transmission FTIR Studies. <i>Materials Research Society Symposia Proceedings</i> , 1991 , 256, 17		6
60	Decomposition of silicon hydrides following disilane adsorption on porous silicon surfaces. <i>Surface Science Letters</i> , 1993 , 295, L998-L1004		6
59	Summary Abstract: Interactions and electronic energy transfer between molecules on dielectric surfaces: Phenanthrene on $\text{Al}_2\text{O}_3(1120)$. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1988 , 6, 852-853	2.9	6
58	Electrical and thermal conduction in ultra-thin freestanding atomic layer deposited W nanobridges. <i>Nanoscale</i> , 2015 , 7, 17923-8	7.7	5
57	Adsorption and decomposition of 1,4-disilabutane ($\text{SiH}_3\text{CH}_2\text{CH}_2\text{SiH}_3$) on Si(100) 2×1 and porous silicon surfaces. <i>Surface Science</i> , 1998 , 418, 353-366	1.8	5
56	Continuous polymer films deposited on top of porous substrates using plasma-enhanced atomic layer deposition and molecular layer deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 052409	2.9	5
55	Thermal atomic layer etching of amorphous and crystalline Al_2O_3 films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 042602	2.9	5

54	Molecular layer deposition for the fabrication of desalination membranes with tunable metrics. <i>Desalination</i> , 2021 , 520, 115334	10.3	5
53	Smoothing surface roughness using Al ₂ O ₃ atomic layer deposition. <i>Applied Surface Science</i> , 2021 , 569, 150878	6.7	5
52	GaN nanowire coated with atomic layer deposition of tungsten: a probe for near-field scanning microwave microscopy. <i>Nanotechnology</i> , 2014 , 25, 415502	3.4	4
51	(Invited) In Situ Characterization of Plasma-Assisted Pt ALD on W ALD Adhesion Layers with Spectroscopic Ellipsometry. <i>ECS Transactions</i> , 2013 , 58, 19-26	1	4
50	Atomic layer deposition enabled interconnect technology for vertical nanowire arrays. <i>Sensors and Actuators A: Physical</i> , 2011 , 165, 107-114	3.9	4
49	Atomic Layer Deposition of thin Films Using Sequential Surface Reactions. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 616, 93		4
48	Summary Abstract: The decomposition kinetics of methanol on Ru(001) studied using laser induced thermal desorption. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1987 , 5, 518-519	2.9	4
47	Transient stimulated raman scattering in high laser depletion and its effects on vibrational dynamics experiments. <i>Chemical Physics Letters</i> , 1983 , 97, 533-537	2.5	4
46	Prediction and Validation of the Process Window for Atomic Layer Etching: HF Exposure on TiO ₂ . <i>Journal of Physical Chemistry C</i> , 2021 , 125, 25589-25599	3.8	4
45	Thermal atomic layer etching of germanium-rich SiGe using an oxidation and conversion-etch mechanism. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 022602	2.9	4
44	Conversion reactions in atomic layer processing with emphasis on ZnO conversion to Al ₂ O ₃ by trimethylaluminum. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 021001	2.9	4
43	Spontaneous Etching of Metal Fluorides Using Ligand-Exchange Reactions: Landscape Revealed by Mass Spectrometry. <i>Chemistry of Materials</i> ,	9.6	4
42	Atomic layer deposition of aluminum oxyfluoride thin films with tunable stoichiometry. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 022407	2.9	3
41	Thermal Atomic Layer Etching of Amorphous and Crystalline Hafnium Oxide, Zirconium Oxide, and Hafnium Zirconium Oxide 2019 ,		3
40	Adsorption and Decomposition of Diethylsilane on Silicon Surfaces. <i>Materials Research Society Symposia Proceedings</i> , 1990 , 204, 303		3
39	Adsorption and Desorption Kinetics for Chlorosilanes on Si(111) 7x7. <i>Materials Research Society Symposia Proceedings</i> , 1990 , 204, 311		3
38	Summary Abstract: Surface diffusion of hydrogen on carbon- and sulfur-covered Ru(001) studied using laser-induced thermal desorption. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1988 , 6, 842-843	2.9	3
37	Adsorption of Silicon Tetrachloride on Si(111) 7x7. <i>Materials Research Society Symposia Proceedings</i> , 1988 , 131, 197		3

36	Deposit and etchback approach for ultrathin Al ₂ O ₃ films with low pinhole density using atomic layer deposition and atomic layer etching. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 062602	2.9	3
35	Atomic layer etching of ferroelectric hafnium zirconium oxide thin films enables giant tunneling electroresistance. <i>Applied Physics Letters</i> , 2022 , 120, 122901	3.4	3
34	Using a slit doser to probe gas dynamics during Al ₂ O ₃ atomic layer deposition and to fabricate laterally graded Al ₂ O ₃ layers. <i>Thin Solid Films</i> , 2011 , 519, 3612-3618	2.2	2
33	Germanium Deposition on Silicon: Surface Chemistry of (CH ₃ CH ₂) ₂ GeH ₂ and GeC ₁₄ . <i>Materials Research Society Symposia Proceedings</i> , 1992 , 282, 413		2
32	Infrared free-electron laser as a probe of vibrational dynamics on surfaces. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1989 , 6, 995	1.7	2
31	Spontaneous etching of B ₂ O ₃ by HF gas studied using infrared spectroscopy, mass spectrometry, and density functional theory. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022 , 40, 022601	2.9	2
30	Hybrid organic-inorganic films fabricated using atomic and molecular layer deposition 2013 ,		1
29	Thermal management of vertical gallium nitride nanowire arrays: Cooling design and tip temperature measurement 2010 ,		1
28	Optimization of a rotary Q-switched Er:YAG laser. <i>Review of Scientific Instruments</i> , 2002 , 73, 2526-2532	1.7	1
27	Suppression of Stress Relaxation in MEMS Multilayer Film Microstructures by Use of ALD Nanocoatings 2002 , 179		1
26	Nucleation and Growth During Tungsten Atomic Layer Deposition on Oxide Surfaces. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 672, 1		1
25	Atomic Layer Controlled Deposition of Al ₂ O ₃ Films Employing Trimethylaluminum (TMA) and H ₂ O Vapor. <i>Materials Research Society Symposia Proceedings</i> , 1993 , 335, 335		1
24	Decomposition of Alkylsilanes on Silicon Surfaces Using Transmission Ftir Spectroscopy. <i>Materials Research Society Symposia Proceedings</i> , 1991 , 222, 213		1
23	Effects of Hydrogen Coverage on Silicon Surface Reactivity. <i>Materials Research Society Symposia Proceedings</i> , 1992 , 259, 99		1
22	Comparison of Trichlorosilane and Trichlorogermane Decomposition on Silicon Surfaces Using FTIR Spectroscopy. <i>Materials Research Society Symposia Proceedings</i> , 1992 , 282, 405		1
21	Vibrational resonant desorption from surfaces using the infrared free-elctron laser 1990 , 1227, 145		1
20	Electron-Enhanced Atomic Layer Deposition of Boron Nitride Thin Films at Room Temperature and 100 °C. <i>Journal of Physical Chemistry C</i> , 2018 , 122,	3.8	1
19	Surface Diffusion Measured Using Laser Induced Thermal Desorption: Hydrogen on Ru (001). <i>Springer Series in Surface Sciences</i> , 1988 , 2-18	0.4	1

18	The Dynamics and Structure of Liquids Revealed by the Homogeneous and Inhomogeneous Broadening of Liquid Vibrational Transitions. <i>Springer Series in Chemical Physics</i> , 1980 , 151-155	0.3	1
17	ZrO ₂ Monolayer as a Removable Etch Stop Layer for Thermal Al ₂ O ₃ Atomic Layer Etching Using Hydrogen Fluoride and Trimethylaluminum. <i>Chemistry of Materials</i> , 2020 , 32, 10055-10065	9.6	1
16	Atomic layer deposition of hafnium and zirconium oxyfluoride thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 022403	2.9	1
15	Molecular layer deposition of Nylon 2,6 polyamide polymer on flat and particle substrates in an isothermal enclosure containing a rotary reactor. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 052405	2.9	1
14	Hollow cathode plasma electron source for low temperature deposition of cobalt films by electron-enhanced atomic layer deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 042403	2.9	0
13	P-106: Real-Time Inspection of a Moisture Barrier Film Buried by a Protective Layer for Flexible Displays. <i>Digest of Technical Papers SID International Symposium</i> , 2010 , 41, 1643	0.5	
12	12.3: Defect Visualization of Atomic Layer Deposition Enabled Polymer Barriers Using Fluorescent Tags. <i>Digest of Technical Papers SID International Symposium</i> , 2008 , 39, 143	0.5	
11	Atomic Layer Deposition on Quantities of Multiwalled Carbon Nanotubes. <i>Materials Research Society Symposia Proceedings</i> , 2007 , 1054, 10		
10	Nanocoating individual cohesive boron nitride particles in a fluidized bed by ALD. <i>Powder Technology</i> , 2004 , 142, 59-59	5.2	
9	Atomic Layer Growth of SiO ₂ on Si(100) Using the Sequential Deposition of SiCl ₄ and H ₂ O. <i>Materials Research Society Symposia Proceedings</i> , 1993 , 334, 25		
8	Diethyldiethoxysilane as a New Precursor for SiO ₂ Growth on Silicon. <i>Materials Research Society Symposia Proceedings</i> , 1993 , 334, 37		
7	Growth of SiO ₂ on Si(111) Using SiCl ₄ and H ₂ O. <i>Materials Research Society Symposia Proceedings</i> , 1992 , 282, 499		
6	Ftir Studies of Water and Ammonia Decomposition on Silicon Surfaces. <i>Materials Research Society Symposia Proceedings</i> , 1990 , 204, 339		
5	Oxidation Kinetics of Silicon Surfaces: Reactive Sticking Coefficient, Apparent Saturation Coverage and Effect of Surface Hydrogen. <i>Materials Research Society Symposia Proceedings</i> , 1988 , 131, 169		
4	Fracture of Atomic Layer Deposited Nanolaminate Films 2006 , 693-694		
3	Novel Processing to Produce Polymer/Ceramic Nanocomposites by Atomic Layer Deposition 417-423		
2	The Temperature Dependence of Homogeneous and Inhomogeneous Vibrational Linewidth Broadening Studies Using Coherent Picosecond Stokes Scattering. <i>Springer Series in Chemical Physics</i> , 1982 , 196-200	0.3	
1	Picosecond Vibrational Dephasing Experiments in Liquids under High Laser Depletion Conditions 1984 , 165-172		

