Jeffrey W Elam

List of Publications by Year in Descending Order

226 papers	14,708 citations	68 h-index	115 g-index
232 ext. papers	16,222 ext. citations	8.4 avg, IF	6.7 L-index

#	Paper	IF	Citations
226	Synthesis of nanostructured materials via atomic and molecular layer deposition **2022**,		
225	Modification of LiMn2O4 Surfaces by Controlling the AcidBase Surface Chemistry of Atomic Layer Deposition. *Applied Surface Science*, **2022**, 153329	6.7	1
224	Water treatment based on atomically engineered materials: Atomic layer deposition and beyond. *Matter*, **2021**, 4, 3515-3548	12.7	8
223	Atomic-Scale Structure of Chemically Distinct Surface Oxygens in Redox Reactions. *Journal of the American Chemical Society*, **2021**, 143, 17937-17941	16.4	2
222	Elucidating the Redox Behavior during Atomic Layer Deposition on Lithium-Ion Battery Cathode Materials. *Chemistry of Materials*, **2021**, 33, 8079-8088	9.6	3
221	Intelligent Agents for the Optimization of Atomic Layer Deposition. *ACS Applied Materials & Interfaces*, **2021**, 13, 17022-17033	9.5	1
220	Atomic layer deposition of sodium fluoride thin films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2021**, 39, 032405	2.9	2
219	Advanced Materials for Energy-Water Systems: The Central Role of Water/Solid Interfaces in Adsorption, Reactivity, and Transport. *Chemical Reviews*, **2021**, 121, 9450-9501	68.1	9
218	Electronic Conductivity of Nanoporous Indium Oxide Derived from Sequential Infiltration Synthesis. *Journal of Physical Chemistry C*, **2021**, 125, 21191-21198	3.8	0
217	Surface Zeta Potential of ALD-Grown Metal-Oxide Films. *Langmuir*, **2021**, 37, 11618-11624	4	2
216	Advanced strategies for the development of porous carbon as a Li host/current collector for lithium metal batteries. *Energy Storage Materials*, **2021**, 41, 448-465	19.4	13
215	Vapor-phase grafting of a model aminosilane compound to Al2O3, ZnO, and TiO2 surfaces prepared by atomic layer deposition. *Applied Surface Science*, **2021**, 562, 149996	6.7	3
214	Reactor scale simulations of ALD and ALE: Ideal and non-ideal self-limited processes in a cylindrical and a 300 mm wafer cross-flow reactor. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2021**, 39, 062404	2.9	1
213	Polycaprolactone: A Promising Addition to the Sequential Infiltration Synthesis Polymer Family Identified through In Situ Infrared Spectroscopy. *ACS Applied Polymer Materials*, **2020**, 2, 5501-5510	4.3	5
212	Visible-Light-Activated Photocatalytic Films toward Self-Cleaning Membranes. *Advanced Functional Materials*, **2020**, 30, 2002847	15.6	43
211	Consistency and reproducibility in atomic layer deposition. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2020**, 38, 020804	2.9	40
210	Polyphenol-Sensitized Atomic Layer Deposition for Membrane Interface Hydrophilization. *Advanced Functional Materials*, **2020**, 30, 1910062	15.6	44

209	Molecular Layer Etching of Metalcone Films Using Lithium Organic Salts and Trimethylaluminum. *Chemistry of Materials*, **2020**, 32, 992-1001	9.6	3
208	Descriptor-Based Analysis of Atomic Layer Deposition Mechanisms on Spinel LiMn2O4 Lithium-Ion Battery Cathodes. *Chemistry of Materials*, **2020**, 32, 1794-1806	9.6	17
207	Imaging Dye Aggregation in MK-2, N3, N749, and SQ-2 dye□□TiO2 Interfaces That Represent Dye-Sensitized Solar Cell Working Electrodes. *ACS Applied Energy Materials*, **2020**, 3, 3230-3241	6.1	12
206	Multifunctional Films Deposited by Atomic Layer Deposition for Tailored Interfaces of Electrochemical Systems. *Journal of the Electrochemical Society*, **2020**, 167, 140541	3.9	6
205	Dye Nanoaggregate Structures in MK-2, N3, and N749 Dye□□TiO2 Interfaces That Represent Dye-Sensitized Solar Cell Working Electrodes. *ACS Applied Energy Materials*, **2020**, 3, 900-914	6.1	4
204	Nanometer-Thick MgxZn(1□)O Ternary Films for Photovoltaics. *ACS Applied Nano Materials*, **2020**, 3, 7732-7742	5.6	2
203	tert-butoxides as precursors for atomic layer deposition of alkali metal containing thin films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2020**, 38, 060804	2.9	7
202	Understanding KOBu in atomic layer deposition - mechanistic studies of the KNbO growth process. *Dalton Transactions*, **2020**, 49, 13233-13242	4.3	4
201	Self-Cleaning Membranes: Visible-Light-Activated Photocatalytic Films toward Self-Cleaning Membranes (Adv. Funct. Mater. 34/2020). *Advanced Functional Materials*, **2020**, 30, 2070230	15.6	14
200	High-capacity rotary drum for atomic layer deposition onto powders and small mechanical parts in a hot-walled viscous flow reactor. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2020**, 38, 052403	2.9	7
199	Tuning electronic properties in LaNiO3 thin films by B-site Cu-substitution. *Journal of Materials Chemistry C*, **2020**, 8, 12662-12668	7.1	4
198	Tailored PEDOT:PSS hole transport layer for higher performance in perovskite solar cells: Enhancement of electrical and optical properties with improved morphology. *Journal of Energy Chemistry*, **2020**, 44, 41-50	12	66
197	Probing the Atomic-Scale Structure of Amorphous Aluminum Oxide Grown by Atomic Layer Deposition. *ACS Applied Materials & Interfaces*, **2020**, 12, 22804-22814	9.5	12
196	High-Rate Spinel LiMn2O4 (LMO) Following Carbonate Removal and Formation of Li-Rich Interface by ALD Treatment. *Journal of Physical Chemistry C*, **2019**, 123, 23783-23790	3.8	12
195	Formation of Unsaturated Hydrocarbons and Hydrogen: Surface Chemistry of Methyltrioxorhenium(VII) in ALD of Mixed-Metal Oxide Structures Comprising Re(III) Units. *Chemistry of Materials*, **2019**, 31, 7821-7832	9.6	5
194	Blocking Polysulfides in Graphene□Sulfur Cathodes of Lithium□Sulfur Batteries through Atomic Layer Deposition of Alumina. *Energy Technology*, **2019**, 7, 1900621	3.5	2
193	Recent developments on next-generation microchannel plates for particle identification applications **2019**,		1
192	Introducing Nonstructural Ligands to Zirconia-like Metal□Organic Framework Nodes To Tune the Activity of Node-Supported Nickel Catalysts for Ethylene Hydrogenation. *ACS Catalysis*, **2019**, 9, 3198-3207	13.1	45

191	The chemical physics of sequential infiltration synthesis-A thermodynamic and kinetic perspective. *Journal of Chemical Physics*, **2019**, 151, 190901	3.9	51
190	Enrichment and Distribution of Pb Ions in Zwitterionic Poly(cysteine methacrylate) Brushes at the Solid-Liquid Interface. *Langmuir*, **2019**, 35, 17082-17089	4	4
189	Chinese Ink: A Powerful Photothermal Material for Solar Steam Generation. *Advanced Materials Interfaces*, **2019**, 6, 1801252	4.6	74
188	Solar Steam: Chinese Ink: A Powerful Photothermal Material for Solar Steam Generation (Adv. Mater. Interfaces 1/2019). *Advanced Materials Interfaces*, **2019**, 6, 1970002	4.6	10
187	Sequential Infiltration Synthesis of Al2O3 in Polyethersulfone Membranes. *Jom*, **2019**, 71, 212-223	2.1	17
186	Mechanistic understanding of tungsten oxide in-plane nanostructure growth via sequential infiltration synthesis. *Nanoscale*, **2018**, 10, 3469-3479	7.7	18
185	Directly Formed Alucone on Lithium Metal for High-Performance Li Batteries and Li-S Batteries with High Sulfur Mass Loading. *ACS Applied Materials & Interfaces*, **2018**, 10, 7043-7051	9.5	52
184	Atomic layer deposition of molybdenum disulfide films using MoF6 and H2S. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2018**, 36, 01A125	2.9	19
183	Mitigating oil spills in the water column. *Environmental Science: Water Research and Technology*, **2018**, 4, 40-47	4.2	31
182	Structural Evolution of Molybdenum Disulfide Prepared by Atomic Layer Deposition for Realization of Large Scale Films in Microelectronic Applications. *ACS Applied Nano Materials*, **2018**, 1, 4028-4037	5.6	21
181	Novel ALD Chemistry Enabled Low-Temperature Synthesis of Lithium Fluoride Coatings for Durable Lithium Anodes. *ACS Applied Materials & Interfaces*, **2018**, 10, 26972-26981	9.5	66
180	Crude-Oil-Repellent Membranes by Atomic Layer Deposition: Oxide Interface Engineering. *ACS Nano*, **2018**, 12, 8678-8685	16.7	99
179	Janus Membranes via Diffusion-Controlled Atomic Layer Deposition. *Advanced Materials Interfaces*, **2018**, 5, 1800658	4.6	46
178	Understanding the Effect of Interlayers at the Thiophosphate Solid Electrolyte/Lithium Interface for All-Solid-State Li Batteries. *Chemistry of Materials*, **2018**, 30, 8747-8756	9.6	53
177	Effect of thermal annealing and chemical treatments on secondary electron emission properties of atomic layer deposited MgO. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2018**, 36, 06A102	2.9	6
176	Mechanism for Al2O3 Atomic Layer Deposition on LiMn2O4 from In Situ Measurements and Ab Initio Calculations. *CheM*, **2018**, 4, 2418-2435	16.2	32
175	Replication of SMSI via ALD: TiO2 Overcoats Increase Pt-Catalyzed Acrolein Hydrogenation Selectivity. *Catalysis Letters*, **2018**, 148, 2223-2232	2.8	13
174	Sequential Infiltration Synthesis for the Design of Low Refractive Index Surface Coatings with Controllable Thickness. *ACS Nano*, **2017**, 11, 2521-2530	16.7	59

173	Advanced oil sorbents using sequential infiltration synthesis. *Journal of Materials Chemistry A*, **2017**, 5, 2929-2935	13	87
172	Conformal Nitrogen-Doped TiO2 Photocatalytic Coatings for Sunlight-Activated Membranes. *Advanced Sustainable Systems*, **2017**, 1, 1600041	5.9	46
171	Photocatalysis: Conformal Nitrogen-Doped TiO2 Photocatalytic Coatings for Sunlight-Activated Membranes (Adv. Sustainable Syst. 1-2/2017). *Advanced Sustainable Systems*, **2017**, 1,	5.9	1
170	High-Performance High-Loading Lithium–Sulfur Batteries by Low Temperature Atomic Layer Deposition of Aluminum Oxide on Nanophase S Cathodes. *Advanced Materials Interfaces*, **2017**, 4, 1700096	4.6	19
169	Lithium metal protected by atomic layer deposition metal oxide for high performance anodes. *Journal of Materials Chemistry A*, **2017**, 5, 12297-12309	13	112
168	Atomic layer deposition for nanomaterial synthesis and functionalization in energy technology. *Materials Horizons*, **2017**, 4, 133-154	14.4	119
167	Atomic Layer Deposition of Aluminum Sulfide: Growth Mechanism and Electrochemical Evaluation in Lithium-Ion Batteries. *Chemistry of Materials*, **2017**, 29, 9043-9052	9.6	35
166	Effect of Nanostructured Domains in Self-Assembled Block Copolymer Films on Sequential Infiltration Synthesis. *Langmuir*, **2017**, 33, 13214-13223	4	30
165	Honeycomb Networks of Metal Oxides from Self-Assembling PS-PMMA Block Copolymers. *Microscopy and Microanalysis*, **2017**, 23, 1654-1655	0.5	
164	Energy Storage: High-Performance High-Loading Lithium–Sulfur Batteries by Low Temperature Atomic Layer Deposition of Aluminum Oxide on Nanophase S Cathodes (Adv. Mater. Interfaces 17/2017). *Advanced Materials Interfaces*, **2017**, 4,	4.6	2
163	Atomic Layer Deposition of Al-W-Fluoride on LiCoO Cathodes: Comparison of Particle- and Electrode-Level Coatings. *ACS Omega*, **2017**, 2, 3724-3729	3.9	25
162	Lithium Self-Discharge and Its Prevention: Direct Visualization through In Situ Electrochemical Scanning Transmission Electron Microscopy. *ACS Nano*, **2017**, 11, 11194-11205	16.7	36
161	Membrane materials for water purification: design, development, and application. *Environmental Science: Water Research and Technology*, **2016**, 2, 17-42	4.2	363
160	Exploring Pore Formation of Atomic Layer-Deposited Overlayers by in Situ Small- and Wide-Angle X-ray Scattering. *Chemistry of Materials*, **2016**, 28, 7082-7087	9.6	16
159	Water Oxidation by Size-Selected Co Clusters Supported on Fe O. *ChemSusChem*, **2016**, 9, 3005-3011	8.3	12
158	Indium Oxide Thin Films by Atomic Layer Deposition Using Trimethylindium and Ozone. *Journal of Physical Chemistry C*, **2016**, 120, 9874-9883	3.8	34
157	Atomic Layer Deposition of MnS: Phase Control and Electrochemical Applications. *ACS Applied Materials & Interfaces*, **2016**, 8, 2774-80	9.5	47
156	High Thermal Stability of La2O3- and CeO2-Stabilized Tetragonal ZrO2. *Inorganic Chemistry*, **2016**, 55, 2413-20	5.1	15

155	Titania Supported Ru Nanoclusters as Catalysts for Hydrodeoxygenation of Pyrolysis Oils. *Catalysis Letters*, **2016**, 146, 525-539	2.8	15
154	Volatile Hexavalent Oxo-amidinate Complexes: Molybdenum and Tungsten Precursors for Atomic Layer Deposition. *Chemistry of Materials*, **2016**, 28, 1907-1919	9.6	33
153	W:Al2O3 Nanocomposite Thin Films with Tunable Optical Properties Prepared by Atomic Layer Deposition. *Journal of Physical Chemistry C*, **2016**, 120, 14681-14689	3.8	11
152	Atomic Layer Deposition of LixAlyS Solid-State Electrolytes for Stabilizing Lithium-Metal Anodes. *ChemElectroChem*, **2016**, 3, 858-863	4.3	82
151	Atomic layer deposition□Sequential self-limiting surface reactions for advanced catalyst □bottom-up□synthesis. *Surface Science Reports*, **2016**, 71, 410-472	12.9	195
150	Combining Electronic and Geometric Effects of ZnO-Promoted Pt Nanocatalysts for Aqueous Phase Reforming of 1-Propanol. *ACS Catalysis*, **2016**, 6, 3457-3460	13.1	37
149	Design and synthesis of model and practical palladium catalysts using atomic layer deposition. *Catalysis Science and Technology*, **2016**, 6, 6845-6852	5.5	8
148	Towards ALD thin film stabilized single-atom Pd1 catalysts. *Nanoscale*, **2016**, 8, 15348-56	7.7	70
147	Low Temperature ABC-Type Ru Atomic Layer Deposition through Consecutive Dissociative Chemisorption, Combustion, and Reduction Steps. *Chemistry of Materials*, **2015**, 27, 4950-4956	9.6	26
146	Atomic-Scale View of VOX□WOX Coreduction on the □Al2O3 (0001) Surface. *Journal of Physical Chemistry C*, **2015**, 119, 16179-16187	3.8	8
145	Amorphous Metal Fluoride Passivation Coatings Prepared by Atomic Layer Deposition on LiCoO2 for Li-Ion Batteries. *Chemistry of Materials*, **2015**, 27, 1917-1920	9.6	83
144	Characterizing the Three-Dimensional Structure of Block Copolymers via Sequential Infiltration Synthesis and Scanning Transmission Electron Tomography. *ACS Nano*, **2015**, 9, 5333-47	16.7	84
143	Development and testing of cost-effective, 6 cm□6 cm MCP-based photodetectors for fast timing applications. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2015**, 804, 84-93	1.2	9
142	New Insights into Sequential Infiltration Synthesis. *ECS Transactions*, **2015**, 69, 147-157	1	27
141	A modular reactor design for in situ synchrotron x-ray investigation of atomic layer deposition processes. *Review of Scientific Instruments*, **2015**, 86, 113901	1.7	15
140	Staining Block Copolymers using Sequential Infiltration Synthesis for High Contrast Imaging and STEM tomography. *Microscopy and Microanalysis*, **2015**, 21, 611-612	0.5	6
139	Synthesis of palladium nanoparticles on TiO2(110) using a beta-diketonate precursor. *Physical Chemistry Chemical Physics*, **2015**, 17, 6470-7	3.6	7
138	Catalyst Design with Atomic Layer Deposition. *ACS Catalysis*, **2015**, 5, 1804-1825	13.1	483

137	Tunable core-shell single-walled carbon nanotube-Cu2S networked nanocomposites as high-performance cathodes for lithium-ion batteries. *Journal of Power Sources*, **2015**, 280, 621-629	8.9	47
136	Kinetics for the Sequential Infiltration Synthesis of Alumina in Poly(methyl methacrylate): An Infrared Spectroscopic Study. *Journal of Physical Chemistry C*, **2015**, 119, 14585-14592	3.8	59
135	Atomic layer deposition of metal sulfide materials. *Accounts of Chemical Research*, **2015**, 48, 341-8	24.3	145
134	Towards a microchannel-based X-ray detector with two-dimensional spatial and time resolution and high dynamic range. *Journal of Synchrotron Radiation*, **2015**, 22, 1202-6	2.4	3
133	A Markov chain approach to simulate Atomic Layer Deposition chemistry and transport inside nanostructured substrates. *Theoretical Chemistry Accounts*, **2014**, 133, 1	1.9	16
132	Toward atomically-precise synthesis of supported bimetallic nanoparticles using atomic layer deposition. *Nature Communications*, **2014**, 5, 3264	17.4	156
131	Analytic expressions for atomic layer deposition: Coverage, throughput, and materials utilization in cross-flow, particle coating, and spatial atomic layer deposition. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2014**, 32, 031504	2.9	13
130	Ultrathin Lithium-Ion Conducting Coatings for Increased Interfacial Stability in High Voltage Lithium-Ion Batteries. *Chemistry of Materials*, **2014**, 26, 3128-3134	9.6	164
129	Effect of interface modifications on voltage fade in 0.5Li2MnO3□0.5LiNi0.375Mn0.375Co0.25O2 cathode materials. *Journal of Power Sources*, **2014**, 249, 509-514	8.9	74
128	Nanoscale Investigation of Solid Electrolyte Interphase Inhibition on Li-Ion Battery MnO Electrodes via Atomic Layer Deposition of Al2O3. *Chemistry of Materials*, **2014**, 26, 935-940	9.6	50
127	First-Principles Predictions and in Situ Experimental Validation of Alumina Atomic Layer Deposition on Metal Surfaces. *Chemistry of Materials*, **2014**, 26, 6752-6761	9.6	56
126	New Insight into the Mechanism of Sequential Infiltration Synthesis from Infrared Spectroscopy. *Chemistry of Materials*, **2014**, 26, 6135-6141	9.6	79
125	Atomic Layer Deposition of Gallium Sulfide Films Using Hexakis(dimethylamido)digallium and Hydrogen Sulfide. *Chemistry of Materials*, **2014**, 26, 1029-1039	9.6	68
124	Atomic Layer Deposition Overcoating: Tuning Catalyst Selectivity for Biomass Conversion. *Angewandte Chemie*, **2014**, 126, 12328-12332	3.6	13
123	Effects of Chlorine in Titanium Oxide on Palladium Atomic Layer Deposition. *Journal of Physical Chemistry C*, **2014**, 118, 22611-22619	3.8	21
122	Vapor-phase atomic-controllable growth of amorphous Li2S for high-performance lithium-sulfur batteries. *ACS Nano*, **2014**, 8, 10963-72	16.7	96
121	In situ diffraction of highly dispersed supported platinum nanoparticles. *Catalysis Science and Technology*, **2014**, 4, 3053-3063	5.5	34
120	Fabrication of transparent-conducting-oxide-coated inverse opals as mesostructured architectures for electrocatalysis applications: a case study with NiO. *ACS Applied Materials & Interfaces*, **2014**, 6, 12290-4	9.5	26

119	Enhancing the stability of copper chromite catalysts for the selective hydrogenation of furfural using ALD overcoating. *Journal of Catalysis*, **2014**, 317, 284-292	7.3	52
118	Pore Structure and Bifunctional Catalyst Activity of Overlayers Applied by Atomic Layer Deposition on Copper Nanoparticles. *ACS Catalysis*, **2014**, 4, 1554-1557	13.1	55
117	Palladium nanoparticle formation on TiO2(110) by thermal decomposition of palladium(II) hexafluoroacetylacetonate. *ACS Applied Materials & Interfaces*, **2014**, 6, 14702-11	9.5	37
116	Electrochemical characterization of voltage fade of Li1.2Ni0.2Mn0.6O2 cathode. *Solid State Ionics*, **2014**, 268, 231-235	3.3	20
115	Adsorbate-induced structural changes in 1-3 nm platinum nanoparticles. *Journal of the American Chemical Society*, **2014**, 136, 9320-6	16.4	59
114	Atom-Probe Tomography of Meteoritic Nanodiamonds.. *Microscopy and Microanalysis*, **2014**, 20, 1676-1677	3.5	1
113	Atom-probe analyses of nanodiamonds from Allende. *Meteoritics and Planetary Science*, **2014**, 49, 453-467	2.8	57
112	Effectively suppressing dissolution of manganese from spinel lithium manganate via a nanoscale surface-doping approach. *Nature Communications*, **2014**, 5, 5693	17.4	202
111	Gallium Sulfide/Single-Walled Carbon Nanotube Composites: High-Performance Anodes for Lithium-Ion Batteries. *Advanced Functional Materials*, **2014**, 24, 5435-5442	15.6	78
110	In situ XANES study of methanol decomposition and partial oxidation to syn-gas over supported Pt catalyst on SrTiO3 nanocubes. *Catalysis Today*, **2014**, 237, 71-79	5.3	12
109	Photoelectrochemical Behavior of n-type Si(100) Electrodes Coated with Thin Films of Manganese Oxide Grown by Atomic Layer Deposition. *Journal of Physical Chemistry C*, **2013**, 117, 4931-4936	3.8	133
108	Synthesis of porous carbon supported palladium nanoparticle catalysts by atomic layer deposition: application for rechargeable lithium-O2 battery. *Nano Letters*, **2013**, 13, 4182-9	11.5	170
107	Epitaxial Stabilization of Face Selective Catalysts. *Topics in Catalysis*, **2013**, 56, 1829-1834	2.3	16
106	Low temperature atomic layer deposition of highly photoactive hematite using iron(III) chloride and water. *Journal of Materials Chemistry A*, **2013**, 1, 11607	13	35
105	Interfaces and Composition Profiles in Metal Sulfide Nanolayers Synthesized by Atomic Layer Deposition. *Chemistry of Materials*, **2013**, 25, 313-319	9.6	33
104	Synthesis and stabilization of supported metal catalysts by atomic layer deposition. *Accounts of Chemical Research*, **2013**, 46, 1806-15	24.3	231
103	Resolving Precursor Deligation, Surface Species Evolution, and Nanoparticle Nucleation during Palladium Atomic Layer Deposition. *Journal of Physical Chemistry C*, **2013**, 117, 11141-11148	3.8	27
102	Templating sub-10 nm atomic layer deposited oxide nanostructures on graphene via one-dimensional organic self-assembled monolayers. *Nano Letters*, **2013**, 13, 5763-70	11.5	36

101	Catalysts Transform While Molecules React: An Atomic-Scale View. *Journal of Physical Chemistry Letters*, **2013**, 4, 285-91	6.4	18
100	Structural and Electrochemical Study of Al2O3 and TiO2 Coated Li1.2Ni0.13Mn0.54Co0.13O2 Cathode Material Using ALD. *Advanced Energy Materials*, **2013**, 3, 1299-1307	21.8	342
99	Modulation of the Growth Per Cycle in Atomic Layer Deposition Using Reversible Surface Functionalization. *Chemistry of Materials*, **2013**, 25, 4849-4860	9.6	31
98	Mechanistic Study of Lithium Aluminum Oxide Atomic Layer Deposition. *Journal of Physical Chemistry C*, **2013**, 117, 1677-1683	3.8	62
97	Structural, optical, and electronic stability of copper sulfide thin films grown by atomic layer deposition. *Energy and Environmental Science*, **2013**, 6, 1868	35.4	81
96	Stabilization of copper catalysts for liquid-phase reactions by atomic layer deposition. *Angewandte Chemie - International Edition*, **2013**, 52, 13808-12	16.4	146
95	Stabilization of Copper Catalysts for Liquid-Phase Reactions by Atomic Layer Deposition. *Angewandte Chemie*, **2013**, 125, 14053-14057	3.6	39
94	Cytotoxicity of cultured macrophages exposed to antimicrobial zinc oxide (ZnO) coatings on nanoporous aluminum oxide membranes. *Biomatter*, **2013**, 3,		12
93	Nanostructured composite thin films with tailored resistivity by atomic layer deposition **2013**,		8
92	Nanoclusters of MoO3 embedded in an Al2O3 matrix engineered for customizable mesoscale resistivity and high dielectric strength. *Applied Physics Letters*, **2013**, 102, 252901	3.4	11
91	Atomic Layer Deposition of W:Al2O3 Nanocomposite Films with Tunable Resistivity. *Chemical Vapor Deposition*, **2013**, 19, 186-193		24
90	Rücktitelbild: Stabilization of Copper Catalysts for Liquid-Phase Reactions by Atomic Layer Deposition (Angew. Chem. 51/2013). *Angewandte Chemie*, **2013**, 125, 14068-14068	3.6	1
89	Self-Limited Reaction-Diffusion in Nanostructured Substrates: Surface Coverage Dynamics and Analytic Approximations to ALD Saturation Times. *Chemical Vapor Deposition*, **2012**, 18, 46-52		40
88	High aspect ratio nanoneedle probes with an integrated electrode at the tip apex. *Review of Scientific Instruments*, **2012**, 83, 113704	1.7	17
87	Understanding the Chemistry of H2 Production for 1-Propanol Reforming: Pathway and Support Modification Effects. *ACS Catalysis*, **2012**, 2, 2316-2326	13.1	24
86	Porous Alumina Protective Coatings on Palladium Nanoparticles by Self-Poisoned Atomic Layer Deposition. *Chemistry of Materials*, **2012**, 24, 2047-2055	9.6	100
85	Atomic Layer Deposition of Ga2O3 Films Using Trimethylgallium and Ozone. *Chemistry of Materials*, **2012**, 24, 4011-4018	9.6	76
84	Energy Levels, Electronic Properties, and Rectification in Ultrathin p-NiO Films Synthesized by Atomic Layer Deposition. *Journal of Physical Chemistry C*, **2012**, 116, 16830-16840	3.8	71

83	Atomic-Scale Study of Ambient-Pressure Redox-Induced Changes for an Oxide-Supported Submonolayer Catalyst: VOx/□TiO2(110). *Journal of Physical Chemistry Letters*, **2012**, 3, 2845-2850	6.4	20
82	Refractory nanoporous materials fabricated using tungsten atomic layer deposition on silica aerogels. *Applied Surface Science*, **2012**, 258, 6472-6478	6.7	6
81	High-resolution secondary ion mass spectrometry depth profiling of nanolayers. *Rapid Communications in Mass Spectrometry*, **2012**, 26, 2224-30	2.2	13
80	Shape-selective sieving layers on an oxide catalyst surface. *Nature Chemistry*, **2012**, 4, 1030-6	17.6	105
79	Synthesis of Pt□Pd Core□Shell Nanostructures by Atomic Layer Deposition: Application in Propane Oxidative Dehydrogenation to Propylene. *Chemistry of Materials*, **2012**, 24, 3525-3533	9.6	96
78	Atomic Layer Deposition of the Quaternary Chalcogenide Cu2ZnSnS4. *Chemistry of Materials*, **2012**, 24, 3188-3196	9.6	65
77	Coking- and sintering-resistant palladium catalysts achieved through atomic layer deposition. *Science*, **2012**, 335, 1205-8	33.3	596
76	Enhanced lithographic imaging layer meets semiconductor manufacturing specification a decade early. *Advanced Materials*, **2012**, 24, 2608-13	24	66
75	Fischer□Tropsch Synthesis: Preconditioning Effects Upon Co-Containing Promoted and Unpromoted Catalysts. *Catalysis Letters*, **2012**, 142, 698-713	2.8	11
74	Simple model for atomic layer deposition precursor reaction and transport in a viscous-flow tubular reactor. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2012**, 30, 01A159	2.9	31
73	Controlled Dopant Distribution and Higher Doping Efficiencies by Surface-Functionalized Atomic Layer Deposition. *Chemistry of Materials*, **2011**, 23, 4295-4297	9.6	37
72	Ion Exchange in Ultrathin Films of Cu2S and ZnS under Atomic Layer Deposition Conditions. *Chemistry of Materials*, **2011**, 23, 4411-4413	9.6	45
71	Seeding atomic layer deposition of high-k dielectrics on epitaxial graphene with organic self-assembled monolayers. *ACS Nano*, **2011**, 5, 5223-32	16.7	149
70	Propane Oxidation over Pt/SrTiO3 Nanocuboids. *ACS Catalysis*, **2011**, 1, 629-635	13.1	133
69	Subnanometer Palladium Particles Synthesized by Atomic Layer Deposition. *ACS Catalysis*, **2011**, 1, 665-673	13.1	87
68	Synthesis of Highly Ordered Hydrothermally Stable Mesoporous Niobia Catalysts by Atomic Layer Deposition. *ACS Catalysis*, **2011**, 1, 1234-1245	13.1	110
67	Oxidative Hydrolysis of Cellobiose to Glucose. *Catalysis Letters*, **2011**, 141, 498-506	2.8	13
66	Alumina Over-coating on Pd Nanoparticle Catalysts by Atomic Layer Deposition: Enhanced Stability and Reactivity. *Catalysis Letters*, **2011**, 141, 512-517	2.8	144

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