Jolien Dendooven

List of Publications by Year in Descending Order

122 papers	2,735 citations	29 h-index	47 g-index
144 ext. papers	3,194 ext. citations	6.8 avg, IF	5.33 L-index

#	Paper	IF	Citations
122	Selective Vapor-Phase Doping of Pt Nanoparticles into Phase-Controlled Nanoalloys. *Journal of Physical Chemistry C*, **2022**, 126, 1426-1438	3.8	1
121	Plasma-enhanced atomic layer deposition of nickel and cobalt phosphate for lithium ion batteries.. *Dalton Transactions*, **2022**,	4.3	1
120	In vacuo XPS investigation of surface engineering for lithium metal anodes with plasma treatment. *Journal of Energy Chemistry*, **2022**, 66, 295-305	12	5
119	Atomic layer deposition of metal phosphates. *Applied Physics Reviews*, **2022**, 9, 011310	17.3	
118	Atomic layer deposition of ternary ruthenates by combining metalorganic precursors with RuO as the co-reactant. *Dalton Transactions*, **2021**,	4.3	1
117	An IR Spectroscopy Study of the Degradation of Surface Bound Azido-Groups in High Vacuum. *Langmuir*, **2021**, 37, 12608-12615	4	1
116	Controlled synthesis of Fe-Pt nanoalloys using atomic layer deposition. *Nanotechnology*, **2021**, 32, 095602	3.4	3
115	Plasma enhanced atomic layer deposition of a (nitrogen doped) Ti phosphate coating for improved energy storage in Li-ion batteries. *Journal of Power Sources*, **2021**, 497, 229866	8.9	5
114	Tuning size and coverage of Pd nanoparticles using atomic layer deposition. *Applied Surface Science* , **2021**, 539, 148238	6.7	1
113	Converting molecular layer deposited alucone films into AlO/alucone hybrid multilayers by plasma densification. *Dalton Transactions*, **2021**, 50, 1224-1232	4.3	4
112	ALD Pt nanoparticles and thin-film coatings enhancing the stability and performance of silicon photocathodes for solar water splitting. *Sustainable Energy and Fuels*, **2021**, 5, 3115-3123	5.8	0
111	Gold-induced photothermal background in on-chip surface enhanced stimulated Raman spectroscopy. *Optics Letters*, **2021**, 46, 953-956	3	1
110	Behaviour of Platinum-Tin during CO2-assisted propane dehydrogenation: Insights from quick X-ray absorption spectroscopy. *Journal of Catalysis*, **2021**,	7.3	2
109	In Situ XAS/SAXS Study of Al2O3-Coated PtGa Catalysts for Propane Dehydrogenation. *ACS Catalysis*, **2021**, 11, 11320-11335	13.1	3
108	Plasma-enhanced atomic layer deposition: Correlating O2 plasma parameters and species to blister formation and conformal film growth. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2021**, 39, 062402	2.9	1
107	Atomic Layer Deposition of SnO2-Based Composite Anodes for Thin-Film Lithium-Ion Batteries. *Frontiers in Energy Research*, **2020**, 8,	3.8	4
106	Reaction Pathways for Atomic Layer Deposition with Lithium Hexamethyl Disilazide, Trimethyl Phosphate, and Oxygen Plasma. *Journal of Physical Chemistry C*, **2020**, 124, 27829-27839	3.8	4

105	Molecular Layer Deposition of Magnesicone, a Magnesium-based Hybrid Material. *Chemistry of Materials*, **2020**, 32, 4451-4466	9.6	8
104	Atomic Layer Deposition of Nitrogen-Doped Al Phosphate Coatings for Li-Ion Battery Applications. *ACS Applied Materials & Interfaces*, **2020**, 12, 25949-25960	9.5	9
103	Reaction mechanism of the MeAuPMe-H plasma-enhanced ALD process. *Physical Chemistry Chemical Physics*, **2020**, 22, 11903-11914	3.6	1
102	A liquid alkoxide precursor for the atomic layer deposition of aluminum oxide films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2020**, 38, 022417	2.9	1
101	Boosting Room-Temperature Magneto-Ionics in a Non-Magnetic Oxide Semiconductor. *Advanced Functional Materials*, **2020**, 30, 2003704	15.6	13
100	Creation of gallium acid and platinum metal sites in bifunctional zeolite hydroisomerization and hydrocracking catalysts by atomic layer deposition. *Catalysis Science and Technology*, **2020**, 10, 1778-1788	5.5	8
99	In situ study of the thermal stability of supported Pt nanoparticles and their stabilization via atomic layer deposition overcoating. *Nanoscale*, **2020**, 12, 11684-11693	7.7	5
98	Study of the surface species during thermal and plasma-enhanced atomic layer deposition of titanium oxide films using in situ IR-spectroscopy and in vacuo X-ray photoelectron spectroscopy. *Physical Chemistry Chemical Physics*, **2020**, 22, 9262-9271	3.6	9
97	The co-reactant role during plasma enhanced atomic layer deposition of palladium. *Physical Chemistry Chemical Physics*, **2020**, 22, 9124-9136	3.6	3
96	Thermal and Plasma-Enhanced Atomic Layer Deposition of Yttrium Oxide Films and the Properties of Water Wettability. *ACS Applied Materials & Interfaces*, **2020**, 12, 3179-3187	9.5	9
95	Atomic Layer Deposition of Indium-Tin-Oxide as Multifunctional Coatings on V2O5 Thin-Film Model Electrode for Lithium-Ion Batteries. *Advanced Materials Interfaces*, **2020**, 7, 2001022	4.6	7
94	A Secondary Reaction Pathway for the Alumina Atomic Layer Deposition Process with Trimethylaluminum and Water, Revealed by Full-Range, Time-Resolved In Situ Mass Spectrometry. *Journal of Physical Chemistry C*, **2020**, 124, 26443-26454	3.8	3
93	Surface mobility and impact of precursor dosing during atomic layer deposition of platinum: in situ monitoring of nucleation and island growth. *Physical Chemistry Chemical Physics*, **2020**, 22, 24917-24933	3.6	8
92	Designing Nanoparticles and Nanoalloys for Gas-Phase Catalysis with Controlled Surface Reactivity Using Colloidal Synthesis and Atomic Layer Deposition. *Molecules*, **2020**, 25,	4.8	3
91	Atomic Layer Deposition of Localized Boron- and Hydrogen-Doped Aluminum Oxide Using Trimethyl Borate as a Dopant Precursor. *Chemistry of Materials*, **2020**, 32, 4152-4165	9.6	1
90	Plasma-Enhanced Atomic Layer Deposition of Nanostructured Gold Near Room Temperature. *ACS Applied Materials & Interfaces*, **2019**, 11, 37229-37238	9.5	10
89	Corrosion protection of Cu by atomic layer deposition. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2019**, 37, 060902	2.9	6
88	Formation and Functioning of Bimetallic Nanocatalysts: The Power of X-ray Probes. *Angewandte Chemie - International Edition*, **2019**, 58, 13220-13230	16.4	20

87	Conformality in atomic layer deposition: Current status overview of analysis and modelling. *Applied Physics Reviews*, **2019**, 6, 021302	17.3	156
86	Formation and Functioning of Bimetallic Nanocatalysts: The Power of X-ray Probes. *Angewandte Chemie*, **2019**, 131, 13354-13364	3.6	3
85	Nucleation Enhancement and Area-Selective Atomic Layer Deposition of Ruthenium Using RuO4 and H2 Gas. *Chemistry of Materials*, **2019**, 31, 1491-1499	9.6	23
84	Atomic layer deposition of ZnO□SnO2 composite thin film: The influence of structure, composition and crystallinity on lithium-ion battery performance. *Electrochimica Acta*, **2019**, 320, 134604	6.7	22
83	Setting Carriers Free: Healing Faulty Interfaces Promotes Delocalization and Transport in Nanocrystal Solids. *ACS Nano*, **2019**, 13, 12774-12786	16.7	17
82	Integrated silicon nitride electro-optic modulators with atomic layer deposited overlays. *Optics Letters*, **2019**, 44, 1112-1115	3	9
81	Chemical and Structural Configuration of Pt-Doped Metal Oxide Thin Films Prepared by Atomic Layer Deposition. *Chemistry of Materials*, **2019**, 31, 9673-9683	9.6	5
80	Bifunctional earth-abundant phosphate/phosphide catalysts prepared via atomic layer deposition for electrocatalytic water splitting. *Nanoscale Advances*, **2019**, 1, 4166-4172	5.1	21
79	Atomic Layer Deposition of Al2O3 Using Aluminum Triisopropoxide (ATIP): A Combined Experimental and Theoretical Study. *Journal of Physical Chemistry C*, **2019**, 123, 485-494	3.8	5
78	The transformation behaviour of "alucones", deposited by molecular layer deposition, in nanoporous AlO layers. *Dalton Transactions*, **2018**, 47, 5860-5870	4.3	33
77	Catalytic carpets: Pt@MIL-101@electrospun PCL, a surprisingly active and robust hydrogenation catalyst. *Journal of Catalysis*, **2018**, 360, 81-88	7.3	17
76	TiO-coated luminescent porous silicon micro-particles as a promising system for nanomedicine. *Journal of Materials Chemistry B*, **2018**, 6, 1815-1824	7.3	10
75	Kinetics of Lifetime Changes in Bimetallic Nanocatalysts Revealed by Quick X-ray Absorption Spectroscopy. *Angewandte Chemie - International Edition*, **2018**, 57, 12430-12434	16.4	10
74	Kinetics of Lifetime Changes in Bimetallic Nanocatalysts Revealed by Quick X-ray Absorption Spectroscopy. *Angewandte Chemie*, **2018**, 130, 12610-12614	3.6	2
73	Annealing of thin □inconel□ films, a tin-based hybrid material deposited by molecular layer deposition, in reducing, inert, and oxidizing atmospheres. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2018**, 36, 051506	2.9	14
72	Surface species during ALD of platinum observed with in situ reflection IR spectroscopy. *Physical Chemistry Chemical Physics*, **2018**, 20, 25343-25356	3.6	13
71	E-beam-lithography free plasmonic slot waveguides for on-chip Raman spectroscopy **2018**,		1
70	Voltage-Controlled ON-OFF Ferromagnetism at Room Temperature in a Single Metal Oxide Film. *ACS Nano*, **2018**, 12, 10291-10300	16.7	47

69	ALD assisted nanoplasmonic slot waveguide for on-chip enhanced Raman spectroscopy. *APL Photonics*, **2018**, 3, 116105	5.2	20
68	Oxidation barrier of Cu and Fe powder by Atomic Layer Deposition. *Surface and Coatings Technology*, **2018**, 349, 1032-1041	4.4	9
67	Heterogeneous TiO/VO/Carbon Nanotube Electrodes for Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 8055-8064	9.5	23
66	Molecular layer deposition of "vanadicone", a vanadium-based hybrid material, as an electrode for lithium-ion batteries. *Dalton Transactions*, **2017**, 46, 4542-4553	4.3	35
65	Monte Carlo simulations of atomic layer deposition on 3D large surface area structures: Required precursor exposure for pillar- versus hole-type structures. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2017**, 35, 01B115	2.9	16
64	Amorphous and Crystalline Vanadium Oxides as High-Energy and High-Power Cathodes for Three-Dimensional Thin-Film Lithium Ion Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 13121-13131	9.5	50
63	Basics of Atomic Layer Deposition: Growth Characteristics and Conformality **2017**, 1-40		3
62	Size- and composition-controlled Pt□n bimetallic nanoparticles prepared by atomic layer deposition. *RSC Advances*, **2017**, 7, 20201-20205	3.7	10
61	The Influence of Ultrathin Amorphous ALD Alumina and Titania on the Rate Capability of Anatase TiO2 and LiMn2O4 Lithium Ion Battery Electrodes. *Advanced Materials Interfaces*, **2017**, 4, 1601237	4.6	38
60	On the determination of □n thin films: a comparison of one-beam second-harmonic generation measurement methodologies. *Scientific Reports*, **2017**, 7, 44581	4.9	15
59	Independent tuning of size and coverage of supported Pt nanoparticles using atomic layer deposition. *Nature Communications*, **2017**, 8, 1074	17.4	72
58	Key role of surface oxidation and reduction processes in the coarsening of Pt nanoparticles. *Nanoscale*, **2017**, 9, 13159-13170	7.7	19
57	Plasma-Enhanced Atomic Layer Deposition of Silver Using Ag(fod)(PEt3) and NH3-Plasma. *Chemistry of Materials*, **2017**, 29, 7114-7121	9.6	15
56	Plasmonic Near-Field Localization of Silver Core-Shell Nanoparticle Assemblies via Wet Chemistry Nanogap Engineering. *ACS Applied Materials & Interfaces*, **2017**, 9, 41577-41585	9.5	22
55	Atomic Layer Deposition for Catalysis **2017**, 335-358		11
54	3D porous nanostructured platinum prepared using atomic layer deposition. *Journal of Materials Chemistry A*, **2017**, 5, 19007-19016	13	8
53	CMOS-Compatible ALD Zinc Oxide Coating for On-Chip Second-Order Nonlinear Optical Functionalities **2017**,		1
52	Magnetic and electrical characterization of nickel-rich NiFe thin films synthesized by atomic layer deposition and subsequent thermal reduction. *Nanotechnology*, **2016**, 27, 345707	3.4	18

51	Manganese oxide films with controlled oxidation state for water splitting devices through a combination of atomic layer deposition and post-deposition annealing. *RSC Advances*, **2016**, 6, 98337-98343	3.7	35
50	Molecular layer deposition of "titanicone", a titanium-based hybrid material, as an electrode for lithium-ion batteries. *Dalton Transactions*, **2016**, 45, 1176-84	4.3	35
49	Atomic Layer Deposition of Pt Nanoparticles within the Cages of MIL-101: A Mild and Recyclable Hydrogenation Catalyst. *Nanomaterials*, **2016**, 6,	5.4	32
48	Direct Imaging of ALD Deposited Pt Nanoclusters inside the Giant Pores of MIL-101. *Particle and Particle Systems Characterization*, **2016**, 33, 382-387	3.1	18
47	Chemically Triggered Formation of Two-Dimensional Epitaxial Quantum Dot Superlattices. *ACS Nano*, **2016**, 10, 6861-70	16.7	39
46	Mobile setup for synchrotron based in situ characterization during thermal and plasma-enhanced atomic layer deposition. *Review of Scientific Instruments*, **2016**, 87, 113905	1.7	20
45	Atomic layer deposition of vanadium oxides for thin-film lithium-ion battery applications. *RSC Advances*, **2016**, 6, 114658-114665	3.7	19
44	Plasma-Enhanced Atomic Layer Deposition of Iron Phosphate as a Positive Electrode for 3D Lithium-Ion Microbatteries. *Chemistry of Materials*, **2016**, 28, 3435-3445	9.6	39
43	Hydroisomerization and hydrocracking activity enhancement of a hierarchical ZSM-5 zeolite catalyst via atomic layer deposition of aluminium. *Catalysis Science and Technology*, **2016**, 6, 6177-6186	5.5	13
42	Atomic Layer Deposition Route To Tailor Nanoalloys of Noble and Non-noble Metals. *ACS Nano*, **2016**, 10, 8770-7	16.7	38
41	Plasma-Enhanced Atomic Layer Deposition of Iron and Titanium Phosphates as Electrode Materials for 3D-Structured Lithium-Ion Microbatteries. *ECS Transactions*, **2016**, 75, 35-44	1	4
40	A Case Study of ALD Encapsulation of Quantum Dots: Embedding Supported CdSe/CdS/ZnS Quantum Dots in a ZnO Matrix. *Journal of Physical Chemistry C*, **2016**, 120, 18039-18045	3.8	25
39	Plasma-enhanced atomic layer deposition: a gas-phase route to hydrophilic, glueable polytetrafluoroethylene. *Chemical Communications*, **2015**, 51, 3556-8	5.8	5
38	Functionalization of Silica Nanoparticles and Native Silicon Oxide with Tailored Boron-Molecular Precursors for Efficient and Predictive p-Doping of Silicon. *Journal of Physical Chemistry C*, **2015**, 119, 13750-13757	3.8	22
37	Deposition of MnO Anode and MnO2 Cathode Thin Films by Plasma Enhanced Atomic Layer Deposition Using the Mn(thd)3 Precursor. *Chemistry of Materials*, **2015**, 27, 3628-3635	9.6	39
36	Low Temperature Atomic Layer Deposition of Crystalline In2O3 Films. *Journal of Physical Chemistry C*, **2015**, 119, 11786-11791	3.8	28
35	Near room temperature plasma enhanced atomic layer deposition of ruthenium using the RuO4-precursor and H2-plasma. *Journal of Materials Chemistry C*, **2015**, 3, 4848-4851	7.1	18
34	Atomic layer deposition of ruthenium at 100 °C using the RuO4-precursor and H2. *Journal of Materials Chemistry C*, **2015**, 3, 132-137	7.1	29

33	Atomic layer deposited second-order nonlinear optical metamaterial for back-end integration with CMOS-compatible nanophotonic circuitry. *Optics Letters*, **2015**, 40, 5371-4	3	22
32	A Single-Event MicroKinetic assessment of n-alkane hydroconversion on ultrastable Y zeolites after Atomic Layer Deposition of alumina. *Journal of Catalysis*, **2014**, 311, 433-446	7.3	20
31	In situ synchrotron based x-ray techniques as monitoring tools for atomic layer deposition. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2014**, 32, 010801	2.9	30
30	Enzymatic mineralization of silk scaffolds. *Macromolecular Bioscience*, **2014**, 14, 991-1003	5.5	22
29	Plasma enhanced atomic layer deposition of Ga2O3 thin films. *Journal of Materials Chemistry A*, **2014**, 2, 19232-19238	13	50
28	Air-based photoelectrochemical cell capturing water molecules from ambient air for hydrogen production. *RSC Advances*, **2014**, 4, 29286-29290	3.7	35
27	Atomic layer deposition-based tuning of the pore size in mesoporous thin films studied by in situ grazing incidence small angle X-ray scattering. *Nanoscale*, **2014**, 6, 14991-8	7.7	40
26	Plasma enhanced atomic layer deposition of Fe2O3 thin films. *Journal of Materials Chemistry A*, **2014**, 2, 10662-10667	13	36
25	Catalytic activation of OKO zeolite with intersecting pores of 10- and 12-membered rings using atomic layer deposition of aluminium. *Chemical Communications*, **2014**, 50, 4610-2	5.8	23
24	Unravelling the Formation of Pt□a Alloyed Nanoparticles on Calcined Ga-Modified Hydrotalcites by in Situ XAS. *Chemistry of Materials*, **2014**, 26, 5936-5949	9.6	25
23	Controllable nitrogen doping in as deposited TiO2 film and its effect on post deposition annealing. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2014**, 32, 01A123	2.9	16
22	In situ XAS and XRF study of nanoparticle nucleation during O3-based Pt deposition. *Catalysis Today*, **2014**, 229, 2-13	5.3	31
21	In Situ IR Spectroscopic Investigation of Alumina ALD on Porous Silica Films: Thermal versus Plasma-Enhanced ALD. *Journal of Physical Chemistry C*, **2014**, 118, 29854-29859	3.8	23
20	Magnetic characterization and electrical field-induced switching of magnetite thin films synthesized by atomic layer deposition and subsequent thermal reduction. *Journal Physics D: Applied Physics*, **2014**, 47, 485001	3	15
19	Synthesis of uniformly dispersed anatase nanoparticles inside mesoporous silica thin films via controlled breakup and crystallization of amorphous TiO2 deposited using atomic layer deposition. *Nanoscale*, **2013**, 5, 5001-8	7.7	20
18	Low-Temperature Atomic Layer Deposition of Platinum Using (Methylcyclopentadienyl)trimethylplatinum and Ozone. *Journal of Physical Chemistry C*, **2013**, 117, 20557-20561	3.8	80
17	Atomic layer deposition of TiO2 on surface modified nanoporous low-k films. *Langmuir*, **2013**, 29, 12284-9	4	17
16	In Situ Study of ALD Processes Using Synchrotron-based X-ray Fluorescence and Scattering Techniques. *ECS Transactions*, **2013**, 50, 35-42	1	5

15	Atomic Layer Deposition of Titanium and Vanadium Oxide on Mesoporous Silica and Phenol/Formaldehyde Resins □the Effect of the Support on the Liquid Phase Epoxidation of Cyclohexene. *European Journal of Inorganic Chemistry*, **2012**, 2012, 251-260	2.3	20
14	In situ monitoring of atomic layer deposition in nanoporous thin films using ellipsometric porosimetry. *Langmuir*, **2012**, 28, 3852-9	4	42
13	Conformality of thermal and plasma enhanced atomic layer deposition on a non-woven fibrous substrate. *Surface and Coatings Technology*, **2012**, 206, 4511-4517	4.4	28
12	Anisotropic Atomic Layer Deposition Profiles of TiO2 in Hierarchical Silica Material with Multiple Porosity. *Chemistry of Materials*, **2012**, 24, 2775-2780	9.6	25
11	Tuning the Pore Size of Ink-Bottle Mesopores by Atomic Layer Deposition. *Chemistry of Materials*, **2012**, 24, 1992-1994	9.6	51
10	In Situ X-ray Fluorescence Measurements During Atomic Layer Deposition: Nucleation and Growth of TiO2 on Planar Substrates and in Nanoporous Films. *Journal of Physical Chemistry C*, **2011**, 115, 6605-6610	3.8	60
9	Tailoring nanoporous materials by atomic layer deposition. *Chemical Society Reviews*, **2011**, 40, 5242-53	58.5	294
8	Spacious and mechanically flexible mesoporous silica thin film composed of an open network of interlinked nanoslabs. *Journal of Materials Chemistry*, **2011**, 21, 7692		20
7	Aluminium atomic layer deposition applied to mesoporous zeolites for acid catalytic activity enhancement. *Catalysis Science and Technology*, **2011**, 1, 218	5.5	37
6	Embedding Quantum Dot Monolayers in Al2O3Using Atomic Layer Deposition. *Chemistry of Materials*, **2011**, 23, 126-128	9.6	28
5	In situ synchrotron based x-ray fluorescence and scattering measurements during atomic layer deposition: Initial growth of HfO2 on Si and Ge substrates. *Applied Physics Letters*, **2011**, 98, 231905	3.4	22
4	Conformality of Al[sub 2]O[sub 3] and AlN Deposited by Plasma-Enhanced Atomic Layer Deposition. *Journal of the Electrochemical Society*, **2010**, 157, G111	3.9	84
3	Thermal Versus Plasma-Enhanced ALD: Growth Kinetics and Conformality. *ECS Transactions*, **2009**, 16, 239-246	1	17
2	Modeling the Conformality of Atomic Layer Deposition: The Effect of Sticking Probability. *Journal of the Electrochemical Society*, **2009**, 156, P63	3.9	78
1	Chapter 7:Atomic Layer Deposition in Nanoporous Catalyst Materials. *RSC Catalysis Series*,167-197	0.3	