

Harm C M Knoops

List of Publications by Citations

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

63
papers

2,497
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h-index

49
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65
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2,767
ext. citations

4.3
avg, IF

5.08
L-index

#	Paper	IF	Citations
63	In situspectroscopic ellipsometry as a versatile tool for studying atomic layer deposition. <i>Journal of Physics D: Applied Physics</i> , 2009 , 42, 073001	3	232
62	Conformality of Plasma-Assisted ALD: Physical Processes and Modeling. <i>Journal of the Electrochemical Society</i> , 2010 , 157, G241	3.9	133
61	Atomic layer deposition for nanostructured Li-ion batteries. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012 , 30, 010801	2.9	102
60	Surface reactions during atomic layer deposition of Pt derived from gas phase infrared spectroscopy. <i>Applied Physics Letters</i> , 2009 , 95, 013114	3.4	102
59	Remote Plasma ALD of Platinum and Platinum Oxide Films. <i>Electrochemical and Solid-State Letters</i> , 2009 , 12, G34		100
58	Status and prospects of plasma-assisted atomic layer deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 030902	2.9	84
57	Atomic Layer Etching: What Can We Learn from Atomic Layer Deposition?. <i>ECS Journal of Solid State Science and Technology</i> , 2015 , 4, N5023-N5032	2	80
56	Deposition of TiN and TaN by Remote Plasma ALD for Cu and Li Diffusion Barrier Applications. <i>Journal of the Electrochemical Society</i> , 2008 , 155, G287	3.9	76
55	Atomic Layer Deposition of LiCoO ₂ Thin-Film Electrodes for All-Solid-State Li-Ion Micro-Batteries. <i>Journal of the Electrochemical Society</i> , 2013 , 160, A3066-A3071	3.9	75
54	Synthesis and in situ characterization of low-resistivity TaN _x films by remote plasma atomic layer deposition. <i>Journal of Applied Physics</i> , 2007 , 102, 083517	2.5	70
53	Enhanced Doping Efficiency of Al-Doped ZnO by Atomic Layer Deposition Using Dimethylaluminum Isopropoxide as an Alternative Aluminum Precursor. <i>Chemistry of Materials</i> , 2013 , 25, 4619-4622	9.6	67
52	Atomic Layer Deposition of Silicon Nitride from Bis(tert-butylamino)silane and N ₂ Plasma. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 19857-62	9.5	66
51	Remote Plasma Atomic Layer Deposition of Co ₃ O ₄ Thin Films. <i>Journal of the Electrochemical Society</i> , 2011 , 158, G92	3.9	65
50	Electrical transport and Al doping efficiency in nanoscale ZnO films prepared by atomic layer deposition. <i>Journal of Applied Physics</i> , 2013 , 114, 024308	2.5	64
49	Room-Temperature Atomic Layer Deposition of Platinum. <i>Chemistry of Materials</i> , 2013 , 25, 1769-1774	9.6	64
48	Low-temperature plasma-enhanced atomic layer deposition of 2-D MoS ₂ : large area, thickness control and tuneable morphology. <i>Nanoscale</i> , 2018 , 10, 8615-8627	7.7	63
47	Low-Temperature Plasma-Assisted Atomic Layer Deposition of Silicon Nitride Moisture Permeation Barrier Layers. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 22525-32	9.5	60

46	Plasma rotation and momentum transport studies at JET. <i>Plasma Physics and Controlled Fusion</i> , 2006 , 48, 1693-1708	2	60
45	Tuning Material Properties of Oxides and Nitrides by Substrate Biasing during Plasma-Enhanced Atomic Layer Deposition on Planar and 3D Substrate Topographies. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 13158-13180	9.5	59
44	3D negative electrode stacks for integrated all-solid-state lithium-ion microbatteries. <i>Journal of Materials Chemistry</i> , 2010 , 20, 3703		59
43	Surface Loss in Ozone-Based Atomic Layer Deposition Processes. <i>Chemistry of Materials</i> , 2011 , 23, 2381-2387	3.87	58
42	Electron Scattering and Doping Mechanisms in Solid-Phase-Crystallized In ₂ O ₃ :H Prepared by Atomic Layer Deposition. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 16723-9	9.5	56
41	Optical emission spectroscopy as a tool for studying, optimizing, and monitoring plasma-assisted atomic layer deposition processes. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2010 , 28, 77-87	2.9	51
40	Redeposition in plasma-assisted atomic layer deposition: Silicon nitride film quality ruled by the gas residence time. <i>Applied Physics Letters</i> , 2015 , 107, 014102	3.4	48
39	Co ₃ O ₄ as anode material for thin film micro-batteries prepared by remote plasma atomic layer deposition. <i>Journal of Power Sources</i> , 2012 , 203, 72-77	8.9	45
38	Toroidal and poloidal momentum transport studies in JET. <i>Nuclear Fusion</i> , 2007 , 47, 1012-1023	3.3	45
37	Energetic ions during plasma-enhanced atomic layer deposition and their role in tailoring material properties. <i>Plasma Sources Science and Technology</i> , 2019 , 28, 024002	3.5	43
36	Role of Surface Termination in Atomic Layer Deposition of Silicon Nitride. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 3610-4	6.4	40
35	Atomic Layer Deposition of Wet-Etch Resistant Silicon Nitride Using Di(sec-butylamino)silane and N ₂ Plasma on Planar and 3D Substrate Topographies. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 1858-1869	9.5	35
34	Atomic layer deposition of high-mobility hydrogen-doped zinc oxide. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 173, 111-119	6.4	34
33	Atomic Layer Deposition for All-Solid-State 3D-Integrated Batteries. <i>ECS Transactions</i> , 2009 , 25, 333-344	1	27
32	Optical modeling of plasma-deposited ZnO films: Electron scattering at different length scales. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015 , 33, 021509	2.9	26
31	Mass Spectrometry Study of the Temperature Dependence of Pt Film Growth by Atomic Layer Deposition. <i>ECS Journal of Solid State Science and Technology</i> , 2012 , 1, P255-P262	2	25
30	Film Conformality and Extracted Recombination Probabilities of O Atoms during Plasma-Assisted Atomic Layer Deposition of SiO ₂ , TiO ₂ , Al ₂ O ₃ , and HfO ₂ . <i>Journal of Physical Chemistry C</i> , 2019 , 123, 27030-27033	3.8	23
29	Atomic Layer Deposition of Silicon Nitride From Bis(tertiary-butyl-amino)silane and N ₂ Plasma Studied by in Situ Gas Phase and Surface Infrared Spectroscopy. <i>Chemistry of Materials</i> , 2016 , 28, 5864-5871	8.6	22

28	Plasma-enhanced atomic layer deposition of tungsten oxide thin films using (tBuN) ₂ (Me ₂ N) ₂ W and O ₂ plasma. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 01B103	2.9	21
27	Reaction mechanisms of atomic layer deposition of TaN _x from Ta(NMe ₂) ₅ precursor and H ₂ -based plasmas. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012 , 30, 01A101	2.9	21
26	Comparison of thermal and plasma-enhanced atomic layer deposition of niobium oxide thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 041503	2.9	21
25	Sticking probabilities of H ₂ O and Al(CH ₃) ₃ during atomic layer deposition of Al ₂ O ₃ extracted from their impact on film conformality. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 030908	2.9	19
24	Opportunities for Plasma-Assisted Atomic Layer Deposition. <i>ECS Transactions</i> , 2006 , 3, 183-190	1	19
23	Remote Plasma Atomic Layer Deposition of Thin Films of Electrochemically Active LiCoO ₂ . <i>ECS Transactions</i> , 2011 , 41, 321-330	1	18
22	Plasma-assisted atomic layer deposition of conformal Pt films in high aspect ratio trenches. <i>Journal of Chemical Physics</i> , 2017 , 146, 052818	3.9	15
21	Atomic layer deposition of aluminum fluoride using Al(CH ₃) ₃ and SF ₆ plasma. <i>Applied Physics Letters</i> , 2017 , 111, 113105	3.4	12
20	Plasma-Assisted Atomic Layer Deposition of PtO _x from (MeCp)PtMe ₃ and O ₂ Plasma. <i>Chemical Vapor Deposition</i> , 2014 , 20, 258-268		11
19	Predictive simulations of toroidal momentum transport at JET. <i>Plasma Physics and Controlled Fusion</i> , 2007 , 49, 1931-1943	2	11
18	(Invited) All-Solid-State Batteries: A Challenging Route towards 3D Integration. <i>ECS Transactions</i> , 2010 , 33, 213-222	1	9
17	Evidence for low-energy ions influencing plasma-assisted atomic layer deposition of SiO ₂ : Impact on the growth per cycle and wet etch rate. <i>Applied Physics Letters</i> , 2020 , 117, 031602	3.4	7
16	Expanding Thermal Plasma Chemical Vapour Deposition of ZnO:Al Layers for CIGS Solar Cells. <i>International Journal of Photoenergy</i> , 2014 , 2014, 1-9	2.1	6
15	Enhancing the Wettability of High Aspect-Ratio Through-Silicon Vias Lined With LPCVD Silicon Nitride or PE-ALD Titanium Nitride for Void-Free Bottom-Up Copper Electroplating. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2011 , 1, 1728-1738	1.7	6
14	Remote Plasma Atomic Layer Deposition of Co ₃ O ₄ Thin Films. <i>ECS Transactions</i> , 2009 , 25, 39-47	1	5
13	Deposition of TiN and TaN by Remote Plasma ALD for Diffusion Barrier Applications. <i>ECS Transactions</i> , 2007 , 11, 45-54	1	5
12	Isotropic plasma atomic layer etching of Al ₂ O ₃ using a fluorine containing plasma and Al(CH ₃) ₃ . <i>Applied Physics Letters</i> , 2020 , 117, 162107	3.4	5
11	Impact of Ions on Film Conformality and Crystallinity during Plasma-Assisted Atomic Layer Deposition of TiO. <i>Chemistry of Materials</i> , 2021 , 33, 5002-5009	9.6	5

10	Atomic layer deposition of cobalt phosphate from cobaltocene, trimethylphosphate, and O ₂ plasma. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 022416	2.9	4
9	Expanding Thermal Plasma Deposition of Al-Doped ZnO: On the Effect of the Plasma Chemistry on Film Growth Mechanisms. <i>Plasma Processes and Polymers</i> , 2016 , 13, 54-69	3.4	4
8	Surface zeta potential and diamond growth on gallium oxide single crystal. <i>Carbon</i> , 2021 , 181, 79-86	10.4	4
7	Plasma-Enhanced Atomic Layer Deposition of Al ₂ O ₃ on Graphene Using Monolayer hBN as Interfacial Layer. <i>Advanced Materials Technologies</i> , 2021 , 6, 2100489	6.8	3
6	Reaction Mechanisms during Atomic Layer Deposition of AlF Using Al(CH ₃) and SF Plasma. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 3913-3923	3.8	3
5	Oxygen Recombination Probability Data for Plasma-Assisted Atomic Layer Deposition of SiO ₂ and TiO ₂ . <i>Journal of Physical Chemistry C</i> , 2021 , 125, 8244-8252	3.8	2
4	Innovative remote plasma source for atomic layer deposition for GaN devices. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 062403	2.9	2
3	Atomic insights into the oxygen incorporation in atomic layer deposited conductive nitrides and its mitigation by energetic ions. <i>Nanoscale</i> , 2021 , 13, 10092-10099	7.7	0
2	Corrigendum to Expanding Thermal Plasma Chemical Vapour Deposition of ZnO:Al Layers for CIGS Solar Cells <i>International Journal of Photoenergy</i> , 2015 , 2015, 1-1	2.1	
1	Corrigendum #2 to Expanding Thermal Plasma Chemical Vapour Deposition of ZnO:Al Layers for CIGS Solar Cells <i>International Journal of Photoenergy</i> , 2020 , 2020, 1-1	2.1	