Harm C M Knoops

List of Publications by Year in Descending Order

63 papers	2,497 citations	30 h-index	49 g-index
65 ext. papers	2,767 ext. citations	4.3 avg, IF	5.08 L-index

#	Paper	IF	Citations
63	Oxygen Recombination Probability Data for Plasma-Assisted Atomic Layer Deposition of SiO and TiO. *Journal of Physical Chemistry C*, **2021**, 125, 8244-8252	3.8	2
62	Impact of Ions on Film Conformality and Crystallinity during Plasma-Assisted Atomic Layer Deposition of TiO. *Chemistry of Materials*, **2021**, 33, 5002-5009	9.6	5
61	Plasma-Enhanced Atomic Layer Deposition of Al2O3 on Graphene Using Monolayer hBN as Interfacial Layer. *Advanced Materials Technologies*, **2021**, 6, 2100489	6.8	3
60	Atomic insights into the oxygen incorporation in atomic layer deposited conductive nitrides and its mitigation by energetic ions. *Nanoscale*, **2021**, 13, 10092-10099	7.7	0
59	Reaction Mechanisms during Atomic Layer Deposition of AlF Using Al(CH) and SF Plasma. *Journal of Physical Chemistry C*, **2021**, 125, 3913-3923	3.8	3
58	Surface zeta potential and diamond growth on gallium oxide single crystal. *Carbon*, **2021**, 181, 79-86	10.4	4
57	Innovative remote plasma source for atomic layer deposition for GaN devices. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2021**, 39, 062403	2.9	2
56	Atomic layer deposition of cobalt phosphate from cobaltocene, trimethylphosphate, and O2 plasma. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2020**, 38, 022416	2.9	4
55	Corrigendum #2 to Expanding Thermal Plasma Chemical Vapour Deposition of ZnO:Al Layers for CIGS Solar Cells *International Journal of Photoenergy*, **2020**, 2020, 1-1	2.1	
54	Evidence for low-energy ions influencing plasma-assisted atomic layer deposition of SiO2: Impact on the growth per cycle and wet etch rate. *Applied Physics Letters*, **2020**, 117, 031602	3.4	7
53	Isotropic plasma atomic layer etching of Al2O3 using a fluorine containing plasma and Al(CH3)3. *Applied Physics Letters*, **2020**, 117, 162107	3.4	5
52	Sticking probabilities of H2O and Al(CH3)3 during atomic layer deposition of Al2O3 extracted from their impact on film conformality. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2019**, 37, 030908	2.9	19
51	Status and prospects of plasma-assisted atomic layer deposition. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2019**, 37, 030902	2.9	84
50	Film Conformality and Extracted Recombination Probabilities of O Atoms during Plasma-Assisted Atomic Layer Deposition of SiO2, TiO2, Al2O3, and HfO2. *Journal of Physical Chemistry C*, **2019**, 123, 27030-27035	3.8	23
49	Energetic ions during plasma-enhanced atomic layer deposition and their role in tailoring material properties. *Plasma Sources Science and Technology*, **2019**, 28, 024002	3.5	43
48	Low-temperature plasma-enhanced atomic layer deposition of 2-D MoS: large area, thickness control and tuneable morphology. *Nanoscale*, **2018**, 10, 8615-8627	7.7	63
47	Tuning Material Properties of Oxides and Nitrides by Substrate Biasing during Plasma-Enhanced Atomic Layer Deposition on Planar and 3D Substrate Topographies. *ACS Applied Materials & Interfaces*, **2018**, 10, 13158-13180	9.5	59

46	Plasma-enhanced atomic layer deposition of tungsten oxide thin films using (tBuN)2(Me2N)2W and O2 plasma. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2018**, 36, 01B103	2.9	21
45	Comparison of thermal and plasma-enhanced atomic layer deposition of niobium oxide thin films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2018**, 36, 041503	2.9	21
44	Plasma-assisted atomic layer deposition of conformal Pt films in high aspect ratio trenches. *Journal of Chemical Physics*, **2017**, 146, 052818	3.9	15
43	Atomic layer deposition of high-mobility hydrogen-doped zinc oxide. *Solar Energy Materials and Solar Cells*, **2017**, 173, 111-119	6.4	34
42	Atomic Layer Deposition of Wet-Etch Resistant Silicon Nitride Using Di(sec-butylamino)silane and N Plasma on Planar and 3D Substrate Topographies. *ACS Applied Materials & Interfaces*, **2017**, 9, 1858-1869	9.5	35
41	Atomic layer deposition of aluminum fluoride using Al(CH3)3 and SF6 plasma. *Applied Physics Letters*, **2017**, 111, 113105	3.4	12
40	Atomic Layer Deposition of Silicon Nitride from Bis(tertiary-butyl-amino)silane and N2 Plasma Studied by in Situ Gas Phase and Surface Infrared Spectroscopy. *Chemistry of Materials*, **2016**, 28, 5864-5871	9.6	22
39	Expanding Thermal Plasma Deposition of Al-Doped ZnO: On the Effect of the Plasma Chemistry on Film Growth Mechanisms. *Plasma Processes and Polymers*, **2016**, 13, 54-69	3.4	4
38	Low-Temperature Plasma-Assisted Atomic Layer Deposition of Silicon Nitride Moisture Permeation Barrier Layers. *ACS Applied Materials & Interfaces*, **2015**, 7, 22525-32	9.5	60
37	Atomic Layer Deposition of Silicon Nitride from Bis(tert-butylamino)silane and N2 Plasma. *ACS Applied Materials & Interfaces*, **2015**, 7, 19857-62	9.5	66
36	Atomic Layer Etching: What Can We Learn from Atomic Layer Deposition?. *ECS Journal of Solid State Science and Technology*, **2015**, 4, N5023-N5032	2	80
35	Role of Surface Termination in Atomic Layer Deposition of Silicon Nitride. *Journal of Physical Chemistry Letters*, **2015**, 6, 3610-4	6.4	40
34	Redeposition in plasma-assisted atomic layer deposition: Silicon nitride film quality ruled by the gas residence time. *Applied Physics Letters*, **2015**, 107, 014102	3.4	48
33	Corrigendum to Expanding Thermal Plasma Chemical Vapour Deposition of ZnO:Al Layers for CIGS Solar Cells *International Journal of Photoenergy*, **2015**, 2015, 1-1	2.1	
32	Electron Scattering and Doping Mechanisms in Solid-Phase-Crystallized In2O3:H Prepared by Atomic Layer Deposition. *ACS Applied Materials & Interfaces*, **2015**, 7, 16723-9	9.5	56
31	Optical modeling of plasma-deposited ZnO films: Electron scattering at different length scales. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2015**, 33, 021509	2.9	26
30	Plasma-Assisted Atomic Layer Deposition of PtOx from (MeCp)PtMe3 and O2 Plasma. *Chemical Vapor Deposition*, **2014**, 20, 258-268		11
29	Expanding Thermal Plasma Chemical Vapour Deposition of ZnO:Al Layers for CIGS Solar Cells. *International Journal of Photoenergy*, **2014**, 2014, 1-9	2.1	6

28	Electrical transport and Al doping efficiency in nanoscale ZnO films prepared by atomic layer deposition. *Journal of Applied Physics*, **2013**, 114, 024308	2.5	64
27	Enhanced Doping Efficiency of Al-Doped ZnO by Atomic Layer Deposition Using Dimethylaluminum Isopropoxide as an Alternative Aluminum Precursor. *Chemistry of Materials*, **2013**, 25, 4619-4622	9.6	67
26	Room-Temperature Atomic Layer Deposition of Platinum. *Chemistry of Materials*, **2013**, 25, 1769-1774	9.6	64
25	Atomic Layer Deposition of LiCoO2Thin-Film Electrodes for All-Solid-State Li-Ion Micro-Batteries. *Journal of the Electrochemical Society*, **2013**, 160, A3066-A3071	3.9	75
24	Co3O4 as anode material for thin film micro-batteries prepared by remote plasma atomic layer deposition. *Journal of Power Sources*, **2012**, 203, 72-77	8.9	45
23	Reaction mechanisms of atomic layer deposition of TaNx from Ta(NMe2)5 precursor and H2-based plasmas. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2012**, 30, 01A101	2.9	21
22	Atomic layer deposition for nanostructured Li-ion batteries. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2012**, 30, 010801	2.9	102
21	Mass Spectrometry Study of the Temperature Dependence of Pt Film Growth by Atomic Layer Deposition. *ECS Journal of Solid State Science and Technology*, **2012**, 1, P255-P262	2	25
20	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. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2011**, 1, 1728-1738	1.7	6
19	Surface Loss in Ozone-Based Atomic Layer Deposition Processes. *Chemistry of Materials*, **2011**, 23, 2381-2387	9.6	58
18	Remote Plasma Atomic Layer Deposition of Co3O4 Thin Films. *Journal of the Electrochemical Society*, **2011**, 158, G92	3.9	65
17	Remote Plasma Atomic Layer Deposition of Thin Films of Electrochemically Active LiCoO2. *ECS Transactions*, **2011**, 41, 321-330	1	18
16	(Invited) All-Solid-State Batteries: A Challenging Route towards 3D Integration. *ECS Transactions*, **2010**, 33, 213-222	1	9
15	Optical emission spectroscopy as a tool for studying, optimizing, and monitoring plasma-assisted atomic layer deposition processes. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2010**, 28, 77-87	2.9	51
14	Conformality of Plasma-Assisted ALD: Physical Processes and Modeling. *Journal of the Electrochemical Society*, **2010**, 157, G241	3.9	133
13	3D negative electrode stacks for integrated all-solid-state lithium-ion microbatteries. *Journal of Materials Chemistry*, **2010**, 20, 3703		59
12	Atomic Layer Deposition for All-Solid-State 3D-Integrated Batteries. *ECS Transactions*, **2009**, 25, 333-344	1	27
11	Remote Plasma Atomic Layer Deposition of Co3O4 Thin Films. *ECS Transactions*, **2009**, 25, 39-47	1	5

10	Remote Plasma ALD of Platinum and Platinum Oxide Films. *Electrochemical and Solid-State Letters*, **2009**, 12, G34		100
9	In situspectroscopic ellipsometry as a versatile tool for studying atomic layer deposition. *Journal Physics D: Applied Physics*, **2009**, 42, 073001	3	232
8	Surface reactions during atomic layer deposition of Pt derived from gas phase infrared spectroscopy. *Applied Physics Letters*, **2009**, 95, 013114	3.4	102
7	Deposition of TiN and TaN by Remote Plasma ALD for Cu and Li Diffusion Barrier Applications. *Journal of the Electrochemical Society*, **2008**, 155, G287	3.9	76
6	Deposition of TiN and TaN by Remote Plasma ALD for Diffusion Barrier Applications. *ECS Transactions*, **2007**, 11, 45-54	1	5
5	Toroidal and poloidal momentum transport studies in JET. *Nuclear Fusion*, **2007**, 47, 1012-1023	3.3	45
4	Synthesis and in situ characterization of low-resistivity TaNx films by remote plasma atomic layer deposition. *Journal of Applied Physics*, **2007**, 102, 083517	2.5	70
3	Predictive simulations of toroidal momentum transport at JET. *Plasma Physics and Controlled Fusion* , **2007**, 49, 1931-1943	2	11
2	Plasma rotation and momentum transport studies at JET. *Plasma Physics and Controlled Fusion*, **2006**, 48, 1693-1708	2	60
1	Opportunities for Plasma-Assisted Atomic Layer Deposition. *ECS Transactions*, **2006**, 3, 183-190	1	19