Ageeth A Bol

List of Publications by Year
in descending order

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108	8,089	53660 45	48187 88
papers	citations	h-index	g-index

112	112	112	11665
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-frequency, scaled graphene transistors on diamond-like carbon. Nature, 2011, 472, 74-78.	13.7	813
2	Structure and Electronic Transport in Graphene Wrinkles. Nano Letters, 2012, 12, 3431-3436.	4.5	540
3	Long-livedMn^{2+}emission in nanocrystallineZnS:Mn^{2+}. Physical Review B, 1998, 58, R15997-R16000.	1.1	393
4	State-of-the-Art Graphene High-Frequency Electronics. Nano Letters, 2012, 12, 3062-3067.	4.5	371
5	Photooxidation and Photobleaching of Single CdSe/ZnS Quantum Dots Probed by Room-Temperature Time-Resolved Spectroscopy. Journal of Physical Chemistry B, 2001, 105, 8281-8284.	1.2	368
6	Chemical Doping of Large-Area Stacked Graphene Films for Use as Transparent, Conducting Electrodes. ACS Nano, 2010, 4, 3839-3844.	7.3	329
7	The use of atomic layer deposition in advanced nanopatterning. Nanoscale, 2014, 6, 10941-10960.	2.8	304
8	Blueing, Bleaching, and Blinking of Single CdSe/ZnS Quantum Dots. ChemPhysChem, 2002, 3, 871-879.	1.0	261
9	On the Incorporation of Trivalent Rare Earth Ions in IIâˆ'VI Semiconductor Nanocrystals. Chemistry of Materials, 2002, 14, 1121-1126.	3.2	220
10	Infrared Spectroscopy of Wafer-Scale Graphene. ACS Nano, 2011, 5, 9854-9860.	7.3	187
11	Luminescence of nanocrystalline ZnS:Cu^{2+}. Journal of Luminescence, 2002, 99, 325-334.	1.5	182
12	Efficient narrow-band light emission from a single carbon nanotube pâ€"n diode. Nature Nanotechnology, 2010, 5, 27-31.	15.6	181
13	High-Frequency Graphene Voltage Amplifier. Nano Letters, 2011, 11, 3690-3693.	4.5	165
14	Luminescence Quantum Efficiency of Nanocrystalline ZnS:Mn^{2+}. 1. Surface Passivation and Mn^{2+}Concentration. Journal of Physical Chemistry B, 2001, 105, 10197-10202.	1.2	158
15	Three-Terminal Graphene Negative Differential Resistance Devices. ACS Nano, 2012, 6, 2610-2616.	7.3	153
16	Luminescence Quantum Efficiency of Nanocrystalline ZnS:Mn^{2+}. 2. Enhancement by UV Irradiation. Journal of Physical Chemistry B, 2001, 105, 10203-10209.	1.2	147
17	Influence of Oxygen Exposure on the Nucleation of Platinum Atomic Layer Deposition: Consequences for Film Growth, Nanopatterning, and Nanoparticle Synthesis. Chemistry of Materials, 2013, 25, 1905-1911.	3.2	123
18	Imaging of the Schottky Barriers and Charge Depletion in Carbon Nanotube Transistors. Nano Letters, 2007, 7, 2037-2042.	4.5	121

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19	Atomic layer deposition of molybdenum oxide from (N<i>t</i>Bu)2(NMe2)2Mo and O2 plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	0.9	111
20	The Grapheneâ€“Gold Interface and Its Implications for Nanoelectronics. Nano Letters, 2011, 11, 3833-3837.	4.5	101
21	Large-Scale Graphene Transistors with Enhanced Performance and Reliability Based on Interface Engineering by Phenylsilane Self-Assembled Monolayers. Nano Letters, 2011, 11, 523-528.	4.5	95
22	Lowâ€temperature atomic layer deposition of MoO<i>_x</i> for silicon heterojunction solar cells. Physica Status Solidi - Rapid Research Letters, 2015, 9, 393-396.	1.2	93
23	Magnetic catalyst bodies1Netherlands institute for Research in Catalysis (NIOK) publication #UU 98-1-06.1. Catalysis Today, 1999, 48, 329-336.	2.2	90
24	Low-temperature plasma-enhanced atomic layer deposition of 2-D MoS₂: large area, thickness control and tuneable morphology. Nanoscale, 2018, 10, 8615-8627.	2.8	90
25	Area-Selective Atomic Layer Deposition of Metal Oxides on Noble Metals through Catalytic Oxygen Activation. Chemistry of Materials, 2018, 30, 663-670.	3.2	90
26	The Origin of High Activity of Amorphous MoS₂ in the Hydrogen Evolution Reaction. ChemSusChem, 2019, 12, 4383-4389.	3.6	90
27	Doped semiconductor nanoparticles â€“ a new class of luminescent materials?. Journal of Luminescence, 2000, 87-89, 315-318.	1.5	87
28	Atomic layer deposition of Pd and Pt nanoparticles for catalysis: on the mechanisms of nanoparticle formation. Nanotechnology, 2016, 27, 034001.	1.3	86
29	<i>In situ</i> x-ray diffraction study of graphitic carbon formed during heating and cooling of amorphous-C/Ni bilayers. Applied Physics Letters, 2010, 96, .	1.5	85
30	Atomic Layer Deposition for Graphene Device Integration. Advanced Materials Interfaces, 2017, 4, 1700232.	1.9	85
31	Luminescence of nanocrystalline ZnS:Pb2+. Physical Chemistry Chemical Physics, 2001, 3, 2105-2112.	1.3	78
32	Double Contacts for Improved Performance of Graphene Transistors. IEEE Electron Device Letters, 2012, 33, 17-19.	2.2	76
33	Room-Temperature Atomic Layer Deposition of Platinum. Chemistry of Materials, 2013, 25, 1769-1774.	3.2	70
34	Highâ€Efficiency InPâ€Based Photocathode for Hydrogen Production by Interface Energetics Design and Photon Management. Advanced Functional Materials, 2016, 26, 679-686.	7.8	69
35	Channel-Length-Dependent Transport Behaviors of Graphene Field-Effect Transistors. IEEE Electron Device Letters, 2011, 32, 812-814.	2.2	64
36	Uniform Atomic Layer Deposition of Al₂O₃ on Graphene by Reversible Hydrogen Plasma Functionalization. Chemistry of Materials, 2017, 29, 2090-2100.	3.2	64

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37	Atomic Layer Deposition of High-Purity Palladium Films from Pd(hfac)₂ and H₂ and O₂ Plasmas. Journal of Physical Chemistry C, 2014, 118, 8702-8711.	1.5	62
38	Sub-nanometer dimensions control of core/shell nanoparticles prepared by atomic layer deposition. Nanotechnology, 2015, 26, 094002.	1.3	60
39	Direct-Write Atomic Layer Deposition of High-Quality Pt Nanostructures: Selective Growth Conditions and Seed Layer Requirements. Journal of Physical Chemistry C, 2013, 117, 10788-10798.	1.5	58
40	Edge-Site Nanoengineering of WS₂ by Low-Temperature Plasma-Enhanced Atomic Layer Deposition for Electrocatalytic Hydrogen Evolution. Chemistry of Materials, 2019, 31, 5104-5115.	3.2	57
41	Gate-Variable Light Absorption and Emission in a Semiconducting Carbon Nanotube. Nano Letters, 2009, 9, 3477-3481.	4.5	55
42	Atomic Layer Deposition. , 2015, , 1101-1134.		55
43	Physical and Chemical Defects in WO₃ Thin Films and Their Impact on Photoelectrochemical Water Splitting. ACS Applied Energy Materials, 2018, 1, 5887-5895.	2.5	53
44	Spatially-Resolved Structure and Electronic Properties of Graphene on Polycrystalline Ni. ACS Nano, 2010, 4, 7073-7077.	7.3	52
45	How does the substrate affect the Raman and excited state spectra of a carbon nanotube?. Applied Physics A: Materials Science and Processing, 2009, 96, 271-282.	1.1	49
46	Time-resolved luminescence of ZnS:Mn2+ nanocrystals. Journal of Luminescence, 2002, 96, 87-93.	1.5	46
47	Large area, patterned growth of 2D MoS₂ and lateral MoS₂â€“WS₂ heterostructures for nano- and opto-electronic applications. Nanotechnology, 2020, 31, 255603.	1.3	46
48	Area-Selective Atomic Layer Deposition of Two-Dimensional WS₂ Nanolayers. , 2020, 2, 511-518.		45
49	Temperature dependence of the luminescence of nanocrystalline CdS/Mn2+. Journal of Physics and Chemistry of Solids, 2003, 64, 247-252.	1.9	44
50	Carbon Nanotube Photo- and Electroluminescence in Longitudinal Electric Fields. ACS Nano, 2009, 3, 3744-3748.	7.3	44
51	The origin of blue and ultraviolet emission from porous GaP. Applied Physics Letters, 1996, 69, 2801-2803.	1.5	42
52	Continuous and ultrathin platinum films on graphene using atomic layer deposition: a combined computational and experimental study. Nanoscale, 2016, 8, 19829-19845.	2.8	39
53	Scanning photovoltage microscopy of potential modulations in carbon nanotubes. Applied Physics Letters, 2007, 91, .	1.5	36
54	Large low-frequency resistance noise in chemical vapor deposited graphene. Applied Physics Letters, 2010, 97, 133504.	1.5	36

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55	Stability of CoP_{<i>x</i>} Electrocatalysts in Continuous and Interrupted Acidic Electrolysis of Water. ChemElectroChem, 2018, 5, 1230-1239.	1.7	35
56	Low-Temperature Phase-Controlled Synthesis of Titanium Di- and Tri-sulfide by Atomic Layer Deposition. Chemistry of Materials, 2019, 31, 9354-9362.	3.2	35
57	Area-selective atomic layer deposition of platinum using photosensitive polyimide. Nanotechnology, 2016, 27, 405302.	1.3	33
58	Anisotropic infrared light emission from quasi-1D layered TiS₃. 2D Materials, 2020, 7, 015022.	2.0	33
59	Factors Influencing the Luminescence Quantum Efficiency of Nanocrystalline ZnS:Mn2+. Physica Status Solidi (B): Basic Research, 2001, 224, 291-296.	0.7	32
60	Atomic layer deposition of HfO2 using HfCp(NMe2)3 and O2 plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	32
61	Effects of Nanoscale Contacts to Graphene. IEEE Electron Device Letters, 2011, 32, 1035-1037.	2.2	30
62	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, .	0.9	28
63	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, .	0.9	26
64	In-situ Raman spectroscopy to elucidate the influence of adsorption in graphene electrochemistry. Scientific Reports, 2017, 7, 45080.	1.6	23
65	Probing the Origin and Suppression of Vertically Oriented Nanostructures of 2D WS₂ Layers. ACS Applied Materials & Interfaces, 2020, 12, 3873-3885.	4.0	22
66	Atomic Layer Deposition of Al-Doped MoS₂: Synthesizing a p-type 2D Semiconductor with Tunable Carrier Density. ACS Applied Nano Materials, 2020, 3, 10200-10208.	2.4	22
67	Time-Resolved Fluorescence Spectroscopy Study on the Photophysical Behavior of Quantum Dots. Journal of Fluorescence, 2002, 12, 69-76.	1.3	20
68	Luminescence of Nanocrystalline ZnS:Pb2+. Physica Status Solidi (B): Basic Research, 2001, 224, 173-177.	0.7	18
69	Synthesis of single-walled carbon nanotubes from atomic-layer-deposited Co3O4 and Co3O4/Fe2O3 catalyst films. Carbon, 2017, 121, 389-398.	5.4	18
70	Initial stage of atomic layer deposition of 2D-MoS₂ on a SiO₂ surface: a DFT study. Physical Chemistry Chemical Physics, 2018, 20, 16861-16875.	1.3	18
71	Continuous-wave two-photon excitation of individual CdS nanocrystallites. Applied Physics Letters, 2001, 79, 830-832.	1.5	15
72	Graphene technology with inverted-T gate and RF passives on 200 mm platform. , 2011, , .		15

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73	Graphene devices with bottom-up contacts by area-selective atomic layer deposition. 2D Materials, 2017, 4, 025046.	2.0	15
74	High performance metal microstructure for carbon-based transparent conducting electrodes. Thin Solid Films, 2012, 520, 4827-4830.	0.8	14
75	The effect of residual gas scattering on Ga ion beam patterning of graphene. Applied Physics Letters, 2015, 107, .	1.5	13
76	Polarized Raman spectroscopy to elucidate the texture of synthesized MoS₂. Nanoscale, 2019, 11, 22860-22870.	2.8	13
77	X-ray photoelectron spectroscopy study on Fe and Co catalysts during the first stages of ethanol chemical vapor deposition for single-walled carbon nanotube growth. Journal of Applied Physics, 2011, 109, 064304.	1.1	11
78	Carbon nanotubes for high-performance logic. MRS Bulletin, 2014, 39, 719-726.	1.7	11
79	Resist-free fabricated carbon nanotube field-effect transistors with high-quality atomic-layer-deposited platinum contacts. Applied Physics Letters, 2017, 110, .	1.5	11
80	Strategies to facilitate the formation of free standing MoS2 nanolayers on SiO2 surface by atomic layer deposition: A DFT study. APL Materials, 2018, 6, 111107.	2.2	10
81	Broadband optical response of graphene measured by terahertz time-domain spectroscopy and FTIR spectroscopy. Journal of Applied Physics, 2018, 124, .	1.1	10
82	Ptâ€"Graphene Contacts Fabricated by Plasma Functionalization and Atomic Layer Deposition. Advanced Materials Interfaces, 2018, 5, 1800268.	1.9	9
83	Controlling transition metal atomic ordering in two-dimensional Mo_{1â^’x}W _x S₂ alloys. 2D Materials, 2022, 9, 025016.	2.0	9
84	Thickness and Morphology Dependent Electrical Properties of ALDâ€Synthesized MoS₂ FETs. Advanced Electronic Materials, 2022, 8, .	2.6	9
85	An improved thin film approximation to accurately determine the optical conductivity of graphene from infrared transmittance. Applied Physics Letters, 2014, 105, 013105.	1.5	8
86	On the Contact Optimization of ALD-Based MoS₂ FETs: Correlation of Processing Conditions and Interface Chemistry with Device Electrical Performance. ACS Applied Electronic Materials, 2021, 3, 3185-3199.	2.0	8
87	Conformal Growth of Nanometer-Thick Transition Metal Dichalcogenide TiS<i>_x</i>-NbS<i>_x</i> Heterostructures over 3D Substrates by Atomic Layer Deposition: Implications for Device Fabrication. ACS Applied Nano Materials, 2021, 4, 514-521.	2.4	8
88	Diffraction enhanced transparency in a hybrid gold-graphene THz metasurface. APL Photonics, 2019, 4, 036104.	3.0	7
89	Study of channel length scaling in large-scale graphene FETs. , 2010, , .		6
90	(Invited) Catalytic Surface Reactions during Nucleation and Growth of Atomic Layer Deposition of Noble Metals: A Case Study for Platinum. ECS Transactions, 2013, 58, 183-193.	0.3	5

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91	Cu Electrodeposition on Nanostructured MoS₂ and WS₂ and Implications for HER Active Site Determination. Journal of the Electrochemical Society, 2020, 167, 116517.	1.3	5
92	Diamond-like-carbon LC-alignment layers for application in LCOS microdisplays. Journal of the Society for Information Display, 2005, 13, 281.	0.8	4
93	Bottom-up meets top-down: tailored raspberry-like Fe₃O₄â€“Pt nanocrystal superlattices. Nanoscale, 2018, 10, 5859-5863.	2.8	4
94	Synthesis of edge-enriched WS2 on high surface area WS2 framework by atomic layer deposition for electrocatalytic hydrogen evolution reaction. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	4
95	Wafer scale fabrication of carbon nanotube FETs with embedded poly-gates. , 2010, , .		3
96	Medium energy ion scattering of Gr on SiC(0001) and Si(100). Applied Physics Letters, 2011, 98, 113103.	1.5	3
97	Relating the 3D Geometry and Photoelectrochemical Activity of WO₃-Loaded n-Si Nanowires: Design Rules for Photoelectrodes. ACS Applied Energy Materials, 2020, 3, 9628-9634.	2.5	3
98	The Origin of High Activity of Amorphous MoS 2 in the Hydrogen Evolution Reaction. ChemSusChem, 2019, 12, 4336-4336.	3.6	2
99	Exploring Voltage Mediated Delamination of Suspended 2D Materials as a Cause of Commonly Observed Breakdown. Journal of Physical Chemistry C, 2020, 124, 430-435.	1.5	2
100	Novel microreactor and generic model catalyst platform for the study of fast temperature pulsed operation â€“ CO oxidation rate enhancement on Pt. Chemical Engineering Journal, 2021, 425, 131559.	6.6	2
101	Effects of the Structure and Temperature on the Nature of Excitons in the Mo_{0.6}W_{0.4}S₂ Alloy. Journal of Physical Chemistry C, 2022, 126, 1931-1938.	1.5	2
102	Channel and contact length scaling in carbon nanotube transistors. , 2010, , .		1
103	Electrical and optical properties of graphene mono- and multi-layers; towards graphene-based optoelectronics. , 2010, , .		1
104	Internal photoemission of electrons from 2D semiconductor/3D metal barrier structures. Journal Physics D: Applied Physics, 2021, 54, 295101.	1.3	1
105	Luminescence of nanocrystalline ZnS:Pb2+. Materials Research Society Symposia Proceedings, 2001, 667, 1.	0.1	0
106	Imaging at High Beam Energies in the Scanning Electron Microscope. Microscopy and Microanalysis, 2006, 12, 1444-1445.	0.2	0
107	Metal-catalyzed graphitization in Ni-C alloys and amorphous-C/Ni bilayers. Materials Research Society Symposia Proceedings, 2011, 1284, 39.	0.1	0
108	Diffraction Enhanced Transparency in a Hybrid Gold-Graphene THz Metasurface. , 2018, , .		0