Ageeth A Bol

List of Publications by Citations

106 papers	6,908 citations	42 h-index	82 g-index
112 ext. papers	7,545 ext. citations	6.6 avg, IF	5.87 L-index

#	Paper	IF	Citations
106	High-frequency, scaled graphene transistors on diamond-like carbon. *Nature*, **2011**, 472, 74-8	50.4	727
105	Structure and electronic transport in graphene wrinkles. *Nano Letters*, **2012**, 12, 3431-6	11.5	463
104	Long-lived Mn2+ emission in nanocrystalline ZnS:Mn2+. *Physical Review B*, **1998**, 58, R15997-R16000	3.3	376
103	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	3.4	340
102	State-of-the-art graphene high-frequency electronics. *Nano Letters*, **2012**, 12, 3062-7	11.5	318
101	Chemical doping of large-area stacked graphene films for use as transparent, conducting electrodes. *ACS Nano*, **2010**, 4, 3839-44	16.7	295
100	The use of atomic layer deposition in advanced nanopatterning. *Nanoscale*, **2014**, 6, 10941-60	7.7	254
99	Blueing, Bleaching, and Blinking of Single CdSe/ZnS Quantum Dots. *ChemPhysChem*, **2002**, 3, 871-879	3.2	236
98	On the Incorporation of Trivalent Rare Earth Ions in II⅄I Semiconductor Nanocrystals. *Chemistry of Materials*, **2002**, 14, 1121-1126	9.6	204
97	Infrared spectroscopy of wafer-scale graphene. *ACS Nano*, **2011**, 5, 9854-60	16.7	159
96	Efficient narrow-band light emission from a single carbon nanotube p-n diode. *Nature Nanotechnology*, **2010**, 5, 27-31	28.7	155
95	Luminescence of nanocrystalline ZnS:Cu2+. *Journal of Luminescence*, **2002**, 99, 325-334	3.8	155
94	Luminescence Quantum Efficiency of Nanocrystalline ZnS:Mn2+. 1. Surface Passivation and Mn2+ Concentration. *Journal of Physical Chemistry B*, **2001**, 105, 10197-10202	3.4	150
93	High-frequency graphene voltage amplifier. *Nano Letters*, **2011**, 11, 3690-3	11.5	142
92	Luminescence Quantum Efficiency of Nanocrystalline ZnS:Mn2+. 2. Enhancement by UV Irradiation. *Journal of Physical Chemistry B*, **2001**, 105, 10203-10209	3.4	138
91	Three-terminal graphene negative differential resistance devices. *ACS Nano*, **2012**, 6, 2610-6	16.7	131
90	Imaging of the Schottky barriers and charge depletion in carbon nanotube transistors. *Nano Letters*, **2007**, 7, 2037-42	11.5	116

89	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	9.6	112
88	The graphene-gold interface and its implications for nanoelectronics. *Nano Letters*, **2011**, 11, 3833-7	11.5	90
87	Large-scale graphene transistors with enhanced performance and reliability based on interface engineering by phenylsilane self-assembled monolayers. *Nano Letters*, **2011**, 11, 523-8	11.5	88
86	Magnetic catalyst bodies1Netherlands institute for Research in Catalysis (NIOK) publication #UU 98-1-06.1. *Catalysis Today*, **1999**, 48, 329-336	5.3	86
85	Doped semiconductor nanoparticles a new class of luminescent materials?. *Journal of Luminescence*, **2000**, 87-89, 315-318	3.8	84
84	Atomic layer deposition of molybdenum oxide from (NtBu)2(NMe2)2Mo and O2 plasma. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2016**, 34, 01A103	2.9	78
83	Low-temperature atomic layer deposition of MoOx for silicon heterojunction solar cells. *Physica Status Solidi - Rapid Research Letters*, **2015**, 9, 393-396	2.5	72
82	Area-Selective Atomic Layer Deposition of Metal Oxides on Noble Metals through Catalytic Oxygen Activation. *Chemistry of Materials*, **2018**, 30, 663-670	9.6	72
81	In situ x-ray diffraction study of graphitic carbon formed during heating and cooling of amorphous-C/Ni bilayers. *Applied Physics Letters*, **2010**, 96, 153105	3.4	71
80	Atomic layer deposition of Pd and Pt nanoparticles for catalysis: on the mechanisms of nanoparticle formation. *Nanotechnology*, **2016**, 27, 034001	3.4	70
79	Luminescence of nanocrystalline ZnS:Pb2+. *Physical Chemistry Chemical Physics*, **2001**, 3, 2105-2112	3.6	67
78	Double Contacts for Improved Performance of Graphene Transistors. *IEEE Electron Device Letters*, **2012**, 33, 17-19	4.4	64
77	Room-Temperature Atomic Layer Deposition of Platinum. *Chemistry of Materials*, **2013**, 25, 1769-1774	9.6	64
76	Atomic Layer Deposition for Graphene Device Integration. *Advanced Materials Interfaces*, **2017**, 4, 1700232	4.6	63
75	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
74	High-Efficiency InP-Based Photocathode for Hydrogen Production by Interface Energetics Design and Photon Management. *Advanced Functional Materials*, **2016**, 26, 679-686	15.6	61
73	Sub-nanometer dimensions control of core/shell nanoparticles prepared by atomic layer deposition. *Nanotechnology*, **2015**, 26, 094002	3.4	55
72	Channel-Length-Dependent Transport Behaviors of Graphene Field-Effect Transistors. *IEEE Electron Device Letters*, **2011**, 32, 812-814	4.4	55

71	The Origin of High Activity of Amorphous MoS in the Hydrogen Evolution Reaction. *ChemSusChem*, **2019**, 12, 4383-4389	8.3	54
70	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	3.8	53
69	Gate-variable light absorption and emission in a semiconducting carbon nanotube. *Nano Letters*, **2009**, 9, 3477-81	11.5	53
68	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	3.8	52
67	Spatially-resolved structure and electronic properties of graphene on polycrystalline Ni. *ACS Nano*, **2010**, 4, 7073-7	16.7	51
66	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	2.6	45
65	Uniform Atomic Layer Deposition of AlO on Graphene by Reversible Hydrogen Plasma Functionalization. *Chemistry of Materials*, **2017**, 29, 2090-2100	9.6	42
64	Atomic Layer Deposition **2015**, 1101-1134		41
63	Time-resolved luminescence of ZnS:Mn2+ nanocrystals. *Journal of Luminescence*, **2002**, 96, 87-93	3.8	40
62	The origin of blue and ultraviolet emission from porous GaP. *Applied Physics Letters*, **1996**, 69, 2801-2803	3.4	39
61	Temperature dependence of the luminescence of nanocrystalline CdS/Mn2+. *Journal of Physics and Chemistry of Solids*, **2003**, 64, 247-252	3.9	37
60	Edge-Site Nanoengineering of WS by Low-Temperature Plasma-Enhanced Atomic Layer Deposition for Electrocatalytic Hydrogen Evolution. *Chemistry of Materials*, **2019**, 31, 5104-5115	9.6	35
59	Carbon nanotube photo- and electroluminescence in longitudinal electric fields. *ACS Nano*, **2009**, 3, 3744-8	16.7	35
58	Large low-frequency resistance noise in chemical vapor deposited graphene. *Applied Physics Letters* , **2010**, 97, 133504	3.4	34
57	Physical and Chemical Defects in WO3 Thin Films and Their Impact on Photoelectrochemical Water Splitting. *ACS Applied Energy Materials*, **2018**, 1, 5887-5895	6.1	33
56	Scanning photovoltage microscopy of potential modulations in carbon nanotubes. *Applied Physics Letters*, **2007**, 91, 031101	3.4	31
55	Factors Influencing the Luminescence Quantum Efficiency of Nanocrystalline ZnS:Mn2+. *Physica Status Solidi (B): Basic Research*, **2001**, 224, 291-296	1.3	31
54	Continuous and ultrathin platinum films on graphene using atomic layer deposition: a combined computational and experimental study. *Nanoscale*, **2016**, 8, 19829-19845	7.7	30

53	Effects of Nanoscale Contacts to Graphene. *IEEE Electron Device Letters*, **2011**, 32, 1035-1037	4.4	29
52	Large area, patterned growth of 2D MoS and lateral MoS-WS heterostructures for nano- and opto-electronic applications. *Nanotechnology*, **2020**, 31, 255603	3.4	28
51	Area-selective atomic layer deposition of platinum using photosensitive polyimide. *Nanotechnology* , **2016**, 27, 405302	3.4	27
50	Stability of CoP Electrocatalysts in Continuous and Interrupted Acidic Electrolysis of Water. *ChemElectroChem*, **2018**, 5, 1230-1239	4.3	26
49	Area-Selective Atomic Layer Deposition of Two-Dimensional WS Nanolayers **2020**, 2, 511-518		24
48	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
47	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
46	Anisotropic infrared light emission from quasi-1D layered TiS 3. *2D Materials*, **2020**, 7, 015022	5.9	20
45	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, 01B130	2.9	19
44	In-situ Raman spectroscopy to elucidate the influence of adsorption in graphene electrochemistry. *Scientific Reports*, **2017**, 7, 45080	4.9	18
43	Time-Resolved Fluorescence Spectroscopy Study on the Photophysical Behavior of Quantum Dots. *Journal of Fluorescence*, **2002**, 12, 69-76	2.4	17
42	Luminescence of Nanocrystalline ZnS:Pb2+. *Physica Status Solidi (B): Basic Research*, **2001**, 224, 173-177	1.3	17
41	Low-Temperature Phase-Controlled Synthesis of Titanium Di- and Tri-sulfide by Atomic Layer Deposition. *Chemistry of Materials*, **2019**, 31, 9354-9362	9.6	15
40	Continuous-wave two-photon excitation of individual CdS nanocrystallites. *Applied Physics Letters*, **2001**, 79, 830-832	3.4	15
39	Graphene devices with bottom-up contacts by area-selective atomic layer deposition. *2D Materials*, **2017**, 4, 025046	5.9	14
38	Probing the Origin and Suppression of Vertically Oriented Nanostructures of 2D WS Layers. *ACS Applied Materials & Interfaces*, **2020**, 12, 3873-3885	9.5	14
37	High performance metal microstructure for carbon-based transparent conducting electrodes. *Thin Solid Films*, **2012**, 520, 4827-4830	2.2	13
36	Synthesis of single-walled carbon nanotubes from atomic-layer-deposited Co3O4 and Co3O4/Fe2O3 catalyst films. *Carbon*, **2017**, 121, 389-398	10.4	12

35	The effect of residual gas scattering on Ga ion beam patterning of graphene. *Applied Physics Letters*, **2015**, 107, 213101	3.4	12
34	Initial stage of atomic layer deposition of 2D-MoS on a SiO surface: a DFT study. *Physical Chemistry Chemical Physics*, **2018**, 20, 16861-16875	3.6	12
33	Graphene technology with inverted-T gate and RF passives on 200 mm platform **2011**,		11
32	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	2.5	11
31	Carbon nanotubes for high-performance logic. *MRS Bulletin*, **2014**, 39, 719-726	3.2	10
30	Resist-free fabricated carbon nanotube field-effect transistors with high-quality atomic-layer-deposited platinum contacts. *Applied Physics Letters*, **2017**, 110, 013101	3.4	9
29	An improved thin film approximation to accurately determine the optical conductivity of graphene from infrared transmittance. *Applied Physics Letters*, **2014**, 105, 013105	3.4	8
28	Polarized Raman spectroscopy to elucidate the texture of synthesized MoS. *Nanoscale*, **2019**, 11, 22860-22870	7.7	8
27	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	5.7	8
26	Atomic Layer Deposition of Al-Doped MoS: Synthesizing a p-type 2D Semiconductor with Tunable Carrier Density. *ACS Applied Nano Materials*, **2020**, 3, 10200-10208	5.6	7
25	Pt□raphene Contacts Fabricated by Plasma Functionalization and Atomic Layer Deposition. *Advanced Materials Interfaces*, **2018**, 5, 1800268	4.6	7
24	Broadband optical response of graphene measured by terahertz time-domain spectroscopy and FTIR spectroscopy. *Journal of Applied Physics*, **2018**, 124, 073105	2.5	4
23	(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	1	4
22	Study of channel length scaling in large-scale graphene FETs **2010**,		4
21	Diffraction enhanced transparency in a hybrid gold-graphene THz metasurface. *APL Photonics*, **2019**, 4, 036104	5.2	3
20	Bottom-up meets top-down: tailored raspberry-like FeO-Pt nanocrystal superlattices. *Nanoscale*, **2018**, 10, 5859-5863	7.7	3
19	Medium energy ion scattering of Gr on SiC(0001) and Si(100). *Applied Physics Letters*, **2011**, 98, 113103	3.4	3
18	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	6.1	3

List of Publications

17	Conformal Growth of Nanometer-Thick Transition Metal Dichalcogenide TiS -NbS Heterostructures over 3D Substrates by Atomic Layer Deposition: Implications for Device Fabrication. *ACS Applied Nano Materials*, **2021**, 4, 514-521	5.6	3
16	Wafer scale fabrication of carbon nanotube FETs with embedded poly-gates **2010**,		2
15	Cu Electrodeposition on Nanostructured MoS2 and WS2 and Implications for HER Active Site Determination. *Journal of the Electrochemical Society*, **2020**, 167, 116517	3.9	2
14	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, 062201	2.9	2
13	On the Contact Optimization of ALD-Based MoS FETs: Correlation of Processing Conditions and Interface Chemistry with Device Electrical Performance. *ACS Applied Electronic Materials*, **2021**, 3, 3185-3199	4	2
12	Novel microreactor and generic model catalyst platform for the study of fast temperature pulsed operation □CO oxidation rate enhancement on Pt. *Chemical Engineering Journal*, **2021**, 425, 131559	14.7	2
11	The Origin of High Activity of Amorphous MoS2 in the Hydrogen Evolution Reaction. *ChemSusChem*, **2019**, 12, 4336-4336	8.3	1
10	Channel and contact length scaling in carbon nanotube transistors **2010**,		1
9	**2010**,		1
8	Exploring Voltage Mediated Delamination of Suspended 2D Materials as a Cause of Commonly Observed Breakdown. *Journal of Physical Chemistry C*, **2020**, 124, 430-435	3.8	1
7	Internal photoemission of electrons from 2D semiconductor/3D metal barrier structures. *Journal Physics D: Applied Physics*, **2021**, 54, 295101	3	0
6	Controlling transition metal atomic ordering in two-dimensional Mo1□ W x S2 alloys. *2D Materials*, **2022**, 9, 025016	5.9	0
5	Thickness and Morphology Dependent Electrical Properties of ALD-Synthesized MoS 2 FETs. *Advanced Electronic Materials*, **2022**, 8, 2100781	6.4	0
4	Metal-catalyzed graphitization in Ni-C alloys and amorphous-C/Ni bilayers. *Materials Research Society Symposia Proceedings*, **2011**, 1284, 39		
3	Imaging at High Beam Energies in the Scanning Electron Microscope. *Microscopy and Microanalysis*, **2006**, 12, 1444-1445	0.5	
2	Luminescence of nanocrystalline ZnS:Pb2+. *Materials Research Society Symposia Proceedings*, **2001**, 667, 1		
1	Effects of the Structure and Temperature on the Nature of Excitons in the MoWS Alloy.. *Journal of Physical Chemistry C*, **2022**, 126, 1931-1938	3.8	