

Arie van Houselt

List of Publications by Year in descending order

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110
papers

3,657
citations

172457

29
h-index

138484

58
g-index

112
all docs

112
docs citations

112
times ranked

4022
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural and Electronic Properties of Germanene on MoS_2 . Physical Review Letters, 2016, 116, 256804.	7.8	329
2	Germanene: the germanium analogue of graphene. Journal of Physics Condensed Matter, 2015, 27, 443002.	1.8	304
3	Droplet impact on superheated micro-structured surfaces. Soft Matter, 2013, 9, 3272.	2.7	216
4	How water droplets evaporate on a superhydrophobic substrate. Physical Review E, 2011, 83, 026306.	2.1	159
5	Germanene termination of Ge_2Pt crystals on Ge(110). Journal of Physics Condensed Matter, 2014, 26, 442001.	1.8	145
6	Energetics of Si(001). Reviews of Modern Physics, 2000, 72, 593-602.	45.6	140
7	Self-organized, one-dimensional Pt nanowires on Ge(001). Applied Physics Letters, 2003, 83, 4610-4612.	3.3	139
8	Temperature Antiquenching of the Luminescence from Capped CdSe Quantum Dots. Angewandte Chemie - International Edition, 2004, 43, 3029-3033.	13.8	135
9	Building microscopic soccer balls with evaporating colloidal fakir drops. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16455-16458.	7.1	113
10	Quantum Confinement between Self-Organized Pt Nanowires on Ge(001). Physical Review Letters, 2005, 95, 116801.	7.8	98
11	Equilibrium structure of monatomic steps on vicinal Si(001). Physical Review B, 1992, 45, 5965-5968.	3.2	89
12	Scanning Tunneling Spectroscopy. Annual Review of Analytical Chemistry, 2009, 2, 37-55.	5.4	85
13	The Leidenfrost temperature increase for impacting droplets on carbon-nanofiber surfaces. Soft Matter, 2014, 10, 2102-2109.	2.7	78
14	Hydrophobic Ice Confined between Graphene and MoS_2 . Journal of Physical Chemistry C, 2016, 120, 27079-27084.	3.1	71
15	Two-dimensional Dirac signature of germanene. Applied Physics Letters, 2015, 107, .	3.3	67
16	Mixed mode of dissolving immersed nanodroplets at a solid-water interface. Soft Matter, 2015, 11, 1889-1900.	2.7	65
17	Electronic Properties of $(2\text{Å}-1)$ and $(4\text{Å}-2)$ Domains on Ge(001) Studied by Scanning Tunneling Spectroscopy. Physical Review Letters, 2004, 93, 066101.	7.8	64
18	<i>Colloquium</i> : Time-resolved scanning tunneling microscopy. Reviews of Modern Physics, 2010, 82, 1593-1605.	45.6	60

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19	Giant missing row reconstruction of Au on Ge(001). <i>Physical Review B</i> , 2008, 78, .	3.2	55
20	Peierls instability in Pt chains on Ge(001). <i>Surface Science</i> , 2008, 602, 1731-1735.	1.9	53
21	Role of natural convection in the dissolution of sessile droplets. <i>Journal of Fluid Mechanics</i> , 2016, 794, 45-67.	3.4	46
22	Absence of an evaporation-driven wetting transition on omniphobic surfaces. <i>Soft Matter</i> , 2012, 8, 9765.	2.7	43
23	Pressure-Induced Melting of Confined Ice. <i>ACS Nano</i> , 2017, 11, 12723-12731.	14.6	38
24	Dynamics and Energetics of Ge(001) Dimers. <i>Physical Review Letters</i> , 2006, 97, 266104.	7.8	36
25	Structure and Dynamics of Confined Alcohol-Water Mixtures. <i>ACS Nano</i> , 2016, 10, 6762-6768.	14.6	36
26	Research Update: Molecular electronics: The single-molecule switch and transistor. <i>APL Materials</i> , 2014, 2, 010701.	5.1	32
27	Playing Pinball with Atoms. <i>Nano Letters</i> , 2009, 9, 1733-1736.	9.1	31
28	Latent heat induced rotation limited aggregation in 2D ice nanocrystals. <i>Journal of Chemical Physics</i> , 2015, 143, 034702.	3.0	30
29	Graphene Visualizes the Ion Distribution on Air-Cleaved Mica. <i>Scientific Reports</i> , 2017, 7, 43451.	3.3	30
30	Formation of atomic Pt chains on Ge(001) studied by scanning tunneling microscopy. <i>Physical Review B</i> , 2007, 76, .	3.2	29
31	Spatial Mapping of the Electronic States of a One-Dimensional System. <i>Nano Letters</i> , 2006, 6, 1439-1442.	9.1	27
32	Intercalation of Si between MoS ₂ layers. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 1952-1960.	2.8	27
33	Initial stages of Pt growth on Ge(001) studied by scanning tunneling microscopy and density functional theory. <i>Physical Review B</i> , 2004, 70, .	3.2	26
34	Bandgap opening in hydrogenated germanene. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	26
35	Structural and Electronic Properties of Au Induced Nanowires on Ge(001). <i>Journal of Physical Chemistry C</i> , 2009, 113, 17156-17159.	3.1	25
36	Dynamics of Decanethiol Self-Assembled Monolayers on Au(111) Studied by Time-Resolved Scanning Tunneling Microscopy. <i>Langmuir</i> , 2013, 29, 2250-2257.	3.5	25

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37	Image potential states of germanene. <i>2D Materials</i> , 2020, 7, 035021.	4.4	25
38	Local Conduction in MoWSe_2 : The Role of Stacking Faults, Defects, and Alloying. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 13218-13225.	8.0	24
39	Fluctuations of monatomic steps on Si(001). <i>Physical Review B</i> , 1995, 51, 5465-5468.	3.2	22
40	$(2\text{Å}-1)\text{Å}^2$ Phase Transition on Ge(001): Dimer Breakup and Surface Roughening. <i>Physical Review Letters</i> , 2003, 91, 116102.	7.8	18
41	Comment on "New Model System for a One-Dimensional Electron Liquid: Self-Organized Atomic Gold Chains on Ge(001)". <i>Physical Review Letters</i> , 2009, 103, 209701; discussion 209702.	7.8	18
42	One-step sculpting of silicon microstructures from pillars to needles for water and oil repelling surfaces. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 025004.	2.6	18
43	Transition voltage spectroscopy of scanning tunneling microscopy vacuum junctions. <i>RSC Advances</i> , 2014, 4, 32438.	3.6	17
44	Coarsening dynamics of ice crystals intercalated between graphene and supporting mica. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	17
45	Electrochemically Induced Nanobubbles between Graphene and Mica. <i>Langmuir</i> , 2016, 32, 6582-6590.	3.5	17
46	Evaporation of Dilute Sodium Dodecyl Sulfate Droplets on a Hydrophobic Substrate. <i>Langmuir</i> , 2019, 35, 10453-10460.	3.5	17
47	Quantum Size Effect Driven Structure Modifications of Bi Films on Ni(111). <i>Physical Review Letters</i> , 2011, 107, 176102.	7.8	16
48	Scanning tunneling spectroscopy study of the Dirac spectrum of germanene. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 284006.	1.8	16
49	Dynamics of the wetting-induced nanowire reconstruction of Au/Ge(001). <i>Physical Review B</i> , 2013, 88, .	3.2	15
50	Segregation in dissolving binary-component sessile droplets. <i>Journal of Fluid Mechanics</i> , 2017, 812, 349-369.	3.4	15
51	Charge Induced Dynamics of Water in a Graphene-Mica Slit Pore. <i>Langmuir</i> , 2017, 33, 11977-11985.	3.5	15
52	Periodic bouncing of a plasmonic bubble in a binary liquid by competing solutal and thermal Marangoni forces. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	15
53	Self-lacing atom chains. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 474207.	1.8	14
54	Molecular Bridges. <i>Journal of Physical Chemistry C</i> , 2011, 115, 2268-2272.	3.1	14

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55	Determining the local density of states in the constant current STM mode. <i>Physical Review B</i> , 2013, 88, .	3.2	14
56	A new ATR-IR microreactor to study electric field-driven processes. <i>Sensors and Actuators B: Chemical</i> , 2015, 220, 13-21.	7.8	14
57	Hansen solubility parameters obtained via molecular dynamics simulations as a route to predict siloxane surfactant adsorption. <i>Journal of Colloid and Interface Science</i> , 2020, 575, 326-336.	9.4	14
58	Spatial mapping of the inverse decay length using scanning tunneling microscopy. <i>Applied Physics Letters</i> , 2008, 92, 174101.	3.3	13
59	Local probing of coupled interfaces between two-dimensional electron and hole gases in oxide heterostructures by variable-temperature scanning tunneling spectroscopy. <i>Physical Review B</i> , 2012, 86, .	3.2	13
60	Manipulating transport through a single-molecule junction. <i>Journal of Chemical Physics</i> , 2013, 139, 214709.	3.0	13
61	Ordering of Air-Oxidized Decanethiols on Au(111). <i>Journal of Physical Chemistry C</i> , 2018, 122, 8430-8436.	3.1	12
62	Ge2Pt hut clusters: A substrate for germanene. <i>Journal of Applied Physics</i> , 2018, 124, .	2.5	12
63	Evaporative gold nanorod assembly on chemically stripe-patterned gradient surfaces. <i>Journal of Colloid and Interface Science</i> , 2015, 449, 261-269.	9.4	11
64	Tuning the Friction of Graphene on Mica by Alcohol Intercalation. <i>Langmuir</i> , 2019, 35, 4886-4892.	3.5	10
65	Quantum size effects on surfaces without a projected bandgap: Pb/Ni(111). <i>New Journal of Physics</i> , 2011, 13, 103025.	2.9	9
66	Temperature Dependence of the 1727 cm^{-1} Interstitial Oxygen Absorption Band Studied by Attenuated Total Internal Reflection Infrared Spectroscopy in a Newly Developed Microreactor. <i>Journal of Physical Chemistry C</i> , 2013, 117, 21936-21942.	3.1	9
67	Visualization of steps and surface reconstructions in Helium Ion Microscopy with atomic precision. <i>Ultramicroscopy</i> , 2016, 162, 17-24.	1.9	9
68	$\langle \text{mml:math} \text{xmlns:mml}="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mtext} \rangle \text{Germanium} \langle \text{mml:mo} \rangle / \langle \text{mml:mo} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:m} \rangle$: Competition between the growth of germanene and intercalation. <i>Physical Review B</i> , 2020, 102, .	3.2	9
69	Structural Stability of Physisorbed Air-Oxidized Decanethiols on Au(111). <i>Journal of Physical Chemistry C</i> , 2020, 124, 11977-11984.	3.1	9
70	Controlled damaging and repair of self-organized nanostructures by atom manipulation at room temperature. <i>Nanotechnology</i> , 2007, 18, 365305.	2.6	8
71	Embedded Co islands on Ge(001). <i>Surface Science</i> , 2011, 605, 1129-1132.	1.9	8
72	Dynamics of copper-phthalocyanine molecules on Au/Ge(001). <i>Journal of Chemical Physics</i> , 2015, 143, 134303.	3.0	8

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73	CO Adsorption on Pt Nanoparticles in Low E-Fields Studied by ATR-IR Spectroscopy in a Microreactor. Journal of Physical Chemistry C, 2015, 119, 24887-24894.	3.1	8
74	Chemical vapor deposition growth of bilayer graphene in between molybdenum disulfide sheets. Journal of Colloid and Interface Science, 2017, 505, 776-782.	9.4	8
75	Growth of silicon on tungsten diselenide. Applied Physics Letters, 2016, 109, 243105.	3.3	7
76	Polar edges and their consequences for the structure and shape of hBN islands. 2D Materials, 2019, 6, 035010.	4.4	7
77	3D modeling of electromagnetic levitation coils. Current Applied Physics, 2021, 32, 45-49.	2.4	7
78	Evidence of wettability variation on carbon nanofiber layers grown on oxidized silicon substrates. Chemical Engineering Journal, 2013, 227, 56-65.	12.7	6
79	Spinodal decomposition driven formation of Pt-nanowires on Ge(001). New Journal of Physics, 2014, 16, 113052.	2.9	6
80	Structural and electronic properties of Pt induced nanowires on Ge(110). Applied Surface Science, 2016, 387, 766-770.	6.1	6
81	Determination of the Fermi velocity of graphene on MoS2 using dual mode scanning tunneling spectroscopy. Applied Physics Letters, 2021, 118, 163103.	3.3	6
82	Adsorption of Cu phthalocyanine on Pt modified Ge(001): A scanning tunneling microscopy study. Physical Review B, 2010, 82, .	3.2	5
83	Spatially resolved electronic structure of twisted graphene. Physical Review B, 2017, 95, .	3.2	5
84	Combined I(V) and dI(V)/dz scanning tunneling spectroscopy. AIP Advances, 2018, 8, 075013.	1.3	5
85	Stoichiometric edges during the intrinsic growth of hexagonal boron nitride on Ir(111). New Journal of Physics, 2019, 21, 092001.	2.9	5
86	On the mystery of the absence of a spin-orbit gap in scanning tunneling microscopy spectra of germanene. Journal of Semiconductors, 2020, 41, 082003.	3.7	5
87	Non-conventional bell-shaped diffuse scattering in low-energy electron diffraction from high-quality epitaxial 2D-materials. Applied Physics Letters, 2021, 118, .	3.3	5
88	Influence of dimer buckling on dimer diffusion: A scanning tunneling microscopy study. Physical Review B, 2006, 73, .	3.2	4
89	Interfering Bloch waves in a 1D electron system. Journal of Physics Condensed Matter, 2013, 25, 014014.	1.8	4
90	A method to measure the thermovoltage with a high spatial resolution. Applied Physics Letters, 2016, 108, .	3.3	4

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91	Marangoni puffs: dramatically enhanced dissolution of droplets with an entrapped bubble. <i>Soft Matter</i> , 2020, 16, 4520-4527.	2.7	4
92	Detailed characterization of supported eutectic droplets using photoemission electron microscopy. <i>Physical Review Materials</i> , 2021, 5, .	2.4	4
93	Decoupling of the copper core in a single copperphthalocyanine molecule. <i>Journal of Chemical Physics</i> , 2013, 138, 114302.	3.0	3
94	Confined Friedel oscillations on Au(111) terraces probed by thermovoltage scanning tunneling microscopy. <i>Physical Review B</i> , 2021, 103, .	3.2	3
95	Shining new light on the motion of eutectic droplets across surfaces: A PEEM study of PtGe on Ge(110). <i>Physical Review Materials</i> , 2021, 5, .	2.4	3
96	Atomic seesaws. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 264004.	1.8	2
97	Physics in one dimension. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 010301.	1.8	2
98	Closed-loop conductance scanning tunneling spectroscopy: demonstrating the equivalence to the open-loop alternative. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 1116-1124.	2.8	2
99	Ordinary and supernumerary resonant scattering of low energy electrons from the BiCu ₂ (111) surface alloy. <i>New Journal of Physics</i> , 2017, 19, 013024.	2.9	2
100	Quantum size stabilization of $\text{Ge}_{23}\text{Pt}_{12}$ nanofilms on Ge(001). <i>Physical Review Materials</i> , 2019, 3, .	2.3	2
101	Containerless metal single-crystal growth via electromagnetic levitation. <i>Review of Scientific Instruments</i> , 2021, 92, 105105.	1.3	2
102	Microscopic Study of the Spinodal Decomposition of Supported Eutectic Droplets During Cooling: PtGe/Ge{110}. <i>Journal of Physical Chemistry C</i> , 2022, 126, 11285-11297.	3.1	2
103	Publisher's Note: How water droplets evaporate on a superhydrophobic substrate [Phys. Rev. E 83, 026306 (2011)]. <i>Physical Review E</i> , 2011, 83, .	2.1	1
104	Determining the energetics of vicinal perovskite oxide surfaces. <i>AIP Advances</i> , 2017, 7, 055302.	1.3	1
105	A Self-Aligned Wafer-Scale Gate-All-Around Aperture Definition Method for Silicon Nanostructures. , 2022, , .		1
106	Transition in the growth mode of plasmonic bubbles in binary liquids. <i>Soft Matter</i> , 2022, 18, 4136-4145.	2.7	1
107	Critical vacancy density for melting in two-dimensions: the case of high density Bi on Cu(111). <i>New Journal of Physics</i> , 2018, 20, 083045.	2.9	0
108	Dual modulation STM: Simultaneous high-resolution mapping of the differential conductivity and local tunnel barrier height demonstrated on Au(111). <i>Journal of Applied Physics</i> , 2021, 129, 225301.	2.5	0

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109	Self-organizing atom chains. , 2017, , .		0
110	Droplet dissolution driven by emerging thermal gradients and Marangoni flow. Physical Review Fluids, 2022, 7, .	2.5	0