Yong Han

List of Publications by Year
in descending order

80	1,617	331670	345221
papers	citations	21 h-index	36 g-index

81	81	81	1850
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Thermodynamics and kinetics of H adsorption and intercalation for graphene on 6H-SiC(0001) from first-principles calculations. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	2.1	8
2	Modeling of linear nanopores in a-SiO2 tuning pore surface structure. Microporous and Mesoporous Materials, 2022, , 112077.	4.4	0
3	Thermodynamically Driven Formation of Intercalated Cu Carpets from Supported Cu Pyramids on MoS₂. Journal of Physical Chemistry Letters, 2022, 13, 6651-6656.	4.6	5
4	Competitive formation of intercalated versus supported metal nanoclusters during deposition on layered materials with surface point defects. Journal of Chemical Physics, 2021, 154, 024703.	3.0	6
5	Encapsulation of metal nanoparticles at the surface of a prototypical layered material. Nanoscale, 2021, 13, 1485-1506.	5.6	10
6	Mechanism of Metal Intercalation under Graphene through Small Vacancy Defects. Journal of Physical Chemistry C, 2021, 125, 6954-6962.	3.1	13
7	SierpiÅ„ski Structure and Electronic Topology in Bi Thin Films on InSb(111)B Surfaces. Physical Review Letters, 2021, 126, 176102.	7.8	20
8	Effective Fragment Potential-Based Molecular Dynamics Studies of Diffusion in Acetone and Hexane. Journal of Physical Chemistry A, 2021, 125, 3398-3405.	2.5	5
9	Shape Stability of Truncated Octahedral fcc Metal Nanocrystals. ACS Applied Materials & Interfaces, 2021, 13, 51954-51961.	8.0	2
10	Energy barriers for Dy and H penetrating graphene on 6H-SiC(0001) and freestanding bilayer graphene from first-principles calculations. Applied Physics Letters, 2021, 119, .	3.3	8
11	Dy adsorption on and intercalation under graphene on 6 H -SiC(0001) surface from first-principles calculations. Physical Review Materials, 2021, 5, .	2.4	12
12	Low-index surface energies, cleavage energies, and surface relaxations for crystalline NiAl from first-principles calculations. Surface Science, 2020, 695, 121532.	1.9	16
13	Thermodynamic Preference for Atom Adsorption on versus Intercalation into Multilayer Graphene. Journal of Physical Chemistry Letters, 2020, 11, 9725-9730.	4.6	21
14	Surface structure of linear nanopores in amorphous silica: Comparison of properties for different pore generation algorithms. Journal of Chemical Physics, 2020, 153, 124708.	3.0	4
15	Strainâ€Enhanced Metallic Intermixing in Shapeâ€Controlled Multilayered Coreâ€“Shell Nanostructures: Toward Shaped Intermetallics. Angewandte Chemie - International Edition, 2020, 59, 10574-10580.	13.8	22
16	Strainâ€Enhanced Metallic Intermixing in Shapeâ€Controlled Multilayered Coreâ€“Shell Nanostructures: Toward Shaped Intermetallics. Angewandte Chemie, 2020, 132, 10661-10667.	2.0	2
17	Reshaping of Truncated Pd Nanocubes: Energetic and Kinetic Analysis Integrating Transmission Electron Microscopy with Atomistic-Level and Coarse-Grained Modeling. ACS Nano, 2020, 14, 8551-8561.	14.6	9
18	Fundamentals of Au(111) Surface Dynamics: Coarsening of Two-Dimensional Au Islands. Journal of Physical Chemistry C, 2020, 124, 7492-7499.	3.1	8

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19	Shapes of Fe nanocrystals encapsulated at the graphite surface. New Journal of Physics, 2020, 22, 023016.	2.9	14
20	Adsorption, intercalation, diffusion, and adhesion of Cu at the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>2</mml:mn><mml:mi>H</mml:mi><mml:mo>â^’</mml:m mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> (0001) surface from first-principles calculations. Physical Review Research, 2020, 2, .	3.6	20
21	Search for encapsulation of platinum, silver, and gold at the surface of graphite. Physical Review Research, 2020, 2, .	3.6	13
22	Energy barriers for Pb adatom diffusion on stepped ultrathin Pb(111) quantum nanofilms: First-principles calculations. Physical Review B, 2019, 100, .	3.2	4
23	Surface energies, adhesion energies, and exfoliation energies relevant to copper-graphene and copper-graphite systems. Surface Science, 2019, 685, 48-58.	1.9	74
24	Thermodynamic Stabilities of Perfect and Vacancy-Defected <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Li</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mrow mathvariant="normal">O</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:math> (001) Surfaces From First-Principles Analyses. Physical Review Applied, 2019, 11, .	3.8	8
25	Reshaping, Intermixing, and Coarsening for Metallic Nanocrystals: Nonequilibrium Statistical Mechanical and Coarse-Grained Modeling. Chemical Reviews, 2019, 119, 6670-6768.	47.7	50
26	Squeezed nanocrystals: equilibrium configuration of metal clusters embedded beneath the surface of a layered material. Nanoscale, 2019, 11, 6445-6452.	5.6	14
27	Energetics of Cu adsorption and intercalation at graphite step edges. Physical Review B, 2019, 99, .	3.2	15
28	Kinetics, energetics, and size dependence of the transformation from Pt to ordered PtSn intermetallic nanoparticles. Nanoscale, 2019, 11, 5336-5345.	5.6	25
29	Defectâ€fluorite Gd 2 Zr 2 O 7 ceramics under helium irradiation: Amorphization, cell volume expansion, and multiâ€stage bubble formation. Journal of the American Ceramic Society, 2019, 102, 4911-4918.	3.8	24
30	Fabricating Fe nanocrystals via encapsulation at the graphite surface. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, 061403.	2.1	14
31	Formation of Multilayer Cu Islands Embedded beneath the Surface of Graphite: Characterization and Fundamental Insights. Journal of Physical Chemistry C, 2018, 122, 4454-4469.	3.1	27
32	Reverse-engineering of graphene on metal surfaces: a case study of embedded ruthenium. Nanotechnology, 2018, 29, 505601.	2.6	22
33	SiO₂â€Enhanced Structural Stability and Strong Adhesion with a New Binder of Konjac Glucomannan Enables Stable Cycling of Silicon Anodes for Lithiumâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1800434.	19.5	135
34	Anisotropic Diffusion of a Charged Tritium Interstitial in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Li</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>Ti</mml:mi><mml:msub mathvariant="normal">O</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:math> from First-Principles Calculations. Physical Review Applied, 2018, 10, .	3.8	12
35	Thickness-dependent energetics for Pb adatoms on low-index Pb nanofilm surfaces: First-principles calculations. Physical Review B, 2017, 96, .	3.2	13
36	Nucleation and growth kinetics for intercalated islands during deposition on layered materials with isolated pointlike surface defects. Physical Review Materials, 2017, 1, .	2.4	13

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37	Point island models for nucleation and growth of supported nanoclusters during surface deposition. Journal of Chemical Physics, 2016, 145, 211904.	3.0	13
38	Capture zone area distributions for nucleation and growth of islands during submonolayer deposition. Journal of Chemical Physics, 2016, 145, 211911.	3.0	6
39	Submonolayer Ag films on Fe(100): A first-principles analysis of energetics controlling adlayer thermodynamics and kinetics. Physical Review B, 2016, 93, .	3.2	4
40	Ab Initio Thermodynamics and Kinetics for Coalescence of Two-Dimensional Nanoislands and Nanopits on Metal (100) Surfaces. Journal of Physical Chemistry C, 2016, 120, 21617-21630.	3.1	24
41	Tailoring Kinetics on a Topological Insulator Surface by Defect-Induced Strain: Pb Mobility on Bi₂Te₃. Nano Letters, 2016, 16, 4454-4461.	9.1	4
42	Adsorption and diffusion of Ru adatoms on Ru(0001)-supported graphene: Large-scale first-principles calculations. Journal of Chemical Physics, 2015, 143, 164706.	3.0	8
43	Directing Anisotropic Assembly of Metallic Nanoclusters by Exploiting Linear Trio Interactions and Quantum Size Effects: AuÂChains on Ag(100) Thin Films. Journal of Physical Chemistry Letters, 2015, 6, 2194-2199.	4.6	7
44	Growth morphology and properties of metals on graphene. Progress in Surface Science, 2015, 90, 397-443.	8.3	123
45	Analysis of magic lengths in growth of supported metallic nanowires. Materials Research Express, 2014, 1, 045030.	1.6	5
46	Determining whether metals nucleate homogeneously on graphite: A case study with copper. Physical Review B, 2014, 90, .	3.2	15
47	Real-Time Ab Initio KMC Simulation of the Self-Assembly and Sintering of Bimetallic Epitaxial Nanoclusters: Au + Ag on Ag(100). Nano Letters, 2014, 14, 4646-4652.	9.1	25
48	Atomistic modeling of the directed-assembly of bimetallic Pt-Ru nanoclusters on Ru(0001)-supported monolayer graphene. Journal of Chemical Physics, 2013, 138, 134703.	3.0	10
49	Anisotropic coarsening: One-dimensional decay of Ag islands on Ag(110). Physical Review B, 2013, 87, .	3.2	12
50	Analytic formulations for one-dimensional decay of rectangular homoepitaxial islands during coarsening on anisotropic fcc (110) surfaces. Physical Review B, 2013, 88, .	3.2	4
51	Atomistic modeling of alloy self-growth by vapor deposition: Ni and Al on NiAl(110). Materials Research Society Symposia Proceedings, 2012, 1411, 63.	0.1	0
52	Directed assembly of Ru nanoclusters on Ru(0001)-supported graphene: STM studies and atomistic modeling. Physical Review B, 2012, 86, .	3.2	27
53	Formation of a Novel Ordered<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Ni</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi>Al</mml:mi></mml:math>Surface Structure by Codeposition on NiAl(110). Physical Review Letters, 2012, 108, 216102.	7.8	16
54	Interplay between quantum size effect and strain effect on growth of nanoscale metal thin films. Physical Review B, 2012, 86, .	3.2	22

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55	Self-assembly of metal nanostructures on binary alloy surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 989-994.	7.1	75
56	Far-from-equilibrium film growth on alloy surfaces: Ni and Al on NiAl(110). Physical Review B, 2011, 84, .	3.2	13
57	Formation of Irregular Al Islands by Room-Temperature Deposition on NiAl(110). Materials Research Society Symposia Proceedings, 2011, 1318, 1.	0.1	1
58	Temperature-dependent growth shapes of Ni nanoclusters on NiAl(110). Journal of Chemical Physics, 2011, 135, 084706.	3.0	8
59	Formation and coarsening of Ag(110) bilayer islands on NiAl(110): STM analysis and atomistic lattice-gas modeling. Physical Review B, 2010, 81, .	3.2	18
60	Nanoscale â€œQuantumâ€•Islands on Metal Substrates: Microscopy Studies and Electronic Structure Analyses. Materials, 2010, 3, 3965-3993.	2.9	18
61	From Initial to Late Stages of Epitaxial Thin Film Growth: STM Analysis and Atomistic or Coarse-Grained Modeling. , 2010, , .		4
62	Comment on â€œCapture-Zone Scaling in Island Nucleation: Universal Fluctuation Behaviorâ€• Physical Review Letters, 2010, 104, 149601; author reply 149602.	7.8	32
63	Shell structure and phase relations in electronic properties of metal nanowires from an electron-gas model. Physical Review B, 2010, 82, .	3.2	5
64	Quantum size effects in metal nanofilms: Comparison of an electron-gas model and density functional theory calculations. Physical Review B, 2009, 80, .	3.2	66
65	Formation of complex wedding-cake morphologies during homoepitaxial film growth of Ag on Ag(111): atomistic, step-dynamics, and continuum modeling. Journal of Physics Condensed Matter, 2009, 21, 084216.	1.8	8
66	Quantum modulation of island nucleation on top of a metal nanomesa. Surface Science, 2008, 602, 62-66.	1.9	9
67	Quantum stabilities and growth modes of thin metal films: Unsupported and NiAl-supported Ag(110) and Ag(100). Surface Science, 2008, 602, 2532-2540.	1.9	19
68	Coulomb sink effect on coarsening of metal nanostructures on surfaces. Frontiers of Physics in China, 2008, 3, 41-48.	1.0	3
69	A jellium model analysis on quantum growth of metal nanowires and nanomesas. Frontiers of Physics in China, 2008, 3, 436-443.	1.0	4
70	Flat-surface, step-edge, facetâ€“facet, and facetâ€“step diffusion barriers in growth of a Pb mesa. Surface Science, 2008, 602, 2284-2294.	1.9	15
71	How a silver dendritic mesocrystal converts to a single crystal. Applied Physics Letters, 2008, 92, 173120.	3.3	45
72	Single crystal growth via a grain rotation mechanism within amorphous matrix. Applied Physics Letters, 2008, 93, 153115.	3.3	3

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73	Kinetics of mesa overlayer growth: Climbing of adatoms onto the mesa top. Applied Physics Letters, 2008, 92, 021909.	3.3	8
74	Kinetics of Facile Bilayer Island Formation at Low Temperature:<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ag</mml:mi><mml:mo>/</mml:mo><mml:mi>NiAl</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mn>110</mml:mn><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 687 Td (stretchy="false">)</mm	7.8	29
75	Scanning tunneling microscopy and density functional theory study of initial bilayer growth of Ag films on NiAl(110). Physical Review B, 2007, 76, .	3.2	28
76	Fabricating artificial nanowells with tunable size and shape by using scanning tunneling microscopy. Applied Physics Letters, 2006, 89, 123111.	3.3	12
77	Quantum Size Effect on Adatom Surface Diffusion. Physical Review Letters, 2006, 97, 266102.	7.8	72
78	Coulomb Sink: A Novel Coulomb Effect on Coarsening of Metal Nanoclusters on Semiconductor Surfaces. Physical Review Letters, 2004, 93, 106102.	7.8	21
79	Geometric Constant Defining Shape Transitions of Carbon Nanotubes under Pressure. Physical Review Letters, 2004, 92, 105501.	7.8	103
80	Zinc Sulfide/Gallium Phosphide Composites by Chemical Vapor Transport. Journal of the American Ceramic Society, 1995, 78, 1834-1840.	3.8	4