Judy Cha

List of Publications by Year
in descending order

116 papers	19,994 citations	28274 55 h-index	24258 110 g-index
116 all docs	116 docs citations	116 times ranked	27115 citing authors

#	Article	IF	Citations
1	Thickness-dependent phase transition kinetics in lithium-intercalated MoS₂. 2D Materials, 2022, 9, 025009.	4.4	8
2	Surface Functionalization for Magnetic Property Tuning of Nonmagnetic 2D Materials. Advanced Materials Interfaces, 2022, 9, .	3.7	12
3	A Gapped Phase in Semimetallic T_dâ€WTe₂ Induced by Lithium Intercalation. Advanced Materials, 2022, 34, e2200861.	21.0	7
4	Compact Super Electron-Donor to Monolayer MoS₂. Nano Letters, 2022, 22, 4501-4508.	9.1	8
5	Axial Higgs mode detected by quantum pathway interference in RTe3. Nature, 2022, 606, 896-901.	27.8	14
6	cm²-Scale Synthesis of MoTe₂ Thin Films with Large Grains and Layer Control. ACS Nano, 2021, 15, 410-418.	14.6	27
7	Effects of growth substrate on the nucleation of monolayer MoTe₂. CrystEngComm, 2021, 23, 7963-7969.	2.6	3
8	Heterointerface Effects on Lithium-Induced Phase Transitions in Intercalated MoS₂. ACS Applied Materials & Interfaces, 2021, 13, 10603-10611.	8.0	17
9	Revisiting Intercalationâ€Induced Phase Transitions in 2D Group VI Transition Metal Dichalcogenides. Advanced Energy and Sustainability Research, 2021, 2, 2100027.	5.8	13
10	Seeing Quantum Materials with Cryogenic Transmission Electron Microscopy. Nano Letters, 2021, 21, 5449-5452.	9.1	11
11	Josephson detection of time-reversal symmetry broken superconductivity in SnTe nanowires. Npj Quantum Materials, 2021, 6, .	5.2	16
12	Structure-Transport Properties of Topological Nanowires. Microscopy and Microanalysis, 2021, 27, 920-921.	0.4	1
13	1D topological systems for next-generation electronics. Matter, 2021, 4, 2596-2598.	10.0	8
14	Angstrom-scale replication of surfaces with crystallized bulk metallic glasses. Materials Today Nano, 2021, 16, 100145.	4.6	1
15	Synergistic Integration of Chemoâ€Resistive and SERS Sensing for Labelâ€Free Multiplex Gas Detection. Advanced Materials, 2021, 33, e2105199.	21.0	25
16	The Effect of Mechanical Strain on Lithium Staging in Graphene. Advanced Electronic Materials, 2021, 7, 2000981.	5.1	6
17	Nearâ€Unity Molecular Doping Efficiency in Monolayer MoS₂. Advanced Electronic Materials, 2021, 7, 2000873.	5.1	16
18	Synthesis of Narrow SnTe Nanowires Using Alloy Nanoparticles. ACS Applied Electronic Materials, 2021, 3, 184-191.	4.3	10

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19	Thickness dependence of magnetotransport properties of tungsten ditelluride. Physical Review B, 2021, 104, .	3.2	4
20	Unconventional grain growth suppression in oxygen-rich metal oxide nanoribbons. Science Advances, 2021, 7, eabh2012.	10.3	12
21	Surface characterization of ultrathin atomic layer deposited molybdenum oxide films using high-sensitivity low-energy ion scattering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	3
22	Materials for interconnects. MRS Bulletin, 2021, 46, 959-966.	3.5	33
23	Synergistic Integration of Chemoâ€Resistive and SERS Sensing for Labelâ€Free Multiplex Gas Detection (Adv. Mater. 44/2021). Advanced Materials, 2021, 33, 2170350.	21.0	1
24	Heterointerface Control over Lithium-Induced Phase Transitions in MoS₂ Nanosheets: Implications for Nanoscaled Energy Materials. ACS Applied Nano Materials, 2021, 4, 14105-14114.	5.0	7
25	Synthesis and resistivity of topological metal MoP nanostructures. APL Materials, 2020, 8, .	5.1	11
26	Crossover between weak antilocalization and weak localization in few-layer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">W</mml:mi><mml:msub><mml:mi>Te</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> : Role of electron-electron interactions. Physical Review B, 2020, 102, .	3.2	11
27	A Highly Efficient Allâ€Solidâ€State Lithium/Electrolyte Interface Induced by an Energetic Reaction. Angewandte Chemie - International Edition, 2020, 59, 14003-14008.	13.8	70
28	General Nanomolding of Ordered Phases. Physical Review Letters, 2020, 124, 036102.	7.8	21
29	Supercluster-Coupled Crystal Growth in Metallic Glass Forming Liquids. Microscopy and Microanalysis, 2019, 25, 1410-1411.	0.4	0
30	Structure-Property Relationships of Topological Insulator Nanomaterials. Microscopy and Microanalysis, 2019, 25, 962-963.	0.4	0
31	Self-Healing of a Confined Phase Change Memory Device with a Metallic Surfactant Layer. Microscopy and Microanalysis, 2019, 25, 1870-1871.	0.4	56
32	Synthesis of WTe₂ Nanowires with Increased Electron Scattering. ACS Nano, 2019, 13, 6455-6460.	14.6	22
33	Topological nanomaterials. Nature Reviews Materials, 2019, 4, 479-496.	48.7	122
34	Formation and stability of complex metallic phases including quasicrystals explored through combinatorial methods. Scientific Reports, 2019, 9, 7136.	3.3	17
35	Recent progress on in situ characterizations of electrochemically intercalated transition metal dichalcogenides. Nano Research, 2019, 12, 2126-2139.	10.4	29
36	The development of 2D materials for electrochemical energy applications: A mechanistic approach. APL Materials, 2019, 7, .	5.1	28

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37	Unveiling the Interfacial Effects for Enhanced Hydrogen Evolution Reaction on MoS₂/WTe₂ Hybrid Structures. Small, 2019, 15, e1900078.	10.0	58
38	Supercluster-coupled crystal growth in metallic glass forming liquids. Nature Communications, 2019, 10, 915.	12.8	30
39	Dislocation-driven SnTe surface defects during chemical vapor deposition growth. Journal of Physics and Chemistry of Solids, 2019, 128, 351-359.	4.0	8
40	Stable Water Oxidation in Acid Using Manganese-Modified TiO₂ Protective Coatings. ACS Applied Materials & Interfaces, 2018, 10, 18805-18815.	8.0	24
41	Revealing the Contribution of Individual Factors to Hydrogen Evolution Reaction Catalytic Activity. Advanced Materials, 2018, 30, e1706076.	21.0	86
42	Selfâ€Healing of a Confined Phase Change Memory Device with a Metallic Surfactant Layer. Advanced Materials, 2018, 30, 1705587.	21.0	69
43	Synthesis of Crystalline Black Phosphorus Thin Film on Sapphire. Advanced Materials, 2018, 30, 1703748.	21.0	86
44	Dual Tuning of Niâ€“Coâ€“A (A = P, Se, O) Nanosheets by Anion Substitution and Holey Engineering for Efficient Hydrogen Evolution. Journal of the American Chemical Society, 2018, 140, 5241-5247.	13.7	461
45	Stepwise Sulfurization from MoO₃ to MoS₂ via Chemical Vapor Deposition. ACS Applied Nano Materials, 2018, 1, 5655-5661.	5.0	86
46	Direct Synthesis of Largeâ€Scale WTe₂ Thin Films with Low Thermal Conductivity. Advanced Functional Materials, 2017, 27, 1605928.	14.9	86
47	Strong Metalâ€“Phosphide Interactions in Coreâ€“Shell Geometry for Enhanced Electrocatalysis. Nano Letters, 2017, 17, 2057-2063.	9.1	145
48	Semipolar (202Ì…1Ì…) GaN and InGaN Light-Emitting Diodes Grown on Sapphire. ACS Applied Materials & Interfaces, 2017, 9, 14088-14092.	8.0	23
49	Efficient electrical control of thin-film black phosphorus bandgap. Nature Communications, 2017, 8, 14474.	12.8	249
50	Ultrathin dendrimerâ€“graphene oxide composite film for stable cycling lithiumâ€“sulfur batteries. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3578-3583.	7.1	90
51	Direct Observation Through In Situ Transmission Electron Microscope of Early States of Crystallization in Nanoscale Metallic Glasses. Jom, 2017, 69, 2187-2191.	1.9	6
52	Effective Interlayer Engineering of Two-Dimensional VOPO₄ Nanosheets via Controlled Organic Intercalation for Improving Alkali Ion Storage. Nano Letters, 2017, 17, 6273-6279.	9.1	102
53	Synthesis and superconductivity of In-doped SnTe nanostructures. APL Materials, 2017, 5, .	5.1	11
54	Tailoring crystallization phases in metallic glass nanorods via nucleus starvation. Nature Communications, 2017, 8, 1980.	12.8	31

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55	General Facet-Controlled Synthesis of Single-Crystalline {010}-Oriented LiMPO₄ (M = Mn,) Tj ETQq1 1 0.784314 rgBT /Ove	6.7	30
56	Suppression of Magnetoresistance in Thin WTe₂ Flakes by Surface Oxidation. ACS Applied Materials & Interfaces, 2017, 9, 23175-23180.	8.0	47
57	Emulating Bilingual Synaptic Response Using a Junction-Based Artificial Synaptic Device. ACS Nano, 2017, 11, 7156-7163.	14.6	106
58	Structural Phase Transition and Carrier Density Tuning in SnSe_xTe_{1â€<}_x Nanoplates. Advanced Electronic Materials, 2016, 2, 1600144.	5.1	8
59	Nanoscale Size Effects on Crystallization Kinetics of Metallic Glass Nanorods by In Situ TEM. Microscopy and Microanalysis, 2016, 22, 768-769.	0.4	5
60	Anisotropic Black Phosphorus Synaptic Device for Neuromorphic Applications. Advanced Materials, 2016, 28, 4991-4997.	21.0	281
61	Intercalation in two-dimensional transition metal chalcogenides. Inorganic Chemistry Frontiers, 2016, 3, 452-463.	6.0	181
62	One-Step Synthesis of MoS₂/WS₂ Layered Heterostructures and Catalytic Activity of Defective Transition Metal Dichalcogenide Films. ACS Nano, 2016, 10, 2004-2009.	14.6	164
63	Microscopy and Chemical Analysis of Topological Insulator Bi2Se3 and Topological Crystalline Insulator SnTe Nanostructures. Microscopy and Microanalysis, 2015, 21, 1535-1536.	0.4	0
64	Highly Conductive Single-Walled Carbon Nanotube Thin Film Preparation by Direct Alignment on Substrates from Water Dispersions. Langmuir, 2015, 31, 1155-1163.	3.5	18
65	Revealing Surface States in In-Doped SnTe Nanoplates with Low Bulk Mobility. Nano Letters, 2015, 15, 3827-3832.	9.1	48
66	Recent Advances in Two-Dimensional Materials beyond Graphene. ACS Nano, 2015, 9, 11509-11539.	14.6	2,069
67	Nanoscale size effects in crystallization of metallic glass nanorods. Nature Communications, 2015, 6, 8157.	12.8	65
68	Optical transmission enhacement through chemically tuned two-dimensional bismuth chalcogenide nanoplates. Nature Communications, 2014, 5, 5670.	12.8	99
69	Spatially resolved In and As distributions in InGaAs/GaP and InGaAs/GaAs quantum dot systems. Nanotechnology, 2014, 25, 465702.	2.6	2
70	Improving lithiumâ€“sulphur batteries through spatial control of sulphur species deposition on a hybrid electrode surface. Nature Communications, 2014, 5, 3943.	12.8	369
71	Metal Seed Layer Thickness-Induced Transition From Vertical to Horizontal Growth of MoS₂ and WS₂. Nano Letters, 2014, 14, 6842-6849.	9.1	251
72	Chemically Synthesized Heterostructures of Two-Dimensional Molybdenum/Tungsten-Based Dichalcogenides with Vertically Aligned Layers. ACS Nano, 2014, 8, 9550-9557.	14.6	70

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73	Surface effects on electronic transport of 2D chalcogenide thin films and nanostructures. Nano Convergence, 2014, 1, 18.	12.1	24
74	Synthesis of SnTe Nanoplates with {100} and {111} Surfaces. Nano Letters, 2014, 14, 4183-4188.	9.1	75
75	Topological crystalline insulator nanostructures. Nanoscale, 2014, 6, 14133-14140.	5.6	32
76	One-Dimensional Helical Transport in Topological Insulator Nanowire Interferometers. Nano Letters, 2014, 14, 2815-2821.	9.1	118
77	Tunable Plasmon and Optical Properties of Chalcogenide Nanoplates Using Monochromated Electron Energy Loss Spectroscopy. Microscopy and Microanalysis, 2014, 20, 574-575.	0.4	0
78	Spatially resolved In and As distributions in InGaAs/GaP and InGaAs/GaAs quantum dot systems. Microscopy and Microanalysis, 2014, 20, 614-615.	0.4	0
79	First-row transition metal dichalcogenide catalysts for hydrogen evolution reaction. Energy and Environmental Science, 2013, 6, 3553.	30.8	946
80	Electrochemical tuning of vertically aligned MoS ₂ nanofilms and its application in improving hydrogen evolution reaction. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19701-19706.	7.1	894
81	Two-Dimensional Chalcogenide Nanoplates as Tunable Metamaterials via Chemical Intercalation. Nano Letters, 2013, 13, 5913-5918.	9.1	64
82	Amphiphilic Surface Modification of Hollow Carbon Nanofibers for Improved Cycle Life of Lithium Sulfur Batteries. Nano Letters, 2013, 13, 1265-1270.	9.1	668
83	Synthesis of MoS₂ and MoSe₂ Films with Vertically Aligned Layers. Nano Letters, 2013, 13, 1341-1347.	9.1	2,036
84	Ambipolar Field Effect in Sb-Doped Bi₂Se₃ Nanoplates by Solvothermal Synthesis. Nano Letters, 2013, 13, 632-636.	9.1	57
85	MoSe₂ and WSe₂ Nanofilms with Vertically Aligned Molecular Layers on Curved and Rough Surfaces. Nano Letters, 2013, 13, 3426-3433.	9.1	653
86	Topological insulator nanostructures. Physica Status Solidi - Rapid Research Letters, 2013, 7, 15-25.	2.4	68
87	Weak Antilocalization in Bi₂(Se_xTe_{1â€“x})₃ Nanoribbons and Nanoplates. Nano Letters, 2012, 12, 1107-1111.	9.1	166
88	High-Mobility Field-Effect Transistors from Large-Area Solution-Grown Aligned C₆₀ Single Crystals. Journal of the American Chemical Society, 2012, 134, 2760-2765.	13.7	481
89	Chemical Intercalation of Zerovalent Metals into 2D Layered Bi₂Se₃ Nanoribbons. Journal of the American Chemical Society, 2012, 134, 13773-13779.	13.7	160
90	Effects of Magnetic Doping on Weak Antilocalization in Narrow Bi₂Se₃ Nanoribbons. Nano Letters, 2012, 12, 4355-4359.	9.1	59

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91	The surface surfaces. Nature Nanotechnology, 2012, 7, 85-86.	31.5	21
92	Self-limited plasmonic welding of silver nanowireÂjunctions. Nature Materials, 2012, 11, 241-249.	27.5	1,002
93	Ultra-low carrier concentration and surface-dominant transport in antimony-doped Bi2Se3 topological insulator nanoribbons. Nature Communications, 2012, 3, 757.	12.8	197
94	High-Density Chemical Intercalation of Zero-Valent Copper into Bi₂Se₃ Nanoribbons. Journal of the American Chemical Society, 2012, 134, 7584-7587.	13.7	152
95	Functionalization of silicon nanowire surfaces with metal-organic frameworks. Nano Research, 2012, 5, 109-116.	10.4	63
96	In Situ Transmission Electron Microscopy Observation of Nanostructural Changes in Phase-Change Memory. ACS Nano, 2011, 5, 2742-2748.	14.6	48
97	One Nanometer Resolution Electrical Probe via Atomic Metal Filament Formation. Nano Letters, 2011, 11, 231-235.	9.1	25
98	Low Reflectivity and High Flexibility of Tin-Doped Indium Oxide Nanofiber Transparent Electrodes. Journal of the American Chemical Society, 2011, 133, 27-29.	13.7	88
99	Highly Conductive, Mechanically Robust, and Electrochemically Inactive TiC/C Nanofiber Scaffold for High-Performance Silicon Anode Batteries. ACS Nano, 2011, 5, 8346-8351.	14.6	122
100	Rapid Surface Oxidation as a Source of Surface Degradation Factor for Bi₂Se₃. ACS Nano, 2011, 5, 4698-4703.	14.6	320
101	Nano-structured textiles as high-performance aqueous cathodes for microbial fuel cells. Energy and Environmental Science, 2011, 4, 1293.	30.8	72
102	Ambipolar field effect in the ternary topological insulator (BixSb1â€“x)2Te3 by composition tuning. Nature Nanotechnology, 2011, 6, 705-709.	31.5	345
103	Improving the Performance of Lithiumâ€“Sulfur Batteries by Conductive Polymer Coating. ACS Nano, 2011, 5, 9187-9193.	14.6	815
104	Stackable nonvolatile memory with ultra thin polysilicon film and low-leakage (Ti,Dy)xOy for low processing temperature and low operating voltages. Microelectronic Engineering, 2011, 88, 3462-3465.	2.4	0
105	Hollow Carbon Nanofiber-Encapsulated Sulfur Cathodes for High Specific Capacity Rechargeable Lithium Batteries. Nano Letters, 2011, 11, 4462-4467.	9.1	1,194
106	DNAsomes: Multifunctional DNAâ€Based Nanocarriers. Small, 2011, 7, 74-78.	10.0	71
107	Few-Layer Nanoplates of Bi₂Se₃ and Bi₂Te₃ with Highly Tunable Chemical Potential. Nano Letters, 2010, 10, 2245-2250.	9.1	403
108	Topological Insulator Nanowires and Nanoribbons. Nano Letters, 2010, 10, 329-333.	9.1	298

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109	Magnetic Doping and Kondo Effect in Bi₂Se₃ Nanoribbons. Nano Letters, 2010, 10, 1076-1081.	9.1	119
110	Electrospun Metal Nanofiber Webs as High-Performance Transparent Electrode. Nano Letters, 2010, 10, 4242-4248.	9.1	660
111	New Nanostructured Li₂S/Silicon Rechargeable Battery with High Specific Energy. Nano Letters, 2010, 10, 1486-1491.	9.1	612
112	Ultrathin Topological Insulator Bi₂Se₃ Nanoribbons Exfoliated by Atomic Force Microscopy. Nano Letters, 2010, 10, 3118-3122.	9.1	163
113	High magnetoresistance tunnel junctions with Mgâ€“Bâ€“O barriers and Niâ€“Feâ€“B free electrodes. Applied Physics Letters, 2009, 94, 112504.	3.3	22
114	Free-standing nanoparticle superlattice sheets controlled by DNA. Nature Materials, 2009, 8, 519-525.	27.5	372
115	Multifunctional nanoarchitectures from DNA-based ABC monomers. Nature Nanotechnology, 2009, 4, 430-436.	31.5	164
116	Three-Dimensional Imaging of Carbon Nanotubes Deformed by Metal Islands. Nano Letters, 2007, 7, 3770-3773.	9.1	31