

# Vinayak P Dravid

## List of Publications by Year in descending order

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192  
papers

9,872  
citations

43973

48  
h-index

46693

89  
g-index

193  
all docs

193  
docs citations

193  
times ranked

13350  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly sensitive and ultra-rapid antigen-based detection of SARS-CoV-2 using nanomechanical sensor platform. <i>Biosensors and Bioelectronics</i> , 2022, 195, 113647.	5.3	34
2	The emergence of valency in colloidal crystals through electron equivalents. <i>Nature Materials</i> , 2022, 21, 580-587.	13.3	37
3	Thermoelectric Performance of the 2D Bi <sub>2</sub> Si <sub>2</sub> Te <sub>6</sub> Semiconductor. <i>Journal of the American Chemical Society</i> , 2022, 144, 1445-1454.	6.6	37
4	Combustion Synthesis and Polymer Doping of Metal Oxides for High-Performance Electronic Circuitry. <i>Accounts of Chemical Research</i> , 2022, 55, 429-441.	7.6	6
5	Extraordinary role of Zn in enhancing thermoelectric performance of Ga-doped n-type PbTe. <i>Energy and Environmental Science</i> , 2022, 15, 368-375.	15.6	107
6	Low Thermal Conductivity in Heteroanionic Materials with Layers of Homoleptic Polyhedra. <i>Journal of the American Chemical Society</i> , 2022, 144, 2569-2579.	6.6	13
7	Synergistic defect- and interfacial-engineering of a Bi <sub>2</sub> S <sub>3</sub> -based nanoplate network for high-performance photoelectrochemical solar water splitting. <i>Journal of Materials Chemistry A</i> , 2022, 10, 7830-7840.	5.2	13
8	Resonance Couplings in Si@MoS <sub>2</sub> Core-Shell Architectures. <i>Small</i> , 2022, 18, e2200413.	5.2	8
9	Ingrained: An Automated Framework for Fusing Atomic-Scale Image Simulations into Experiments. <i>Small</i> , 2022, 18, e2102960.	5.2	12
10	Valence Disproportionation of GeS in the PbS Matrix Forms Pb <sub>5</sub> Ge <sub>5</sub> S <sub>12</sub> Inclusions with Conduction Band Alignment Leading to High n-Type Thermoelectric Performance. <i>Journal of the American Chemical Society</i> , 2022, 144, 7402-7413.	6.6	24
11	High Thermoelectric Performance in Chalcopyrite Cu <sub>1-x</sub> Ag <sub>x</sub> GaTe <sub>2</sub> -ZnTe: Nontrivial Band Structure and Dynamic Doping Effect. <i>Journal of the American Chemical Society</i> , 2022, 144, 9113-9125.	6.6	29
12	Effects of the Encapsulation Membrane in Operando Scanning Transmission Electron Microscopy. <i>Nano Letters</i> , 2022, 22, 4137-4144.	4.5	8
13	Direct Patterning of Optoelectronic Nanostructures Using Encapsulated Layered Transition Metal Dichalcogenides. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 23775-23784.	4.0	8
14	Polymer-Mediated Particle Coarsening within Hollow Silica Shell Nanoreactors. <i>Chemistry of Materials</i> , 2022, 34, 5094-5102.	3.2	2
15	Stability, metallicity, and magnetism in niobium silicide nanofilms. <i>Physical Review Materials</i> , 2022, 6, .	0.9	1
16	Synthetic Tuning of Domain Stoichiometry in Nanobody-Enzyme Megamolecules. <i>Bioconjugate Chemistry</i> , 2021, 32, 143-152.	1.8	6
17	Strong Valence Band Convergence to Enhance Thermoelectric Performance in PbSe with Two Chemically Independent Controls. <i>Angewandte Chemie</i> , 2021, 133, 272-277.	1.6	7
18	Strong Valence Band Convergence to Enhance Thermoelectric Performance in PbSe with Two Chemically Independent Controls. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 268-273.	7.2	28

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19	Raspberry-like mesoporous Co-doped TiO <sub>2</sub> nanospheres for a high-performance formaldehyde gas sensor. <i>Journal of Materials Chemistry A</i> , 2021, 9, 6529-6537.	5.2	33
20	Nanoscale chromatin imaging and analysis platform bridges 4D chromatin organization with molecular function. <i>Science Advances</i> , 2021, 7, .	4.7	37
21	Mapping Grains, Boundaries, and Defects in 2D Covalent Organic Framework Thin Films. <i>Chemistry of Materials</i> , 2021, 33, 1341-1352.	3.2	25
22	Dissociation of GaSb in n-Type PbTe: off-Centered Gallium Atom and Weak Electron-Phonon Coupling Provide High Thermoelectric Performance. <i>Chemistry of Materials</i> , 2021, 33, 1842-1851.	3.2	23
23	P <sub>2</sub> S <sub>5</sub> Reactive Flux Method for the Rapid Synthesis of Mono- and Bimetallic 2D Thiophosphates M <sub>2</sub> X <sub>2</sub> P <sub>2</sub> S <sub>6</sub> . <i>Inorganic Chemistry</i> , 2021, 60, 3502-3513.	1.9	18
24	Revealing High-Temperature Reduction Dynamics of High-Entropy Alloy Nanoparticles via In Situ Transmission Electron Microscopy. <i>Nano Letters</i> , 2021, 21, 1742-1748.	4.5	26
25	Quasi-Two-Dimensional Heterostructures (KM <sub>1-x</sub> Te)(LaTe <sub>3</sub> ) (x = Mn and Zn) with Charge Density Waves. <i>Chemistry of Materials</i> , 2021, 33, 2155-2164.	3.2	2
26	Fluoridation of HfO <sub>2</sub> . <i>Inorganic Chemistry</i> , 2021, 60, 4463-4474.	1.9	7
27	Implications of doping on microstructure, processing, and thermoelectric performance: The case of PbSe. <i>Journal of Materials Research</i> , 2021, 36, 1272-1284.	1.2	8
28	A Bidirectional Nanomodification Approach for Synthesizing Hierarchically Architected Mixed Oxide Electrodes for Oxygen Evolution. <i>Small</i> , 2021, 17, e2007287.	5.2	3
29	Ultralow Thermal Conductivity in Diamondoid Structures and High Thermoelectric Performance in (Cu <sub>1-x</sub> Ag <sub>x</sub> )(In <sub>1-y</sub> Ga <sub>y</sub> )Te <sub>0.9</sub> . <i>Journal of the American Chemical Society</i> , 2021, 143, 5978-5989.		49
30	First-Principles Hydrothermal Synthesis Design to Optimize Conditions and Increase the Yield of Quaternary Heteroanionic Oxychalcogenides. <i>Chemistry of Materials</i> , 2021, 33, 2726-2741.	3.2	15
31	Synthesis, Characterization, and Simulation of Four-Armed Megamolecules. <i>Biomacromolecules</i> , 2021, 22, 2363-2372.	2.6	4
32	Structural defects in transition metal dichalcogenide core-shell architectures. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	8
33	Making the most of your electrons: Challenges and opportunities in characterizing hybrid interfaces with STEM. <i>Materials Today</i> , 2021, 50, 100-115.	8.3	13
34	Shedding Light on the Stability and Structure-Property Relationships of Two-Dimensional Hybrid Lead Bromide Perovskites. <i>Chemistry of Materials</i> , 2021, 33, 5085-5107.	3.2	29
35	Valley-selective optical Stark effect of exciton-polaritons in a monolayer semiconductor. <i>Nature Communications</i> , 2021, 12, 4530.	5.8	22
36	Degeneration Behavior of Cu Nanowires under Carbon Dioxide Environment: An In Situ Operando Study. <i>Nano Letters</i> , 2021, 21, 6813-6819.	4.5	18

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37	Galvanic Transformation Dynamics in Heterostructured Nanoparticles. <i>Advanced Functional Materials</i> , 2021, 31, 2105866.	7.8	7
38	High-Performance MoC Electrocatalyst for Hydrogen Evolution Reaction Enabled by Surface Sulfur Substitution. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 40705-40712.	4.0	51
39	Hidden Complexity in the Chemistry of Ammonolysis-Derived $\text{Mo}_2\text{N}$ : An Overlooked Oxynitride Hydride. <i>Chemistry of Materials</i> , 2021, 33, 6671-6684.	3.2	8
40	Polycrystalline SnSe with a thermoelectric figure of merit greater than the single crystal. <i>Nature Materials</i> , 2021, 20, 1378-1384.	13.3	340
41	Spatial Mapping of Electrostatic Fields in 2D Heterostructures. <i>Nano Letters</i> , 2021, 21, 7131-7137.	4.5	2
42	Elucidating and Mitigating High-Voltage Interfacial Chemomechanical Degradation of Nickel-Rich Lithium-Ion Battery Cathodes via Conformal Graphene Coating. <i>ACS Applied Energy Materials</i> , 2021, 4, 11069-11079.	2.5	13
43	Mechanistic Investigation of Molybdenum Disulfide Defect Photoluminescence Quenching by Adsorbed Metallophthalocyanines. <i>Journal of the American Chemical Society</i> , 2021, 143, 17153-17161.	6.6	12
44	Tuning of Optical Phonons in $\text{VO}_2$ Multilayers. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 48981-48987.	4.0	22
45	Mixed Metal Thiophosphate $\text{Fe}_2\text{Co}_2\text{P}_2\text{S}_6$ : Role of Structural Evolution and Anisotropy. <i>Inorganic Chemistry</i> , 2021, 60, 17268-17275.	1.9	8
46	Perovskite-like $\text{K}_3\text{TiOF}_5$ Exhibits (3 + 1)-Dimensional Commensurate Structure Induced by Octahedrally Coordinated Potassium Ions. <i>Journal of the American Chemical Society</i> , 2021, 143, 18907-18916.	6.6	4
47	$\text{CeO}_2$ quantum dots with massive oxygen vacancies as efficient catalysts for the synthesis of dimethyl carbonate. <i>Chemical Communications</i> , 2020, 56, 403-406.	2.2	28
48	Discordant nature of Cd in PbSe: off-centering and core-shell nanoscale CdSe precipitates lead to high thermoelectric performance. <i>Energy and Environmental Science</i> , 2020, 13, 200-211.	15.6	57
49	$\text{Au@MoS}_2\text{@WS}_2$ Core-Shell Architectures: Combining Vapor Phase and Solution-Based Approaches. <i>Journal of Physical Chemistry C</i> , 2020, 124, 2627-2633.	1.5	7
50	Homopolymer self-assembly of poly(propylene sulfone) hydrogels via dynamic noncovalent sulfone-sulfone bonding. <i>Nature Communications</i> , 2020, 11, 4896.	5.8	21
51	<i>In Situ</i> Oxidation Studies of High-Entropy Alloy Nanoparticles. <i>ACS Nano</i> , 2020, 14, 15131-15143.	7.3	71
52	Oriented $\text{LiMn}_2\text{O}_4$ Particle Fracture from Delithiation-Driven Surface Stress. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 49182-49191.	4.0	20
53	Revealing nanoscale mineralization pathways of hydroxyapatite using in situ liquid cell transmission electron microscopy. <i>Science Advances</i> , 2020, 6, .	4.7	61
54	Enhancing nanostructured nickel-rich lithium-ion battery cathodes via surface stabilization. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, 063210.	0.9	8

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55	Magnetic Nanostructure-Loaded Bicontinuous Nanospheres Support Multicargo Intracellular Delivery and Oxidation-Responsive Morphological Transitions. ACS Applied Materials & Interfaces, 2020, 12, 55584-55595.	4.0	15
56	Lithography-free IR polarization converters via orthogonal in-plane phonons in $\pm$ -MoO <sub>3</sub> flakes. Nature Communications, 2020, 11, 5771.	5.8	54
57	Ultrathin Silica-Coated Iron Oxide Nanoparticles: Size-Property Correlation. ChemistrySelect, 2020, 5, 8929-8934.	0.7	1
58	High Thermoelectric Performance in the New Cubic Semiconductor Ag <sub>3</sub> SnSbSe <sub>3</sub> by High-Entropy Engineering. Journal of the American Chemical Society, 2020, 142, 15187-15198.	6.6	108
59	Large-area optoelectronic-grade InSe thin films via controlled phase evolution. Applied Physics Reviews, 2020, 7, .	5.5	17
60	Halide perovskite nanocrystal arrays: Multiplexed synthesis and size-dependent emission. Science Advances, 2020, 6, .	4.7	51
61	Ultralow thermal conductivity in diamondoid lattices: high thermoelectric performance in chalcopyrite Cu <sub>0.8+y</sub> Ag <sub>0.2</sub> In <sub>1-y</sub> Te <sub>2</sub> . Energy and Environmental Science, 2020, 13, 3693-3705.	15.6	52
62	Large and Externally Positioned Ligand-Coated Nanopatches Facilitate the Adhesion-Dependent Regenerative Polarization of Host Macrophages. Nano Letters, 2020, 20, 7272-7280.	4.5	21
63	Independent Tuning of Nano-Ligand Frequency and Sequences Regulates the Adhesion and Differentiation of Stem Cells. Advanced Materials, 2020, 32, 2004300.	11.1	30
64	Quantifying leakage fields at ionic grain boundaries using off-axis electron holography. Journal of Applied Physics, 2020, 128, .	1.1	2
65	OHM Sponge: A Versatile, Efficient, and Ecofriendly Environmental Remediation Platform. Industrial & Engineering Chemistry Research, 2020, 59, 10945-10954.	1.8	18
66	<i>In Situ</i> Magnetic Control of Macroscale Nanoligand Density Regulates the Adhesion and Differentiation of Stem Cells. Nano Letters, 2020, 20, 4188-4196.	4.5	32
67	Frequency-Agile Low-Temperature Solution-Processed Alumina Dielectrics for Inorganic and Organic Electronics Enhanced by Fluoride Doping. Journal of the American Chemical Society, 2020, 142, 12440-12452.	6.6	27
68	Ultralow Thermal Conductivity and Thermoelectric Properties of Rb <sub>2</sub> Bi <sub>8</sub> Se <sub>13</sub> . Chemistry of Materials, 2020, 32, 3561-3569.	3.2	23
69	Efficient, stable silicon tandem cells enabled by anion-engineered wide-bandgap perovskites. Science, 2020, 368, 155-160.	6.0	420
70	Remote Manipulation of Slidable Nano-Ligand Switch Regulates the Adhesion and Regenerative Polarization of Macrophages. Advanced Functional Materials, 2020, 30, 2001446.	7.8	27
71	Contrasting SnTe-NaSbTe <sub>2</sub> and SnTe-NaBiTe <sub>2</sub> Thermoelectric Alloys: High Performance Facilitated by Increased Cation Vacancies and Lattice Softening. Journal of the American Chemical Society, 2020, 142, 12524-12535.	6.6	51
72	Solid-Phase Synthesis of Megamolecules. Journal of the American Chemical Society, 2020, 142, 4534-4538.	6.6	9

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73	Direct Visualization of Electric-Field-Induced Structural Dynamics in Monolayer Transition Metal Dichalcogenides. ACS Nano, 2020, 14, 1569-1576.	7.3	23
74	Single-Crystal Polycationic Polymers Obtained by Single-Crystal-to-Single-Crystal Photopolymerization. Journal of the American Chemical Society, 2020, 142, 6180-6187.	6.6	50
75	Thermoelectric transport enhancement of Te-rich bismuth antimony telluride (Bi <sub>0.5</sub> Sb <sub>1.5</sub> Te <sub>3+x</sub> ) through controlled porosity. Journal of Materiomics, 2020, 6, 532-544.	2.8	36
76	Chain-End Functionalized Polymers for the Controlled Synthesis of Sub-2 nm Particles. Journal of the American Chemical Society, 2020, 142, 7350-7355.	6.6	17
77	Understanding the thermally activated charge transport in NaPb <sub>m</sub> SbQ <sub>m+2</sub> (Q) Tj ETQq1 1 0.784314 rgBT carrier scattering. Energy and Environmental Science, 2020, 13, 1509-1518.	15.6	63
78	Exploring the Factors Affecting the Mechanical Properties of 2D Hybrid Organic-Inorganic Perovskites. ACS Applied Materials & Interfaces, 2020, 12, 20440-20447.	4.0	47
79	Topology of transition metal dichalcogenides: the case of the core-shell architecture. Nanoscale, 2020, 12, 23897-23919.	2.8	14
80	Nonlinear Band Gap Tunability in Selenium-Tellurium Alloys and Its Utilization in Solar Cells. ACS Energy Letters, 2019, 4, 2137-2143.	8.8	49
81	Simultaneous Bottom-Up Interfacial and Bulk Defect Passivation in Highly Efficient Planar Perovskite Solar Cells using Nonconjugated Small-Molecule Electrolytes. Advanced Materials, 2019, 31, e1903239.	11.1	89
82	Self-Passivation of 2D Ruddlesden-Popper Perovskite by Polytypic Surface PbI <sub>2</sub> Encapsulation. Nano Letters, 2019, 19, 6109-6117.	4.5	31
83	Ultralow Thermal Conductivity and High-Temperature Thermoelectric Performance in n-Type K <sub>2.5</sub> Bi <sub>8.5</sub> Se <sub>14</sub> . Chemistry of Materials, 2019, 31, 5943-5952.	3.2	25
84	High Thermoelectric Performance in PbSe-NaSbSe <sub>2</sub> Alloys from Valence Band Convergence and Low Thermal Conductivity. Advanced Energy Materials, 2019, 9, 1901377.	10.2	54
85	Biomimetic Magnetic Nanostructures: A Theranostic Platform Targeting Lipid Metabolism and Immune Response in Lymphoma. ACS Nano, 2019, 13, 10301-10311.	7.3	14
86	Shape regulation of high-index facet nanoparticles by dealloying. Science, 2019, 365, 1159-1163.	6.0	108
87	Unconventional Defects in a Quasi-One-Dimensional KMn <sub>6</sub> Bi <sub>5</sub> . Nano Letters, 2019, 19, 7476-7486.	4.5	6
88	High Figure of Merit in Gallium-Doped Nanostructured n-Type PbTe-xGeTe with Midgap States. Journal of the American Chemical Society, 2019, 141, 16169-16177.	6.6	76
89	Antiferromagnetic Semiconductor BaFMn <sub>0.5</sub> Te with Unique Mn Ordering and Red Photoluminescence. Journal of the American Chemical Society, 2019, 141, 17421-17430.	6.6	10
90	MoS <sub>2</sub> -capped CuxS nanocrystals: a new heterostructured geometry of transition metal dichalcogenides for broadband optoelectronics. Materials Horizons, 2019, 6, 587-594.	6.4	18

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91	Sodium storage in hard carbon with curved graphene platelets as the basic structural units. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3327-3335.	5.2	113
92	Origin of Intrinsically Low Thermal Conductivity in Talnakhite $\text{Cu}_{17.6}\text{Fe}_{17.6}\text{S}_{32}$ Thermoelectric Material: Correlations between Lattice Dynamics and Thermal Transport. <i>Journal of the American Chemical Society</i> , 2019, 141, 10905-10914.	6.6	50
93	Particle analogs of electrons in colloidal crystals. <i>Science</i> , 2019, 364, 1174-1178.	6.0	91
94	Stimuli-Responsive DNA-Linked Nanoparticle Arrays as Programmable Surfaces. <i>Nano Letters</i> , 2019, 19, 4535-4542.	4.5	12
95	Magnetic Nanostructure-Coated Thermoresponsive Hydrogel Nanoconstruct As a Smart Multimodal Theranostic Platform. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 3049-3059.	2.6	17
96	Ethylendiammonium-Based "Hollow" Pb/Sn Perovskites with Ideal Band Gap Yield Solar Cells with Higher Efficiency and Stability. <i>Journal of the American Chemical Society</i> , 2019, 141, 8627-8637.	6.6	93
97	Computational strategies for design and discovery of nanostructured thermoelectrics. <i>Npj Computational Materials</i> , 2019, 5, .	3.5	39
98	Spatial Mapping of Hot Spots at Lateral Heterogeneities in Monolayer Transition Metal Dichalcogenides. <i>Advanced Materials</i> , 2019, 31, 1808244.	11.1	16
99	Quantifying Polymer Chain Orientation in Strong and Tough Nanofibers with Low Crystallinity: Toward Next Generation Nanostructured Superfibers. <i>ACS Nano</i> , 2019, 13, 4893-4927.	7.3	55
100	Interface and heterostructure design in polyelemental nanoparticles. <i>Science</i> , 2019, 363, 959-964.	6.0	171
101	Uniaxial Expansion of the 2D Ruddlesden-Popper Perovskite Family for Improved Environmental Stability. <i>Journal of the American Chemical Society</i> , 2019, 141, 5518-5534.	6.6	193
102	Probing Electrochemically Induced Structural Evolution and Oxygen Redox Reactions in Layered Lithium Iridate. <i>Chemistry of Materials</i> , 2019, 31, 4341-4352.	3.2	26
103	Design Strategy for High-Performance Thermoelectric Materials: The Prediction of Electron-Doped $\text{KZrCuSe}_3$ . <i>Chemistry of Materials</i> , 2019, 31, 3018-3024.	3.2	23
104	Enhancement of Thermoelectric Performance for n-Type PbS through Synergy of Gap State and Fermi Level Pinning. <i>Journal of the American Chemical Society</i> , 2019, 141, 6403-6412.	6.6	67
105	Structural analysis of the initial lithiation of NiO thin film electrodes. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 8897-8905.	1.3	13
106	Enhanced Density-of-States Effective Mass and Strained Endotaxial Nanostructures in Sb-Doped $\text{Pb}_{0.97}\text{Cd}_{0.03}\text{Te}$ Thermoelectric Alloys. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 9197-9204.	4.0	66
107	A Bismuth Metal-Organic Framework as a Contrast Agent for X-ray Computed Tomography. <i>ACS Applied Bio Materials</i> , 2019, 2, 1197-1203.	2.3	68
108	Probing Strain-Induced Band Gap Modulation in 2D Hybrid Organic-Inorganic Perovskites. <i>ACS Energy Letters</i> , 2019, 4, 796-802.	8.8	47

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109	Mapping Hot Spots at Heterogeneities of Few-Layer $\text{Ti}_3\text{C}_2$ MXene Sheets. <i>ACS Nano</i> , 2019, 13, 3301-3309.	7.3	29
110	All-Scale Hierarchically Structured p-Type PbSe Alloys with High Thermoelectric Performance Enabled by Improved Band Degeneracy. <i>Journal of the American Chemical Society</i> , 2019, 141, 4480-4486.	6.6	87
111	$(\text{Cu}_x\text{Zn}_{1-x})_{0.456}\text{In}_{1.084}\text{Ge}_{0.46}\text{O}_3$ (O $\approx$ 1): A Complex, Ordered, Anion-Deficient Fluorite with Unusual Site-Specific Cation Mixing. <i>Inorganic Chemistry</i> , 2019, 58, 15610-15617.	1.9	2
112	Colloidal Crystal Alloys. <i>Journal of the American Chemical Society</i> , 2019, 141, 20443-20450.	6.6	20
113	Phase engineering and optical properties of 2D MoSe <sub>2</sub> : Promise and pitfalls. <i>Materials Chemistry and Physics</i> , 2019, 225, 219-226.	2.0	13
114	Polymer Analog Memristive Synapse with Atomic-Scale Conductive Filament for Flexible Neuromorphic Computing System. <i>Nano Letters</i> , 2019, 19, 839-849.	4.5	139
115	Strain-Induced Metastable Phase Stabilization in $\text{Ga}_2\text{O}_3$ Thin Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 5536-5543.	4.0	42
116	Cu-Substituted $\text{NiF}_2$ as a Cathode Material for Li-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 647-654.	4.0	36
117	Unique $[\text{Mn}_6\text{Bi}_5]^\sim$ Nanowires in $\text{KMn}_6\text{Bi}_5$ : A Quasi-One-Dimensional Antiferromagnetic Metal. <i>Journal of the American Chemical Society</i> , 2018, 140, 4391-4400.	6.6	26
118	Intrinsic Transport in 2D Heterostructures Mediated through h-BN Tunneling Contacts. <i>Nano Letters</i> , 2018, 18, 2990-2998.	4.5	39
119	Remote Control of Heterodimeric Magnetic Nanoswitch Regulates the Adhesion and Differentiation of Stem Cells. <i>Journal of the American Chemical Society</i> , 2018, 140, 5909-5913.	6.6	67
120	Optically Active 1D $\text{MoS}_2$ Nanobelts. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 6799-6804.	4.0	23
121	Micromachined Chip Scale Thermal Sensor for Thermal Imaging. <i>ACS Nano</i> , 2018, 12, 1760-1767.	7.3	19
122	High Thermoelectric Performance in $\text{SnTe}$ - $\text{AgSbTe}_2$ Alloys from Lattice Softening, Giant Phonon Vacancy Scattering, and Valence Band Convergence. <i>ACS Energy Letters</i> , 2018, 3, 705-712.	8.8	151
123	Nitric Oxide-Delivering High-Density Lipoprotein-like Nanoparticles as a Biomimetic Nanotherapy for Vascular Diseases. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 6904-6916.	4.0	42
124	Magnetic lipid nanocapsules (MLNCs): self-assembled lipid-based nanoconstruct for non-invasive theranostic applications. <i>Journal of Materials Chemistry B</i> , 2018, 6, 1026-1034.	2.9	20
125	Building superlattices from individual nanoparticles via template-confined DNA-mediated assembly. <i>Science</i> , 2018, 359, 669-672.	6.0	195
126	Large-scale Fabrication of $\text{MoS}_2$ Ribbons and Their Light-Induced Electronic/Thermal Properties: Dichotomies in the Structural and Defect Engineering. <i>Advanced Functional Materials</i> , 2018, 28, 1704863.	7.8	25



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127	Pulsed Laser Deposition and Characterization of Heteroepitaxial $\text{LiMn}_2\text{O}_4/\text{La}_{0.5}\text{Sr}_{0.5}\text{CoO}_3$ Bilayer Thin Films as Model Lithium Ion Battery Cathodes. <i>ACS Applied Nano Materials</i> , 2018, 1, 642-653.	2.4	18
128	One-Pot Green Synthesis of $\text{Fe}_3\text{O}_4/\text{MoS}_2$ OD/2D Nanocomposites and Their Application in Noninvasive Point-of-Care Glucose Diagnostics. <i>ACS Applied Nano Materials</i> , 2018, 1, 1949-1958.	2.4	33
129	DNA-Mediated Size-Selective Nanoparticle Assembly for Multiplexed Surface Encoding. <i>Nano Letters</i> , 2018, 18, 2645-2649.	4.5	30
130	Thin Film $\text{RuO}_2$ Lithiation: Fast Lithium Ion Diffusion along the Interface. <i>Advanced Functional Materials</i> , 2018, 28, 1805723.	7.8	11
131	Chemical Insights into $\text{PbSe}/\text{HgSe}$ : High Power Factor and Improved Thermoelectric Performance by Alloying with Discordant Atoms. <i>Journal of the American Chemical Society</i> , 2018, 140, 18115-18123.	6.6	80
132	Understanding the Effect of Interlayers at the Thiophosphate Solid Electrolyte/Lithium Interface for All-Solid-State Li Batteries. <i>Chemistry of Materials</i> , 2018, 30, 8747-8756.	3.2	75
133	Morphological Engineering of Winged $\text{Au}@\text{MoS}_2$ Heterostructures for Electrocatalytic Hydrogen Evolution. <i>Nano Letters</i> , 2018, 18, 7104-7110.	4.5	96
134	Dual Alloying Strategy to Achieve a High Thermoelectric Figure of Merit and Lattice Hardening in p-Type Nanostructured $\text{PbTe}$ . <i>ACS Energy Letters</i> , 2018, 3, 2593-2601.	8.8	37
135	Stretching and Breaking of Ultrathin 2D Hybrid Organic-Inorganic Perovskites. <i>ACS Nano</i> , 2018, 12, 10347-10354.	7.3	60
136	Design Rules for Template-Confined DNA-Mediated Nanoparticle Assembly. <i>Small</i> , 2018, 14, e1802742.	5.2	13
137	Abrupt Thermal Shock of $(\text{NH}_4)_2\text{Mo}_3\text{S}_{13}$ Leads to Ultrafast Synthesis of Porous Ensembles of $\text{MoS}_2$ Nanocrystals for High Gain Photodetectors. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 38193-38200.	4.0	5
138	An In Situ Reversible Heterodimeric Nanoswitch Controlled by Metal-Ion-Ligand Coordination Regulates the Mechanosensing and Differentiation of Stem Cells. <i>Advanced Materials</i> , 2018, 30, e1803591.	11.1	44
139	Conversion of Single Crystal $(\text{NH}_4)_2\text{Mo}_3\text{S}_{13}\cdot\text{H}_2\text{O}$ to Isomorphic Pseudocrystals of $\text{MoS}_2$ Nanoparticles. <i>Chemistry of Materials</i> , 2018, 30, 3847-3853.	3.2	14
140	Absence of Nanostructuring in $\text{NaPb}_m\text{SbTe}_{m+2}$ : Solid Solutions with High Thermoelectric Performance in the Intermediate Temperature Regime. <i>Journal of the American Chemical Society</i> , 2018, 140, 7021-7031.	6.6	27
141	Controlled synthesis of 2D $\text{MX}_2$ ( $\text{M} = \text{Mo}, \text{W}; \text{X} = \text{S}, \text{Se}$ ) heterostructures and alloys. <i>Journal of Applied Physics</i> , 2018, 123, 204304.	1.1	15
142	Windowless Observation of Evaporation-Induced Coarsening of $\text{Au}/\text{Pt}$ Nanoparticles in Polymer Nanoreactors. <i>Journal of the American Chemical Society</i> , 2018, 140, 7213-7221.	6.6	10
143	Thermal conductivity in $\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$ and the role of dense dislocation arrays at grain boundaries. <i>Science Advances</i> , 2018, 4, eaar5606.	4.7	143
144	Magnetic Manipulation of Reversible Nanocaging Controls <i>In Vivo</i> Adhesion and Polarization of Macrophages. <i>ACS Nano</i> , 2018, 12, 5978-5994.	7.3	67

#	ARTICLE	IF	CITATIONS
145	Multistates and Polyamorphism in Phase-Change $K_2Sb_8Se_{13}$ . Journal of the American Chemical Society, 2018, 140, 9261-9268.	6.6	12
146	Exchange Coupling in Soft Magnetic Nanostructures and Its Direct Effect on Their Theranostic Properties. ACS Applied Materials & Interfaces, 2018, 10, 27233-27243.	4.0	26
147	Revealing the Effects of Electrode Crystallographic Orientation on Battery Electrochemistry via the Anisotropic Lithiation and Sodiation of $ReS_2$ . ACS Nano, 2018, 12, 7875-7882.	7.3	28
148	In Situ Observation of Resistive Switching in an Asymmetric Graphene Oxide Bilayer Structure. ACS Nano, 2018, 12, 7335-7342.	7.3	36
149	Soft phonon modes from off-center Ge atoms lead to ultralow thermal conductivity and superior thermoelectric performance in n-type $PbSe$ - $GeSe$ . Energy and Environmental Science, 2018, 11, 3220-3230.	15.6	115
150	Site-Specific Positioning and Patterning of $MoS_2$ Monolayers: The Role of Au Seeding. ACS Nano, 2018, 12, 8970-8976.	7.3	50
151	Out-of-Plane Mechanical Properties of 2D Hybrid Organic-Inorganic Perovskites by Nanoindentation. ACS Applied Materials & Interfaces, 2018, 10, 22167-22173.	4.0	64
152	Nanoparticle@ $MoS_2$ Core-Shell Architecture: Role of the Core Material. Chemistry of Materials, 2018, 30, 4675-4682.	3.2	31
153	Origin of Fracture-Resistance to Large Volume Change in $Cu$ -Substituted $Co_3O_4$ Electrodes. Advanced Materials, 2018, 30, 1704851.	11.1	29
154	Systematic Study of Oxygen Vacancy Tunable Transport Properties of Few-Layer $MoO_3$ Enabled by Vapor-Based Synthesis. Advanced Functional Materials, 2017, 27, 1605380.	7.8	91
155	Quantifying Plasmon-Enhanced Light Absorption in Monolayer $WS_2$ Films. ACS Applied Materials & Interfaces, 2017, 9, 15044-15051.	4.0	41
156	The Structural Fate of Individual Multicomponent Metal-Oxide Nanoparticles in Polymer Nanoreactors. Angewandte Chemie, 2017, 129, 7733-7737.	1.6	11
157	The Structural Fate of Individual Multicomponent Metal-Oxide Nanoparticles in Polymer Nanoreactors. Angewandte Chemie - International Edition, 2017, 56, 7625-7629.	7.2	26
158	Solution-Phase Photochemical Nanopatterning Enabled by High-Refractive-Index Beam Pen Arrays. ACS Nano, 2017, 11, 8231-8241.	7.3	13
159	Thickness Resonance Acoustic Microscopy for Nanomechanical Subsurface Imaging. ACS Nano, 2017, 11, 6139-6145.	7.3	10
160	Intermediate phases in sodium intercalation into $MoS_2$ nanosheets and their implications for sodium-ion batteries. Nano Energy, 2017, 38, 342-349.	8.2	151
161	High Throughput Synthesis of Multifunctional Oxide Nanostructures within Nanoreactors Defined by Beam Pen Lithography. ACS Nano, 2017, 11, 4439-4444.	7.3	18
162	Remote Control of Multimodal Nanoscale Ligand Oscillations Regulates Stem Cell Adhesion and Differentiation. ACS Nano, 2017, 11, 9636-9649.	7.3	65

#	ARTICLE	IF	CITATIONS
163	Superior Plasmonic Photodetectors Based on Au@MoS <sub>2</sub> Core-Shell Heterostructures. ACS Nano, 2017, 11, 10321-10329.	7.3	150
164	Remote Manipulation of Ligand Nano-Oscillations Regulates Adhesion and Polarization of Macrophages in Vivo. Nano Letters, 2017, 17, 6415-6427.	4.5	72
165	Engineered ferritin nanocages as natural contrast agents in magnetic resonance imaging. RSC Advances, 2017, 7, 34892-34900.	1.7	18
166	Multistage Transformation and Lattice Fluctuation at AgCl@Ag Interface. Journal of Physical Chemistry Letters, 2017, 8, 5853-5860.	2.1	3
167	Lithiation of multilayer Ni/NiO electrodes: criticality of nickel layer thicknesses on conversion reaction kinetics. Physical Chemistry Chemical Physics, 2017, 19, 20029-20039.	1.3	17
168	Structural Evolution of Three-Component Nanoparticles in Polymer Nanoreactors. Journal of the American Chemical Society, 2017, 139, 9876-9884.	6.6	48
169	Two-dimensional bismuth-rich nanosheets through the evaporative thinning of Se-doped Bi <sub>2</sub> Te <sub>3</sub> . Journal of Crystal Growth, 2016, 436, 138-144.	0.7	5
170	Emerging opportunities in the two-dimensional chalcogenide systems and architecture. Current Opinion in Solid State and Materials Science, 2016, 20, 374-387.	5.6	29
171	Magneto-thermally responsive hydrogels for bladder cancer treatment: Therapeutic efficacy and in vivo biodistribution. Colloids and Surfaces B: Biointerfaces, 2015, 136, 625-633.	2.5	18
172	High performance bulk thermoelectrics via a panoscopic approach. Materials Today, 2013, 16, 166-176.	8.3	421
173	Enhanced Field-Emission Behavior of Layered MoS <sub>2</sub> Sheets. Small, 2013, 9, 2730-2734.	5.2	196
174	Rapid Characterization of Ultrathin Layers of Chalcogenides on SiO <sub>2</sub> /Si Substrates. Advanced Functional Materials, 2012, 22, 1894-1905.	7.8	436
175	Phonon Scattering and Thermal Conductivity in p-Type Nanostructured PbTe@BaTe Bulk Thermoelectric Materials. Advanced Functional Materials, 2012, 22, 5175-5184.	7.8	112
176	GaS and GaSe Ultrathin Layer Transistors. Advanced Materials, 2012, 24, 3549-3554.	11.1	580
177	Synthesis and Characterization of Nanocrystalline Zinc Manganese Ferrite. Journal of the American Ceramic Society, 2011, 94, 1490-1495.	1.9	10
178	Hybrid magnetic nanostructures (MNS) for magnetic resonance imaging applications. Advanced Drug Delivery Reviews, 2011, 63, 1282-1299.	6.6	66
179	Reinforced Self-Assembled Nanodielectrics for High-Performance Transparent Thin Film Transistors. Advanced Materials, 2011, 23, 992-997.	11.1	17
180	Microstructure-Dependent Lattice Thermal Conductivity Correlation in Nanostructured PbTe <sub>0.7</sub> S <sub>0.3</sub> Thermoelectric Materials. Advanced Functional Materials, 2010, 20, 764-772.	7.8	307

#	ARTICLE	IF	CITATIONS
181	Controlled fabrication of oriented co-doped ZnO clustered nanoassemblies. Journal of Colloid and Interface Science, 2010, 349, 19-26.	5.0	21
182	Nanoscale assembly of amine-functionalized colloidal iron oxide. Journal of Magnetism and Magnetic Materials, 2009, 321, 1529-1532.	1.0	75
183	Defects in three-dimensional spherical assemblies of Ni-doped ZnO nanocrystals. Journal of Materials Research, 2009, 24, 3543-3550.	1.2	10
184	Characterization of Ni <sub>x</sub> Co <sub>1-x</sub> O/ZrO <sub>2</sub> (CaO) directionally solidified eutectic (DSE) ceramic composites with a ductile interphase. Journal of Materials Research, 2007, 22, 1797-1805.	1.2	3
185	Fabrication and Structural Evaluation of Beaded Inorganic Nanostructures Using Soft-Electron-Beam Lithography. Advanced Materials, 2007, 19, 125-128.	11.1	20
186	Controlled Synthesis and Stability of Co@SiO <sub>2</sub> Aqueous Colloids. Journal of the American Ceramic Society, 2007, 90, 950-956.	1.9	30
187	Directed Fabrication of Radially Stacked Multifunctional Oxide Heterostructures Using Soft Electron-Beam Lithography. Small, 2006, 2, 274-280.	5.2	32
188	Interfacial Fracture Phenomena in Ceramic Composite Directionally Solidified Eutectics with a Ductile Interphase. Journal of the American Ceramic Society, 2006, 89, 767-772.	1.9	3
189	On the performance evaluation of hybrid and mono-class sensor arrays in selective detection of VOCs: A comparative study. Sensors and Actuators B: Chemical, 2006, 117, 244-252.	4.0	24
190	Silica encapsulation and magnetic properties of FePt nanoparticles. Journal of Colloid and Interface Science, 2005, 290, 444-449.	5.0	83
191	A convenient and rapid sample repositioning approach for atomic force microscopy. Journal of Microscopy, 2004, 216, 194-196.	0.8	8
192	Arrays of Magnetic Nanoparticles Patterned via Dip-Pen Nanolithography. Advanced Materials, 2002, 14, 231-234.	11.1	179