

Vinayak P Dravid

List of Publications by Year in descending order

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192
papers

9,872
citations

43973

48
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46693

89
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193
all docs

193
docs citations

193
times ranked

13350
citing authors

#	ARTICLE	IF	CITATIONS
1	GaS and GaSe Ultrathin Layer Transistors. <i>Advanced Materials</i> , 2012, 24, 3549-3554.	11.1	580
2	Rapid Characterization of Ultrathin Layers of Chalcogenides on SiO ₂ /Si Substrates. <i>Advanced Functional Materials</i> , 2012, 22, 1894-1905.	7.8	436
3	High performance bulk thermoelectrics via a panoscopic approach. <i>Materials Today</i> , 2013, 16, 166-176.	8.3	421
4	Efficient, stable silicon tandem cells enabled by anion-engineered wide-bandgap perovskites. <i>Science</i> , 2020, 368, 155-160.	6.0	420
5	Polycrystalline SnSe with a thermoelectric figure of merit greater than the single crystal. <i>Nature Materials</i> , 2021, 20, 1378-1384.	13.3	340
6	Microstructure-Dependent Lattice Thermal Conductivity Correlation in Nanostructured PbTe _{0.7} S _{0.3} Thermoelectric Materials. <i>Advanced Functional Materials</i> , 2010, 20, 764-772.	7.8	307
7	Enhanced Field-Emission Behavior of Layered MoS ₂ Sheets. <i>Small</i> , 2013, 9, 2730-2734.	5.2	196
8	Building superlattices from individual nanoparticles via template-confined DNA-mediated assembly. <i>Science</i> , 2018, 359, 669-672.	6.0	195
9	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
10	Arrays of Magnetic Nanoparticles Patterned via Dip-Pen Nanolithography. <i>Advanced Materials</i> , 2002, 14, 231-234.	11.1	179
11	Interface and heterostructure design in polyelemental nanoparticles. <i>Science</i> , 2019, 363, 959-964.	6.0	171
12	Intermediate phases in sodium intercalation into MoS ₂ nanosheets and their implications for sodium-ion batteries. <i>Nano Energy</i> , 2017, 38, 342-349.	8.2	151
13	High Thermoelectric Performance in SnTe-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
14	Superior Plasmonic Photodetectors Based on Au@MoS ₂ Core-Shell Heterostructures. <i>ACS Nano</i> , 2017, 11, 10321-10329.	7.3	150
15	Thermal conductivity in Bi _{0.5} Sb _{1.5} Te ₃ and the role of dense dislocation arrays at grain boundaries. <i>Science Advances</i> , 2018, 4, eaar5606.	4.7	143
16	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
17	Soft phonon modes from off-center Ge atoms lead to ultralow thermal conductivity and superior thermoelectric performance in n-type PbSe-GeSe. <i>Energy and Environmental Science</i> , 2018, 11, 3220-3230.	15.6	115
18	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

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19	Phonon Scattering and Thermal Conductivity in p-Type Nanostructured PbTe/BaTe Bulk Thermoelectric Materials. <i>Advanced Functional Materials</i> , 2012, 22, 5175-5184.	7.8	112
20	Shape regulation of high-index facet nanoparticles by dealloying. <i>Science</i> , 2019, 365, 1159-1163.	6.0	108
21	High Thermoelectric Performance in the New Cubic Semiconductor Ag ₃ SbSe ₃ by High-Entropy Engineering. <i>Journal of the American Chemical Society</i> , 2020, 142, 15187-15198.	6.6	108
22	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
23	Morphological Engineering of Winged Au@MoS ₂ Heterostructures for Electrocatalytic Hydrogen Evolution. <i>Nano Letters</i> , 2018, 18, 7104-7110.	4.5	96
24	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
25	Systematic Study of Oxygen Vacancy Tunable Transport Properties of Few-Layer MoO ₃ Enabled by Vapor-Based Synthesis. <i>Advanced Functional Materials</i> , 2017, 27, 1605380.	7.8	91
26	Particle analogs of electrons in colloidal crystals. <i>Science</i> , 2019, 364, 1174-1178.	6.0	91
27	Simultaneous Bottom-Up Interfacial and Bulk Defect Passivation in Highly Efficient Planar Perovskite Solar Cells using Nonconjugated Small-Molecule Electrolytes. <i>Advanced Materials</i> , 2019, 31, e1903239.	11.1	89
28	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
29	Silica encapsulation and magnetic properties of FePt nanoparticles. <i>Journal of Colloid and Interface Science</i> , 2005, 290, 444-449.	5.0	83
30	Chemical Insights into PbSe/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
31	High Figure of Merit in Gallium-Doped Nanostructured n-Type PbTe/GeTe with Midgap States. <i>Journal of the American Chemical Society</i> , 2019, 141, 16169-16177.	6.6	76
32	Nanoscale assembly of amine-functionalized colloidal iron oxide. <i>Journal of Magnetism and Magnetic Materials</i> , 2009, 321, 1529-1532.	1.0	75
33	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
34	Remote Manipulation of Ligand Nano-Oscillations Regulates Adhesion and Polarization of Macrophages in Vivo. <i>Nano Letters</i> , 2017, 17, 6415-6427.	4.5	72
35	In Situ Oxidation Studies of High-Entropy Alloy Nanoparticles. <i>ACS Nano</i> , 2020, 14, 15131-15143.	7.3	71
36	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

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55	Site-Specific Positioning and Patterning of MoS ₂ Monolayers: The Role of Au Seeding. ACS Nano, 2018, 12, 8970-8976.	7.3	50
56	Origin of Intrinsically Low Thermal Conductivity in Tl ₂ Te Thermoelectric Material: Correlations between Lattice Dynamics and Thermal Transport. Journal of the American Chemical Society, 2019, 141, 10905-10914.	6.6	50
57	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
58	Nonlinear Band Gap Tunability in Selenium-Tellurium Alloys and Its Utilization in Solar Cells. ACS Energy Letters, 2019, 4, 2137-2143.	8.8	49
59	Ultralow Thermal Conductivity in Diamondoid Structures and High Thermoelectric Performance in (Cu _{1-x} Ag _x)(In _{1-y} Ga _y)Te. Journal of the American Chemical Society, 2021, 143, 5978-5989.	6.6	49
60	Structural Evolution of Three-Component Nanoparticles in Polymer Nanoreactors. Journal of the American Chemical Society, 2017, 139, 9876-9884.	6.6	48
61	Probing Strain-Induced Band Gap Modulation in 2D Hybrid Organic-Inorganic Perovskites. ACS Energy Letters, 2019, 4, 796-802.	8.8	47
62	Exploring the Factors Affecting the Mechanical Properties of 2D Hybrid Organic-Inorganic Perovskites. ACS Applied Materials & Interfaces, 2020, 12, 20440-20447.	4.0	47
63	An In Situ Reversible Heterodimeric Nanoswitch Controlled by Metal-Ligand Coordination Regulates the Mechanosensing and Differentiation of Stem Cells. Advanced Materials, 2018, 30, e1803591.	11.1	44
64	Nitric Oxide-Delivering High-Density Lipoprotein-like Nanoparticles as a Biomimetic Nanotherapy for Vascular Diseases. ACS Applied Materials & Interfaces, 2018, 10, 6904-6916.	4.0	42
65	Strain-Induced Metastable Phase Stabilization in Ga ₂ O ₃ Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 5536-5543.	4.0	42
66	Quantifying Plasmon-Enhanced Light Absorption in Monolayer WS ₂ Films. ACS Applied Materials & Interfaces, 2017, 9, 15044-15051.	4.0	41
67	Intrinsic Transport in 2D Heterostructures Mediated through h-BN Tunneling Contacts. Nano Letters, 2018, 18, 2990-2998.	4.5	39
68	Computational strategies for design and discovery of nanostructured thermoelectrics. Npj Computational Materials, 2019, 5, .	3.5	39
69	Dual Alloying Strategy to Achieve a High Thermoelectric Figure of Merit and Lattice Hardening in p-Type Nanostructured PbTe. ACS Energy Letters, 2018, 3, 2593-2601.	8.8	37
70	Nanoscale chromatin imaging and analysis platform bridges 4D chromatin organization with molecular function. Science Advances, 2021, 7, .	4.7	37
71	The emergence of valency in colloidal crystals through electron equivalents. Nature Materials, 2022, 21, 580-587.	13.3	37
72	Thermoelectric Performance of the 2D Bi ₂ Si ₂ Te ₆ Semiconductor. Journal of the American Chemical Society, 2022, 144, 1445-1454.	6.6	37

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73	<i>In Situ</i> Observation of Resistive Switching in an Asymmetric Graphene Oxide Bilayer Structure. ACS Nano, 2018, 12, 7335-7342.	7.3	36
74	Cu-Substituted NiF ₂ as a Cathode Material for Li-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 647-654.	4.0	36
75	Thermoelectric transport enhancement of Te-rich bismuth antimony telluride (Bi _{0.5} Sb _{1.5} Te _{3+x}) through controlled porosity. Journal of Materiomics, 2020, 6, 532-544.	2.8	36
76	Highly sensitive and ultra-rapid antigen-based detection of SARS-CoV-2 using nanomechanical sensor platform. Biosensors and Bioelectronics, 2022, 195, 113647.	5.3	34
77	One-Pot Green Synthesis of Fe ₃ O ₄ /MoS ₂ 0D/2D Nanocomposites and Their Application in Noninvasive Point-of-Care Glucose Diagnostics. ACS Applied Nano Materials, 2018, 1, 1949-1958.	2.4	33
78	Raspberry-like mesoporous Co-doped TiO ₂ nanospheres for a high-performance formaldehyde gas sensor. Journal of Materials Chemistry A, 2021, 9, 6529-6537.	5.2	33
79	Directed Fabrication of Radially Stacked Multifunctional Oxide Heterostructures Using Soft Electron-Beam Lithography. Small, 2006, 2, 274-280.	5.2	32
80	<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
81	Nanoparticle@MoS ₂ Core-Shell Architecture: Role of the Core Material. Chemistry of Materials, 2018, 30, 4675-4682.	3.2	31
82	Self-Passivation of 2D Ruddlesden-Popper Perovskite by Polytypic Surface PbI ₂ Encapsulation. Nano Letters, 2019, 19, 6109-6117.	4.5	31
83	Controlled Synthesis and Stability of Co@SiO ₂ Aqueous Colloids. Journal of the American Ceramic Society, 2007, 90, 950-956.	1.9	30
84	DNA-Mediated Size-Selective Nanoparticle Assembly for Multiplexed Surface Encoding. Nano Letters, 2018, 18, 2645-2649.	4.5	30
85	Independent Tuning of NanoLigand Frequency and Sequences Regulates the Adhesion and Differentiation of Stem Cells. Advanced Materials, 2020, 32, 2004300.	11.1	30
86	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
87	Mapping Hot Spots at Heterogeneities of Few-Layer Ti ₃ C ₂ MXene Sheets. ACS Nano, 2019, 13, 3301-3309.	7.3	29
88	Shedding Light on the Stability and Structure-Property Relationships of Two-Dimensional Hybrid Lead Bromide Perovskites. Chemistry of Materials, 2021, 33, 5085-5107.	3.2	29
89	Origin of Fracture-Resistance to Large Volume Change in Cu-Substituted Co ₃ O ₄ Electrodes. Advanced Materials, 2018, 30, 1704851.	11.1	29
90	High Thermoelectric Performance in Chalcopyrite Cu _{1-x} Ag _x GaTe ₂ -ZnTe: Nontrivial Band Structure and Dynamic Doping Effect. Journal of the American Chemical Society, 2022, 144, 9113-9125.	6.6	29

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91	Revealing the Effects of Electrode Crystallographic Orientation on Battery Electrochemistry <i>via</i> the Anisotropic Lithiation and Sodiation of ReS_2 . ACS Nano, 2018, 12, 7875-7882.	7.3	28
92	CeO_2 quantum dots with massive oxygen vacancies as efficient catalysts for the synthesis of dimethyl carbonate. Chemical Communications, 2020, 56, 403-406.	2.2	28
93	Strong Valence Band Convergence to Enhance Thermoelectric Performance in PbSe with Two Chemically Independent Controls. Angewandte Chemie - International Edition, 2021, 60, 268-273.	7.2	28
94	Absence of Nanostructuring in $\text{NaPb}_m\text{SbTe}_{m+2}$: Solid Solutions with High Thermoelectric Performance in the Intermediate Temperature Regime. Journal of the American Chemical Society, 2018, 140, 7021-7031.	6.6	27
95	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
96	Remote Manipulation of Slidable Nano-Ligand Switch Regulates the Adhesion and Regenerative Polarization of Macrophages. Advanced Functional Materials, 2020, 30, 2001446.	7.8	27
97	The Structural Fate of Individual Multicomponent Metal-Oxide Nanoparticles in Polymer Nanoreactors. Angewandte Chemie - International Edition, 2017, 56, 7625-7629.	7.2	26
98	Unique $[\text{Mn}_6\text{Bi}_5]$ Nanowires in KMn_6Bi_5 : A Quasi-One-Dimensional Antiferromagnetic Metal. Journal of the American Chemical Society, 2018, 140, 4391-4400.	6.6	26
99	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
100	Probing Electrochemically Induced Structural Evolution and Oxygen Redox Reactions in Layered Lithium Iridate. Chemistry of Materials, 2019, 31, 4341-4352.	3.2	26
101	Revealing High-Temperature Reduction Dynamics of High-Entropy Alloy Nanoparticles <i>via</i> In Situ Transmission Electron Microscopy. Nano Letters, 2021, 21, 1742-1748.	4.5	26
102	Large-Scale Fabrication of MoS_2 Ribbons and Their Light-Induced Electronic/Thermal Properties: Dichotomies in the Structural and Defect Engineering. Advanced Functional Materials, 2018, 28, 1704863.	7.8	25
103	Ultralow Thermal Conductivity and High-Temperature Thermoelectric Performance in n-Type $\text{K}_{2.5}\text{Bi}_{8.5}\text{Se}_{14}$. Chemistry of Materials, 2019, 31, 5943-5952.	3.2	25
104	Mapping Grains, Boundaries, and Defects in 2D Covalent Organic Framework Thin Films. Chemistry of Materials, 2021, 33, 1341-1352.	3.2	25
105	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
106	Valence Disproportionation of GeS in the PbS Matrix Forms $\text{Pb}_5\text{Ge}_5\text{S}_{12}$ Inclusions with Conduction Band Alignment Leading to High n-Type Thermoelectric Performance. Journal of the American Chemical Society, 2022, 144, 7402-7413.	6.6	24
107	Optically Active 1D MoS_2 Nanobelts. ACS Applied Materials & Interfaces, 2018, 10, 6799-6804.	4.0	23
108	Design Strategy for High-Performance Thermoelectric Materials: The Prediction of Electron-Doped KZrCuSe_3 . Chemistry of Materials, 2019, 31, 3018-3024.	3.2	23

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109	Ultralow Thermal Conductivity and Thermoelectric Properties of Rb ₂ Bi ₈ Se ₁₃ . Chemistry of Materials, 2020, 32, 3561-3569.	3.2	23
110	Direct Visualization of Electric-Field-Induced Structural Dynamics in Monolayer Transition Metal Dichalcogenides. ACS Nano, 2020, 14, 1569-1576.	7.3	23
111	Dissociation of GaSb in n-Type PbTe: off-Centered Gallium Atom and Weak Electron-Phonon Coupling Provide High Thermoelectric Performance. Chemistry of Materials, 2021, 33, 1842-1851.	3.2	23
112	Valley-selective optical Stark effect of exciton-polaritons in a monolayer semiconductor. Nature Communications, 2021, 12, 4530.	5.8	22
113	Tuning of Optical Phonons in VO_2 Multilayers. ACS Applied Materials & Interfaces, 2021, 13, 48981-48987.	4.0	22
114	Controlled fabrication of oriented co-doped ZnO clustered nanoassemblies. Journal of Colloid and Interface Science, 2010, 349, 19-26.	5.0	21
115	Homopolymer self-assembly of poly(propylene sulfone) hydrogels via dynamic noncovalent sulfone-sulfone bonding. Nature Communications, 2020, 11, 4896.	5.8	21
116	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
117	Fabrication and Structural Evaluation of Beaded Inorganic Nanostructures Using Soft-Electron-Beam Lithography. Advanced Materials, 2007, 19, 125-128.	11.1	20
118	Magnetic lipid nanocapsules (MLNCs): self-assembled lipid-based nanoconstruct for non-invasive theranostic applications. Journal of Materials Chemistry B, 2018, 6, 1026-1034.	2.9	20
119	Colloidal Crystal Alloys. Journal of the American Chemical Society, 2019, 141, 20443-20450.	6.6	20
120	Oriented LiMn ₂ O ₄ Particle Fracture from Delithiation-Driven Surface Stress. ACS Applied Materials & Interfaces, 2020, 12, 49182-49191.	4.0	20
121	Micromachined Chip Scale Thermal Sensor for Thermal Imaging. ACS Nano, 2018, 12, 1760-1767.	7.3	19
122	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
123	High Throughput Synthesis of Multifunctional Oxide Nanostructures within Nanoreactors Defined by Beam Pen Lithography. ACS Nano, 2017, 11, 4439-4444.	7.3	18
124	Engineered ferritin nanocages as natural contrast agents in magnetic resonance imaging. RSC Advances, 2017, 7, 34892-34900.	1.7	18
125	Pulsed Laser Deposition and Characterization of Heteroepitaxial LiMn ₂ O ₄ /La _{0.5} Sr _{0.5} Co ₃ Bilayer Thin Films as Model Lithium Ion Battery Cathodes. ACS Applied Nano Materials, 2018, 1, 642-653.	2.4	18
126	MoS ₂ -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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127	OHM Sponge: A Versatile, Efficient, and Ecofriendly Environmental Remediation Platform. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 10945-10954.	1.8	18
128	P ₂ S ₅ Reactive Flux Method for the Rapid Synthesis of Mono- and Bimetallic 2D Thiophosphates M ₂ X ₂ Te ₂ P ₂ S ₆ . <i>Inorganic Chemistry</i> , 2021, 60, 3502-3513.	1.9	18
129	Degeneration Behavior of Cu Nanowires under Carbon Dioxide Environment: An <i>In Situ</i> Operando Study. <i>Nano Letters</i> , 2021, 21, 6813-6819.	4.5	18
130	Reinforced Self-Assembled Nanodielectrics for High-Performance Transparent Thin Film Transistors. <i>Advanced Materials</i> , 2011, 23, 992-997.	11.1	17
131	Lithiation of multilayer Ni/NiO electrodes: criticality of nickel layer thicknesses on conversion reaction kinetics. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 20029-20039.	1.3	17
132	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
133	Large-area optoelectronic-grade InSe thin films via controlled phase evolution. <i>Applied Physics Reviews</i> , 2020, 7, .	5.5	17
134	Chain-End Functionalized Polymers for the Controlled Synthesis of Sub-2 nm Particles. <i>Journal of the American Chemical Society</i> , 2020, 142, 7350-7355.	6.6	17
135	Spatial Mapping of Hotspots at Lateral Heterogeneities in Monolayer Transition Metal Dichalcogenides. <i>Advanced Materials</i> , 2019, 31, 1808244.	11.1	16
136	Controlled synthesis of 2D MX ₂ (M = Mo, W; X = S, Se) heterostructures and alloys. <i>Journal of Applied Physics</i> , 2018, 123, 204304.	1.1	15
137	Magnetic Nanostructure-Loaded Bicontinuous Nanospheres Support Multicargo Intracellular Delivery and Oxidation-Responsive Morphological Transitions. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 55584-55595.	4.0	15
138	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
139	Conversion of Single Crystal (NH ₄) ₂ Mo ₃ S ₁₃ ·H ₂ O to Isomorphic Pseudocrystals of MoS ₂ Nanoparticles. <i>Chemistry of Materials</i> , 2018, 30, 3847-3853.	3.2	14
140	Biomimetic Magnetic Nanostructures: A Theranostic Platform Targeting Lipid Metabolism and Immune Response in Lymphoma. <i>ACS Nano</i> , 2019, 13, 10301-10311.	7.3	14
141	Topology of transition metal dichalcogenides: the case of the core-shell architecture. <i>Nanoscale</i> , 2020, 12, 23897-23919.	2.8	14
142	Solution-Phase Photochemical Nanopatterning Enabled by High-Refractive-Index Beam Pen Arrays. <i>ACS Nano</i> , 2017, 11, 8231-8241.	7.3	13
143	Design Rules for Template-Confined DNA-Mediated Nanoparticle Assembly. <i>Small</i> , 2018, 14, e1802742.	5.2	13
144	Structural analysis of the initial lithiation of NiO thin film electrodes. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 8897-8905.	1.3	13

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145	Phase engineering and optical properties of 2D MoSe ₂ : Promise and pitfalls. <i>Materials Chemistry and Physics</i> , 2019, 225, 219-226.	2.0	13
146	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
147	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
148	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
149	Synergistic defect- and interfacial-engineering of a Bi ₂ S ₃ -based nanoplate network for high-performance photoelectrochemical solar water splitting. <i>Journal of Materials Chemistry A</i> , 2022, 10, 7830-7840.	5.2	13
150	Multistates and Polyamorphism in Phase-Change K ₂ Sb ₈ Se ₁₃ . <i>Journal of the American Chemical Society</i> , 2018, 140, 9261-9268.	6.6	12
151	Stimuli-Responsive DNA-Linked Nanoparticle Arrays as Programmable Surfaces. <i>Nano Letters</i> , 2019, 19, 4535-4542.	4.5	12
152	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
153	Ingrained: An Automated Framework for Fusing Atomic-Scale Image Simulations into Experiments. <i>Small</i> , 2022, 18, e2102960.	5.2	12
154	The Structural Fate of Individual Multicomponent Metal-Oxide Nanoparticles in Polymer Nanoreactors. <i>Angewandte Chemie</i> , 2017, 129, 7733-7737.	1.6	11
155	Thin Film RuO ₂ Lithiation: Fast Lithium-Ion Diffusion along the Interface. <i>Advanced Functional Materials</i> , 2018, 28, 1805723.	7.8	11
156	Defects in three-dimensional spherical assemblies of Ni-doped ZnO nanocrystals. <i>Journal of Materials Research</i> , 2009, 24, 3543-3550.	1.2	10
157	Synthesis and Characterization of Nanocrystalline Zinc Manganese Ferrite. <i>Journal of the American Ceramic Society</i> , 2011, 94, 1490-1495.	1.9	10
158	Thickness Resonance Acoustic Microscopy for Nanomechanical Subsurface Imaging. <i>ACS Nano</i> , 2017, 11, 6139-6145.	7.3	10
159	Windowless Observation of Evaporation-Induced Coarsening of Au-Pt Nanoparticles in Polymer Nanoreactors. <i>Journal of the American Chemical Society</i> , 2018, 140, 7213-7221.	6.6	10
160	Antiferromagnetic Semiconductor BaFMn _{0.5} Te with Unique Mn Ordering and Red Photoluminescence. <i>Journal of the American Chemical Society</i> , 2019, 141, 17421-17430.	6.6	10
161	Solid-Phase Synthesis of Megamolecules. <i>Journal of the American Chemical Society</i> , 2020, 142, 4534-4538.	6.6	9
162	A convenient and rapid sample repositioning approach for atomic force microscopy. <i>Journal of Microscopy</i> , 2004, 216, 194-196.	0.8	8

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163	Enhancing nanostructured nickel-rich lithium-ion battery cathodes via surface stabilization. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 063210.	0.9	8
164	Implications of doping on microstructure, processing, and thermoelectric performance: The case of PbSe. Journal of Materials Research, 2021, 36, 1272-1284.	1.2	8
165	Structural defects in transition metal dichalcogenide core-shell architectures. Applied Physics Letters, 2021, 118, .	1.5	8
166	Hidden Complexity in the Chemistry of Ammonolysis-Derived MoS_2/N_x : An Overlooked Oxynitride Hydride. Chemistry of Materials, 2021, 33, 6671-6684.	3.2	8
167	Mixed Metal Thiophosphate $\text{Fe}_2\text{Co}_x\text{P}_2\text{S}_6$: Role of Structural Evolution and Anisotropy. Inorganic Chemistry, 2021, 60, 17268-17275.	1.9	8
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