

Miao Liu

List of Publications by Year in descending order

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82
papers

7,398
citations

94269

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64668

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82
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docs citations

82
times ranked

9656
citing authors

#	ARTICLE	IF	CITATIONS
1	Odyssey of Multivalent Cathode Materials: Open Questions and Future Challenges. <i>Chemical Reviews</i> , 2017, 117, 4287-4341.	23.0	914
2	Data-Driven Deep Learning for Automatic Modulation Recognition in Cognitive Radios. <i>IEEE Transactions on Vehicular Technology</i> , 2019, 68, 4074-4077.	3.9	498
3	Ultrafine Co Nanoparticles Encapsulated in Carbon Nanotubes Grafted Graphene Sheets as Advanced Electrocatalysts for the Hydrogen Evolution Reaction. <i>Advanced Materials</i> , 2018, 30, e1802011.	11.1	453
4	Materials Design Rules for Multivalent Ion Mobility in Intercalation Structures. <i>Chemistry of Materials</i> , 2015, 27, 6016-6021.	3.2	445
5	Spinel compounds as multivalent battery cathodes: a systematic evaluation based on ab initio calculations. <i>Energy and Environmental Science</i> , 2015, 8, 964-974.	15.6	430
6	A high capacity thiospinel cathode for Mg batteries. <i>Energy and Environmental Science</i> , 2016, 9, 2273-2277.	15.6	349
7	Plant-Symbiotic Fungi as Chemical Engineers: Multi-Genome Analysis of the Clavicipitaceae Reveals Dynamics of Alkaloid Loci. <i>PLoS Genetics</i> , 2013, 9, e1003323.	1.5	344
8	Oriented Transformation of Co-LDH into 2D/3D ZIF-67 to Achieve Co-Ni-C Hybrids for Efficient Overall Water Splitting. <i>Advanced Energy Materials</i> , 2019, 9, 1803918.	10.2	260
9	General Synthesis of Dual Carbon-Confined Metal Sulfides Quantum Dots Toward High-Performance Anodes for Sodium-Ion Batteries. <i>Advanced Functional Materials</i> , 2017, 27, 1702046.	7.8	259
10	Quantum Manifestations of Graphene Edge Stress and Edge Instability: A First-Principles Study. <i>Physical Review Letters</i> , 2009, 102, 166404.	2.9	243
11	Deep Cognitive Perspective: Resource Allocation for NOMA-Based Heterogeneous IoT With Imperfect SIC. <i>IEEE Internet of Things Journal</i> , 2019, 6, 2885-2894.	5.5	208
12	LightAMC: Lightweight Automatic Modulation Classification via Deep Learning and Compressive Sensing. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 3491-3495.	3.9	180
13	Deep Learning-Inspired Message Passing Algorithm for Efficient Resource Allocation in Cognitive Radio Networks. <i>IEEE Transactions on Vehicular Technology</i> , 2019, 68, 641-653.	3.9	156
14	First-principles evaluation of multi-valent cation insertion into orthorhombic V_2O_5 . <i>Chemical Communications</i> , 2015, 51, 13619-13622.	2.2	148
15	High-throughput screening of inorganic compounds for the discovery of novel dielectric and optical materials. <i>Scientific Data</i> , 2017, 4, 160134.	2.4	140
16	Photoluminescence of monolayer MoS_2 on $LaAlO_3$ and $SrTiO_3$ substrates. <i>Nanoscale</i> , 2014, 6, 15248-15254.	2.8	122
17	Evaluation of sulfur spinel compounds for multivalent battery cathode applications. <i>Energy and Environmental Science</i> , 2016, 9, 3201-3209.	15.6	121
18	Comparison study of the luminescent properties of the white-light long afterglow phosphors: $CaMgSi_2O_5:Dy^{3+}$ ($x=1, 2, 3$). <i>Journal of Luminescence</i> , 2009, 129, 531-535.	1.5	115

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19	Is alpha-V ₂ O ₅ a cathode material for Mg insertion batteries?. Journal of Power Sources, 2016, 323, 44-50.	4.0	108
20	Iron-Doping-Induced Phase Transformation in Dual-Carbon-Confined Cobalt Diselenide Enabling Superior Lithium Storage. ACS Nano, 2019, 13, 6113-6124.	7.3	108
21	Two-dimensional dual carbon-coupled defective nickel quantum dots towards highly efficient overall water splitting. Applied Catalysis B: Environmental, 2019, 250, 213-223.	10.8	101
22	Vacancy Occupation-Driven Polymorphic Transformation in Cobalt Ditungstate for Boosted Oxygen Evolution Reaction. ACS Nano, 2020, 14, 6968-6979.	7.3	100
23	Collective magnetic behavior of graphene nanohole superlattices. Nano Research, 2008, 1, 56-62.	5.8	94
24	Tunable electronic coupling of cobalt sulfide/carbon composites for optimizing oxygen evolution reaction activity. Journal of Materials Chemistry A, 2018, 6, 10304-10312.	5.2	86
25	Garnet Electrolyte Surface Degradation and Recovery. ACS Applied Energy Materials, 2018, 1, 7244-7252.	2.5	81
26	Anharmonicity of monolayer MoS ₂ , MoSe ₂ , and WSe ₂ : A Raman study under high pressure and elevated temperature. Applied Physics Letters, 2017, 110, .	1.5	79
27	High-throughput prediction of the ground-state collinear magnetic order of inorganic materials using Density Functional Theory. Npj Computational Materials, 2019, 5, .	3.5	69
28	Rationalizing Perovskite Data for Machine Learning and Materials Design. Journal of Physical Chemistry Letters, 2018, 9, 6948-6954.	2.1	68
29	Taxonomic study of stripe rust, <i>Puccinia striiformis sensu lato</i> , based on molecular and morphological evidence. Fungal Biology, 2010, 114, 881-899.	1.1	67
30	Robust Resource Allocation and Power Splitting in SWIPT Enabled Heterogeneous Networks: A Robust Minimax Approach. IEEE Internet of Things Journal, 2019, 6, 10799-10811.	5.5	59
31	Quantum Electronic Stress: Density-Functional-Theory Formulation and Physical Manifestation. Physical Review Letters, 2012, 109, 055501.	2.9	55
32	UAV-Aided Air-to-Ground Cooperative Nonorthogonal Multiple Access. IEEE Internet of Things Journal, 2020, 7, 2704-2715.	5.5	55
33	Screening Magnetic Two-Dimensional Atomic Crystals with Nontrivial Electronic Topology. Journal of Physical Chemistry Letters, 2018, 9, 6709-6715.	2.1	53
34	Multiple Unmanned-Aerial-Vehicles Deployment and User Pairing for Nonorthogonal Multiple Access Schemes. IEEE Internet of Things Journal, 2021, 8, 1883-1895.	5.5	50
35	Dynamic Hosts for High-Performance Li ⁺ S Batteries Studied by Cryogenic Transmission Electron Microscopy and in Situ X-ray Diffraction. ACS Energy Letters, 2018, 3, 1325-1330.	8.8	47
36	The valence of rare earth ions in R ₂ MgSi ₂ O ₇ :Eu, Dy (R = Ca, Sr) long-afterglow phosphors. Physica Status Solidi A, 2004, 201, 3109-3112.	1.7	45

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37	Utilizing a metal as a sulfur host for high performance Li-S batteries. <i>Nano Energy</i> , 2018, 50, 685-690.	8.2	40
38	Laying the foundation for a taxonomic review of <i>Puccinia coronata</i> s.l. in a phylogenetic context. <i>Mycological Progress</i> , 2013, 12, 63-89.	0.5	37
39	Local Structure of Nanocrystalline Lu ₂ O ₃ :Eu Studied by X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2007, 111, 1945-1950.	1.5	31
40	Nine draft genome sequences of <i>Claviceps purpurea</i> s.lat., including <i>C. arundinis</i> , <i>C. humidiphila</i> , and <i>C. cf. spartinae</i> , pseudomolecules for the pitch canker pathogen <i>Fusarium circinatum</i> , draft genome of <i>Davidsoniella eucalypti</i> , <i>Grosmannia galeiformis</i> , <i>Quambalaria eucalypti</i> , and <i>Teratosphaeria destructans</i> . <i>IMA Fungus</i> , 2018, 9, 401-418.	1.7	31
41	Rust fungi on <i>Panicum</i> . <i>Mycologia</i> , 2017, 109, 1-17.	0.8	30
42	Thickness-dependent phase transition and optical behavior of MoS ₂ films under high pressure. <i>Nano Research</i> , 2018, 11, 855-863.	5.8	30
43	Flat AgTe Honeycomb Monolayer on Ag(111). <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1866-1871.	2.1	28
44	Cross-Layer Resource Allocation for UAV-Assisted Wireless Caching Networks With NOMA. <i>IEEE Transactions on Vehicular Technology</i> , 2021, 70, 3428-3438.	3.9	28
45	Al ₂ O ₃ coated LiCoO ₂ as cathode for high-capacity and long-cycling Li-ion batteries. <i>Chinese Chemical Letters</i> , 2018, 29, 1768-1772.	4.8	27
46	Exploring the sodium ion storage mechanism of gallium sulfide (Ga ₂ S ₃): a combined experimental and theoretical approach. <i>Nanoscale</i> , 2019, 11, 3208-3215.	2.8	24
47	Smoothing-Aided Support Vector Machine Based Nonstationary Video Traffic Prediction Towards 5G Networks. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 7493-7502.	3.9	23
48	In-situ resonant band engineering of solution-processed semiconductors generates high performance n-type thermoelectric nano-inks. <i>Nature Communications</i> , 2020, 11, 2069.	5.8	23
49	Interplay between quantum size effect and strain effect on growth of nanoscale metal thin films. <i>Physical Review B</i> , 2012, 86, .	1.1	22
50	Fast Mg ²⁺ diffusion in Mo ₃ (PO ₄) ₃ O for Mg batteries. <i>Chemical Communications</i> , 2017, 53, 7998-8001.	2.2	22
51	Joint UL/DL Resource Allocation for UAV-Aided Full-Duplex NOMA Communications. <i>IEEE Transactions on Communications</i> , 2021, 69, 8474-8487.	4.9	22
52	Strain-Mediated Interfacial Dynamics during Au@PbS Core@Shell Nanostructure Formation. <i>ACS Nano</i> , 2016, 10, 6235-6240.	7.3	21
53	QoS-Oriented Dynamic Power Allocation in NOMA-Based Wireless Caching Networks. <i>IEEE Wireless Communications Letters</i> , 2021, 10, 82-86.	3.2	19
54	Bistability of Nanoscale Ag Islands on a Si	2.9	17

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55	Semi-Supervised Machine Learning Aided Anomaly Detection Method in Cellular Networks. IEEE Transactions on Vehicular Technology, 2020, 69, 8459-8467.	3.9	17
56	Whole-Genome Comparisons of Ergot Fungi Reveals the Divergence and Evolution of Species within the Genus <i>Claviceps</i> Are the Result of Varying Mechanisms Driving Genome Evolution and Host Range Expansion. Genome Biology and Evolution, 2021, 13, .	1.1	17
57	Electrostatic Estimation of Intercalant Jump-Diffusion Barriers Using Finite-Size Ion Models. Journal of Physical Chemistry Letters, 2018, 9, 628-634.	2.1	16
58	Secrecy Outage Analysis of Transmit Antenna Selection Assisted With Wireless Power Beacon. IEEE Transactions on Vehicular Technology, 2020, 69, 7473-7482.	3.9	15
59	Li ₂ S-Embedded copper metal-organic framework cathode with superior electrochemical performance for Li-S batteries. New Journal of Chemistry, 2018, 42, 13775-13783.	1.4	14
60	Toward Self-Adaptive Selection of Kernel Functions for Support Vector Regression in IoT-Based Marine Data Prediction. IEEE Internet of Things Journal, 2020, 7, 9943-9952.	5.5	14
61	Four phylogenetic species of ergot from Canada and their characteristics in morphology, alkaloid production, and pathogenicity. Mycologia, 2020, 112, 974-988.	0.8	13
62	Phylogeny of Canadian ergot fungi and a detection assay by real-time polymerase chain reaction. Mycologia, 2019, 111, 493-505.	0.8	12
63	Origin of negative thermal expansion in Zn ₂ GeO ₄ revealed by high pressure study. Journal Physics D: Applied Physics, 2018, 51, 095303.	1.3	11
64	Puccinia chunji, a close relative of the cereal stem rusts revealed by molecular phylogeny and morphological study. Mycologia, 2012, 104, 1056-1067.	0.8	10
65	Superconductive materials with MgB_2 -like structures from data-driven screening. Physical Review B, 2022, 105, .		
66	Chemical versus thermal folding of graphene edges. Nano Research, 2011, 4, 1242-1247.	5.8	8
67	A large accessory genome and high recombination rates may influence global distribution and broad host range of the fungal plant pathogen <i>Claviceps purpurea</i> . PLoS ONE, 2022, 17, e0263496.	1.1	8
68	Sympatric divergence of the ergot fungus, <i>Claviceps purpurea</i> , populations infecting agricultural and nonagricultural grasses in North America. Ecology and Evolution, 2021, 11, 273-293.	0.8	7
69	Evolution of the Ergot Alkaloid Biosynthetic Gene Cluster Results in Divergent Mycotoxin Profiles in <i>Claviceps purpurea</i> Sclerotia. Toxins, 2021, 13, 861.	1.5	7
70	Quantum manifestation of elastic constants in nanofilms. Nanotechnology, 2014, 25, 135706.	1.3	6
71	High-Throughput Screening of Element-Doped Carbon Nanotubes Toward an Optimal One-Dimensional Superconductor. Journal of Physical Chemistry Letters, 2021, 12, 6667-6675.	2.1	4
72	Viable substrates for the honeycomb-borophene growth. Physical Review Materials, 2021, 5, .	0.9	4

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73	Mining Indole Alkaloid Synthesis Gene Clusters from Genomes of 53 <i>Claviceps</i> Strains Revealed Redundant Gene Copies and an Approximate Evolutionary Hourglass Model. <i>Toxins</i> , 2021, 13, 799.	1.5	4
74	Tunable metal-insulator transition in Nd _{1-x} Y _x NiO ₃ (x=0.3, 0.4) perovskites thin film at near room temperature. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	3
75	Reconciliation Problem in Polar Integrated Navigation Considering Coordinate Frame Transformation. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 10375-10379.	3.9	3
76	Powdery mildews on crops and ornamentals in Canada: a summary of the phylogeny and taxonomy from 2000 to 2019. <i>Canadian Journal of Plant Pathology</i> , 2022, 44, 191-218.	0.8	3
77	Pressure-induced evolution of structure and electronic property of GeP. <i>Journal of Applied Physics</i> , 2022, 131, .	1.1	3
78	Phylogeny and taxonomy of <i>Podosphaera filipendulae</i> (<i>Erysiphaceae</i>) revisited. <i>Mycoscience</i> , 2021, 62, 390-394.	0.3	2
79	Fungi Canadenses No. 350: <i>EPICHLORÆ GLYCERIAE</i> . <i>Canadian Journal of Plant Pathology</i> , 2021, 43, 855-858.	0.8	1
80	Neotypification of <i>Claviceps humidiphila</i> and recognition of <i>C. bavariensis</i> sp. nov.. <i>Mycotaxon</i> , 2022, 137, 73-87.	0.1	1
81	<i>Claviceps zizaniae</i> . <i>Canadian Journal of Plant Pathology</i> , 2020, 42, 260-264.	0.8	0
82	The 168-year taxonomy of <i>Claviceps</i> in the light of variations: From three morphological species to four sections based on multigene phylogenies. <i>Canadian Journal of Plant Pathology</i> , 2022, 44, 783-792.	0.8	0