

# Mengyu Yan

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7673357/publications.pdf>

Version: 2024-02-01

94  
papers

14,776  
citations

20817

60  
h-index

39675

94  
g-index

95  
all docs

95  
docs citations

95  
times ranked

12171  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quadrupling the stored charge by extending the accessible density of states. <i>CheM</i> , 2022, 8, 2410-2418.	11.7	4
2	Insight into pre-sodiation in Na <sub>3</sub> V <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> F <sub>3</sub> /C @ hard carbon full cells for promoting the development of sodium-ion battery. <i>Chemical Engineering Journal</i> , 2021, 413, 127565.	12.7	38
3	Electrochemically Exfoliating MoS <sub>2</sub> into Atomically Thin Planar Stacking Through a Selective Lateral Reaction Pathway. <i>Advanced Functional Materials</i> , 2021, 31, 2007840.	14.9	23
4	CNTs/LiV <sub>3</sub> O <sub>8</sub> /Y <sub>2</sub> O <sub>3</sub> Composites with Enhanced Electrochemical Performances as Cathode Materials for Rechargeable Solid-State Lithium Metal Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 8219-8228.	8.0	1
5	Unveiling the role of surface P=O group in P-doped Co <sub>3</sub> O <sub>4</sub> for electrocatalytic oxygen evolution by On-chip micro-device. <i>Nano Energy</i> , 2021, 83, 105748.	16.0	46
6	Operando Observation of Structural Evolution and Kinetics of Li[Ni <sub>0.6</sub> Co <sub>0.2</sub> Mn <sub>0.2</sub> ]O <sub>2</sub> at Elevated Temperature. <i>Chemical Research in Chinese Universities</i> , 2020, 36, 690-693.	2.6	3
7	Catalyzing zinc-ion intercalation in hydrated vanadates for aqueous zinc-ion batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 7713-7723.	10.3	84
8	<i>In situ</i> monitoring of the electrochemically induced phase transition of thermodynamically metastable 1T-MoS <sub>2</sub> at nanoscale. <i>Nanoscale</i> , 2020, 12, 9246-9254.	5.6	33
9	Novel Charging-Optimized Cathode for a Fast and High-Capacity Zinc-Ion Battery. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 10420-10427.	8.0	43
10	Reversible V <sup>3+</sup> /V <sup>5+</sup> double redox in lithium vanadium oxide cathode for zinc storage. <i>Energy Storage Materials</i> , 2020, 29, 113-120.	18.0	85
11	Building better zinc-ion batteries: A materials perspective. <i>EnergyChem</i> , 2019, 1, 100022.	19.1	153
12	On-chip micro/nano devices for energy conversion and storage. <i>Nano Today</i> , 2019, 28, 100764.	11.9	33
13	Micro/Nanofabrication and Characterization of Advanced Materials and Devices. <i>Journal of Nanotechnology</i> , 2019, 2019, 1-1.	3.4	0
14	Expanded hydrated vanadate for high-performance aqueous zinc-ion batteries. <i>Energy and Environmental Science</i> , 2019, 12, 2273-2285.	30.8	512
15	Superior Hydrogen Evolution Reaction Performance in 2H-MoS <sub>2</sub> to that of 1T Phase. <i>Small</i> , 2019, 15, e1900964.	10.0	59
16	Illuminating phase transformation dynamics of vanadium oxide cathode by multimodal techniques under operando conditions. <i>Nano Research</i> , 2019, 12, 905-910.	10.4	12
17	Ultrastable and High-Performance Zn/VO <sub>2</sub> Battery Based on a Reversible Single-Phase Reaction. <i>Chemistry of Materials</i> , 2019, 31, 699-706.	6.7	227
18	Pseudocapacitive layered iron vanadate nanosheets cathode for ultrahigh-rate lithium ion storage. <i>Nano Energy</i> , 2018, 47, 294-300.	16.0	87

#	ARTICLE	IF	CITATIONS
19	Highly Durable Na <sub>2</sub> V <sub>6</sub> O <sub>16</sub> ·1.63H <sub>2</sub> O Nanowire Cathode for Aqueous Zinc-Ion Battery. Nano Letters, 2018, 18, 1758-1763.	9.1	568
20	Graphene Scroll-Coated MnO <sub>2</sub> Nanowires as High-Performance Cathode Materials for Aqueous Zn-Ion Battery. Small, 2018, 14, e1703850.	10.0	563
21	Sodium Ion Stabilized Vanadium Oxide Nanowire Cathode for High-Performance Zinc-Ion Batteries. Advanced Energy Materials, 2018, 8, 1702463.	19.5	650
22	±-MoO <sub>3</sub> - by plasma etching with improved capacity and stabilized structure for lithium storage. Nano Energy, 2018, 49, 555-563.	16.0	133
23	MoS <sub>2</sub> /MnO <sub>2</sub> heterostructured nanodevices for electrochemical energy storage. Nano Research, 2018, 11, 2083-2092.	10.4	47
24	Electric field and photoelectrical effect bi-enhanced hydrogen evolution reaction. Nano Research, 2018, 11, 3205-3212.	10.4	17
25	Water-Lubricated Intercalation in V <sub>2</sub> O <sub>5</sub> ·nH <sub>2</sub> O for High-Capacity and High-Rate Aqueous Rechargeable Zinc Batteries. Advanced Materials, 2018, 30, 1703725.	21.0	1,084
26	Nanowires in Energy Storage Devices: Structures, Synthesis, and Applications. Advanced Energy Materials, 2018, 8, 1802369.	19.5	169
27	Separating electronic and ionic conductivity in mix-conducting layered lithium transition-metal oxides. Journal of Power Sources, 2018, 393, 75-82.	7.8	104
28	Ultrathin Surface Coating Enables Stabilized Zinc Metal Anode. Advanced Materials Interfaces, 2018, 5, 1800848.	3.7	476
29	Layered VS <sub>2</sub> Nanosheet-Based Aqueous Zn Ion Battery Cathode. Advanced Energy Materials, 2017, 7, 1601920.	19.5	961
30	Electrochemical in situ X-ray probing in lithium-ion and sodium-ion batteries. Journal of Materials Science, 2017, 52, 3697-3718.	3.7	36
31	Manipulating Adsorption-Insertion Mechanisms in Nanostructured Carbon Materials for High-Efficiency Sodium Ion Storage. Advanced Energy Materials, 2017, 7, 1700403.	19.5	662
32	Thermal Induced Strain Relaxation of 1D Iron Oxide for Solid Electrolyte Interphase Control and Lithium Storage Improvement. Advanced Energy Materials, 2017, 7, 1601582.	19.5	73
33	Field-Effect Tuned Adsorption Dynamics of VSe <sub>2</sub> Nanosheets for Enhanced Hydrogen Evolution Reaction. Nano Letters, 2017, 17, 4109-4115.	9.1	134
34	FeSe <sub>2</sub> clusters with excellent cyclability and rate capability for sodium-ion batteries. Nano Research, 2017, 10, 3202-3211.	10.4	91
35	Carbon-MEMS-Based Alternating Stacked MoS <sub>2</sub> @rGO-CNT Micro-Supercapacitor with High Capacitance and Energy Density. Small, 2017, 13, 1700639.	10.0	132
36	Capacitance and voltage matching between MnO <sub>2</sub> nanoflake cathode and Fe <sub>2</sub> O <sub>3</sub> nanoparticle anode for high-performance asymmetric micro-supercapacitors. Nano Research, 2017, 10, 2471-2481.	10.4	97

#	ARTICLE	IF	CITATIONS
37	Phosphorus Enhanced Intermolecular Interactions of SnO <sub>2</sub> and Graphene as an Ultrastable Lithium Battery Anode. <i>Small</i> , 2017, 13, 1603973.	10.0	87
38	Field Effect Enhanced Hydrogen Evolution Reaction of MoS <sub>2</sub> Nanosheets. <i>Advanced Materials</i> , 2017, 29, 1604464.	21.0	148
39	In Operando Probing of Sodium-Incorporation in NASICON Nanomaterial: Asymmetric Reaction and Electrochemical Phase Diagram. <i>Chemistry of Materials</i> , 2017, 29, 8057-8064.	6.7	18
40	Oxygen evolution reaction dynamics monitored by an individual nanosheet-based electronic circuit. <i>Nature Communications</i> , 2017, 8, 645.	12.8	49
41	Self-assembly synthesis of 3D graphene-encapsulated hierarchical Fe <sub>3</sub> O <sub>4</sub> nano-flower architecture with high lithium storage capacity and excellent rate capability. <i>Journal of Power Sources</i> , 2017, 365, 98-108.	7.8	61
42	High-Performance Aqueous Zinc-Ion Battery Based on Layered H <sub>2</sub> V <sub>3</sub> O <sub>8</sub> Nanowire Cathode. <i>Small</i> , 2017, 13, 1702551.	10.0	455
43	Zn/V <sub>2</sub> O <sub>5</sub> Aqueous Hybrid-Ion Battery with High Voltage Platform and Long Cycle Life. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 42717-42722.	8.0	401
44	Rapid, all dry microfabrication of three-dimensional Co <sub>3</sub> O <sub>4</sub> /Pt nanonetworks for high-performance microsupercapacitors. <i>Nanoscale</i> , 2017, 9, 11765-11772.	5.6	30
45	Activation of Sodium Storage Sites in Prussian Blue Analogues via Surface Etching. <i>Nano Letters</i> , 2017, 17, 4713-4718.	9.1	225
46	Track batteries degrading in real time. <i>Nature</i> , 2017, 546, 469-470.	27.8	98
47	Improved conductivity and capacitance of interdigital carbon microelectrodes through integration with carbon nanotubes for micro-supercapacitors. <i>Nano Research</i> , 2016, 9, 2510-2519.	10.4	73
48	Three dimensional V <sub>2</sub> O <sub>5</sub> /NaV <sub>6</sub> O <sub>15</sub> hierarchical heterostructures: Controlled synthesis and synergistic effect investigated by in situ X-ray diffraction. <i>Nano Energy</i> , 2016, 27, 147-156.	16.0	61
49	In situ characterization of electrochemical processes in one dimensional nanomaterials for energy storages devices. <i>Nano Energy</i> , 2016, 24, 165-188.	16.0	97
50	In operando observation of temperature-dependent phase evolution in lithium-incorporation olivine cathode. <i>Nano Energy</i> , 2016, 22, 406-413.	16.0	31
51	P-doped germanium nanowires with Fano-broadening in Raman spectrum. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2016, 31, 52-57.	1.0	4
52	Self-sacrificed synthesis of three-dimensional Na <sub>3</sub> V <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> nanofiber network for high-rate sodium-ion full batteries. <i>Nano Energy</i> , 2016, 25, 145-153.	16.0	230
53	Pyrolyzed carbon with embedded NiO/Ni nanospheres for applications in microelectrodes. <i>RSC Advances</i> , 2016, 6, 43436-43441.	3.6	37
54	Binding TiO <sub>2</sub> -B nanosheets with N-doped carbon enables highly durable anodes for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8172-8179.	10.3	47

#	ARTICLE	IF	CITATIONS
55	The Capturing of Ionized Oxygen in Sodium Vanadium Oxide Nanorods Cathodes under Operando Conditions. <i>Advanced Functional Materials</i> , 2016, 26, 6555-6562.	14.9	18
56	Cathodic polarization suppressed sodium-ion full cell with a 3.3 V high-voltage. <i>Nano Energy</i> , 2016, 28, 216-223.	16.0	97
57	SnO <sub>2</sub> Quantum Dots@Graphene Oxide as a High-Rate and Long-Life Anode Material for Lithium-Ion Batteries. <i>Small</i> , 2016, 12, 588-594.	10.0	338
58	Integrated Intercalation-Based and Interfacial Sodium Storage in Graphene-Wrapped Porous Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> Nanofibers Composite Aerogel. <i>Advanced Energy Materials</i> , 2016, 6, 1600322.	19.5	141
59	Flexible additive free H <sub>2</sub> V <sub>3</sub> O <sub>8</sub> nanowire membrane as cathode for sodium ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 12074-12079.	2.8	79
60	Graphene Oxide Templated Growth and Superior Lithium Storage Performance of Novel Hierarchical Co <sub>2</sub> V <sub>2</sub> O <sub>7</sub> Nanosheets. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 2812-2818.	8.0	74
61	Single-Nanowire Electrochemical Probe Detection for Internally Optimized Mechanism of Porous Graphene in Electrochemical Devices. <i>Nano Letters</i> , 2016, 16, 1523-1529.	9.1	72
62	Vertically stacked holey graphene/polyaniline heterostructures with enhanced energy storage for on-chip micro-supercapacitors. <i>Nano Research</i> , 2016, 9, 1012-1021.	10.4	39
63	Acetylene Black Induced Heterogeneous Growth of Macroporous CoV <sub>2</sub> O <sub>6</sub> Nanosheet for High-Rate Pseudocapacitive Lithium-Ion Battery Anode. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 7139-7146.	8.0	81
64	Facile synthesis of a Co <sub>3</sub> V <sub>2</sub> O <sub>8</sub> interconnected hollow microsphere anode with superior high-rate capability for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 5075-5080.	10.3	66
65	In Situ Observation and Mechanism Investigation of Lattice Breathing in Vanadium Oxide Cathode. <i>Acta Chimica Sinica</i> , 2016, 74, 582.	1.4	1
66	Graphene Oxide Wrapped Amorphous Copper Vanadium Oxide with Enhanced Capacitive Behavior for High-Rate and Long-Life Lithium-Ion Battery Anodes. <i>Advanced Science</i> , 2015, 2, 1500154.	11.2	114
67	Novel K <sub>3</sub> V <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> /C Bundled Nanowires as Superior Sodium-Ion Battery Electrode with Ultrahigh Cycling Stability. <i>Advanced Energy Materials</i> , 2015, 5, 1500716.	19.5	150
68	Arbitrary Shape Engineerable Spiral Micropseudocapacitors with Ultrahigh Energy and Power Densities. <i>Advanced Materials</i> , 2015, 27, 7476-7482.	21.0	70
69	In Situ Investigation of Li and Na Ion Transport with Single Nanowire Electrochemical Devices. <i>Nano Letters</i> , 2015, 15, 3879-3884.	9.1	61
70	General synthesis of complex nanotubes by gradient electrospinning and controlled pyrolysis. <i>Nature Communications</i> , 2015, 6, 7402.	12.8	370
71	Novel Polygonal Vanadium Oxide Nanoscrolls as Stable Cathode for Lithium Storage. <i>Advanced Functional Materials</i> , 2015, 25, 1773-1779.	14.9	54
72	Interwoven Three-Dimensional Architecture of Cobalt Oxide Nanobrush-Graphene@Ni <sub>x</sub> Co <sub>2-x</sub> (OH) <sub>6-x</sub> for High-Performance Supercapacitors. <i>Nano Letters</i> , 2015, 15, 2037-2044.	9.1	134

#	ARTICLE	IF	CITATIONS
73	Three-Dimensional $\text{LiMnPO}_4 \cdot \text{Li}_3\text{V}_2(\text{PO}_4)_3/\text{C}$ Nanocomposite as a Bicontinuous Cathode for High-Rate and Long-Life Lithium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 17527-17534.	8.0	21
74	$\text{Na}^+$ intercalation pseudocapacitance in graphene-coupled titanium oxide enabling ultra-fast sodium storage and long-term cycling. <i>Nature Communications</i> , 2015, 6, 6929.	12.8	969
75	The Young's modulus of high-aspect-ratio carbon/carbon nanotube composite microcantilevers by experimental and modeling validation. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	45
76	Integrated $\text{SnO}_2$ nanorod array with polypyrrole coverage for high-rate and long-life lithium batteries. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 7619-7623.	2.8	74
77	Interconnected Nanorodsâ€“Nanoflakes $\text{Li}_2\text{Co}_2(\text{MoO}_4)_3$ Framework Structure with Enhanced Electrochemical Properties for Supercapacitors. <i>Advanced Energy Materials</i> , 2015, 5, 1500060.	19.5	42
78	Mesoporous $\text{Li}_3\text{VO}_4/\text{C}$ Submicronâ€“Ellipsoids Supported on Reduced Graphene Oxide as Practical Anode for Highâ€“Power Lithiumâ€“ion Batteries. <i>Advanced Science</i> , 2015, 2, 1500284.	11.2	99
79	Lattice Breathing Inhibited Layered Vanadium Oxide Ultrathin Nanobelts for Enhanced Sodium Storage. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 18211-18217.	8.0	94
80	An electrospun hierarchical $\text{LiV}_3\text{O}_8$ nanowire-in-network for high-rate and long-life lithium batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 19850-19856.	10.3	61
81	Copper Silicate Hydrate Hollow Spheres Constructed by Nanotubes Encapsulated in Reduced Graphene Oxide as Long-Life Lithium-Ion Battery Anode. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 26572-26578.	8.0	82
82	Manganese Oxide/Carbon Yolkâ€“Shell Nanorod Anodes for High Capacity Lithium Batteries. <i>Nano Letters</i> , 2015, 15, 738-744.	9.1	345
83	Nanoflakesâ€“Assembled Threeâ€“Dimensional Hollowâ€“Porous $\text{V}_2\text{O}_5$ as Lithium Storage Cathodes with Highâ€“Rate Capacity. <i>Small</i> , 2014, 10, 3032-3037.	10.0	90
84	Ultrathin pre-lithiated $\text{V}_6\text{O}_{13}$ nanosheet cathodes with enhanced electrical transport and cyclability. <i>Journal of Power Sources</i> , 2014, 255, 235-241.	7.8	78
85	Amorphous Vanadium Oxide Matrixes Supporting Hierarchical Porous $\text{Fe}_3\text{O}_4/\text{Graphene}$ Nanowires as a High-Rate Lithium Storage Anode. <i>Nano Letters</i> , 2014, 14, 6250-6256.	9.1	257
86	Self-adaptive strain-relaxation optimization for high-energy lithium storage material through crumpling of graphene. <i>Nature Communications</i> , 2014, 5, 4565.	12.8	139
87	$\text{VO}_2$ Nanowires Assembled into Hollow Microspheres for High-Rate and Long-Life Lithium Batteries. <i>Nano Letters</i> , 2014, 14, 2873-2878.	9.1	244
88	Novel $\text{Li}_2\text{MnO}_3$ nanowire anode with internal Li-enrichment for use in a Li-ion battery. <i>Nanoscale</i> , 2014, 6, 8124-8129.	5.6	17
89	A Bowknot-like $\text{RuO}_2$ quantum dots@ $\text{V}_2\text{O}_5$ cathode with largely improved electrochemical performance. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 18680-18685.	2.8	17
90	Heterogeneous branched coreâ€“shell $\text{SnO}_2$ â€“PANI nanorod arrays with mechanical integrity and three dimensional electron transport for lithium batteries. <i>Nano Energy</i> , 2014, 8, 196-204.	16.0	140

#	ARTICLE	IF	CITATIONS
91	Wrinkled-graphene enriched MoO <sub>3</sub> nanobelts with increased conductivity and reduced stress for enhanced electrochemical performance. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 17165.	2.8	69
92	Supercritically exfoliated ultrathin vanadium pentoxide nanosheets with high rate capability for lithium batteries. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 16828.	2.8	74
93	V <sub>2</sub> O <sub>5</sub> quantum dots/graphene hybrid nanocomposite with stable cyclability for advanced lithium batteries. <i>Nano Energy</i> , 2013, 2, 916-922.	16.0	76
94	Nanowire Templated Semihollow Bicontinuous Graphene Scrolls: Designed Construction, Mechanism, and Enhanced Energy Storage Performance. <i>Journal of the American Chemical Society</i> , 2013, 135, 18176-18182.	13.7	187