

# Xiangbo Meng

## List of Publications by Citations

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papers

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37  
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69  
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86  
ext. papers

5,380  
ext. citations

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6.12  
L-index

#	Paper	IF	Citations
78	Single-atom Catalysis Using Pt/Graphene Achieved through Atomic Layer Deposition. <i>Scientific Reports</i> , <b>2013</b> , 3,	4.9	589
77	Emerging applications of atomic layer deposition for lithium-ion battery studies. <i>Advanced Materials</i> , <b>2012</b> , 24, 3589-615	24	436
76	Tin Oxide with Controlled Morphology and Crystallinity by Atomic Layer Deposition onto Graphene Nanosheets for Enhanced Lithium Storage. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 1647-1654	15.6	359
75	Superior cycle stability of nitrogen-doped graphene nanosheets as anodes for lithium ion batteries. <i>Electrochemistry Communications</i> , <b>2011</b> , 13, 822-825	5.1	280
74	Significant impact on cathode performance of lithium-ion batteries by precisely controlled metal oxide nanocoatings via atomic layer deposition. <i>Journal of Power Sources</i> , <b>2014</b> , 247, 57-69	8.9	178
73	Ultrathin Lithium-Ion Conducting Coatings for Increased Interfacial Stability in High Voltage Lithium-Ion Batteries. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 3128-3134	9.6	164
72	Atomic layer deposition of metal sulfide materials. <i>Accounts of Chemical Research</i> , <b>2015</b> , 48, 341-8	24.3	145
71	High concentration nitrogen doped carbon nanotube anodes with superior Li <sup>+</sup> storage performance for lithium rechargeable battery application. <i>Journal of Power Sources</i> , <b>2012</b> , 197, 238-245	8.9	138
70	Understanding the high-electrocatalytic performance of two-dimensional MoS <sub>2</sub> nanosheets and their composite materials. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 24540-24563	13	137
69	An overview of molecular layer deposition for organic and organic/inorganic hybrid materials: mechanisms, growth characteristics, and promising applications. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 18326-18378	13	135
68	Atomic layer deposition for nanomaterial synthesis and functionalization in energy technology. <i>Materials Horizons</i> , <b>2017</b> , 4, 133-154	14.4	119
67	Vapor-phase atomic-controllable growth of amorphous Li <sub>2</sub> S for high-performance lithium-sulfur batteries. <i>ACS Nano</i> , <b>2014</b> , 8, 10963-72	16.7	96
66	Controllable synthesis of graphene-based titanium dioxide nanocomposites by atomic layer deposition. <i>Nanotechnology</i> , <b>2011</b> , 22, 165602	3.4	82
65	Atomic Layer Deposition of Li <sub>x</sub> Al <sub>y</sub> S Solid-State Electrolytes for Stabilizing Lithium-Metal Anodes. <i>ChemElectroChem</i> , <b>2016</b> , 3, 858-863	4.3	82
64	Gallium Sulfide/Single-Walled Carbon Nanotube Composites: High-Performance Anodes for Lithium-Ion Batteries. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 5435-5442	15.6	78
63	Effect of interface modifications on voltage fade in 0.5Li <sub>2</sub> MnO <sub>3</sub> /0.5LiNi <sub>0.375</sub> Mn <sub>0.375</sub> Co <sub>0.25</sub> O <sub>2</sub> cathode materials. <i>Journal of Power Sources</i> , <b>2014</b> , 249, 509-514	8.9	74
62	Nitrogen-doped carbon nanotubes coated by atomic layer deposited SnO <sub>2</sub> with controlled morphology and phase. <i>Carbon</i> , <b>2011</b> , 49, 1133-1144	10.4	74

61	Non-Aqueous Approach to Synthesize Amorphous/Crystalline Metal Oxide-Graphene Nanosheet Hybrid Composites. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 18330-18337	3.8	70
60	Surface Modification for Suppressing Interfacial Parasitic Reactions of a Nickel-Rich Lithium-Ion Cathode. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 2723-2730	9.6	68
59	Atomic Layer Deposition of Gallium Sulfide Films Using Hexakis(dimethylamido)digallium and Hydrogen Sulfide. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 1029-1039	9.6	68
58	A general empirical formula of current-voltage characteristics for point-to-plane geometry corona discharges. <i>Journal Physics D: Applied Physics</i> , <b>2008</b> , 41, 065209	3	60
57	Atomic layer deposition derived amorphous TiO <sub>2</sub> thin film decorating graphene nanosheets with superior rate capability. <i>Electrochemistry Communications</i> , <b>2015</b> , 57, 43-47	5.1	54
56	Atomic layer deposition assisted Pt-SnO <sub>2</sub> hybrid catalysts on nitrogen-doped CNTs with enhanced electrocatalytic activities for low temperature fuel cells. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 11085-11092	6.7	53
55	Nanoscale Investigation of Solid Electrolyte Interphase Inhibition on Li-Ion Battery MnO Electrodes via Atomic Layer Deposition of Al <sub>2</sub> O <sub>3</sub> . <i>Chemistry of Materials</i> , <b>2014</b> , 26, 935-940	9.6	50
54	Controllable atomic layer deposition of one-dimensional nanotubular TiO <sub>2</sub> . <i>Applied Surface Science</i> , <b>2013</b> , 266, 132-140	6.7	50
53	Atomic Layer Deposition of Two-Dimensional Layered Materials: Processes, Growth Mechanisms, and Characteristics. <i>Matter</i> , <b>2020</b> , 2, 587-630	12.7	47
52	Atomic Layer Deposition of MnS: Phase Control and Electrochemical Applications. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 2774-80	9.5	47
51	Atomic layer deposited Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> on nitrogen-doped carbon nanotubes. <i>RSC Advances</i> , <b>2013</b> , 3, 7285	3.7	47
50	Tunable core-shell single-walled carbon nanotube-Cu <sub>2</sub> S networked nanocomposites as high-performance cathodes for lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2015</b> , 280, 621-629	8.9	47
49	Atomic-scale surface modifications and novel electrode designs for high-performance sodium-ion batteries via atomic layer deposition. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 10127-10149	13	46
48	Three growth modes and mechanisms for highly structure-tunable SnO <sub>2</sub> nanotube arrays of template-directed atomic layer deposition. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 12321		44
47	Atomic and Molecular Layer Deposition for Superior Lithium-Sulfur Batteries: Strategies, Performance, and Mechanisms. <i>Batteries and Supercaps</i> , <b>2018</b> , 1, 41-68	5.6	43
46	TiSi <sub>2</sub> O <sub>x</sub> Coated N-Doped Carbon Nanotubes as Pt Catalyst Support for the Oxygen Reduction Reaction in PEMFCs. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 15457-15467	3.8	43
45	Achieving High-Performance Silicon Anodes of Lithium-Ion Batteries via Atomic and Molecular Layer Deposited Surface Coatings: an Overview. <i>Electrochimica Acta</i> , <b>2017</b> , 251, 710-728	6.7	42
44	Controlled synthesis of Zirconium Oxide on graphene nanosheets by atomic layer deposition and its growth mechanism. <i>Carbon</i> , <b>2013</b> , 52, 74-82	10.4	42

43	Metallic 1T-MoS <sub>2</sub> nanosheets and their composite materials: Preparation, properties and emerging applications. <i>Materials Today Energy</i> , <b>2018</b> , 10, 264-279	7	39
42	PtSnO <sub>2</sub> /nitrogen-doped CNT hybrid catalysts for proton-exchange membrane fuel cells (PEMFC): Effects of crystalline and amorphous SnO <sub>2</sub> by atomic layer deposition. <i>Journal of Power Sources</i> , <b>2013</b> , 238, 144-149	8.9	37
41	Heterostructural coaxial nanotubes of CNT@Fe <sub>2</sub> O <sub>3</sub> via atomic layer deposition: effects of surface functionalization and nitrogen-doping. <i>Journal of Nanoparticle Research</i> , <b>2011</b> , 13, 1207-1218	2.3	37
40	Lithium Self-Discharge and Its Prevention: Direct Visualization through In Situ Electrochemical Scanning Transmission Electron Microscopy. <i>ACS Nano</i> , <b>2017</b> , 11, 11194-11205	16.7	36
39	Atomic Layer Deposition of Aluminum Sulfide: Growth Mechanism and Electrochemical Evaluation in Lithium-Ion Batteries. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 9043-9052	9.6	35
38	Facile assembly of Ni(OH) <sub>2</sub> nanosheets on nitrogen-doped carbon nanotubes network as high-performance electrocatalyst for oxygen evolution reaction. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 731, 766-773	5.7	34
37	CuS and Cu <sub>2</sub> S as Cathode Materials for Lithium Batteries: A Review. <i>ChemElectroChem</i> , <b>2019</b> , 6, 2825-2840	4.0	34
36	Crystallinity-Controlled Synthesis of Zirconium Oxide Thin Films on Nitrogen-Doped Carbon Nanotubes by Atomic Layer Deposition. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 14656-14664	3.8	32
35	Modifying the Surface of a High-Voltage Lithium-Ion Cathode. <i>ACS Applied Energy Materials</i> , <b>2018</b> , 1, 2254-2260	6.1	31
34	Atomic layer deposition of solid-state electrolytes for next-generation lithium-ion batteries and beyond: Opportunities and challenges. <i>Energy Storage Materials</i> , <b>2020</b> , 30, 296-328	19.4	30
33	Nanoporous tree-like SiO <sub>2</sub> films fabricated by sol-gel assisted electrostatic spray deposition. <i>Microporous and Mesoporous Materials</i> , <b>2012</b> , 151, 488-494	5.3	30
32	Cobalt oxide nanosheets anchored onto nitrogen-doped carbon nanotubes as dual purpose electrodes for lithium-ion batteries and oxygen evolution reaction. <i>International Journal of Energy Research</i> , <b>2018</b> , 42, 853-862	4.5	26
31	Insight into the correlation of Pt-support interactions with electrocatalytic activity and durability in fuel cells. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 9420-9446	13	24
30	A revisit to atomic layer deposition of zinc oxide using diethylzinc and water as precursors. <i>Journal of Materials Science</i> , <b>2019</b> , 54, 5236-5248	4.3	21
29	Electrochemical characterization of voltage fade of Li <sub>1.2</sub> Ni <sub>0.2</sub> Mn <sub>0.6</sub> O <sub>2</sub> cathode. <i>Solid State Ionics</i> , <b>2014</b> , 268, 231-235	3.3	20
28	High-Performance High-Loading Lithium-Sulfur Batteries by Low Temperature Atomic Layer Deposition of Aluminum Oxide on Nanophase S Cathodes. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700096	4.6	19
27	Towards high-energy and durable lithium-ion batteries via atomic layer deposition: elegantly atomic-scale material design and surface modification. <i>Nanotechnology</i> , <b>2015</b> , 26, 020501	3.4	17
26	Characterization of particle size evolution of the deposited layer during electrostatic powder coating processes. <i>Powder Technology</i> , <b>2009</b> , 195, 264-270	5.2	16

25	Influences of different powders on the characteristics of particle charging and deposition in powder coating processes. <i>Journal of Electrostatics</i> , <b>2009</b> , 67, 663-671	1.7	16
24	Unravelling the synergy effects of defect-rich 1T-MoS <sub>2</sub> /carbon nanotubes for the hydrogen evolution reaction by experimental and calculational studies. <i>Sustainable Energy and Fuels</i> , <b>2019</b> , 3, 2100-2110	5.8	15
23	Atomic-scale tuned interface of nickel-rich cathode for enhanced electrochemical performance in lithium-ion batteries. <i>Journal of Materials Science and Technology</i> , <b>2020</b> , 54, 77-86	9.1	15
22	The characteristics of particle charging and deposition during powder coating processes with ultrafine powder. <i>Journal Physics D: Applied Physics</i> , <b>2009</b> , 42, 065201	3	15
21	Atomic Layer Deposition of High-Capacity Anodes for Next-Generation Lithium-Ion Batteries and Beyond. <i>Energy and Environmental Materials</i> , <b>2021</b> , 4, 363-391	13	15
20	Batteries: Tin Oxide with Controlled Morphology and Crystallinity by Atomic Layer Deposition onto Graphene Nanosheets for Enhanced Lithium Storage (Adv. Funct. Mater. 8/2012). <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 1646-1646	15.6	12
19	Spatially Sequential Growth of Various WSi <sub>2</sub> Networked Nanostructures and Mechanisms. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 19189-19194	3.8	12
18	The characteristics of particle charging and deposition during powder coating processes with coarse powder. <i>Journal Physics D: Applied Physics</i> , <b>2008</b> , 41, 195207	3	11
17	Atomic layer deposition of zirconium oxide thin films. <i>Journal of Materials Research</i> , <b>2020</b> , 35, 804-812	2.5	9
16	Atomic and molecular layer deposition in pursuing better batteries. <i>Journal of Materials Research</i> , <b>2021</b> , 36, 2-25	2.5	9
15	Novel nanostructured materials by atomic and molecular layer deposition. <i>AIMS Materials Science</i> , <b>2018</b> , 5, 957-999	1.9	7
14	Nitrogen-doped graphene-wrapped Cu <sub>2</sub> S as a superior anode in sodium-ion batteries. <i>Carbon</i> , <b>2020</b> , 170, 430-438	10.4	7
13	The characteristics of current density distribution during corona charging processes of different particulates. <i>Journal Physics D: Applied Physics</i> , <b>2008</b> , 41, 172007	3	6
12	High-Performance 3D Pinecone-Like LiNi <sub>1/3</sub> Co <sub>1/3</sub> Mn <sub>1/3</sub> O <sub>2</sub> Cathode for Lithium-Ion Batteries. <i>Energy Technology</i> , <b>2019</b> , 7, 1800769	3.5	6
11	Atomic-scale constituting stable interface for improved LiNiMnCoO cathodes of lithium-ion batteries. <i>Nanotechnology</i> , <b>2021</b> , 32, 115401	3.4	5
10	Fabrication and Testing of Bioinspired Surface Designs for Friction Reduction at the Piston Ring and Liner Interface. <i>Journal of Tribology</i> , <b>2021</b> , 143,	1.8	3
9	Molecular Layer Deposition of Crosslinked Polymeric Lithicone for Superior Lithium Metal Anodes. <i>Energy Material Advances</i> , <b>2021</b> , 2021, 1-16	1	3
8	Energy Storage: High-Performance High-Loading Lithium Sulfur Batteries by Low Temperature Atomic Layer Deposition of Aluminum Oxide on Nanophase S Cathodes (Adv. Mater. Interfaces 17/2017). <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4,	4.6	2

7	Atomic and Molecular Layer Deposition for Superior Lithium Sulfur Batteries: Strategies, Performance, and Mechanisms. <i>Batteries and Supercaps</i> , <b>2018</b> , 1, 40-40	5.6	2
6	Atomic layer deposition of lithium zirconium oxides for the improved performance of lithium-ion batteries.. <i>Dalton Transactions</i> , <b>2022</b> ,	4.3	1
5	Fabrication and friction characteristics of arbitrary biosurfaces. <i>Biointerphases</i> , <b>2020</b> , 15, 061016	1.8	1
4	Atomic and molecular layer deposition in pursuing better batteries. <i>Journal of Materials Research</i> , 1-24	2.5	0
3	High-performance LiNi <sub>0.8</sub> Mn <sub>0.1</sub> Co <sub>0.1</sub> O <sub>2</sub> cathode by nanoscale lithium sulfide coating via atomic layer deposition. <i>Journal of Energy Chemistry</i> , <b>2022</b> , 69, 531-540	12	0
2	Synthesis of nanostructured materials via atomic and molecular layer deposition <b>2022</b> ,		
1	Interfacial Stabilization of a Graphene-Wrapped Cu <sub>2</sub> S Anode for High-Performance Sodium-Ion Batteries via Atomic Layer Deposition. <i>Journal of Composites Science</i> , <b>2020</b> , 4, 184	3	