

Jun-Li Song

List of Publications by Year in descending order

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4,161
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87888

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docs citations

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times ranked

5197
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#	ARTICLE	IF	CITATIONS
1	Gallium-Doped $\text{Li}_{7-x}\text{La}_3\text{Zr}_2\text{O}_{12}$ Garnet-Type Electrolytes with High Lithium-Ion Conductivity. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 1542-1552.	8.0	266
2	Photonic Potentiation and Electric Habituation in Ultrathin Memristive Synapses Based on Monolayer MoS_2 . <i>Small</i> , 2018, 14, e1800079.	10.0	224
3	Synaptic Metaplasticity Realized in Oxide Memristive Devices. <i>Advanced Materials</i> , 2016, 28, 377-384.	21.0	210
4	Synaptic Suppression Triple- σ STDP Learning Rule Realized in Second-Order Memristors. <i>Advanced Functional Materials</i> , 2018, 28, 1704455.	14.9	183
5	Garnet-Type Fast Li-Ion Conductors with High Ionic Conductivities for All-Solid-State Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 12461-12468.	8.0	179
6	MOF-derived nanoporous multifunctional fillers enhancing the performances of polymer electrolytes for solid-state lithium batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2653-2659.	10.3	160
7	In Situ Formed Shields Enabling Li_2CO_3 -Free Solid Electrolytes: A New Route to Uncover the Intrinsic Lithiophilicity of Garnet Electrolytes for Dendrite-Free Li-Metal Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 898-905.	8.0	147
8	Ultraviolet photocatalytic degradation of methyl orange by nanostructured TiO_2/ZnO heterojunctions. <i>Journal of Materials Chemistry A</i> , 2015, 3, 6565-6574.	10.3	141
9	Memristive Synapses with Photoelectric Plasticity Realized in ZnO/AlO_x Heterojunction. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 6463-6470.	8.0	120
10	Hierarchical and Hollow Fe_2O_3 Nanoboxes Derived from Metal-Organic Frameworks with Excellent Sensitivity to H_2S . <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 29669-29676.	8.0	118
11	NO sensing by single crystalline WO_3 nanowires. <i>Sensors and Actuators B: Chemical</i> , 2015, 219, 346-353.	7.8	110
12	Origin of the low grain boundary conductivity in lithium ion conducting perovskites: $\text{Li}_{3-x}\text{La}_{0.67x}\text{TiO}_3$. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 5880-5887.	2.8	100
13	Nanostructured Metal-Organic Framework (MOF)-Derived Solid Electrolytes Realizing Fast Lithium Ion Transportation Kinetics in Solid-State Batteries. <i>Small</i> , 2019, 15, e1804413.	10.0	93
14	Three-Dimensional Garnet Framework-Reinforced Solid Composite Electrolytes with High Lithium-Ion Conductivity and Excellent Stability. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 26920-26927.	8.0	87
15	Quasi-Hodgkin-Huxley Neurons with Leaky Integrate-and-Fire Functions Physically Realized with Memristive Devices. <i>Advanced Materials</i> , 2019, 31, e1803849.	21.0	87
16	Bio-inspired high-performance solid-state supercapacitors with the electrolyte, separator, binder and electrodes entirely from <i>kelp</i> . <i>Journal of Materials Chemistry A</i> , 2017, 5, 25282-25292.	10.3	85
17	Printable Zinc-Ion Hybrid Micro-Capacitors for Flexible Self-Powered Integrated Units. <i>Nano-Micro Letters</i> , 2021, 13, 19.	27.0	81
18	Hierarchical porous microspheres of activated carbon with a high surface area from spores for electrochemical double-layer capacitors. <i>Journal of Materials Chemistry A</i> , 2016, 4, 15968-15979.	10.3	80

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19	Silver@Quantum-Dot-Modified MoO ₃ and MnO ₂ Paper-Like Freestanding Films for Flexible Solid-State Asymmetric Supercapacitors. <i>Small</i> , 2019, 15, e1805235.	10.0	79
20	Lotus pollen derived 3-dimensional hierarchically porous NiO microspheres for NO ₂ gas sensing. <i>Sensors and Actuators B: Chemical</i> , 2016, 227, 554-560.	7.8	77
21	Artificial Intelligence to Power the Future of Materials Science and Engineering. <i>Advanced Intelligent Systems</i> , 2020, 2, 1900143.	6.1	75
22	Electrospun Ni-doped SnO ₂ nanofiber array for selective sensing of NO ₂ . <i>Sensors and Actuators B: Chemical</i> , 2017, 244, 509-521.	7.8	72
23	Bienenstock, Cooper, and Munro Learning Rules Realized in Second-Order Memristors with Tunable Forgetting Rate. <i>Advanced Functional Materials</i> , 2019, 29, 1807316.	14.9	60
24	Hydrothermal degradation mechanism of tetragonal Zirconia. <i>Journal of Materials Science</i> , 2001, 36, 3737-3744.	3.7	59
25	<i>In situ</i> thermally polymerized solid composite electrolytes with a broad electrochemical window for all-solid-state lithium metal batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 3892-3900.	10.3	59
26	Effects of potassium iodide (KI) on crystallinity, thermal stability, and electrical properties of polymer blend electrolytes (PVC/PEO:KI). <i>Solid State Ionics</i> , 2015, 278, 260-267.	2.7	57
27	Hierarchical flowerlike WO ₃ nanostructures assembled by porous nanoflakes for enhanced NO gas sensing. <i>Sensors and Actuators B: Chemical</i> , 2017, 246, 225-234.	7.8	57
28	Inorganic Solid Electrolytes for All-Solid-State Sodium Batteries: Fundamentals and Strategies for Battery Optimization. <i>Advanced Functional Materials</i> , 2021, 31, 2008165.	14.9	55
29	Molybdenum trioxide nanopaper as a dual gas sensor for detecting trimethylamine and hydrogen sulfide. <i>RSC Advances</i> , 2017, 7, 3680-3685.	3.6	52
30	3D Porous Hierarchical Microspheres of Activated Carbon from Nature through Nanotechnology for Electrochemical Double-Layer Capacitors. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 6463-6472.	6.7	51
31	An artificial olfactory inference system based on memristive devices. <i>Informa-Ån-Å-Materi-Åly</i> , 2021, 3, 804-813.	17.3	50
32	Pavlovian conditioning demonstrated with neuromorphic memristive devices. <i>Scientific Reports</i> , 2017, 7, 713.	3.3	49
33	Detecting low concentration of H ₂ S gas by BaTiO ₃ nanoparticle-based sensors. <i>Sensors and Actuators B: Chemical</i> , 2017, 238, 16-23.	7.8	48
34	Multi-gate memristive synapses realized with the lateral heterostructure of 2D WSe ₂ and WO ₃ . <i>Nanoscale</i> , 2020, 12, 380-387.	5.6	47
35	Single crystalline flowerlike $\hat{\pm}$ -MoO ₃ nanorods and their application as anode material for lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2016, 687, 79-86.	5.5	44
36	Near room temperature CO sensing by mesoporous LaCoO ₃ nanowires functionalized with Pd nanodots. <i>Sensors and Actuators B: Chemical</i> , 2016, 222, 517-524.	7.8	44

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37	NO ₂ sensing properties of SmFeO ₃ porous hollow microspheres. Sensors and Actuators B: Chemical, 2018, 265, 443-451.	7.8	41
38	Gigantically enhanced NO sensing properties of WO ₃ /SnO ₂ double layer sensors with Pd decoration. Sensors and Actuators B: Chemical, 2015, 220, 398-405.	7.8	40
39	Flexible and transparent sensors for ultra-low NO ₂ detection at room temperature under visible light illumination. Journal of Materials Chemistry A, 2020, 8, 14482-14490.	10.3	39
40	Artificial Neural Networks Based on Memristive Devices: From Device to System. Advanced Intelligent Systems, 2020, 2, 2000149.	6.1	39
41	Cadmium removal in waste water by nanostructured TiO ₂ particles. Journal of Materials Chemistry A, 2014, 2, 13932-13941.	10.3	37
42	Mimicking the brain functions of learning, forgetting and explicit/implicit memories with SrTiO ₃ -based memristive devices. Physical Chemistry Chemical Physics, 2016, 18, 31796-31802.	2.8	36
43	Bio-templated fabrication of hierarchically porous WO ₃ microspheres from lotus pollens for NO gas sensing at low temperatures. RSC Advances, 2015, 5, 29428-29432.	3.6	31
44	LaCoO ₃ -based sensors with high sensitivity to carbon monoxide. RSC Advances, 2015, 5, 65668-65673.	3.6	31
45	Determination of electronic and ionic partial conductivities of a grain boundary: method and application to acceptor-doped SrTiO ₃ . Solid State Ionics, 2002, 154-155, 563-569.	2.7	27
46	LaFeO ₃ porous hollow micro-spindles for NO ₂ sensing. Ceramics International, 2019, 45, 5240-5248.	4.8	25
47	Hybrid electrolytes with an ultrahigh Li-ion transference number for lithium-metal batteries with fast and stable charge/discharge capability. Journal of Materials Chemistry A, 2021, 9, 18239-18246.	10.3	25
48	Self-Healing Polymer Electrolyte for Dendrite-Free Li Metal Batteries with Ultra-High Voltage Ni-Rich Layered Cathodes. Small, 2022, 18, e2200891.	10.0	23
49	Defect Structure Modification in Zirconia by Alumina. Physica Status Solidi A, 2001, 183, 261-271.	1.7	22
50	Oxygen sensors based on SrTi _{0.65} Fe _{0.35} O _{3-δ} thick film with MgO diffusion barrier for automotive emission control. Sensors and Actuators B: Chemical, 2015, 213, 102-110.	7.8	19
51	Characteristics and sensing properties of CO gas sensors based on LaCo _{1-x} Fe _x O ₃ nanoparticles. Solid State Ionics, 2017, 303, 97-102.	2.7	19
52	Behavioral Plasticity Emulated with Lithium Lanthanum Titanate-Based Memristive Devices: Habituation. Advanced Electronic Materials, 2017, 3, 1700046.	5.1	19
53	A Bio-Inspired Neuromorphic Sensory System. Advanced Intelligent Systems, 2022, 4, .	6.1	18
54	CO sensing mechanism of LaCoO ₃ . Solid State Ionics, 2015, 272, 155-159.	2.7	17

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55	Integrated interface between composite electrolyte and cathode with low resistance enables ultra-long cycle-lifetime in solid-state lithium-metal batteries. <i>Science China Chemistry</i> , 2021, 64, 673-680.	8.2	16
56	A New Lithium-Ion Conductor LiTaSiO_5 : Theoretical Prediction, Materials Synthesis, and Ionic Conductivity. <i>Advanced Functional Materials</i> , 2019, 29, 1904232.	14.9	15
57	Single crystalline SrTiO_3 as memristive model system: From materials science to neurological and psychological functions. <i>Journal of Electroceramics</i> , 2017, 39, 210-222.	2.0	14
58	Electroforming-Free Artificial Synapses Based on Proton Conduction in La_2MoO_3 Films. <i>Advanced Electronic Materials</i> , 2020, 6, 1901290.	5.1	14
59	Synthesis and characterization of one-dimensional metal oxides: TiO_2 , CeO_2 , Y_2O_3 -stabilized ZrO_2 and SrTiO_3 . <i>Ceramics International</i> , 2015, 41, 533-545.	4.8	13
60	$\text{SrTi}_{0.65}\text{Fe}_{0.35}\text{O}_3$ nanofibers for oxygen sensing. <i>Solid State Ionics</i> , 2015, 278, 26-31.	2.7	11
61	Hierarchically-structured MnFe_2O_4 nanospheres for highly sensitive detection of NO_2 . <i>Solid State Ionics</i> , 2019, 336, 102-109.	2.7	11
62	Oxygen pump based on stabilized zirconia. <i>Review of Scientific Instruments</i> , 2015, 86, 115103.	1.3	9
63	Ultraviolet-Cured Semi-Interpenetrating Network Polymer Electrolytes for High-Performance Quasi-Solid-State Lithium Metal Batteries. <i>Chemistry - A European Journal</i> , 2021, 27, 7773-7780.	3.3	8
64	Light-excited chemiresistive sensors integrated on LED microchips. <i>Journal of Materials Chemistry A</i> , 2021, 9, 16545-16553.	10.3	7
65	Insulator-to-semiconductor transition of nanocrystalline BaTiO_3 at temperatures ≈ 200 $^\circ\text{C}$. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 20420-20423.	2.8	6
66	Morphology engineering of nanostructured TiO_2 particles. <i>RSC Advances</i> , 2015, 5, 6481-6488.	3.6	5
67	Memristive Devices with Multiple Resistance States Based on the Migration of Protons in $\text{La}_2\text{MoO}_3/\text{SrCoO}_{2.5}$ Stacks. <i>Advanced Electronic Materials</i> , 2021, 7, 2001243.	5.1	5
68	Solid Electrolytes: A New Lithium-Ion Conductor LiTaSiO_5 : Theoretical Prediction, Materials Synthesis, and Ionic Conductivity (<i>Adv. Funct. Mater.</i> 37/2019). <i>Advanced Functional Materials</i> , 2019, 29, 1970253.	14.9	4
69	Artificial Intelligence to Power the Future of Materials Science and Engineering. <i>Advanced Intelligent Systems</i> , 2020, 2, 2070042.	6.1	3
70	A Pressure Responsive Artificial Interphase Layer of BaTiO_3 against Dendrite Growth for Stable Lithium Metal Anodes. <i>Batteries and Supercaps</i> , 2022, 5, .	4.7	3
71	Proof of Concept for Operando Infrared Spectroscopy Investigation of Light-Excited Metal Oxide-Based Gas Sensors. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 3631-3635.	4.6	2
72	Structure and magnetic properties of highly oriented $\text{LaBaCo}_2\text{O}_5$ films deposited on Si wafers with Pt/Ti buffer layer. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 22390-22395.	2.8	1

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73	Artificial Neurons: Quasi-Hodgkin-Huxley Neurons with Leaky Integrate-and-Fire Functions Physically Realized with Memristive Devices (Adv. Mater. 3/2019). Advanced Materials, 2019, 31, 1970020.	21.0	0
74	Single-Ion Magnetostriction in Gd ₂ O ₃ -CeO ₂ Solid Solutions. Advanced Functional Materials, 0, , 2110509.	14.9	0