

Xujie Lu

List of Publications by Year in descending order

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107
papers

8,498
citations

50170

46
h-index

43802

91
g-index

110
all docs

110
docs citations

110
times ranked

12048
citing authors

#	ARTICLE	IF	CITATIONS
1	Aqueous Li-ion battery enabled by halogen conversion ⁺ intercalation chemistry in graphite. <i>Nature</i> , 2019, 569, 245-250.	13.7	590
2	Improved ⁺ Performance Dye ⁺ Sensitized Solar Cells Using Nb ⁺ Doped TiO ₂ Electrodes: Efficient Electron Injection and Transfer. <i>Advanced Functional Materials</i> , 2010, 20, 509-515.	7.8	512
3	Hybrid Polymer/Garnet Electrolyte with a Small Interfacial Resistance for Lithium ⁺ Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 753-756.	7.2	449
4	Low-Cost High-Energy Potassium Cathode. <i>Journal of the American Chemical Society</i> , 2017, 139, 2164-2167.	6.6	446
5	Core-Shell Nanostructured ⁺ Black ⁺ Rutile Titania as Excellent Catalyst for Hydrogen Production Enhanced by Sulfur Doping. <i>Journal of the American Chemical Society</i> , 2013, 135, 17831-17838.	6.6	425
6	Effective nonmetal incorporation in black titania with enhanced solar energy utilization. <i>Energy and Environmental Science</i> , 2014, 7, 967.	15.6	376
7	Pressure-Induced Phase Transformation, Reversible Amorphization, and Anomalous Visible Light Response in Organolead Bromide Perovskite. <i>Journal of the American Chemical Society</i> , 2015, 137, 11144-11149.	6.6	303
8	Mastering the interface for advanced all-solid-state lithium rechargeable batteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 13313-13317.	3.3	237
9	Na _x MV(PO ₄) ₃ (M = Mn, Fe, Ni) Structure and Properties for Sodium Extraction. <i>Nano Letters</i> , 2016, 16, 7836-7841.	4.5	229
10	Fluorine ⁺ Doped Antiperovskite Electrolyte for All ⁺ Solid ⁺ State Lithium ⁺ Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 9965-9968.	7.2	192
11	Durable and Efficient Hollow Porous Oxide Spinel Microspheres for Oxygen Reduction. <i>Joule</i> , 2018, 2, 337-348.	11.7	189
12	Enhanced Structural Stability and Photo Responsiveness of CH ₃ NH ₃ Sn ₃ Perovskite via Pressure ⁺ Induced Amorphization and Recrystallization. <i>Advanced Materials</i> , 2016, 28, 8663-8668.	11.1	176
13	Black brookite titania with high solar absorption and excellent photocatalytic performance. <i>Journal of Materials Chemistry A</i> , 2013, 1, 9650.	5.2	175
14	Phase-Controlled Synthesis of Cobalt Sulfides for Lithium Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 4246-4250.	4.0	165
15	Antiperovskite Li ₃ OCl Superionic Conductor Films for Solid ⁺ State Li ⁺ Ion Batteries. <i>Advanced Science</i> , 2016, 3, 1500359.	5.6	162
16	Core ⁺ shell structured hollow SnO ₂ ⁺ polypyrrole nanocomposite anodes with enhanced cyclic performance for lithium-ion batteries. <i>Nano Energy</i> , 2014, 6, 73-81.	8.2	160
17	Enhanced Electron Transport in Nb-Doped TiO ₂ Nanoparticles via Pressure-Induced Phase Transitions. <i>Journal of the American Chemical Society</i> , 2014, 136, 419-426.	6.6	151
18	Li-rich anti-perovskite Li ₃ OCl films with enhanced ionic conductivity. <i>Chemical Communications</i> , 2014, 50, 11520-11522.	2.2	130

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19	Graphene/Fe ₂ O ₃ /SnO ₂ Ternary Nanocomposites as a High-Performance Anode for Lithium Ion Batteries. ACS Applied Materials & Interfaces, 2013, 5, 8607-8614.	4.0	129
20	Green Emitting Single-Crystalline Bulk Assembly of Metal Halide Clusters with Near-Unity Photoluminescence Quantum Efficiency. ACS Energy Letters, 2019, 4, 1579-1583.	8.8	117
21	Treatment of wastewater containing azo dye reactive brilliant red X-3B using sequential ozonation and upflow biological aerated filter process. Journal of Hazardous Materials, 2009, 161, 241-245.	6.5	110
22	Reaching 90% Photoluminescence Quantum Yield in One-Dimensional Metal Halide C ₄ N ₂ H ₁₄ PbBr ₄ by Pressure-Suppressed Nonradiative Loss. Journal of the American Chemical Society, 2020, 142, 16001-16006.	6.6	109
23	A General Preparation Strategy for Hybrid TiO ₂ Hierarchical Spheres and Their Enhanced Solar Energy Utilization Efficiency. Advanced Materials, 2010, 22, 3719-3722.	11.1	103
24	Textile wastewater reuse as an alternative water source for dyeing and finishing processes: A case study. Desalination, 2010, 258, 229-232.	4.0	100
25	Large-scale preparation of highly conductive three dimensional graphene and its applications in CdTe solar cells. Journal of Materials Chemistry, 2011, 21, 17366.	6.7	96
26	Antiperovskites with Exceptional Functionalities. Advanced Materials, 2020, 32, e1905007.	11.1	93
27	Improved visible-light photocatalysis of nano-Bi ₂ Sn ₂ O ₇ with dispersed s-bands. Journal of Materials Chemistry, 2011, 21, 3872.	6.7	92
28	Conducting Interface in Oxide Homojunction: Understanding of Superior Properties in Black TiO ₂ . Nano Letters, 2016, 16, 5751-5755.	4.5	92
29	Reaction mechanism studies towards effective fabrication of lithium-rich anti-perovskites Li ₃ OX (X=) Tj ETQq1 1 0.784314 rgBT /Overlo 1.3 839	11.1	92
30	In situ growth of a MoSe ₂ /Mo counter electrode for high efficiency dye-sensitized solar cells. Chemical Communications, 2014, 50, 4475-4477.	2.2	80
31	Enhanced Photocurrent of All-Inorganic Two-Dimensional Perovskite Cs ₂ PbI ₂ Cl ₂ via Pressure-Regulated Excitonic Features. Journal of the American Chemical Society, 2021, 143, 2545-2551.	6.6	79
32	Treatment of wastewater containing Reactive Brilliant Blue KN-R using TiO ₂ /BC composite as heterogeneous photocatalyst and adsorbent. Chemosphere, 2018, 206, 777-783.	4.2	76
33	Pressure-induced dramatic changes in organic-inorganic halide perovskites. Chemical Science, 2017, 8, 6764-6776.	3.7	74
34	Hybrid Polymer/Garnet Electrolyte with a Small Interfacial Resistance for Lithium-ion Batteries. Angewandte Chemie, 2017, 129, 771-774.	1.6	72
35	Pressure-suppressed Carrier Trapping Leads to Enhanced Emission in Two-Dimensional Perovskite (HA) ₂ (GA)Pb ₂ I ₇ . Angewandte Chemie - International Edition, 2020, 59, 17533-17539.	7.2	71
36	Pressure-Induced Amorphization in Single-Crystal Ta ₂ O ₅ Nanowires: A Kinetic Mechanism and Improved Electrical Conductivity. Journal of the American Chemical Society, 2013, 135, 13947-13953.	6.6	70

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37	Regulating off-centering distortion maximizes photoluminescence in halide perovskites. National Science Review, 2021, 8, nwa288.	4.6	70
38	Low-temperature rapid synthesis of high-quality pristine or boron-doped graphene via Wurtz-type reductive coupling reaction. Journal of Materials Chemistry, 2011, 21, 10685.	6.7	68
39	Heat transport enhancement of thermal energy storage material using graphene/ceramic composites. Carbon, 2014, 75, 314-321.	5.4	65
40	Regulating Exciton-Phonon Coupling to Achieve a Near-Unity Photoluminescence Quantum Yield in One-Dimensional Hybrid Metal Halides. Advanced Science, 2021, 8, e2100786.	5.6	61
41	One-Step High-Temperature Solvothermal Synthesis of TiO ₂ /Sulfide Nanocomposite Spheres and Their Solar Visible-Light Applications. ACS Applied Materials & Interfaces, 2012, 4, 306-311.	4.0	60
42	Reuse of printing and dyeing wastewater in processes assessed by pilot-scale test using combined biological process and sub-filter technology. Journal of Cleaner Production, 2009, 17, 111-114.	4.6	59
43	Pressure responses of halide perovskites with various compositions, dimensionalities, and morphologies. Matter and Radiation at Extremes, 2020, 5, .	1.5	58
44	Short O-O separation in layered oxide Na _{0.67} CoO ₂ enables an ultrafast oxygen evolution reaction. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23473-23479.	3.3	52
45	Crystallinity control on photocatalysis and photoluminescence of TiO ₂ -based nanoparticles. Journal of Alloys and Compounds, 2010, 496, 234-240.	2.8	51
46	Dielectric Constant Controlled Solvothermal Synthesis of a TiO ₂ Photocatalyst with Tunable Crystallinity: A Strategy for Solvent Selection. European Journal of Inorganic Chemistry, 2009, 2009, 2789-2795.	1.0	49
47	Enhanced ionic conductivity with Li ₇ O ₂ Br ₃ phase in Li ₃ OBr anti-perovskite solid electrolyte. Applied Physics Letters, 2016, 109, .	1.5	48
48	Novel antimonate photocatalysts MSb ₂ O ₆ (M = Ca, Sr and Ba): a correlation between packing factor and photocatalytic activity. Physical Chemistry Chemical Physics, 2009, 11, 10047.	1.3	47
49	Mesoporous hollow TiO ₂ microspheres with enhanced photoluminescence prepared by a smart amino acid template. Journal of Materials Chemistry, 2011, 21, 4888.	6.7	46
50	Ta ₂ O ₅ Nanowires: a novel synthetic method and their solar energy utilization. Dalton Transactions, 2012, 41, 622-627.	1.6	42
51	Defect Perovskites under Pressure: Structural Evolution of Cs ₂ SnX ₆ (X = Cl, I) <small>TJ ETQq1 1 0.784314 rgBT /Over</small>	1.5	42
52	Colored titania nanocrystals and excellent photocatalysis for water cleaning. Catalysis Communications, 2015, 60, 55-59.	1.6	41
53	Intelligent Hydrated-Sulfate Template Assisted Preparation of Nanoporous TiO ₂ Spheres and Their Visible-Light Application. ACS Applied Materials & Interfaces, 2011, 3, 566-572.	4.0	40
54	A one-pot method to grow pyrochlore H ₄ Nb ₂ O ₇ -octahedron-based photocatalyst. Journal of Materials Chemistry, 2010, 20, 1942.	6.7	38

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55	Directional architecture of graphene/ceramic composites with improved thermal conduction for thermal applications. <i>Journal of Materials Chemistry A</i> , 2014, 2, 2187-2193.	5.2	38
56	Understanding Electron-Phonon Interactions in 3D Lead Halide Perovskites from the Stereochemical Expression of Lone Pairs. <i>Journal of the American Chemical Society</i> , 2022, 144, 12247-12260.	6.6	38
57	Chemistry Design Towards a Stable Sulfide-Based Superionic Conductor $\text{Li}_4\text{Cu}_8\text{Ge}_3\text{S}_{12}$. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 7673-7677.	7.2	37
58	Pressure-Regulated Dynamic Stereochemical Role of Lone-Pair Electrons in Layered $\text{Bi}_2\text{O}_2\text{S}$. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9702-9707.	2.1	37
59	Highly tunable properties in pressure-treated two-dimensional Dion-Jacobson perovskites. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 16121-16126.	3.3	35
60	Adsorption and photooxidation of pharmaceuticals and personal care products on clay minerals. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2011, 104, 61-73.	0.8	34
61	Biomolecule-Assisted Route to Prepare Titania Mesoporous Hollow Structures. <i>Chemistry - A European Journal</i> , 2011, 17, 11535-11541.	1.7	34
62	Evolution of microstructure, strain and physical properties in oxide nanocomposite films. <i>Scientific Reports</i> , 2014, 4, 5426.	1.6	33
63	The production of large bilayer hexagonal graphene domains by a two-step growth process of segregation and surface-catalytic chemical vapor deposition. <i>Carbon</i> , 2012, 50, 2703-2709.	5.4	30
64	Non-Aqueous Preparation of High-Crystallinity Hierarchical TiO_2 Hollow Spheres with Excellent Photocatalytic Efficiency. <i>European Journal of Inorganic Chemistry</i> , 2011, 2011, 2879-2883.	1.0	29
65	New facile synthesis of TiO_2 hollow sphere with an opening hole and its enhanced rate performance in lithium-ion batteries. <i>New Journal of Chemistry</i> , 2013, 37, 784.	1.4	29
66	Fluorine-Doped Antiperovskite Electrolyte for All-Solid-State Lithium-Ion Batteries. <i>Angewandte Chemie</i> , 2016, 128, 10119-10122.	1.6	29
67	In-situ investigation of pressure effect on structural evolution and conductivity of Na_3SbS_4 superionic conductor. <i>Journal of Power Sources</i> , 2018, 401, 111-116.	4.0	26
68	Pressure-Suppressed Carrier Trapping Leads to Enhanced Emission in Two-Dimensional Perovskite $(\text{HA})_2(\text{GA})\text{Pb}_2\text{I}_7$. <i>Angewandte Chemie</i> , 2020, 132, 17686-17692.	1.6	26
69	Bulk moduli and high pressure crystal structure of U_3Si_2 . <i>Journal of Nuclear Materials</i> , 2019, 523, 135-142.	1.3	23
70	Oxygen vacancy-driven evolution of structural and electrical properties in SrFeO_3 thin films and a method of stabilization. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	21
71	Oxygen content tailored magnetic and electronic properties in cobaltite double perovskite thin films. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	21
72	One-pot synthesis of BiSbO_4 nanophotocatalyst with enhanced visible-light performance. <i>CrystEngComm</i> , 2011, 13, 3920.	1.3	20

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73	Hidden Interface Driven Exchange Coupling in Oxide Heterostructures. <i>Advanced Materials</i> , 2017, 29, 1700672.	11.1	19
74	Excellent Carrier Transport Property of Hybrid Perovskites Sustained under High Pressures. <i>ACS Energy Letters</i> , 2022, 7, 154-161.	8.8	17
75	Room-temperature ferromagnetism in Ti1 α ~V O2 nanocrystals synthesized from an organic-free and water-soluble precursor. <i>Journal of Alloys and Compounds</i> , 2010, 499, 160-165.	2.8	16
76	Phase transition mechanism and bandgap engineering of Sb2S3 at gigapascal pressures. <i>Communications Chemistry</i> , 2021, 4, .	2.0	16
77	Pressure-induced large enhancement of N α Oel temperature and electric polarization in the hexagonal multiferroic $L\text{u}^2\text{U}_2\text{S}_3$. <i>Journal of Applied Physics</i> , 2022, 132, 084101.	1.1	15
78	Visualizing Light-Induced Microstrain and Phase Transition in Lead-Free Perovskites Using Time-Resolved X-Ray Diffraction. <i>Journal of the American Chemical Society</i> , 2022, 144, 5335-5341.	6.6	15
79	Suppression of superconductivity and structural phase transitions under pressure in tetragonal FeS. <i>Scientific Reports</i> , 2016, 6, 31077.	1.6	14
80	Synthesis of Two-Dimensional CsPb $_{2-x}$ X $_{5-x}$ (X = Br and I) with a Stable Structure and Tunable Bandgap by CsPbX $_{3-x}$ Phase Separation. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 2555-2562.	2.1	14
81	One-Step Hydrothermal Synthesis of High-Performance Gas-Sensing Crystals CdIn $_{2-x}$ O $_{4-x}$ with Octahedral Shape. <i>Crystal Growth and Design</i> , 2012, 12, 4104-4108.	1.4	13
82	Enhanced ionic conductivity of sulfide-based solid electrolyte by incorporating lanthanum sulfide. <i>Ceramics International</i> , 2014, 40, 15497-15501.	2.3	13
83	TiO $_{2-x}$ nanotubes grown on graphene sheets as advanced anode materials for high rate lithium ion batteries. <i>RSC Advances</i> , 2014, 4, 36372.	1.7	13
84	Pressure-induced Lifshitz transition in the type II Dirac semimetal PtTe2. <i>Science China: Physics, Mechanics and Astronomy</i> , 2019, 62, 1.	2.0	13
85	Pressure-induced robust emission in a zero-dimensional hybrid metal halide (C9NH20)6Pb3Br12. <i>Matter and Radiation at Extremes</i> , 2021, 6, .	1.5	13
86	Treatment of Azo Dye-Containing Wastewater Using Integrated Processes. <i>Handbook of Environmental Chemistry</i> , 2010, , 133-155.	0.2	12
87	CuIn(S,Se)2 thin films prepared from a novel thioacetic acid-based solution and their photovoltaic application. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 7548.	1.3	10
88	TiO $_{2-x}$ -Based Nanomaterials for Advanced Environmental and Energy-Related Applications. <i>Journal of Nanomaterials</i> , 2016, 2016, 1-3.	1.5	9
89	Pressure-enhanced interplay between lattice, spin, and charge in the mixed perovskite La2FeMnO6. <i>Physical Review B</i> , 2019, 99, .	1.1	9
90	Chemistry Design Towards a Stable Sulfide-Based Superionic Conductor Li $_{4-x}$ Cu $_{8-x}$ Ge $_{3-x}$ S $_{12-x}$. <i>Angewandte Chemie</i> , 2019, 131, 7755-7759.	1.6	9

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91	Pressure-Induced Amorphization and Crystallization of Heterophase Pd Nanostructures. <i>Small</i> , 2022, 18, e2106396.	5.2	9
92	Tailoring the photocatalytic activity of layered perovskites by opening the interlayer vacancy via ion-exchange reactions. <i>CrystEngComm</i> , 2015, 17, 8703-8709.	1.3	7
93	Graphite-based N-TiO ₂ composites photocatalyst for removal of HCHO in water. <i>Desalination and Water Treatment</i> , 2015, 56, 1681-1688.	1.0	6
94	Study on treatment of aquaculture wastewater using a hybrid constructed wetland. <i>IOP Conference Series: Earth and Environmental Science</i> , 2017, 61, 012015.	0.2	6
95	Pressure-Enhanced Photocurrent in One-Dimensional SbSI via Lone-Pair Electron Reconfiguration. <i>Materials</i> , 2022, 15, 3845.	1.3	6
96	Study on denitrification of aquaculture wastewater using immobilized microorganism technology. , 2011, , .		4
97	Study on the treatment for chromium-containing wastewater by flyash. , 2011, , .		2
98	Epitaxial growth and physical properties of ternary nitride thin films by polymer-assisted deposition. <i>Applied Physics Letters</i> , 2016, 109, 081907.	1.5	2
99	Metallic interface induced by electronic reconstruction in crystalline-amorphous bilayer oxide films. <i>Science Bulletin</i> , 2019, 64, 1567-1572.	4.3	2
100	Structural and electronic phase transitions of $C_{2O}T_eC_3$	1.1	2
101	Structural behavior of a stuffed derivative of $\hat{1}\pm$ -quartz, Mg _{0.5} AlSiO ₄ , at high temperature: an in situ synchrotron XRD study. <i>Physics and Chemistry of Minerals</i> , 2019, 46, 717-725.	0.3	2
102	High-Pressure Synthesis of Highly Conjugated Polymers via Synergistic Polymerization of Phenylpropionic Acid. <i>ACS Applied Polymer Materials</i> , 2022, 4, 5246-5252.	2.0	2
103	DYNAMIC MEMBRANE TECHNOLOGY FOR PRINTING WASTEWATER REUSE. <i>International Journal of Modern Physics B</i> , 2009, 23, 1943-1948.	1.0	0
104	Preparation and Photocatalytic Activity of Magnetically Separated Nitrogen-Doped TiO ₂ Under Visible Light. <i>International Conference on Bioinformatics and Biomedical Engineering: [proceedings] International Conference on Bioinformatics and Biomedical Engineering</i> , 2010, , .	0.0	0
105	Treatment and reuse of printing and dyeing wastewater using BAF/DM technology. , 2011, , .		0
106	Comparison of the micro-polluted surface water purification effect using two kinds of hybrid membrane systems. , 0, 139, 105-110.		0
107	Performance of a hybrid system for antibiotic wastewater treatment. , 0, 182, 109-117.		0