Liang

List of Publications by Year
in descending order

45 papers	3,066 citations	236612 25 h-index	233125 45 g-index
45 all docs	45 docs citations	45 times ranked	4156 citing authors

#	ARTICLE	IF	CITATIONS
1	Uniform nucleation and epitaxy of bilayer molybdenum disulfide on sapphire. Nature, 2022, 605, 69-75.	13.7	174
2	Metal-cation-mixed lead-less two-dimensional hybrid perovskites with high carrier mobility and promoted light adsorption. Materials Today Physics, 2022, 27, 100769.	2.9	3
3	Ultralong lifetime for fully photogenerated spin-polarized current in two-dimensional ferromagnetic/nonmagnetic semiconductor heterostructures. Physical Review B, 2021, 103, .	1.1	14
4	Epitaxial growth of wafer-scale molybdenum disulfide semiconductor single crystals on sapphire. Nature Nanotechnology, 2021, 16, 1201-1207.	15.6	339
5	Theoretical study on two dimensional group IV-VI ternary compounds with large in-plane spontaneous polarization. Computational Materials Science, 2021, 198, 110688.	1.4	4
6	Two dimensional CrGa₂Se₄: a spin-gapless ferromagnetic semiconductor with inclined uniaxial anisotropy. Nanoscale, 2021, 13, 6024-6029.	2.8	17
7	AgBiS₂ as a low-cost and eco-friendly all-inorganic photovoltaic material: nanoscale morphologyâ€“property relationship. Nanoscale Advances, 2020, 2, 770-776.	2.2	15
8	Magnetic twoâ€dimensional layered crystals meet with ferromagnetic semiconductors. InformaÄnÃ-MateriÃ¡ly, 2020, 2, 639-655.	8.5	76
9	Organic Dye Molecules Sensitization-Enhanced Photocatalytic Water-Splitting Activity of MoS₂ from First-Principles Calculations. Journal of Physical Chemistry C, 2020, 124, 6580-6587.	1.5	12
10	Revealing the pHâ€Dependent Photoluminescence Mechanism of Graphitic C₃N₄ Quantum Dots. Advanced Theory and Simulations, 2019, 2, 1900074.	1.3	13
11	Auxetic B₄N Monolayer: A Promising 2D Material with in-Plane Negative Poissonâ€™s Ratio and Large Anisotropic Mechanics. ACS Applied Materials & Interfaces, 2019, 11, 33231-33237.	4.0	67
12	Diisopropylammonium Bromide Based Two-Dimensional Ferroelectric Monolayer Molecular Crystal with Large In-Plane Spontaneous Polarization. Journal of the American Chemical Society, 2019, 141, 1452-1456.	6.6	10
13	Reconciling the Debate on the Existence of Pentazole HN₅ in the Pentazolate Salt of (N₅)₆(H₃O)₃(NH₄)₄Cl. Journal of the American Chemical Society, 2019, 141, 2984-2989.	6.6	21
14	Eighteen functional monolayer metal oxides: wide bandgap semiconductors with superior oxidation resistance and ultrahigh carrier mobility. Nanoscale Horizons, 2019, 4, 592-600.	4.1	78
15	Tuning electronic structure of monolayer InP₃ in contact with graphene or Ni: effect of a buffer layer and intrinsic In and P-vacancy. Physical Chemistry Chemical Physics, 2019, 21, 1285-1293.	1.3	7
16	Lead-free low-dimensional tin halide perovskites with functional organic spacers: breaking the charge-transport bottleneck. Journal of Materials Chemistry A, 2019, 7, 16742-16747.	5.2	24
17	Rapid Discovery of Ferroelectric Photovoltaic Perovskites and Material Descriptors via Machine Learning. Small Methods, 2019, 3, 1900360.	4.6	76
18	Transition metal doping activated basal-plane catalytic activity of two-dimensional 1Tâ€™-ReS₂ for hydrogen evolution reaction: a first-principles calculation study. Nanoscale, 2019, 11, 10402-10409.	2.8	56

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19	Bi(Sb)NCa₃: Expansion of Perovskite Photovoltaics into All-Inorganic Anti-Perovskite Materials. Journal of Physical Chemistry C, 2019, 123, 6363-6369.	1.5	10
20	MnX (X = P, As) monolayers: a new type of two-dimensional intrinsic room temperature ferromagnetic half-metallic material with large magnetic anisotropy. Nanoscale, 2019, 11, 4204-4209.	2.8	136
21	Two-Dimensional AuMX2 (M = Al, Ga, In; X = S, Se) Monolayers Featuring Intracrystalline Aurophilic Interactions with Novel Electronic and Optical Properties. ACS Applied Materials & Interfaces, 2018, 10, 16739-16746.	4.0	11
22	Earth-Abundant Nontoxic Titanium(IV)-based Vacancy-Ordered Double Perovskite Halides with Tunable 1.0 to 1.8 eV Bandgaps for Photovoltaic Applications. ACS Energy Letters, 2018, 3, 297-304.	8.8	314
23	Highly Promoted Carrier Mobility and Intrinsic Stability by Rolling Up Monolayer Black Phosphorus into Nanoscrolls. Journal of Physical Chemistry Letters, 2018, 9, 6847-6852.	2.1	20
24	Unravelling the Role of Topological Defects on Catalytic Unzipping of Single-Walled Carbon Nanotubes by Single Transition Metal Atom. Journal of Physical Chemistry Letters, 2018, 9, 6801-6807.	2.1	7
25	A type-I van der Waals heterobilayer of WSe₂/MoTe₂. Nanotechnology, 2018, 29, 335203.	1.3	24
26	Zero-Dimensional Organicâ€"Inorganic Perovskite Variant: Transition between Molecular and Solid Crystal. Journal of the American Chemical Society, 2018, 140, 10456-10463.	6.6	79
27	Toward Eco-friendly and Stable Perovskite Materials for Photovoltaics. Joule, 2018, 2, 1231-1241.	11.7	224
28	Modulating the electronic and magnetic properties of bilayer borophene via transition metal atoms intercalation: from metal to half metal and semiconductor. Nanotechnology, 2018, 29, 305706.	1.3	16
29	Tin and germanium based two-dimensional Ruddlesdenâ€"Popper hybrid perovskites for potential lead-free photovoltaic and photoelectronic applications. Nanoscale, 2018, 10, 11314-11319.	2.8	73
30	Perovskite Chalcogenides with Optimal Bandgap and Desired Optical Absorption for Photovoltaic Devices. Advanced Energy Materials, 2017, 7, 1700216.	10.2	128
31	Catalytic Directional Cutting of Hexagonal Boron Nitride: The Roles of Interface and Etching Agents. Nano Letters, 2017, 17, 3208-3214.	4.5	26
32	Half-Metallicity in One-Dimensional Metal Trihydride Molecular Nanowires. Journal of the American Chemical Society, 2017, 139, 6290-6293.	6.6	54
33	Lead-Free Mixed Tin and Germanium Perovskites for Photovoltaic Application. Journal of the American Chemical Society, 2017, 139, 8038-8043.	6.6	217
34	Twoâ€Dimensional Singleâ€Layer Organicâ€"Inorganic Hybrid Perovskite Semiconductors. Advanced Energy Materials, 2017, 7, 1601731.	10.2	93
35	Au₆S₂monolayer sheets: metallic and semiconducting polymorphs. Materials Horizons, 2017, 4, 1085-1091.	6.4	26
36	In- and Ga-based inorganic double perovskites with direct bandgaps for photovoltaic applications. Physical Chemistry Chemical Physics, 2017, 19, 21691-21695.	1.3	37

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37	Making graphene nanoribbons: a theoretical exploration. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2016, 6, 243-254.	6.2	13
38	Point defects in lines in single crystalline phosphorene: directional migration and tunable band gaps. Nanoscale, 2016, 8, 17801-17808.	2.8	30
39	Oxygen Intercalation of Graphene on Transition Metal Substrate: An Edge-Limited Mechanism. Journal of Physical Chemistry Letters, 2015, 6, 4099-4105.	2.1	35
40	Mechanism of Transition-Metal Nanoparticle Catalytic Graphene Cutting. Journal of Physical Chemistry Letters, 2014, 5, 1192-1197.	2.1	33
41	Recent Progress and Challenges in Graphene Nanoribbon Synthesis. ChemPhysChem, 2013, 14, 47-54.	1.0	203
42	Strainâ€Induced Orientationâ€Selective Cutting of Graphene into Graphene Nanoribbons on Oxidation. Angewandte Chemie - International Edition, 2012, 51, 1161-1164.	7.2	59
43	Boron and Nitrogen Doping Induced Half-Metallicity in Zigzag Triwing Graphene Nanoribbons. Journal of Physical Chemistry C, 2011, 115, 6195-6199.	1.5	60
44	Transitionâ€Metalâ€Catalyzed Unzipping of Singleâ€Walled Carbon Nanotubes into Narrow Graphene Nanoribbons at Low Temperature. Angewandte Chemie - International Edition, 2011, 50, 8041-8045.	7.2	61
45	Mechanically Robust Tri-Wing Graphene Nanoribbons with Tunable Electronic and Magnetic Properties. Nano Letters, 2010, 10, 494-498.	4.5	71