Kaifeng Wu

List of Publications by Year
in descending order

117 papers	9,404 citations	47006 47 h-index	39675 94 g-index
119 all docs	119 docs citations	119 times ranked	9713 citing authors

#	Article	IF	Citations
1	Sensitizing phosphorescent and radical emitters via triplet energy translation from CsPbBr₃ nanocrystals. Journal of Materials Chemistry C, 2022, 10, 4697-4704.	5.5	2
2	Molecular Dipoleâ€Induced Photoredox Catalysis for Hydrogen Evolution over Selfâ€Assembled Naphthalimide Nanoribbons. Angewandte Chemie, 2022, 134, .	2.0	7
3	Low-Threshold Blue Quasi-2D Perovskite Laser through Domain Distribution Control. Nano Letters, 2022, 22, 1338-1344.	9.1	44
4	Molecular Dipoleâ€Induced Photoredox Catalysis for Hydrogen Evolution over Selfâ€Assembled Naphthalimide Nanoribbons. Angewandte Chemie - International Edition, 2022, 61, .	13.8	31
5	ZnSe/ZnS Core/Shell Quantum Dots as Triplet Sensitizers toward Visible-to-Ultraviolet B Photon Upconversion. ACS Energy Letters, 2022, 7, 914-919.	17.4	24
6	Entropy-Powered Endothermic Energy Transfer from CsPbBr₃ Nanocrystals for Photon Upconversion. Journal of Physical Chemistry Letters, 2022, 13, 1713-1718.	4.6	16
7	Spin-enabled photochemistry using nanocrystal-molecule hybrids. CheM, 2022, , .	11.7	8
8	Macroscopic assembled graphene nanofilms based room temperature ultrafast midâ€infrared photodetectors. InformaÃ¤nÃ-MateriÃ¡ly, 2022, 4, .	17.3	24
9	Covalent organic frameworks with high quantum efficiency in sacrificial photocatalytic hydrogen evolution. Nature Communications, 2022, 13, 2357.	12.8	156
10	Energyâ€Transfer Photocatalysis Using Lead Halide Perovskite Nanocrystals: Sensitizing Molecular Isomerization and Cycloaddition. Angewandte Chemie, 2022, 134, .	2.0	5
11	Electricâ€Fieldâ€Mediated Electron Tunneling of Supramolecular Naphthalimide Nanostructures for Biomimetic H₂ Production. Angewandte Chemie - International Edition, 2021, 60, 1235-1243.	13.8	33
12	Electricâ€Fieldâ€Mediated Electron Tunneling of Supramolecular Naphthalimide Nanostructures for Biomimetic H 2 Production. Angewandte Chemie, 2021, 133, 1255-1263.	2.0	6
13	Triplet energy migration pathways from PbS quantum dots to surface-anchored polyacenes controlled by charge transfer. Nanoscale, 2021, 13, 1303-1310.	5.6	5
14	Electron and Hole Spin Relaxation in CdSe Colloidal Nanoplatelets. Journal of Physical Chemistry Letters, 2021, 12, 86-93.	4.6	13
15	Spin blockade and phonon bottleneck for hot electron relaxation observed in n-doped colloidal quantum dots. Nature Communications, 2021, 12, 550.	12.8	23
16	A supramolecular polymeric heterojunction composed of an all-carbon conjugated polymer and fullerenes. Chemical Science, 2021, 12, 10506-10513.	7.4	27
17	Mechanistic Understanding of Efficient Photocatalytic H₂ Evolution on Twoâ€Dimensional Layered Lead Iodide Hybrid Perovskites. Angewandte Chemie - International Edition, 2021, 60, 7376-7381.	13.8	48
18	Mechanistic Understanding of Efficient Photocatalytic H₂ Evolution on Twoâ€Dimensional Layered Lead Iodide Hybrid Perovskites. Angewandte Chemie, 2021, 133, 7452-7457.	2.0	9

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19	Coupled Double Optical Stark Effect in CdSe Colloidal Nanoplatelets. ACS Photonics, 2021, 8, 745-751.	6.6	5
20	Boosting the Electrocatalysis of MXenes by Plasmonâ€Induced Thermalization and Hotâ€Electron Injection. Angewandte Chemie, 2021, 133, 9502-9506.	2.0	4
21	Shallow distance-dependent triplet energy migration mediated by endothermic charge-transfer. Nature Communications, 2021, 12, 1532.	12.8	33
22	Auger-Assisted Electron Transfer between Adjacent Quantum Wells in Two-Dimensional Layered Perovskites. Journal of the American Chemical Society, 2021, 143, 4725-4731.	13.7	34
23	Boosting the Electrocatalysis of MXenes by Plasmonâ€Induced Thermalization and Hotâ€Electron Injection. Angewandte Chemie - International Edition, 2021, 60, 9416-9420.	13.8	78
24	Semiconductor nanoparticles photocatalyze precise organic cycloaddition. CheM, 2021, 7, 842-844.	11.7	4
25	Efficient Optical Orientation and Slow Spin Relaxation in Lead-Free CsSnBr₃ Perovskite Nanocrystals. ACS Energy Letters, 2021, 6, 1670-1676.	17.4	23
26	Zone-Folded Longitudinal Acoustic Phonons Driving Self-Trapped State Emission in Colloidal CdSe Nanoplatelet Superlattices. Nano Letters, 2021, 21, 4137-4144.	9.1	22
27	Probing molecular orientation at bulk heterojunctions by polarization-selective transient absorption spectroscopy. Science China Chemistry, 2021, 64, 1569-1576.	8.2	2
28	The Holeâ€Tunneling Heterojunction of Hematiteâ€Based Photoanodes Accelerates Photosynthetic Reaction. Angewandte Chemie - International Edition, 2021, 60, 16009-16018.	13.8	37
29	The Holeâ€Tunneling Heterojunction of Hematiteâ€Based Photoanodes Accelerates Photosynthetic Reaction. Angewandte Chemie, 2021, 133, 16145-16154.	2.0	2
30	Long-Lived Delayed Emission from CsPbBr₃ Perovskite Nanocrystals for Enhanced Photochemical Reactivity. ACS Energy Letters, 2021, 6, 2786-2791.	17.4	33
31	Molecular Triplet Sensitization and Photon Upconversion Using Colloidal Semiconductor Nanocrystals. ACS Energy Letters, 2021, 6, 3151-3166.	17.4	41
32	Entropy-Gated Thermally Activated Delayed Emission Lifetime in Phenanthrene-Functionalized CsPbBr₃ Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2021, 12, 8598-8604.	4.6	16
33	Unraveling the Excitonic Transition and Associated Dynamics in Confined Long Linear Carbon Chains with Timeâ€Resolved Resonance Raman Scattering. Laser and Photonics Reviews, 2021, 15, 2100259.	8.7	10
34	Hydroxylated non-fullerene acceptor for highly efficient inverted perovskite solar cells. Energy and Environmental Science, 2021, 14, 6536-6545.	30.8	33
35	Photo-Induced Cluster-to-Cluster Transformation of [Au_{37â€“x}Ag_x(PPh₃)₁₃Cl₁₀]³⁺ into [Au_{25â€“y}Ag_y(PPh₃)₁₀Cl₈]⁺: Fragmentation of a Trimer of 8-Electron Superatoms by Light. Journal of Physical Chemistry Letters, 2021, 12, 10920-10926.	4.6	13
36	Marcus inverted region of charge transfer from low-dimensional semiconductor materials. Nature Communications, 2021, 12, 6333.	12.8	27

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37	Colloidal n-Doped CdSe and CdSe/ZnS Nanoplatelets. Journal of Physical Chemistry Letters, 2021, 12, 11259-11266.	4.6	9
38	Mechanisms of triplet energy transfer across the inorganic nanocrystal/organic molecule interface. Nature Communications, 2020, 11, 28.	12.8	127
39	Ultrafast Dopant-Induced Exciton Auger-like Recombination in Mn-Doped Perovskite Nanocrystals. ACS Energy Letters, 2020, 5, 328-334.	17.4	33
40	Tuning Intermediate-Band Cu₃VS₄ Nanocrystals from Plasmonic-like to Excitonic via Shell-Coating. Chemistry of Materials, 2020, 32, 224-233.	6.7	13
41	Synthesis and Spectroscopy of Monodispersed, Quantum-Confined FAPbBr₃ Perovskite Nanocrystals. Chemistry of Materials, 2020, 32, 549-556.	6.7	39
42	Coulomb Barrier for Sequential Two-Electron Transfer in a Nanoengineered Photocatalyst. Journal of the American Chemical Society, 2020, 142, 13934-13940.	13.7	19
43	Triplet Sensitization and Photon Upconversion Using InP-Based Quantum Dots. Journal of the American Chemical Society, 2020, 142, 19825-19829.	13.7	48
44	Trap-Enabled Long-Distance Carrier Transport in Perovskite Quantum Wells. Journal of the American Chemical Society, 2020, 142, 15091-15097.	13.7	66
45	Red-to-blue photon upconversion based on a triplet energy transfer process not retarded but enabled by shell-coated quantum dots. Journal of Chemical Physics, 2020, 153, 114701.	3.0	13
46	Engineering Sensitized Photon Upconversion Efficiency via Nanocrystal Wavefunction and Molecular Geometry. Angewandte Chemie, 2020, 132, 17879-17884.	2.0	0
47	Incorporating Transitionâ€Metal Phosphides Into Metalâ€Organic Frameworks for Enhanced Photocatalysis. Angewandte Chemie, 2020, 132, 22937-22943.	2.0	34
48	Incorporating Transitionâ€Metal Phosphides Into Metalâ€Organic Frameworks for Enhanced Photocatalysis. Angewandte Chemie - International Edition, 2020, 59, 22749-22755.	13.8	166
49	Triplet Energy Transfer from Perovskite Nanocrystals Mediated by Electron Transfer. Journal of the American Chemical Society, 2020, 142, 11270-11278.	13.7	82
50	Sizeâ€•and Halideâ€Dependent Auger Recombination in Lead Halide Perovskite Nanocrystals. Angewandte Chemie - International Edition, 2020, 59, 14292-14295.	13.8	63
51	Sizeâ€•and Halideâ€Dependent Auger Recombination in Lead Halide Perovskite Nanocrystals. Angewandte Chemie, 2020, 132, 14398-14401.	2.0	8
52	Sensitized Molecular Triplet and Triplet Excimer Emission in Two-Dimensional Hybrid Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 2247-2255.	4.6	33
53	Engineering Sensitized Photon Upconversion Efficiency via Nanocrystal Wavefunction and Molecular Geometry. Angewandte Chemie - International Edition, 2020, 59, 17726-17731.	13.8	20
54	Spin-Controlled Charge-Recombination Pathways across the Inorganic/Organic Interface. Journal of the American Chemical Society, 2020, 142, 4723-4731.	13.7	25

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55	Size- and Composition-Dependent Exciton Spin Relaxation in Lead Halide Perovskite Quantum Dots. ACS Energy Letters, 2020, 5, 1701-1708.	17.4	47
56	Strong Spin-Selective Optical Stark Effect in Lead Halide Perovskite Quantum Dots. Journal of Physical Chemistry Letters, 2020, 11, 3594-3600.	4.6	21
57	Dimension control of in situ fabricated CsPbClBr2 nanocrystal films toward efficient blue light-emitting diodes. Nature Communications, 2020, 11, 6428.	12.8	147
58	Triplet Sensitization by â€œSelf-Trappedâ€•Excitons of Nontoxic CuInS₂ Nanocrystals for Efficient Photon Upconversion. Journal of the American Chemical Society, 2019, 141, 13033-13037.	13.7	79
59	Visible-to-Ultraviolet Upconversion Efficiency above 10% Sensitized by Quantum-Confined Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2019, 10, 5036-5040.	4.6	94
60	Observation of a phonon bottleneck in copper-doped colloidal quantum dots. Nature Communications, 2019, 10, 4532.	12.8	52
61	Picosecond multi-hole transfer and microsecond charge-separated states at the perovskite nanocrystal/tetracene interface. Chemical Science, 2019, 10, 2459-2464.	7.4	33
62	Sacrificial oxidation of a self-metal source for the rapid growth of metal oxides on quantum dots towards improving photostability. Chemical Science, 2019, 10, 6683-6688.	7.4	9
63	Perovskite Solar Cells: Reverseâ€Graded 2D Ruddlesdenâ€“Popper Perovskites for Efficient Airâ€Stable Solar Cells (Adv. Energy Mater. 21/2019). Advanced Energy Materials, 2019, 9, 1970075.	19.5	1
64	Unraveling the Interfacial Charge Migration Pathway at the Atomic Level in a Highly Efficient Zâ€Scheme Photocatalyst. Angewandte Chemie, 2019, 131, 11451-11456.	2.0	22
65	Unraveling the Interfacial Charge Migration Pathway at the Atomic Level in a Highly Efficient Zâ€Scheme Photocatalyst. Angewandte Chemie - International Edition, 2019, 58, 11329-11334.	13.8	152
66	On the absence of a phonon bottleneck in strongly confined CsPbBr₃ perovskite nanocrystals. Chemical Science, 2019, 10, 5983-5989.	7.4	71
67	Reverseâ€Graded 2D Ruddlesdenâ€“Popper Perovskites for Efficient Airâ€Stable Solar Cells. Advanced Energy Materials, 2019, 9, 1900612.	19.5	69
68	Visible-Light-Driven Sensitization of Naphthalene Triplets Using Quantum-Confined CsPbBr₃ Nanocrystals. Journal of Physical Chemistry Letters, 2019, 10, 1457-1463.	4.6	62
69	Triplet Energy Transfer from CsPbBr₃ Nanocrystals Enabled by Quantum Confinement. Journal of the American Chemical Society, 2019, 141, 4186-4190.	13.7	169
70	Picosecond electron trapping limits the emissivity of CsPbCl3 perovskite nanocrystals. Journal of Chemical Physics, 2019, 151, 194701.	3.0	26
71	Isomerism in Titaniumâ€Oxo Clusters: Molecular Anatase Model with Atomic Structure and Improved Photocatalytic Activity. Angewandte Chemie, 2019, 131, 1334-1337.	2.0	21
72	Isomerism in Titaniumâ€Oxo Clusters: Molecular Anatase Model with Atomic Structure and Improved Photocatalytic Activity. Angewandte Chemie - International Edition, 2019, 58, 1320-1323.	13.8	121

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73	Quantum-Cutting Luminescent Solar Concentrators Using Ytterbium-Doped Perovskite Nanocrystals. Nano Letters, 2019, 19, 338-341.	9.1	153
74	Biexciton Auger recombination in mono-dispersed, quantum-confined CsPbBr3 perovskite nanocrystals obeys universal volume-scaling. Nano Research, 2019, 12, 619-623.	10.4	63
75	Promoting Photocatalytic H₂ Evolution on Organicâ€“Inorganic Hybrid Perovskite Nanocrystals by Simultaneous Dual-Charge Transportation Modulation. ACS Energy Letters, 2019, 4, 40-47.	17.4	127
76	Graphene Oxides Used as a New â€œDual Roleâ€•Binder for Stabilizing Silicon Nanoparticles in Lithium-Ion Battery. ACS Applied Materials & Interfaces, 2018, 10, 15665-15672.	8.0	56
77	Tandem luminescent solar concentrators based on engineered quantum dots. Nature Photonics, 2018, 12, 105-110.	31.4	280
78	Shell-Thickness-Dependent Biexciton Lifetime in Type I and Quasi-Type II CdSe@CdS Core/Shell Quantum Dots. Journal of Physical Chemistry C, 2018, 122, 14091-14098.	3.1	47
79	Lighting Up AIEgen Emission in Solution by Grafting onto Colloidal Nanocrystal Surfaces. Journal of Physical Chemistry Letters, 2018, 9, 6334-6338.	4.6	5
80	Droop-Free Colloidal Quantum Dot Light-Emitting Diodes. Nano Letters, 2018, 18, 6645-6653.	9.1	193
81	â€œIntactâ€•Carrier Doping by Pumpâ€“Pumpâ€“Probe Spectroscopy in Combination with Interfacial Charge Transfer: A Case Study of CsPbBr₃ Nanocrystals. Journal of Physical Chemistry Letters, 2018, 9, 3372-3377.	4.6	42
82	Hostâ€“Guest and Photophysical Behavior of Ti₈L₁₂ Cube with Encapsulated [Ti(H₂O)₆] Species. Chemistry - A European Journal, 2018, 24, 14358-14362.	3.3	24
83	Electron Transfer into Electron-Accumulated Nanocrystals: Mimicking Intermediate Events in Multielectron Photocatalysis II. Journal of the American Chemical Society, 2018, 140, 10117-10120.	13.7	20
84	Carrier-doping as a tool to probe the electronic structure and multi-carrier recombination dynamics in heterostructured colloidal nanocrystals. Chemical Science, 2018, 9, 7253-7260.	7.4	6
85	Quantum Confinement Theory of Auger-Assisted Biexciton Recombination Dynamics in Type-I and Quasi Type-II Quantum Dots. Journal of Physical Chemistry C, 2018, 122, 18742-18750.	3.1	13
86	Postsynthesis Phase Transformation for CsPbBr₃/Rb₄PbBr₆ Core/Shell Nanocrystals with Exceptional Photostability. ACS Applied Materials & Interfaces, 2018, 10, 23303-23310.	8.0	98
87	Charge Transfer from n-Doped Nanocrystals: Mimicking Intermediate Events in Multielectron Photocatalysis. Journal of the American Chemical Society, 2018, 140, 7791-7794.	13.7	37
88	Carbonâ€Quantumâ€Dotsâ€Loaded Ruthenium Nanoparticles as an Efficient Electrocatalyst for Hydrogen Production in Alkaline Media. Advanced Materials, 2018, 30, e1800676.	21.0	406
89	Observation of Internal Photoinduced Electron and Hole Separation in Hybrid Two-Dimentional Perovskite Films. Journal of the American Chemical Society, 2017, 139, 1432-1435.	13.7	477
90	Thick-Shell CuInS₂/ZnS Quantum Dots with Suppressed â€œBlinkingâ€•and Narrow Single-Particle Emission Line Widths. Nano Letters, 2017, 17, 1787-1795.	9.1	179

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91	Towards zero-threshold optical gain using charged semiconductor quantum dots. Nature Nanotechnology, 2017, 12, 1140-1147.	31.5	122
92	Engineered Directional Charge Flow in Mixed Two-Dimensional Perovskites Enabled by Facile Cation-Exchange. Journal of Physical Chemistry C, 2017, 121, 21281-21289.	3.1	38
93	Superposition Principle in Auger Recombination of Charged and Neutral Multicarrier States in Semiconductor Quantum Dots. ACS Nano, 2017, 11, 8437-8447.	14.6	63
94	Synthesis of all-inorganic CsPb₂Br₅ perovskite and determination of its luminescence mechanism. RSC Advances, 2017, 7, 54002-54007.	3.6	49
95	Quantum confined colloidal nanorod heterostructures for solar-to-fuel conversion. Chemical Society Reviews, 2016, 45, 3781-3810.	38.1	246
96	Charge Transfer Dynamics from Photoexcited Semiconductor Quantum Dots. Annual Review of Physical Chemistry, 2016, 67, 259-281.	10.8	156
97	Direct Observation of Photoexcited Hole Localization in CdSe Nanorods. ACS Energy Letters, 2016, 1, 76-81.	17.4	17
98	Doctor-blade deposition of quantum dots onto standard window glass for low-loss large-area luminescent solar concentrators. Nature Energy, 2016, 1, .	39.5	196
99	Mn²⁺-Doped Lead Halide Perovskite Nanocrystals with Dual-Color Emission Controlled by Halide Content. Journal of the American Chemical Society, 2016, 138, 14954-14961.	13.7	725
100	Size-Independent Exciton Localization Efficiency in Colloidal CdSe/CdS Core/Crown Nanosheet Type-I Heterostructures. ACS Nano, 2016, 10, 3843-3851.	14.6	70
101	Enhancing photo-reduction quantum efficiency using quasi-type II core/shell quantum dots. Chemical Science, 2016, 7, 4125-4133.	7.4	35
102	Ultrafast Photoinduced Interfacial Proton Coupled Electron Transfer from CdSe Quantum Dots to 4,4â€²-Bipyridine. Journal of the American Chemical Society, 2016, 138, 884-892.	13.7	52
103	Quasi-type II CuInS₂/CdS core/shell quantum dots. Chemical Science, 2016, 7, 1238-1244.	7.4	49
104	Efficient and Ultrafast Formation of Long-Lived Charge-Transfer Exciton State in Atomically Thin Cadmium Selenide/Cadmium Telluride Type-II Heteronanosheets. ACS Nano, 2015, 9, 961-968.	14.6	106
105	Ultrafast exciton quenching by energy and electron transfer in colloidal CdSe nanosheetâ€“Pt heterostructures. Chemical Science, 2015, 6, 1049-1054.	7.4	88
106	Ultrafast Exciton Dynamics and Light-Driven H₂ Evolution in Colloidal Semiconductor Nanorods and Pt-Tipped Nanorods. Accounts of Chemical Research, 2015, 48, 851-859.	15.6	169
107	Efficient Extraction of Trapped Holes from Colloidal CdS Nanorods. Journal of the American Chemical Society, 2015, 137, 10224-10230.	13.7	177
108	Universal Length Dependence of Rod-to-Seed Exciton Localization Efficiency in Type I and Quasi-Type II CdSe@CdS Nanorods. ACS Nano, 2015, 9, 4591-4599.	14.6	92

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109	Ultrafast Interfacial Electron and Hole Transfer from CsPbBr₃ Perovskite Quantum Dots. Journal of the American Chemical Society, 2015, 137, 12792-12795.	13.7	459
110	Wavelength dependent efficient photoreduction of redox mediators using type II ZnSe/CdS nanorod heterostructures. Chemical Science, 2014, 5, 3905-3914.	7.4	26
111	Hole Removal Rate Limits Photodriven H₂ Generation Efficiency in CdS-Pt and CdSe/CdS-Pt Semiconductor Nanorodâ€“Metal Tip Heterostructures. Journal of the American Chemical Society, 2014, 136, 7708-7716.	13.7	354
112	Exciton Localization and Dissociation Dynamics in CdS and CdSâ€“Pt Quantum Confined Nanorods: Effect of Nonuniform Rod Diameters. Journal of Physical Chemistry B, 2014, 118, 14062-14069.	2.6	44
113	Beyond Band Alignment: Hole Localization Driven Formation of Three Spatially Separated Long-Lived Exciton States in CdSe/CdS Nanorods. ACS Nano, 2013, 7, 7173-7185.	14.6	95
114	Plasmon-Induced Hot Electron Transfer from the Au Tip to CdS Rod in CdS-Au Nanoheterostructures. Nano Letters, 2013, 13, 5255-5263.	9.1	290
115	Exciton Annihilation and Dissociation Dynamics in Group IIâ€“V Cd₃P₂ Quantum Dots. Journal of Physical Chemistry A, 2013, 117, 6362-6372.	2.5	32
116	Interfacial Charge Separation and Recombination in InP and Quasi-Type II InP/CdS Core/Shell Quantum Dot-Molecular Acceptor Complexes. Journal of Physical Chemistry A, 2013, 117, 7561-7570.	2.5	76
117	Ultrafast Charge Separation and Long-Lived Charge Separated State in Photocatalytic CdSâ€“Pt Nanorod Heterostructures. Journal of the American Chemical Society, 2012, 134, 10337-10340.	13.7	459