Kai Wang

List of Publications by Year
in descending order

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Version: 2024-02-01

68 papers	2,920 citations	159358 30 h-index	174990 52 g-index
68 all docs	68 docs citations	68 times ranked	2896 citing authors

#	Article	IF	Citations
1	Pressure-Induced Structural and Optical Properties of Inorganic Halide Perovskite CsPbBr₃. Journal of Physical Chemistry Letters, 2017, 8, 3752-3758.	2.1	182
2	Pressure-Induced Blue-Shifted and Enhanced Emission: A Cooperative Effect between Aggregation-Induced Emission and Energy-Transfer Suppression. Journal of the American Chemical Society, 2020, 142, 1153-1158.	6.6	178
3	Multi-Stimuli-Responsive Fluorescence Switching from a Pyridine-Functionalized Tetraphenylethene AIEgen. ACS Applied Materials & Interfaces, 2018, 10, 5819-5827.	4.0	170
4	Pressureâ€Induced Emission Enhancement, Bandâ€Gap Narrowing, and Metallization of Halide Perovskite Cs₃Bi₂I₉. Angewandte Chemie - International Edition, 2018, 57, 11213-11217.	7.2	170
5	Emissive Platinum(II) Cages with Reverse Fluorescence Resonance Energy Transfer for Multiple Sensing. Journal of the American Chemical Society, 2020, 142, 2592-2600.	6.6	166
6	Pressure-Induced Emission (PIE) of One-Dimensional Organic Tin Bromide Perovskites. Journal of the American Chemical Society, 2019, 141, 6504-6508.	6.6	137
7	A Dualâ€Stimuliâ€Responsive Coordination Network Featuring Reversible Wideâ€Range Luminescenceâ€Tuning Behavior. Angewandte Chemie - International Edition, 2019, 58, 5614-5618.	7.2	132
8	Pressureâ€Induced Emission (PIE) and Phase Transition of a Twoâ€dimensional Halide Double Perovskite (BA)₄AgBiBr₈ (BA=CH₃(CH₂)₃NH₃⁺). Angewandte Chemie - International Edition, 2019, 58, 15249-15253.	7.2	105
9	Pressure-Induced Emission Enhancement of Carbazole: The Restriction of Intramolecular Vibration. Journal of Physical Chemistry Letters, 2017, 8, 4191-4196.	2.1	95
10	Tuning Emission and Electronâ€“Phonon Coupling in Lead-Free Halide Double Perovskite Cs₂AgBiCl₆ under Pressure. ACS Energy Letters, 2019, 4, 2975-2982.	8.8	94
11	Pressureâ€Induced Broadband Emission of 2D Organicâ€“Inorganic Hybrid Perovskite (C₆H₅C₂H₄NH₃)₂PbBr₄. Advanced Science, 2019, 6, 1801628.	5.6	89
12	Pressure-Induced Large Emission Enhancements of Cadmium Selenide Nanocrystals. Journal of the American Chemical Society, 2018, 140, 13970-13975.	6.6	69
13	Pressure-Tailored Band Gap Engineering and Structure Evolution of Cubic Cesium Lead Iodide Perovskite Nanocrystals. Journal of Physical Chemistry C, 2018, 122, 9332-9338.	1.5	67
14	Pressure-Induced Structural Evolution and Optical Properties of Metal-Halide Perovskite CsPbCl₃. Journal of Physical Chemistry C, 2018, 122, 15220-15225.	1.5	62
15	Highly Emissive Multipurpose Organoplatinum(II) Metallacycles with Contrasting Mechanoresponsive Features. Inorganic Chemistry, 2022, 61, 2883-2891.	1.9	56
16	Large Negative Linear Compressibility in InH(BDC)₂ from Framework Hinging. Journal of the American Chemical Society, 2017, 139, 15648-15651.	6.6	52
17	Piezochromic luminescence of AIE-active molecular co-crystals: tunable multiple hydrogen bonding and molecular packing. Journal of Materials Chemistry C, 2018, 6, 9660-9666.	2.7	44
18	Recent advances in organic pressure-responsive luminescent materials. Chinese Chemical Letters, 2019, 30, 1883-1894.	4.8	44

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19	A synergy between the pushâ€“pull electronic effect and twisted conformation for high-contrast mechanochromic AIEgens. Materials Horizons, 2021, 8, 630-638.	6.4	42
20	An AIE fluorescent switch with multi-stimuli responsive properties and applications for quantitatively detecting pH value, sulfite anion and hydrostatic pressure. Materials Chemistry Frontiers, 2019, 3, 1052-1061.	3.2	40
21	Pressure Effects on the Electronic and Optical Properties in Low-Dimensional Metal Halide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 4693-4701.	2.1	40
22	Pressure-induced phosphorescence enhancement and piezochromism of a carbazole-based cyclic trinuclear Cu(<scp>i</scp>) complex. Chemical Science, 2021, 12, 4425-4431.	3.7	39
23	Pressure-Induced Emission Enhancement and Piezochromism of Triphenylethylene. Journal of Physical Chemistry C, 2019, 123, 6763-6767.	1.5	38
24	Dynamic Fullâ€Color Tuning of Organic Chromophore in a Multiâ€Stimuliâ€Responsive 2D Flexible MOF. Angewandte Chemie - International Edition, 2022, 61, .	7.2	37
25	Negative Linear Compressibility Due to Layer Sliding in a Layered Metalâ€“Organic Framework. Journal of Physical Chemistry Letters, 2017, 8, 1436-1441.	2.1	36
26	Tuning the Mechanochromic Luminescence of BOPIM Complexes by Rational Introduction of Aromatic Substituents. Journal of Physical Chemistry C, 2017, 121, 27009-27017.	1.5	36
27	Pressureâ€Induced Emission (PIE) and Phase Transition of a Twoâ€dimensional Halide Double Perovskite (BA)₄AgBiBr₈ (BA=CH₃(CH₂)₃NH₃⁺). Angewandte Chemie, 2019, 131, 15393-15397.	1.6	36
28	Tuning Optical and Electronic Properties in Low-Toxicity Organicâ€“Inorganic Hybrid (CH₃NH₃)₃Bi₂I₉ under High Pressure. Journal of Physical Chemistry Letters, 2019, 10, 1676-1683.	2.1	35
29	Structural stability and optical properties of two-dimensional perovskite-like CsPb2Br5 microplates in response to pressure. Nanoscale, 2019, 11, 820-825.	2.8	34
30	Pressure-Induced Emission Enhancement and Multicolor Emission for 1,2,3,4-Tetraphenyl-1,3-cyclopentadiene: Controlled Structure Evolution. Journal of Physical Chemistry Letters, 2019, 10, 5557-5562.	2.1	33
31	Pressure-Induced Emission Enhancements of Mn²⁺-Doped Cesium Lead Chloride Perovskite Nanocrystals. , 2020, 2, 381-388.		33
32	Emission enhancement and bandgap retention of a two-dimensional mixed cation lead halide perovskite under high pressure. Journal of Materials Chemistry A, 2019, 7, 6357-6362.	5.2	30
33	A difluoroboron Î²-diketonate based thermometer with temperature-dependent emission wavelength. Chemical Communications, 2020, 56, 6269-6272.	2.2	30
34	Pressure-induced structural evolution, optical and electronic transitions of nontoxic organometal halide perovskite-based methylammonium tin chloride. Applied Physics Letters, 2017, 111, .	1.5	28
35	A Dualâ€Stimuliâ€Responsive Coordination Network Featuring Reversible Wideâ€Range Luminescenceâ€Tuning Behavior. Angewandte Chemie, 2019, 131, 5670-5674.	1.6	24
36	Room-temperature NaI/H₂O compression icing: soluteâ€“solute interactions. Physical Chemistry Chemical Physics, 2017, 19, 26645-26650.	1.3	23

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37	Mechanism of Different Piezoresponsive Luminescence of 2,3,4,5-Tetraphenylthiophene and 2,3,4,5-Tetraphenylfuran: A Strategy for Designing Pressure-Induced Emission Enhancement Materials. Journal of Physical Chemistry Letters, 2020, 11, 678-682.	2.1	23
38	Negative Linear Compressibility Response to Pressure in Multitype Wine-Rack Metalâ€“Organic Frameworks. , 2020, 2, 291-295.		22
39	Pressure Tuning Dual Fluorescence of 4-(N,N-Dimethylamino)benzonitrile. Journal of Physical Chemistry C, 2017, 121, 4909-4916.	1.5	21
40	Near Zero Area Compressibility in a Perovskite-Like Metalâ€“Organic Frameworks [C(NH₂)₃][Cd(HCOO)₃]. ACS Applied Materials & Interfaces, 2018, 10, 23481-23484.	4.0	21
41	Structural regulation and optical behavior of three-dimensional metal halide perovskites under pressure. Journal of Materials Chemistry C, 2020, 8, 12755-12767.	2.7	20
42	Pressure-induced excimer formation and fluorescence enhancement of an anthracene derivative. Journal of Materials Chemistry C, 2021, 9, 934-938.	2.7	20
43	Pressure-induced emission enhancement by restricting chemical bond vibration. Journal of Materials Chemistry C, 2021, 9, 14578-14582.	2.7	20
44	Photoacid-Spiropyran Exhibits Different Mechanofluorochromism before and after Modification of Tetraphenylethene under Grinding and Hydrostatic Pressure. Journal of Physical Chemistry C, 2019, 123, 25366-25372.	1.5	19
45	Compressed few-layer black phosphorus nanosheets from semiconducting to metallic transition with the highest symmetry. Nanoscale, 2017, 9, 10741-10749.	2.8	16
46	Associated Lattice and Electronic Structural Evolutions in Compressed Multilayer ReS2. Journal of Physical Chemistry Letters, 2017, 8, 3648-3655.	2.1	16
47	Pressure-Induced Restricting Intermolecular Vibration of a Herringbone Dimer for Significantly Enhanced Multicolor Emission in Rotor-Free Truxene Crystals. Journal of Physical Chemistry Letters, 2022, 13, 2493-2499.	2.1	16
48	Ratiometric Piezochromism of Electrospun Polymer Films: Intermolecular Interactions for Enhanced Sensitivity and Color Difference. ChemPlusChem, 2018, 83, 132-139.	1.3	14
49	Pressureâ€Induced Emission Enhancement, Bandâ€Gap Narrowing, and Metallization of Halide Perovskite Cs₃Bi₂I₉. Angewandte Chemie, 2018, 130, 11383-11387.	1.6	14
50	Extraordinarily Persistent Zero Linear Compressibility in Metal-Organic Framework MIL-122(In). , 2020, 2, 519-523.		14
51	High-Pressure Effects on Hofmann-Type Clathrates: Promoted Release and Restricted Insertion of Guest Molecules. Journal of Physical Chemistry Letters, 2017, 8, 2745-2750.	2.1	13
52	From Two, to Three, to Multiâ€Color Switches: Developing AIEgenâ€Based Mechanochromic Materials. ChemNanoMat, 2017, 3, 569-574.	1.5	12
53	Visible responses under high pressure in crystals: phenolphthalein and its analogues with adjustable ring-opening threshold pressures. Chemical Communications, 2019, 55, 4663-4666.	2.2	11
54	Harvesting High-Quality White-Light Emitting and Remarkable Emission Enhancement in One-Dimensional Halide Perovskites Upon Compression. Jacs Au, 2021, 1, 459-466.	3.6	11

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55	Spontaneous proton transfer in a series of amphoteric molecules under hydrostatic pressure. Physical Chemistry Chemical Physics, 2019, 21, 17696-17702.	1.3	10
56	Pressure-Induced Multidimensional Assembly and Sintering of CuInS₂ Nanoparticles into Lamellar Nanosheets with Band Gap Narrowing. ACS Applied Nano Materials, 2020, 3, 2438-2446.	2.4	10
57	Pressure-Induced Piezochromism and Structure Transitions in Lead-Free Layered Cs₄MnBi₂Cl₁₂ Quadruple Perovskite. ACS Applied Energy Materials, 2021, 4, 7513-7518.	2.5	9
58	Dynamic Fullâ€Color Tuning of Organic Chromophore in a Multiâ€Stimuliâ€Responsive 2D Flexible MOF. Angewandte Chemie, 2022, 134, .	1.6	9
59	Tunable Zero Linear Compressibility under a Rational Designed Mechanism of Modular â€œDumbbellâ€: A Density Functional Theory Study. , 2022, 4, 541-547.		8
60	Pressure induced photoluminescence modulation in a wide range and synthesis of monodispersed ternary AgCuS nanocrystal based on Ag₂S nanocrystals. Nanoscale, 2018, 10, 2577-2587.	2.8	7
61	Asymmetric D-A-D' Scaffold Inducing Distinct Mechanochromic Luminescence. Materials Advances, 0, , .	2.6	7
62	Robust Yellow-Violet Pigments Tuned by Site-Selective Manganese Chromophores. Inorganic Chemistry, 2021, 60, 11579-11590.	1.9	7
63	New-phase retention in colloidal core/shell nanocrystals via pressure-modulated phase engineering. Chemical Science, 2021, 12, 6580-6587.	3.7	6
64	Pressure Tuning of Optical Properties and Structures in All-Inorganic Halide Perovskite Rb₇Sb₃Cl₁₆. Inorganic Chemistry, 2022, 61, 5184-5189.	1.9	6
65	Piezochromism of cyanostilbene derivatives: a small structural alteration makes a big photophysical difference. New Journal of Chemistry, 2021, 45, 12895-12901.	1.4	5
66	Deepâ€Red Fluorescence from AIEâ€Active Luminophore: Highâ€Brightness and Wideâ€Range Piezochromism**. ChemistrySelect, 2022, 7, .	0.7	3
67	Red to near-infrared piezochromism from AIE-active luminophores: isolated dimers facilitating a wide-range redshift. New Journal of Chemistry, 2022, 46, 7741-7747.	1.4	2
68	Pressure-stimulus-responsive behaviors of coreâ€“shell InP/ZnSe nanocrystals: remarkable piezochromic luminescence and structural assembly. Nanoscale, 2022, 14, 7530-7537.	2.8	2