Zhaochao Xu

List of Publications by Citations

110 papers	9,667 citations	43 h-index	98 g-index
126 ext. papers	10,886 ext. citations	10.6 avg, IF	6.51 L-index

#	Paper	IF	Citations
110	Sensors for the optical detection of cyanide ion. *Chemical Society Reviews*, **2010**, 39, 127-37	58.5	926
109	Fluorescent chemosensors for Zn(2+). *Chemical Society Reviews*, **2010**, 39, 1996-2006	58.5	822
108	Zn2+-triggered amide tautomerization produces a highly Zn2+-selective, cell-permeable, and ratiometric fluorescent sensor. *Journal of the American Chemical Society*, **2010**, 132, 601-10	16.4	616
107	Recent Progress on the Development of Chemosensors for Gases. *Chemical Reviews*, **2015**, 115, 7944-8000	60.1	548
106	Unique sandwich stacking of pyrene-adenine-pyrene for selective and ratiometric fluorescent sensing of ATP at physiological pH. *Journal of the American Chemical Society*, **2009**, 131, 15528-33	16.4	514
105	Ratiometric and selective fluorescent sensor for CuII based on internal charge transfer (ICT). *Organic Letters*, **2005**, 7, 889-92	6.2	489
104	Revisit to imidazolium receptors for the recognition of anions: highlighted research during 2006-2009. *Chemical Society Reviews*, **2010**, 39, 1457-66	58.5	468
103	Fluorescent and colorimetric chemosensors for detection of nucleotides, FAD and NADH: highlighted research during 2004-2010. *Chemical Society Reviews*, **2011**, 40, 2222-35	58.5	339
102	Colorimetric and ratiometric fluorescent chemosensor with a large red-shift in emission: Cu(II)-only sensing by deprotonation of secondary amines as receptor conjugated to naphthalimide fluorophore. *Organic Letters*, **2005**, 7, 3029-32	6.2	304
101	Pyrophosphate-selective fluorescent chemosensor at physiological pH: formation of a unique excimer upon addition of pyrophosphate. *Journal of the American Chemical Society*, **2007**, 129, 3828-9	16.4	290
100	A lysosome-targetable fluorescent probe for imaging hydrogen sulfide in living cells. *Organic Letters*, **2013**, 15, 2310-3	6.2	263
99	Fluorescence imaging of metal ions implicated in diseases. *Chemical Society Reviews*, **2015**, 44, 4487-93	58.5	241
98	Ratiometric and highly selective fluorescent sensor for cadmium under physiological pH range: a new strategy to discriminate cadmium from zinc. *Journal of Organic Chemistry*, **2007**, 72, 3554-7	4.2	225
97	Solid-State Photoinduced Luminescence Switch for Advanced Anticounterfeiting and Super-Resolution Imaging Applications. *Journal of the American Chemical Society*, **2017**, 139, 16036-16039	16.4	209
96	Aziridinyl Fluorophores Demonstrate Bright Fluorescence and Superior Photostability by Effectively Inhibiting Twisted Intramolecular Charge Transfer. *Journal of the American Chemical Society*, **2016**, 138, 6960-3	16.4	182
95	Ratiometric fluorescent and colorimetric sensors for Cu2+ based on 4,5-disubstituted-1,8-naphthalimide and sensing cyanide via Cu2+ displacement approach. *Tetrahedron*, **2010**, 66, 1678-1683	2.4	167
94	Molecular Design of UV–vis Absorption and Emission Properties in Organic Fluorophores: Toward Larger Bathochromic Shifts, Enhanced Molar Extinction Coefficients, and Greater Stokes Shifts. *Journal of Physical Chemistry C*, **2013**, 117, 16584-16595	3.8	161

93	Induction-driven stabilization of the anion-π interaction in electron-rich aromatics as the key to fluoride inclusion in imidazolium-cage receptors. *Chemistry - A European Journal*, **2011**, 17, 1163-70	4.8	144
92	An NBD-based colorimetric and fluorescent chemosensor for Zn2+ and its use for detection of intracellular zinc ions. *Tetrahedron*, **2009**, 65, 2307-2312	2.4	136
91	Coumarin-derived transformable fluorescent sensor for Zn2+. *Chemical Communications*, **2012**, 48, 4764-66	5.8	135
90	Ratiometric Fluorescence Sensing of Fluoride Ions by an Asymmetric Bidentate Receptor Containing a Boronic Acid and Imidazolium Group. *European Journal of Organic Chemistry*, **2009**, 2009, 3058-3065	3.2	126
89	A twisted-intramolecular-charge-transfer (TICT) based ratiometric fluorescent thermometer with a mega-Stokes shift and a positive temperature coefficient. *Chemical Communications*, **2014**, 50, 15811-4	5.8	108
88	Exploiting the deprotonation mechanism for the design of ratiometric and colorimetric Zn2+ fluorescent chemosensor with a large red-shift in emission. *Tetrahedron*, **2006**, 62, 10117-10122	2.4	105
87	A naphthalimide–calixarene as a two-faced and highly selective fluorescent chemosensor for Cu2+ or F− *Tetrahedron Letters*, **2007**, 48, 9151-9154	2	101
86	Quantitatively mapping cellular viscosity with detailed organelle information via a designed PET fluorescent probe. *Scientific Reports*, **2014**, 4, 5418	4.9	92
85	3D Flexible, Conductive, and Recyclable TiCT MXene-Melamine Foam for High-Areal-Capacity and Long-Lifetime Alkali-Metal Anode. *ACS Nano*, **2020**, 14, 8678-8688	16.7	92
84	A highly selective fluorescent chemosensor for dihydrogen phosphate via unique excimer formation and PET mechanism. *Tetrahedron Letters*, **2007**, 48, 3797-3800	2	91
83	Determination of organophosphate and carbamate pesticides based on enzyme inhibition using a pH-sensitive fluorescence probe. *Analytica Chimica Acta*, **2004**, 523, 117-123	6.6	79
82	A two-photon fluorescent probe for imaging hydrogen sulfide in living cells. *Dyes and Pigments*, **2013**, 99, 537-542	4.6	75
81	Quantitative Design of Bright Fluorophores and AIEgens by the Accurate Prediction of Twisted Intramolecular Charge Transfer (TICT). *Angewandte Chemie - International Edition*, **2020**, 59, 10160-10172	16.4	72
80	A new naphthalimide derivative as a selective fluorescent and colorimetric sensor for fluoride, cyanide and CO2. *Dyes and Pigments*, **2015**, 120, 288-292	4.6	62
79	A General Descriptor Enables the Quantitative Development of Luminescent Materials Based on Photoinduced Electron Transfer. *Journal of the American Chemical Society*, **2020**, 142, 6777-6785	16.4	57
78	Discovery of a highly selective turn-on fluorescent probe for Ag+. *Analyst, The*, **2010**, 135, 2554-9	5	56
77	Fluorescent sensing and discrimination of ATP and ADP based on a unique sandwich assembly of pyrene-adenine-pyrene. *Chemistry - an Asian Journal*, **2011**, 6, 2114-22	4.5	54
76	A Photoexcitation-Induced Twisted Intramolecular Charge Shuttle. *Angewandte Chemie - International Edition*, **2019**, 58, 7073-7077	16.4	47

75	Biomarker-targeted fluorescent probes for breast cancer imaging. *Chinese Chemical Letters*, **2018**, 29, 648-656	8.1	47
74	A near-infrared fluorescent probe for hydrogen sulfide in living cells. *Dyes and Pigments*, **2013**, 98, 367-371	4.6	47
73	Insight into the deactivation mode of methanol-to-olefins conversion over SAPO-34: Coke, diffusion, and acidic site accessibility. *Journal of Catalysis*, **2018**, 367, 306-314	7.3	45
72	A turn-on fluorescent probe for imaging lysosomal hydrogen sulfide in living cells. *RSC Advances*, **2014**, 4, 25790-25794	3.7	44
71	A pyrene-imidazolium derivative that selectively recognizes G-quadruplex DNA. *Biomaterials*, **2012**, 33, 2282-8	15.6	44
70	Bis- and tris-naphthoimidazolium derivatives for the fluorescent recognition of ATP and GTP in 100% aqueous solution. *Organic and Biomolecular Chemistry*, **2011**, 9, 8340-5	3.9	44
69	A ratiometric and exclusively selective CuII fluorescent probe based on internal charge transfer (ICT). *Tetrahedron*, **2011**, 67, 4869-4873	2.4	44
68	A red emission fluorescent probe for hydrogen sulfide and its application in living cells imaging. *Tetrahedron Letters*, **2013**, 54, 2980-2982	2	43
67	Heteroatom-substituted rhodamine dyes: Structure and spectroscopic properties. *Chinese Chemical Letters*, **2019**, 30, 1667-1681	8.1	43
66	A H-bond strategy to develop acid-resistant photoswitchable rhodamine spirolactams for super-resolution single-molecule localization microscopy. *Chemical Science*, **2019**, 10, 4914-4922	9.4	40
65	Substantial Intramolecular Charge Transfer Induces Long Emission Wavelengths and Mega Stokes Shifts in 6-Aminocoumarins. *Journal of Physical Chemistry C*, **2017**, 121, 13274-13279	3.8	39
64	Molecular Mechanism of Viscosity Sensitivity in BODIPY Rotors and Application to Motion-Based Fluorescent Sensors. *ACS Sensors*, **2020**, 5, 731-739	9.2	38
63	Imaging spatiotemporal evolution of molecules and active sites in zeolite catalyst during methanol-to-olefins reaction. *Nature Communications*, **2020**, 11, 3641	17.4	36
62	A self-assembly/disassembly two-photo ratiometric fluorogenic probe for bacteria imaging. *Chinese Chemical Letters*, **2019**, 30, 573-576	8.1	34
61	A naphthalimide-based fluorescent sensor for halogenated solvents. *Chemical Communications*, **2016**, 52, 2095-8	5.8	32
60	A ratiometric fluorescent probe for fluoride ions with a tridentate receptor of boronic acid and imidazolium. *Tetrahedron Letters*, **2013**, 54, 2755-2758	2	32
59	Twisted intramolecular charge transfer (TICT) and twists beyond TICT: from mechanisms to rational designs of bright and sensitive fluorophores. *Chemical Society Reviews*, **2021**, 50, 12656-12678	58.5	28
58	A fluorescent and colorimetric chemosensor for nitric oxide based on 1,8-naphthalimide. *Dyes and Pigments*, **2013**, 96, 333-337	4.6	27

57	Rhodamine-naphthalimide demonstrated a distinct aggregation-induced emission mechanism: elimination of dark-states via dimer interactions (EDDI). *Chemical Communications*, **2019**, 55, 1446-1449	5.8	24
56	Native CRISPR-Cas-Mediated Genome Editing Enables Dissecting and Sensitizing Clinical Multidrug-Resistant P. aeruginosa. *Cell Reports*, **2019**, 29, 1707-1717.e3	10.6	24
55	Rapid Identification of Bacteria by Membrane-Responsive Aggregation of a Pyrene Derivative. *ACS Sensors*, **2019**, 4, 281-285	9.2	21
54	A Unified Push-Pull Model for Understanding the Ring-Opening Mechanism of Rhodamine Dyes. *Journal of Physical Chemistry C*, **2020**, 124, 3793-3801	3.8	21
53	Directed transforming of coke to active intermediates in methanol-to-olefins catalyst to boost light olefins selectivity. *Nature Communications*, **2021**, 12, 17	17.4	21
52	A wash-free SNAP-tag fluorogenic probe based on the additive effects of quencher release and environmental sensitivity. *Chemical Communications*, **2017**, 53, 6448-6451	5.8	20
51	Quantitative Design of Bright Fluorophores and AIEgens by the Accurate Prediction of Twisted Intramolecular Charge Transfer (TICT). *Angewandte Chemie*, **2020**, 132, 10246-10258	3.6	20
50	A general strategy to develop cell membrane fluorescent probes with location- and target-specific fluorogenicities: a case of a Zn probe with cellular selectivity. *Chemical Communications*, **2019**, 55, 15045-15048	5.8	20
49	Fluorescent probes for biothiols based on metal complex. *Coordination Chemistry Reviews*, **2021**, 429, 213638	23.2	20
48	Cd2+-triggered amide tautomerization produces a highly Cd2+-selective fluorescent sensor across a wide pH range. *Dyes and Pigments*, **2016**, 133, 339-344	4.6	18
47	Aptamer based fluorescent probe for serum HER2-ECD detection: The clinical utility in breast cancer. *Chinese Chemical Letters*, **2018**, 29, 703-706	8.1	17
46	Revealing the switching mechanisms of an off-on-off fluorescent logic gate system. *Physical Chemistry Chemical Physics*, **2019**, 21, 16798-16803	3.6	17
45	Fluorescence Sensing of Dihydrogen Phosphate and Pyrophosphate using Imidazolium Anthracene Derivatives. *Bulletin of the Korean Chemical Society*, **2011**, 32, 1371-1374	1.2	16
44	Descriptor G Enables the Quantitative Design of Spontaneously Blinking Rhodamines for Live-Cell Super-Resolution Imaging. *Angewandte Chemie - International Edition*, **2020**, 59, 20215-20223	16.4	16
43	Revisiting imidazolium receptors for the recognition of anions: highlighted research during 2010-2019. *Chemical Society Reviews*, **2021**, 50, 589-618	58.5	16
42	A turn-on fluorescent probe for hydrogen sulfide and its application in living cells. *RSC Advances*, **2015**, 5, 86355-86358	3.7	14
41	Self-assembling nanoprobes that display two-dimensional fluorescent signals for identification of surfactants and bacteria. *Chemical Communications*, **2019**, 55, 969-972	5.8	12
40	A Photoexcitation-Induced Twisted Intramolecular Charge Shuttle. *Angewandte Chemie*, **2019**, 131, 7147-7151	3.6	12

39	Long-term super-resolution imaging of mitochondrial dynamics. *Chinese Chemical Letters*, **2020**, 31, 2937-2940	8.2	11
38	Temperature insensitive fluorescence intensity in a coumarin monomer-aggregate coupled system. *Chemical Communications*, **2014**, 50, 9329-32	5.8	11
37	A naphthalimide-derived fluorogenic probe for SNAP-tag with a fast record labeling rate. *Dyes and Pigments*, **2017**, 147, 327-333	4.6	11
36	Ground-state conformers enable bright single-fluorophore ratiometric thermometers with positive temperature coefficients. *Materials Chemistry Frontiers*, **2017**, 1, 2383-2390	7.8	11
35	Coumarin 545: an emission reference dye with a record-low temperature coefficient for ratiometric fluorescence based temperature measurements. *Analyst, The*, **2015**, 140, 1008-13	5	11
34	Highly sensitive and selective ratiometric fluorescent copper sensors: Different binding affinities modulated by three separate side chains of naphthalimide. *Science in China Series B: Chemistry*, **2009**, 52, 771-779		11
33	RBMS1 regulates lung cancer ferroptosis through translational control of SLC7A11. *Journal of Clinical Investigation*, **2021**, 131,	15.9	10
32	Molecular Origins of Photoinduced Backward Intramolecular Charge Transfer. *Journal of Physical Chemistry C*, **2020**, 124, 16820-16826	3.8	10
31	Water-Induced Structural Dynamic Process in Molecular Sieves under Mild Hydrothermal Conditions: Ship-in-a-Bottle Strategy for Acidity Identification and Catalyst Modification. *Angewandte Chemie - International Edition*, **2020**, 59, 20672-20681	16.4	10
30	Development of fluorescent probes targeting the cell wall of pathogenic bacteria. *Coordination Chemistry Reviews*, **2021**, 429, 213646	23.2	10
29	The environmental-sensitivity of a fluorescent ZTRS-Cd(ii) complex was applied to discriminate different types of surfactants and determine their CMC values. *Chemical Communications*, **2018**, 54, 6157-6160	5.8	10
28	Fluorescent antibiotics for real-time tracking of pathogenic bacteria. *Journal of Pharmaceutical Analysis*, **2020**, 10, 444-451	14	9
27	An assembly-regulated SNAP-tag fluorogenic probe for long-term super-resolution imaging of mitochondrial dynamics. *Biosensors and Bioelectronics*, **2021**, 176, 112886	11.8	9
26	Quantitative assessment of rhodamine spectra. *Chinese Chemical Letters*, **2021**, 32, 943-946	8.1	9
25	A ratiometric fluorescent probe for fluoride ion based on naphthoimidazolium receptor. *RSC Advances*, **2014**, 4, 43746-43751	3.7	8
24	A fluorescent probe based on N-butylbenzene-1,2-diamine for Cu(II) and its imaging in living cells. *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, **2014**, 80, 383-390	1.7	8
23	Synthesis of large ring 3,4-alkylenedioxythiophenes (ADOT) derivatives via Mitsunobu reaction. *Tetrahedron Letters*, **2011**, 52, 2823-2825	2	8
22	Stabilizing the framework of SAPO-34 zeolite toward long-term methanol-to-olefins conversion. *Nature Communications*, **2021**, 12, 4661	17.4	8

21	Stable Super-Resolution Imaging of Lipid Droplet Dynamics through a Buffer Strategy with a Hydrogen-Bond Sensitive Fluorogenic Probe. *Angewandte Chemie - International Edition*, **2021**, 60, 25104-25113	16.4	7
20	Direct observation of intramolecular coplanarity regulated polymorph emission of a tetraphenylethene derivative. *Chinese Chemical Letters*, **2020**, 31, 2985-2987	8.1	6
19	Strong □stacking interactions led to the mis-assignment of dimer emissions to the monomers of 1-acetylpyrene. *Chinese Chemical Letters*, **2019**, 30, 601-604	8.1	5
18	Systematic study of synthesizing various heteroatom-substituted rhodamines from diaryl ether analogues. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2020**, 240, 118466	4.4	4
17	Multiple Factors Regulate the Spirocyclization Equilibrium of Si-Rhodamines. *Journal of Physical Chemistry B*, **2020**, 124, 7467-7474	3.4	4
16	Synthesis of thioethyl pendant ligand-stabilized colloidal gold nanoparticles. *Journal of Nanoscience and Nanotechnology*, **2009**, 9, 5785-9	1.3	3
15	Descriptor □C-O Enables the Quantitative Design of Spontaneously Blinking Rhodamines for Live-Cell Super-Resolution Imaging. *Angewandte Chemie*, **2020**, 132, 20390-20398	3.6	3
14	Energy transfer followed by electron transfer (ETET) endows a TPE-NBD dyad with enhanced environmental sensitivity. *Chinese Chemical Letters*, **2021**, 32, 1937-1941	8.1	3
13	Methine-Quinoidal Fragment Induces Significant Bathochromic Shifts in Organic Dyes. *Journal of Physical Chemistry B*, **2021**, 125, 1447-1452	3.4	3
12	Comparison of rhodamine 6G, rhodamine B and rhodamine 101 spirolactam based fluorescent probes: A case of pH detection. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2021**, 268, 120662	4.4	2
11	Water-Induced Structural Dynamic Process in Molecular Sieves under Mild Hydrothermal Conditions: Ship-in-a-Bottle Strategy for Acidity Identification and Catalyst Modification. *Angewandte Chemie*, **2020**, 132, 20853-20862	3.6	2
10	A unified fluorescence quenching mechanism of tetrazine-based fluorogenic dyes: energy transfer to a dark state. *Materials Chemistry Frontiers*, **2021**, 5, 7012-7021	7.8	2
9	One-step condensation synthesis and characterizations of indocyanine green. *Results in Chemistry*, **2021**, 3, 100092	2.1	2
8	Stable Super-Resolution Imaging of Lipid Droplet Dynamics through a Buffer Strategy with a Hydrogen-Bond Sensitive Fluorogenic Probe. *Angewandte Chemie*, **2021**, 133, 25308	3.6	2
7	Comment on □Acid-induced tunable white light emission based on triphenylamine derivatives□ *Chinese Chemical Letters*, **2021**, 33, 573-573	8.1	2
6	Rapid Enzyme-Mediated Biotinylation for Cell Surface Proteome Profiling. *Analytical Chemistry*, **2021**, 93, 4542-4551	7.8	1
5	A Cell Membrane Fluorogenic Probe for Gram-Positive Bacteria Imaging and Real-Time Tracking of Bacterial Viability.. *ACS Applied Bio Materials*, **2021**, 4, 2104-2112	4.1	1
4	Thermal equilibria between conformers enable highly reliable single-fluorophore ratiometric thermometers. *Analyst, The*, **2021**, 146, 4219-4225	5	1

3	B-H and O-H bonds activation a single electron transfer of frustrated radical pairs. *Dalton Transactions*, **2021**, 50, 8947-8954	4.3	0
2	Theoretical studies on triplet formations in nitrobenzoxadiazole (NBD) derivatives: The impact of donor group and heteroatom substitution. *Results in Chemistry*, **2021**, 3, 100116	2.1	
1	Enhancing Brightness and Photostability of Organic Small Molecular Fluorescent Dyes Through Inhibiting Twisted Intramolecular Charge Transfer (TICT)?. *Acta Chimica Sinica*, **2022**, 80, 553	3.3	