

Zhao-Sheng Qian

List of Publications by Year in descending order

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101
papers

5,854
citations

76294

40
h-index

76872

74
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105
all docs

105
docs citations

105
times ranked

6595
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly Luminescent N-doped Carbon Quantum Dots as an Effective Multifunctional Fluorescence Sensing Platform. <i>Chemistry - A European Journal</i> , 2014, 20, 2254-2263.	1.7	407
2	Si-Doped Carbon Quantum Dots: A Facile and General Preparation Strategy, Bioimaging Application, and Multifunctional Sensor. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 6797-6805.	4.0	323
3	B-doped carbon quantum dots as a sensitive fluorescence probe for hydrogen peroxide and glucose detection. <i>Analyst, The</i> , 2014, 139, 2322-2325.	1.7	252
4	A fluorescent nanosensor based on graphene quantum dots aptamer probe and graphene oxide platform for detection of lead (II) ion. <i>Biosensors and Bioelectronics</i> , 2015, 68, 225-231.	5.3	248
5	Determination of cadmium(II), cobalt(II), nickel(II), lead(II), zinc(II), and copper(II) in water samples using dual-cloud point extraction and inductively coupled plasma emission spectrometry. <i>Journal of Hazardous Materials</i> , 2012, 239-240, 206-212.	6.5	231
6	Carbon Quantum Dots-Based Recyclable Real-Time Fluorescence Assay for Alkaline Phosphatase with Adenosine Triphosphate as Substrate. <i>Analytical Chemistry</i> , 2015, 87, 2966-2973.	3.2	201
7	Facile synthesis of P-doped carbon quantum dots with highly efficient photoluminescence. <i>RSC Advances</i> , 2014, 4, 5465.	1.7	190
8	Surface functionalization of graphene quantum dots with small organic molecules from photoluminescence modulation to bioimaging applications: an experimental and theoretical investigation. <i>RSC Advances</i> , 2013, 3, 14571.	1.7	189
9	A real-time fluorescent assay for the detection of alkaline phosphatase activity based on carbon quantum dots. <i>Biosensors and Bioelectronics</i> , 2015, 68, 675-680.	5.3	189
10	A universal fluorescence sensing strategy based on biocompatible graphene quantum dots and graphene oxide for the detection of DNA. <i>Nanoscale</i> , 2014, 6, 5671-5674.	2.8	163
11	DNA nanosensor based on biocompatible graphene quantum dots and carbon nanotubes. <i>Biosensors and Bioelectronics</i> , 2014, 60, 64-70.	5.3	150
12	Functionalized Carbon Quantum Dots with Dopamine for Tyrosinase Activity Monitoring and Inhibitor Screening: In Vitro and Intracellular Investigation. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 23564-23574.	4.0	140
13	Luminescent Nanoswitch Based on Organic-Phase Copper Nanoclusters for Sensitive Detection of Trace Amount of Water in Organic Solvents. <i>Analytical Chemistry</i> , 2016, 88, 7429-7434.	3.2	122
14	Functional Carbon Quantum Dots: A Versatile Platform for Chemosensing and Biosensing. <i>Chemical Record</i> , 2018, 18, 491-505.	2.9	119
15	A fluorometric assay for alkaline phosphatase activity based on β -cyclodextrin-modified carbon quantum dots through host-guest recognition. <i>Biosensors and Bioelectronics</i> , 2016, 83, 274-280.	5.3	117
16	Reversible Fluorescent Nanoswitch Based on Carbon Quantum Dots Nanoassembly for Real-Time Acid Phosphatase Activity Monitoring. <i>Analytical Chemistry</i> , 2015, 87, 7332-7339.	3.2	103
17	One-pot green synthesis of highly fluorescent glutathione-stabilized copper nanoclusters for Fe ³⁺ sensing. <i>Sensors and Actuators B: Chemical</i> , 2017, 241, 292-297.	4.0	93
18	Reversible Luminescent Nanoswitches Based on Aggregation-Induced Emission Enhancement of Silver Nanoclusters for Luminescence Turn-on Assay of Inorganic Pyrophosphatase Activity. <i>Analytical Chemistry</i> , 2017, 89, 4994-5002.	3.2	88

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19	A new mitochondrion targetable fluorescent probe for carbon monoxide-specific detection and live cell imaging. <i>Chemical Communications</i> , 2019, 55, 9444-9447.	2.2	87
20	Fluorometric detection of cholesterol based on β -cyclodextrin functionalized carbon quantum dots via competitive host-guest recognition. <i>Talanta</i> , 2017, 167, 513-519.	2.9	86
21	Luminescent Aggregated Copper Nanoclusters Nanoswitch Controlled by Hydrophobic Interaction for Real-Time Monitoring of Acid Phosphatase Activity. <i>Analytical Chemistry</i> , 2016, 88, 11575-11583.	3.2	79
22	Fluorescent graphene-like carbon nitrides: synthesis, properties and applications. <i>Journal of Materials Chemistry C</i> , 2016, 4, 8146-8160.	2.7	77
23	A fluorometric biosensor based on functional Au/Ag nanoclusters for real-time monitoring of tyrosinase activity. <i>Biosensors and Bioelectronics</i> , 2016, 86, 542-547.	5.3	74
24	Redox-Controlled Fluorescent Nanoswitch Based on Reversible Disulfide and Its Application in Butyrylcholinesterase Activity Assay. <i>Analytical Chemistry</i> , 2018, 90, 1643-1651.	3.2	74
25	A fluorometric assay for acetylcholinesterase activity and inhibitor screening with carbon quantum dots. <i>Sensors and Actuators B: Chemical</i> , 2016, 222, 879-886.	4.0	73
26	Fabrication of Stable and Luminescent Copper Nanocluster-Based AIE Particles and Their Application in β -Galactosidase Activity Assay. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 32887-32895.	4.0	64
27	Intermolecular Oxidative Radical Addition to Aromatic Aldehydes: Direct Access to 1,4- and 1,5-Diketones via Silver-Catalyzed Ring-Opening Acylation of Cyclopropanols and Cyclobutanols. <i>Journal of Organic Chemistry</i> , 2018, 83, 5665-5673.	1.7	63
28	A universal fluorometric assay strategy for glycosidases based on functional carbon quantum dots: β -galactosidase activity detection in vitro and in living cells. <i>Journal of Materials Chemistry B</i> , 2017, 5, 1971-1979.	2.9	61
29	A dual-channel fluorescent chemosensor for discriminative detection of glutathione based on functionalized carbon quantum dots. <i>Biosensors and Bioelectronics</i> , 2016, 86, 748-755.	5.3	59
30	Rational Design of Dual-State Emission Luminogens with Solvatochromism by Combining a Partially Shared Donor-Acceptor Pattern and Twisted Structures. <i>Chemistry - A European Journal</i> , 2019, 25, 15983-15987.	1.7	56
31	Photochromism and Fluorescence Switch of Furan-Containing Tetraarylethene Luminogens with Aggregation-Induced Emission for Photocontrolled Interface-Involved Applications. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 42410-42419.	4.0	56
32	Synthesis of α -1-Thio- and β -2-Thio-1-alkenyl Boronates via Copper-Catalyzed Regiodivergent Hydroboration of Thioacetylenes: An Experimental and Theoretical Study. <i>Journal of Organic Chemistry</i> , 2014, 79, 1786-1795.	1.7	55
33	Halogenated tetraphenylethene with enhanced aggregation-induced emission: an anomalous anti-heavy-atom effect and self-reversible mechanochromism. <i>Chemical Communications</i> , 2019, 55, 14938-14941.	2.2	55
34	Cation-driven luminescent self-assembled dots of copper nanoclusters with aggregation-induced emission for β -galactosidase activity monitoring. <i>Journal of Materials Chemistry B</i> , 2017, 5, 5120-5127.	2.9	53
35	Nanosized N-doped graphene oxide with visible fluorescence in water for metal ion sensing. <i>Journal of Materials Chemistry</i> , 2011, 21, 17635.	6.7	52
36	Rational design of reversibly photochromic molecules with aggregation-induced emission by introducing photoactive thienyl and benzothienyl groups. <i>Journal of Materials Chemistry C</i> , 2020, 8, 13197-13204.	2.7	51

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37	Facile synthesis of halogenated carbon quantum dots as an important intermediate for surface modification. <i>RSC Advances</i> , 2013, 3, 9625.	1.7	50
38	Hydrophobicity-guided self-assembled particles of silver nanoclusters with aggregation-induced emission and their use in sensing and bioimaging. <i>Journal of Materials Chemistry B</i> , 2018, 6, 3927-3933.	2.9	49
39	Ultralong Room-Temperature Phosphorescence from Supramolecular Behavior via Intermolecular Electronic Coupling in Pure Organic Crystals. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3939-3945.	2.1	47
40	Density functional theory study of the aluminium(iii) hydrolysis in aqueous solution. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 2396.	1.3	45
41	A fluorometric and real-time assay for α -glucosidase activity through supramolecular self-assembly and its application for inhibitor screening. <i>Sensors and Actuators B: Chemical</i> , 2017, 245, 282-289.	4.0	42
42	Photophysical Tuning of Organic Ionic Crystals from Ultralong Afterglow to Highly Efficient Phosphorescence by Variation of Halides. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 6305-6311.	2.1	42
43	Simultaneous Detection of Multiple DNA Targets by Integrating Dual-Color Graphene Quantum Dot Nanoprobes and Carbon Nanotubes. <i>Chemistry - A European Journal</i> , 2014, 20, 16065-16069.	1.7	40
44	Achieving highly efficient aggregation-induced emission, reversible and irreversible photochromism by heavy halogen-regulated photophysics and a molecular pattern-controlled photochemistry of through-space conjugated luminogens. <i>Chemical Science</i> , 2021, 12, 10710-10723.	3.7	39
45	Multi-stimuli responsive copper nanoclusters with bright red luminescence for quantifying acid phosphatase activity via redox-controlled luminescence switch. <i>Analytica Chimica Acta</i> , 2017, 984, 202-210.	2.6	37
46	Theoretical Investigation of Water Exchange on the Nanometer-Sized Polyoxocation $\text{AlO}_4(\text{OH})_{12}(\text{H}_2\text{O})_{12}^{7+}$ (Keggin- Al_{13}) in Aqueous Solution. <i>Journal of the American Chemical Society</i> , 2008, 130, 14402-14403.	6.6	36
47	A reversible fluorescence nanoswitch based on dynamic covalent C=O bonds using functional carbon quantum dots and its application for α -glucosidase activity monitoring. <i>Journal of Materials Chemistry C</i> , 2017, 5, 2826-2832.	2.7	36
48	A reversible fluorescence nanoswitch based on carbon quantum dots nanoassembly for detection of pyrophosphate ion. <i>Sensors and Actuators B: Chemical</i> , 2015, 220, 138-145.	4.0	34
49	Reversible Switching between Phosphorescence and Fluorescence in a Unimolecular System Controlled by External Stimuli. <i>Chemistry - A European Journal</i> , 2018, 24, 12773-12778.	1.7	33
50	Anion-regulated transient and persistent phosphorescence and size-dependent ultralong afterglow of organic ionic crystals. <i>Journal of Materials Chemistry C</i> , 2019, 7, 14535-14542.	2.7	33
51	Supermolecule density functional calculations on the water exchange of aquated Al(iii) species in aqueous solution. <i>Chemical Communications</i> , 2008, , 3930.	2.2	32
52	Photophysical Switching between Aggregation-Induced Phosphorescence and Dual-State Emission by Isomeric Substitution. <i>Chemistry - A European Journal</i> , 2020, 26, 3733-3737.	1.7	31
53	Highly efficient fluorescent multi-walled carbon nanotubes functionalized with diamines and amides. <i>Journal of Materials Chemistry</i> , 2012, 22, 11912.	6.7	30
54	Dual-colored graphene quantum dots-labeled nanoprobes/graphene oxide: functional carbon materials for respective and simultaneous detection of DNA and thrombin. <i>Nanotechnology</i> , 2014, 25, 415501.	1.3	29

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55	Bonding-induced emission of silyl-protected copper nanoclusters for luminescence turn-on detection of trace water in organic solvents. <i>Analyst</i> , 2017, 142, 4613-4617.	1.7	28
56	Facile synthesis of halogenated multi-walled carbon nanotubes and their unusual photoluminescence. <i>Journal of Materials Chemistry</i> , 2012, 22, 22113.	6.7	26
57	An aggregation-induced phosphorescence probe for calcium ion-specific detection and live-cell imaging in <i>Arabidopsis thaliana</i> . <i>Chemical Communications</i> , 2019, 55, 4841-4844.	2.2	26
58	Redox-Triggered Bonding-Induced Emission of Thiol-Functionalized Gold Nanoclusters for Luminescence Turn-On Detection of Molecular Oxygen. <i>ACS Sensors</i> , 2017, 2, 1692-1699.	4.0	25
59	Simple fabrication of eptifibatide stabilized gold nanoclusters with enhanced green fluorescence as biocompatible probe for in vitro cellular imaging. <i>Sensors and Actuators B: Chemical</i> , 2017, 241, 1057-1062.	4.0	24
60	Well dispersed single-walled carbon nanotubes with strong visible fluorescence in water for metal ions sensing. <i>Chemical Communications</i> , 2011, 47, 7167.	2.2	23
61	Novel Aggregation-Enhanced PEC Photosensitizer Based on Electrostatic Linkage of Ionic Liquid with Protoporphyrin IX for Ultrasensitive Detection of Molt-4 Cells. <i>Analytical Chemistry</i> , 2022, 94, 3708-3717.	3.2	23
62	The visible photoluminescence mechanism of oxidized multi-walled carbon nanotubes: an experimental and theoretical investigation. <i>Journal of Materials Chemistry C</i> , 2013, 1, 307-314.	2.7	22
63	Assessment of the Accuracy of Theoretical Methods for Calculating ²⁷ Al Nuclear Magnetic Resonance Shielding Tensors of Aquated Aluminum Species. <i>Journal of Physical Chemistry A</i> , 2009, 113, 5138-5143.	1.1	21
64	Theoretical investigation on the dimerization of the deprotonated aquo ion of Al(ⁱⁱⁱ) in water. <i>Dalton Transactions</i> , 2009, , 521-529.	1.6	19
65	Clustering-Triggered Ultralong Room-Temperature Phosphorescence of Organic Crystals through Halogen-Mediated Molecular Assembly. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 4962-4969.	2.1	19
66	Wavelength-dependent multicolor photochromism and fluorescence switching based on an AIE-active skeleton by regulating the conjugation of the photoactive unit. <i>Journal of Materials Chemistry C</i> , 2021, 9, 8249-8257.	2.7	19
67	Density functional theory study and kinetic analysis of the formation mechanism of Al ₃₀ O ₈ (OH) ₅₆ (H ₂ O) ₂₆₁₈ ⁺ (Al ₃₀) in aqueous solution. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 1220-1229.	1.6	18
68	Breaking Classic Heavy-Atom Effect to Achieve Heavy-Atom-Induced Dramatic Emission Enhancement of Silole-Based AIEgens with Through-Bond and Through-Space Conjugation. <i>Advanced Optical Materials</i> , 2021, 9, 2101228.	3.6	18
69	Theoretical investigation of dehydration of aquated Al(OH) ₂ ⁺ species in aqueous solution. <i>Dalton Transactions</i> , 2009, , 1554.	1.6	17
70	Theoretical exploration of the water exchange mechanism of the polyoxocation Ga ₄ O ₄ Al ₁₂ (OH) ₂₄ (H ₂ O) ₁₂₇ ⁺ in aqueous solution. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 1588-1596.	1.6	17
71	A water-soluble molecular probe with aggregation-induced emission for discriminative detection of Al ³⁺ and Pb ²⁺ and imaging in seedling root of <i>Arabidopsis</i> . <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 223, 117335.	2.0	17
72	Density Functional Investigation of the Water Exchange Reaction on the Gibbsite Surface. <i>Environmental Science & Technology</i> , 2009, 43, 9281-9286.	4.6	16

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73	Density Functional Theory Study on Aqueous Aluminum ^{III} Fluoride Complexes: Exploration of the Intrinsic Relationship between Water-Exchange Rate Constants and Structural Parameters for Monomer Aluminum Complexes. <i>Environmental Science & Technology</i> , 2011, 45, 288-293.	4.6	15
74	Synthesis and Functionalization of Stable and Bright Copper Nanoclusters by In Situ Generation of Silica Shells for Bioimaging and Biosensing. <i>ACS Applied Nano Materials</i> , 2018, 1, 5673-5681.	2.4	15
75	Nanoliposomal Ratiometric Fluorescent Probe toward ONOO ⁻ Flux. <i>ACS Applied Bio Materials</i> , 2021, 4, 2080-2088.	2.3	15
76	Molecular engineering and biomedical applications of ultra-sensitive fluorescent probe for Ag ⁺ . <i>Chinese Chemical Letters</i> , 2021, 32, 3066-3070.	4.8	15
77	Density functional studies of the structural characteristics, ²⁷ Al NMR chemical shifts and water-exchange reactions of Al ₃₀ O ₈ (OH) ₅₆ (H ₂ O) ₂₆₁₈ ⁺ (Al ₃₀) in aqueous solution. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 1230-1237.	1.6	14
78	A simple and efficient phosphorescent probe for iodide-specific detection based on crystallization-induced phosphorescence of organic ionic crystals. <i>Journal of Materials Chemistry C</i> , 2019, 7, 43-47.	2.7	14
79	Multiwavelength-controlled multicolor photochromism and fluorescence switching based on an efficient photocyclization reaction by introducing two photoactive subunits into AlEgens. <i>Journal of Materials Chemistry C</i> , 2022, 10, 8674-8683.	2.7	13
80	DFT study on the interaction between monomeric aluminium and chloride ion in aqueous solution. <i>Dalton Transactions</i> , 2011, 40, 5052.	1.6	12
81	Thiol-triggered disaggregation-induced emission controlled by competitive coordination for acetylcholinesterase monitoring and inhibitor screening. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 22-28.	4.0	12
82	Thiol-ene click reaction-induced fluorescence enhancement by altering the radiative rate for assaying butyrylcholinesterase activity. <i>Analyst</i> , 2019, 144, 559-566.	1.7	12
83	A phosphorescence <i>turn-on</i> -probe for the detection and imaging of Al ³⁺ based on aggregation-induced emission. <i>Talanta</i> , 2020, 219, 121298.	2.9	12
84	Rational design of state-depending photoactivatable and photoconvertible fluorescent AlEgens through a rapid photocyclodehydrogenation reaction. <i>Dyes and Pigments</i> , 2022, 201, 110235.	2.0	12
85	Density functional study of the water exchange reaction of the polyoxocation Ge ₄ O ₄ Al ₁₂ (OH) ₂₄ (H ₂ O) ₁₂₈ ⁺ (K-GeAl ₁₂) in aqueous solution. <i>Dalton Transactions</i> , 2009, , 8013.	1.6	11
86	DFT study on the mechanism for the substitution of F ⁻ into Al(III) complexes in aqueous solution. <i>Dalton Transactions</i> , 2011, 40, 567-572.	1.6	11
87	Multicolour fluorescent graphene oxide by cutting carbon nanotubes upon oxidation. <i>CrystEngComm</i> , 2012, 14, 4976.	1.3	11
88	Phenylsulfonic acid functionalized carbon quantum dots based biosensor for acetylcholinesterase activity monitoring and inhibitor screening. <i>RSC Advances</i> , 2016, 6, 105454-105460.	1.7	10
89	Viscosity-sensitive thiolated gold nanoclusters with diffusion-controlled emission for intracellular viscosity imaging. <i>Analyst</i> , 2019, 144, 4483-4487.	1.7	10
90	Coordinate bonding-induced emission of gold-glutathione complex for sensitive detection of aluminum species. <i>Sensors and Actuators B: Chemical</i> , 2018, 272, 1-7.	4.0	9

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91	Endowing nitro-compounds with bright and stimuli-responsive luminescence based on propeller-like AIEgens. <i>Journal of Materials Chemistry C</i> , 2021, 9, 12177-12183.	2.7	8
92	Removal of Cd(II) from Aqueous by Adsorption onto Mesoporous Ti-MCM-48. <i>Procedia Environmental Sciences</i> , 2011, 10, 2491-2497.	1.3	7
93	Antipermeability Strategy to Achieve Extremely High Specificity and Ultralong Imaging of Diverse Cell Membranes Based on Restriction-Induced Emission of AIEgens. <i>Analytical Chemistry</i> , 2022, 94, 4048-4058.	3.2	7
94	Tuning the energy barrier of water exchange reactions on Al(iii) by interaction with the single-walled carbon nanotubes. <i>Dalton Transactions</i> , 2011, 40, 4183.	1.6	6
95	Theoretical investigation of the dissociative interchange (I _d) mechanism for water exchange on magnesium(II) in aqueous solution. <i>Inorganica Chimica Acta</i> , 2010, 363, 3627-3631.	1.2	5
96	Theoretical investigation of formation mechanism of bipyridyl molecule on Ni(111) surface: implication for synthesis of N-doped graphene from pyridine. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 6053.	1.3	5
97	Unusual visible luminescence of aluminium polyoxocations in aqueous solution. <i>Chemical Communications</i> , 2011, 47, 12652.	2.2	4
98	Esterase-Activated Precipitating Strategy to Achieve Highly Specific Detection and Long-Term Imaging of Calcium Ions by Aggregation-Induced Phosphorescence Probe. <i>Analytical Chemistry</i> , 2022, 94, 5406-5414.	3.2	4
99	Visible photoluminescence of polyoxoniobates in aqueous solution and their high electrocatalytic activities for water oxidation. <i>Open Journal of Inorganic Chemistry</i> , 2013, 03, 59-69.	0.7	3
100	Adsorption and Vibration of O Atoms on Fe Low-index and Fe(211) High-index Surfaces. <i>Chemical Research in Chinese Universities</i> , 2007, 23, 226-232.	1.3	2
101	Study on Adsorption of Co(II) and Ni(II) onto Mesoporous Ti-Containing MCM-48. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 6796-6803.	0.9	1