Shi-Bo Cheng

List of Publications by Year
in descending order

72 papers	1,390 citations	361413 20 h-index	377865 34 g-index
72 all docs	72 docs citations	72 times ranked	1634 citing authors

#	Article	IF	Citations
1	Organic ligand mediated evolution from aluminum-based superalkalis to superatomic molecules and one-dimensional nanowires. Nano Research, 2022, 15, 1162-1170.	10.4	11
2	Ladder Oxygenation of Group VIII Metal Clusters and the Formation of Metalloxocubes M₁₃O₈⁺. Journal of Physical Chemistry Letters, 2022, 13, 733-739.	4.6	5
3	Ligand-field regulated superalkali behavior of the aluminum-based clusters with distinct shell occupancy. Chinese Chemical Letters, 2022, 33, 5147-5151.	9.0	4
4	On the Precise and Continuous Regulation of the Superatomic and Spectroscopic Behaviors of the Quasi-Cubic W₄C₄ Cluster by the Oriented External Electric Field. Journal of Physical Chemistry A, 2022, 126, 29-35.	2.5	3
5	Dual External Field-Engineered Hyperhalogen. Journal of Physical Chemistry Letters, 2022, 13, 3942-3948.	4.6	4
6	Dynamic SPMEâ€“SERS Induced by Electric Field: Toward In Situ Monitoring of Pharmaceuticals and Personal Care Products. Analytical Chemistry, 2022, 94, 9270-9277.	6.5	9
7	Filling Mesopores of Conductive Metalâ€“Organic Frameworks with Cu Clusters for Selective Nitrate Reduction to Ammonia. ACS Applied Materials & Interfaces, 2022, 14, 32176-32182.	8.0	16
8	Ag@WS2 quantum dots for Surface Enhanced Raman Spectroscopy: Enhanced charge transfer induced highly sensitive detection of thiram from honey and beverages. Food Chemistry, 2021, 344, 128570.	8.2	25
9	Advances in microfluidic extracellular vesicle analysis for cancer diagnostics. Lab on A Chip, 2021, 21, 3219-3243.	6.0	39
10	Advances in Analytical Technologies for Extracellular Vesicles. Analytical Chemistry, 2021, 93, 4739-4774.	6.5	53
11	A Three-Dimensional Conductive Scaffold Microchip for Effective Capture and Recovery of Circulating Tumor Cells with High Purity. Analytical Chemistry, 2021, 93, 7102-7109.	6.5	23
12	Observation of â€œOutlawâ€•Dual Aromaticity in Unexpectedly Stable Open-Shell Metal Clusters Caused by Near-Degenerate Molecular Orbital Coupling. CCS Chemistry, 2021, 3, 1913-1920.	7.8	2
13	Fluorescence enhancement mechanism of thymolphthalein-based probe by coordination interaction with zinc ion. Journal of Molecular Liquids, 2021, 339, 116275.	4.9	3
14	A sandwich-like Ga₂FeS₄-supported single metal atom as a promising bifunctional electrocatalyst for overall water splitting. Journal of Materials Chemistry A, 2021, 9, 18594-18603.	10.3	4
15	Adsorption energy as a promising single-parameter descriptor for single atom catalysis in the oxygen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 6442-6450.	10.3	18
16	Molecular designing of naphthalene diimide based fullerene-free small organic solar cell - Acceptors with high photovoltaic performance by density functional theory. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 228, 117685.	3.9	14
17	On the dual aromaticity and external field induced superhalogen modulation of the AuSc2 cluster: A computational study. Chemical Physics Letters, 2020, 754, 137767.	2.6	0
18	General Dual-Switched Dynamic Singlet Fission Channels in Solvents Governed Jointly by Chromophore Structural Dynamics and Solvent Impact: Singlet Prefission Energetics Analyses. Journal of the American Chemical Society, 2020, 142, 17469-17479.	13.7	14

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19	Revealing the effect of the oriented external electronic field on the superatom-polymeric Zr3O3 cluster: Superhalogen modulation and spectroscopic characteristics. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 237, 118400.	3.9	10
20	Caramelized carbonaceous shell-coated Î³-Fe2O3 as a magnetic solid-phase extraction sorbent for LC-MS/MS analysis of triphenylmethane dyes. Mikrochimica Acta, 2020, 187, 371.	5.0	12
21	A density functional theory calculation on the geometrical structures and electronic properties of Ag19 under the oriented external electric field. Chemical Physics Letters, 2020, 754, 137703.	2.6	3
22	On the structures, electronic properties, and superhalogen regulation of the MnB6â^' cluster: A density functional theory investigation. Chemical Physics Letters, 2020, 754, 137723.	2.6	2
23	Flexible Three-Dimensional Net for Intravascular Fishing of Circulating Tumor Cells. Analytical Chemistry, 2020, 92, 5447-5455.	6.5	13
24	High Efficient Isolation of Tumor Cells by a Three Dimensional Scaffold Chip for Diagnosis of Malignant Effusions. ACS Applied Bio Materials, 2020, 3, 2177-2184.	4.6	3
25	Surface Modification Strategy for Promoting the Performance of Non-noble Metal Single-Atom Catalysts in Low-Temperature CO Oxidation. ACS Applied Materials & Interfaces, 2020, 12, 19457-19466.	8.0	12
26	On the theoretical construction of Nb2N2-based superatoms by external field strategies. Chemical Physics Letters, 2020, 754, 137709.	2.6	6
27	Tuning the Electronic Properties and Performance of Low-Temperature CO Oxidation of the Gold Cluster by Oriented External Electronic Field. Journal of Physical Chemistry Letters, 2020, 11, 1093-1099.	4.6	23
28	Magnetic Dioxygen Clathrate Hydrates: A Type of Promising Building Blocks for Icy Crystalline Materials. Journal of Physical Chemistry C, 2020, 124, 10669-10678.	3.1	4
29	Rational design of an efficient descriptor for single-atom catalysts in the hydrogen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 9202-9208.	10.3	41
30	Current techniques and future advance of microfluidic devices for circulating tumor cells. TrAC - Trends in Analytical Chemistry, 2019, 117, 116-127.	11.4	21
31	Photoinduced excited state dynamical behavior and ESIPT mechanism for 2-(2-hydroxy-3,5-dimethyl-phenyl)-benzooxazole-5-carboxylicacid molecule. Chemical Physics Letters, 2019, 730, 485-490.	2.6	7
32	Designing difluoro substituted benzene ring based fullerene free acceptors for small Naphthalene Di-Imide based molecules with DFT approaches. Optical and Quantum Electronics, 2019, 51, 1.	3.3	12
33	Construction of a flexible electrochemiluminescence platform for sweat detection. Chemical Science, 2019, 10, 6295-6303.	7.4	49
34	A theoretical investigation on the excited state intramolecular single or double proton transfer mechanism of a salicyladazine system. Journal of the Chinese Chemical Society, 2019, 66, 1416-1421.	1.4	5
35	Unveiling the electronic structures and ligation effect of the superatomâ€“polymeric zirconium oxide clusters: a computational study. Physical Chemistry Chemical Physics, 2019, 21, 14865-14872.	2.8	17
36	Modulating mechanism of N H-based excited-state intramolecular proton transfer by electron-withdrawing substituent at aromatic para-position. Chemical Physics Letters, 2019, 730, 76-83.	2.6	12

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37	Modulating N H-based excited-state intramolecular proton transfer by different electron-donating/withdrawing substituents in 2-(2â€²-aminophenyl)benzothiazole compounds. Chemical Physics Letters, 2019, 724, 57-66.	2.6	16
38	A detailed theoretical simulation about the excited state dynamical process for the novel (benzo[d]thiazolâ€2â€yl)â€5â€(9Hâ€carbazolâ€9â€yl)phenol molecule. Journal of Physical Organic Chemistry, 2019, 32, e3942.	1.9	3
39	Polymeric tungsten carbide nanoclusters: structural evolution, ligand modulation, and assembled nanomaterials. Nanoscale, 2019, 11, 19903-19911.	5.6	20
40	Theoretical study of charge-transport and optical properties of organic crystals: 4,5,9,10-pyrenediimides. IUCrJ, 2019, 6, 603-609.	2.2	6
41	Unusual Indirect Nuclear Spinâ€“Spin Exchange Coupling through Solvated Electron. Journal of Physical Chemistry Letters, 2018, 9, 689-695.	4.6	10
42	Construction of Highly Efficient Resonance Energy Transfer Platform Inside a Nanosphere for Ultrasensitive Electrochemiluminescence Detection. Analytical Chemistry, 2018, 90, 5075-5081.	6.5	67
43	Unique Solvating Effect in Azabenzene Clathrate Hydrates. Journal of Physical Chemistry C, 2018, 122, 28466-28477.	3.1	1
44	Theoretical study of charge-transport and optical properties of indeno[1,2-b]fluorene-6,12-dione-based semiconducting materials. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2018, 74, 705-711.	1.1	5
45	Detection of exosomes by ZnO nanowires coated three-dimensional scaffold chip device. Biosensors and Bioelectronics, 2018, 122, 211-216.	10.1	104
46	Flexible Electrochemical Urea Sensor Based on Surface Molecularly Imprinted Nanotubes for Detection of Human Sweat. Analytical Chemistry, 2018, 90, 13081-13087.	6.5	104
47	Probing the Geometric and Electronic Structures of the Monogadolinium Oxide GdO_n^{â€“1/0} (n = 1â€“4) Clusters. Journal of Physical Chemistry A, 2018, 122, 8776-8782.	2.5	11
48	Theoretical investigations on the d-p hybridized aromaticity, photoelectron spectroscopy and neutral salts of the LaX2â^ (X=Al, Ga, In) clusters. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 203, 132-138.	3.9	15
49	Label-free silicon nanodots featured ratiometric fluorescent aptasensor for lysosomal imaging and pH measurement. Biosensors and Bioelectronics, 2017, 94, 478-484.	10.1	43
50	Three-Dimensional Scaffold Chip with Thermosensitive Coating for Capture and Reversible Release of Individual and Cluster of Circulating Tumor Cells. Analytical Chemistry, 2017, 89, 7924-7932.	6.5	68
51	Photoelectron imaging spectroscopy of niobium mononitride anion NbNâ^. Journal of Chemical Physics, 2016, 145, 034301.	3.0	2
52	Electronic structure of the diatomic VO anion: A combined photoelectron-imaging spectroscopic and theoretical investigation. Physical Review A, 2016, 94, .	2.5	13
53	Degradable Zinc-Phosphate-Based Hierarchical Nanosubstrates for Capture and Release of Circulating Tumor Cells. ACS Applied Materials & Interfaces, 2016, 8, 15917-15925.	8.0	53
54	High-Efficiency Capture of Individual and Cluster of Circulating Tumor Cells by a Microchip Embedded with Three-Dimensional Poly(dimethylsiloxane) Scaffold. Analytical Chemistry, 2016, 88, 6773-6780.	6.5	59

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55	Direct experimental observation of weakly-bound character of the attached electron in europium anion. Scientific Reports, 2015, 5, 12414.	3.3	16
56	Mimicking the magnetic properties of rare earth elements using superatoms. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4941-4945.	7.1	33
57	Assigning the mass spectrum of NbNâ^': Photoelectron imaging spectroscopy and nominal-mass counterpart analysis. International Journal of Mass Spectrometry, 2014, 365-366, 222-224.	1.5	6
58	S-P Coupling Induced Unusual Open-Shell Metal Clusters. Journal of the American Chemical Society, 2014, 136, 4821-4824.	13.7	22
59	Observation of dâ€“p hybridized aromaticity in lanthanum-doped boron clusters. Physical Chemistry Chemical Physics, 2014, 16, 533-539.	2.8	46
60	Joint Photoelectron Imaging Spectroscopic and Theoretical Characterization on the Electronic Structures of the Anionic and Neutral ZrC2 Clusters. Journal of Physical Chemistry A, 2014, 118, 6935-6939.	2.5	8
61	Engineered Decomposable Multifunctional Nanobioprobes for Capture and Release of Rare Cancer Cells. Analytical Chemistry, 2014, 86, 4618-4626.	6.5	55
62	Probing the Electronic Structures and Relative Stabilities of Monomagnesium Oxide Clusters MgOxâ€“ and MgOx (x = 1â€“4): A Combined Photoelectron Imaging and Theoretical Investigation. Journal of Physical Chemistry A, 2013, 117, 11896-11905.	2.5	11
63	Formation of Hydroxyl Radical from the Photolysis of Salicylic Acid. Journal of Physical Chemistry A, 2011, 115, 5062-5068.	2.5	2
64	Fluorescence and solvent-dependent phosphorescence studies of o-nitrobenzaldehyde: A combined experimental and theoretical investigation. Physical Chemistry Chemical Physics, 2010, 12, 9067.	2.8	14
65	OH produced from o-nitrophenol photolysis: A combined experimental and theoretical investigation. Journal of Chemical Physics, 2009, 130, 234311.	3.0	24
66	Detection of OH Radical in the Photodissociation ofp-Aminobenzoic Acid at 266 nm. Chinese Journal of Chemical Physics, 2009, 22, 681-685.	1.3	1
67	Photolysis of oâ€Nitrobenzaldehyde in the Gas Phase: A New OH[.] Formation Channel. ChemPhysChem, 2009, 10, 1135-1142.	2.1	13
68	Theoretical study of the conformers of n-butyl nitrite and their dissociation pathways leading to OH formation. Chemical Physics Letters, 2009, 481, 39-45.	2.6	4
69	Dynamics of OH Formation in the Photodissociation of o-Nitrobenzoic Acid at 295 and 355 nm. Journal of Physical Chemistry A, 2009, 113, 4923-4929.	2.5	12
70	Photodissociation dynamics of n-butyl nitrite at 266nm: Internal state distributions of nascent NO fragments. Chemical Physics Letters, 2008, 452, 14-19.	2.6	8
71	Photodissociation dynamics of benzenesulfonic acid at 266nm: OH detection by laser-induced fluorescence. Chemical Physics Letters, 2008, 466, 27-31.	2.6	3
72	OH Fragment from Benzoic Acid Monomer Photolysis: Threshold and Product State Distribution. Journal of Physical Chemistry A, 2008, 112, 4727-4731.	2.5	13