

# Shuping Bi

## List of Publications by Year in descending order

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105  
papers

1,716  
citations

304743

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106  
docs citations

106  
times ranked

1665  
citing authors

#	ARTICLE	IF	CITATIONS
1	The solvation effect on the rattling behaviour of the hydrated excess proton in water. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 22385-22389.	2.8	1
2	Density Functional Theory Studies on the Real and Apparent Water-Exchange Reaction Kinetics of Al <sup>3+</sup> in Aqueous Solution. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 2315-2322.	2.7	2
3	<sup>27</sup> Al NMR Chemical Shifts and Relative Stabilities of Aqueous Monomeric Al <sup>3+</sup> Hydrolytic Species with Different Coordination Structures. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 1353-1361.	2.7	14
4	Insight into the structures and reactivities of aqueous Al(III)-carboxylate complexes from cluster-based ab initio computational studies – Implications for the ligand-promoted mineral dissolution mechanism. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 244, 451-466.	3.9	2
5	Density functional theory studies on the solvent effects in Al(H <sub>2</sub> O) <sub>6</sub> <sup>3+</sup> water-exchange reactions: the number and arrangement of outer-sphere water molecules. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 7342-7350.	2.8	6
6	DFT Studies on the Water-Assisted Synergistic Proton Dissociation Mechanism for the Spontaneous Hydrolysis Reaction of Al <sup>3+</sup> in Aqueous Solution. <i>ACS Earth and Space Chemistry</i> , 2018, 2, 269-277.	2.7	16
7	Theoretical Studies of the Formation Mechanisms, Thermodynamic Stabilities, and Water-Exchange Reactivities of Aluminum-Salicylate Complexes in Aqueous Solution. <i>ACS Earth and Space Chemistry</i> , 2018, 2, 422-431.	2.7	5
8	Density functional theory studies on the external OH <sup>-</sup> -induced barrierless proton dissociation mechanism for the forced hydrolysis reaction of Al <sup>3+</sup> (aq). <i>International Journal of Quantum Chemistry</i> , 2018, 118, e25682.	2.0	4
9	Numerical simulation study on cyclic reciprocal derivative chronopotentiometry of reversible electrode reaction coupled with Langmuir adsorption. <i>Electrochimica Acta</i> , 2013, 93, 222-229.	5.2	2
10	Theoretical investigation of the thermodynamic structures and kinetic water-exchange reactions of aqueous Al(III)-salicylate complexes. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 121, 41-53.	3.9	10
11	Insight into the structural characteristics of core-links and flat-aluminum tridecamers: A density functional theory study. <i>Dalton Transactions</i> , 2012, 41, 1027-1032.	3.3	7
12	Selective Penetration of Metal Atoms – New Evidence and Application for the Simple Ideal Penetration Model of the Long-Chain Close-Packed Alkanethiol Self-Assembled Monolayers on Au(111). <i>Physics Procedia</i> , 2012, 32, 198-205.	1.2	0
13	Effect of monovalent cations (Li <sup>+</sup> , Na <sup>+</sup> , K <sup>+</sup> , Cs <sup>+</sup> ) on self-assembly of thiol-modified double-stranded and single-stranded DNA on gold electrode. <i>Analyst</i> , 2012, 137, 1680.	3.5	15
14	Deriving TC50 Values of Nanoparticles from Electrochemical Monitoring of Lactate Dehydrogenase Activity Indirectly. <i>Methods in Molecular Biology</i> , 2012, 926, 113-130.	0.9	0
15	DFT study on the mechanism for the substitution of F <sup>-</sup> into Al(III) complexes in aqueous solution. <i>Dalton Transactions</i> , 2011, 40, 567-572.	3.3	11
16	DFT study on the interaction between monomeric aluminium and chloride ion in aqueous solution. <i>Dalton Transactions</i> , 2011, 40, 5052.	3.3	12
17	Electrochemical studies on the permeable characteristics of thiol-modified double-stranded DNA self-assembled monolayers on gold. <i>Analyst</i> , 2011, 136, 2090.	3.5	8
18	Density Functional Theory Study on Aqueous Aluminum-Fluoride Complexes: Exploration of the Intrinsic Relationship between Water-Exchange Rate Constants and Structural Parameters for Monomer Aluminum Complexes. <i>Environmental Science &amp; Technology</i> , 2011, 45, 288-293.	10.0	15

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19	Density Functional Theory Studies on the Structures and Water-Exchange Reactions of Aqueous Al(III)–Oxalate Complexes. <i>Environmental Science &amp; Technology</i> , 2011, 45, 10082-10090.	10.0	12
20	Studies on the effect of electrode pretreatment on the coverage of self-assembled monolayers of dodecanethiol on gold by electrochemical reductive desorption determination. <i>Analyst, The</i> , 2011, 136, 5058.	3.5	24
21	Multi-walled carbon nanotubes decrease lactate dehydrogenase activity in enzymatic reaction. <i>Bioelectrochemistry</i> , 2011, 82, 74-78.	4.6	4
22	Exploration of the specific structural characteristics of thiol-modified single-stranded DNA self-assembled monolayers on gold by a simple model. <i>Biosensors and Bioelectronics</i> , 2011, 26, 4564-4570.	10.1	19
23	Studies on the effect of solvents on self-assembly of thioctic acid and Mercaptohexanol on gold. <i>Thin Solid Films</i> , 2011, 519, 4225-4233.	1.8	8
24	Potential control characteristics of short-chain thiols of thioctic acid and mercaptohexanol self-assembled on gold. <i>Electrochimica Acta</i> , 2010, 55, 6907-6916.	5.2	17
25	Cyclic reciprocal derivative chronopotentiometric behavior of electrode process in the presence of adsorptive reactants: A theoretical study of the electrolysis sequence of adsorptive and diffusing electroactive reactants. <i>Electrochimica Acta</i> , 2010, 55, 9051-9059.	5.2	3
26	Density functional theory study and kinetic analysis of the formation mechanism of $Al_3O_8(OH)_5_6(H_2O)_2_6^{18+}$ ( $Al_3O$ ) in aqueous solution. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 1220-1229.	3.9	18
27	Indirect determination of sulfide ions in water samples at trace level by anodic stripping voltammetry using mercury film electrode. <i>Analytical Methods</i> , 2010, 2, 154-158.	2.7	51
28	A sensitive electrochemical approach for monitoring the effects of nano- $Al_2O_3$ on LDH activity by differential pulse voltammetry. <i>Analyst, The</i> , 2010, 135, 116-120.	3.5	11
29	Influence of an external magnetic field on the formation of self-assembled monolayers of dodecanethiol on polycrystalline gold electrode. <i>Thin Solid Films</i> , 2009, 517, 3661-3666.	1.8	6
30	Theoretical study of irreversible electrode reactions with Henry adsorption using symmetrical cyclic reciprocal derivative chronopotentiometry. <i>Electrochimica Acta</i> , 2009, 54, 5326-5335.	5.2	3
31	Some thoughts on the existence of ion and water channels in highly dense and well-ordered $CH_3$ -terminated alkanethiol self-assembled monolayers on gold. <i>Biosensors and Bioelectronics</i> , 2009, 24, 1074-1082.	10.1	19
32	Density Functional Investigation of the Water Exchange Reaction on the Gibbsite Surface. <i>Environmental Science &amp; Technology</i> , 2009, 43, 9281-9286.	10.0	16
33	Theoretical investigation of dehydration of aquated $Al(OH)_2^+$ species in aqueous solution. <i>Dalton Transactions</i> , 2009, , 1554.	3.3	17
34	Theoretical exploration of the water exchange mechanism of the polyoxocation $GaO_4Al_{12}(OH)_{24}(H_2O)_{127}^{27+}$ in aqueous solution. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 1588-1596.	3.9	17
35	Electrochemical behavior of lactate dehydrogenase immobilized on $\alpha$ -silica sol-gel/nanometre-sized tridecameric aluminium polycation-modified gold electrode and its application. <i>Analyst, The</i> , 2009, 134, 1392.	3.5	4
36	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.	2.5	21

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37	Theoretical investigation on the dimerization of the deprotonated aquo ion of Al(III) in water. Dalton Transactions, 2009, , 521-529.	3.3	19
38	Density functional study of the water exchange reaction of the polyoxocation $\text{GeO}_4\text{Al}_{12}(\text{OH})_{24}(\text{H}_2\text{O})_{128}^+$ (K-GeAl <sub>12</sub> ) in aqueous solution. Dalton Transactions, 2009, , 8013.	3.3	11
39	Density functional theory study of the aluminium(III) hydrolysis in aqueous solution. Physical Chemistry Chemical Physics, 2009, 11, 2396.	2.8	45
40	Rapid formation of high-quality self-assembled monolayers of dodecanethiol on polycrystalline gold under ultrasonic irradiation. Electrochimica Acta, 2008, 53, 3479-3483.	5.2	15
41	A novel method for study of the aggregation of protein induced by metal ion aluminum(III) using resonance Rayleigh scattering technique. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2008, 69, 71-77.	3.9	38
42	A novel and sensitive method for recognition and indirect determination of Al(III) in biological fluid based on the quenching of resonance Rayleigh scattering intensities of $\alpha\text{-Al(III)-EV-DNA}$ complexing system. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2008, 69, 142-147.	3.9	8
43	Study of the solvent effect on the quality of dodecanethiol self-assembled monolayers on polycrystalline gold. Journal of Electroanalytical Chemistry, 2008, 624, 315-322.	3.8	38
44	Room-temperature ionic liquid as a new solvent to prepare high-quality dodecanethiol self-assembled monolayers on polycrystalline gold. Electrochemistry Communications, 2008, 10, 587-591.	4.7	21
45	Rapid formation of well-ordered self-assembled monolayers of dodecanethiol on polycrystalline gold by microwave irradiation. Electrochemistry Communications, 2008, 10, 582-586.	4.7	11
46	Theoretical Investigation of Water Exchange on the Nanometer-Sized Polyoxocation $\text{AlO}_4\text{Al}_{12}(\text{OH})_{24}(\text{H}_2\text{O})_{12}^{7+}$ (Keggin-Al <sub>13</sub> ) in Aqueous Solution. Journal of the American Chemical Society, 2008, 130, 14402-14403.	13.7	36
47	The promotion effect of titania nanoparticles on the direct electrochemistry of lactate dehydrogenase sol-gel modified gold electrode. Talanta, 2008, 76, 1065-1069.	5.5	44
48	Supermolecule density functional calculations on the water exchange of aquated Al(III) species in aqueous solution. Chemical Communications, 2008, , 3930.	4.1	32
49	Electrochemical Studies on the Effects of Nanometer-Sized Tridecameric Aluminum Polycation on Lactate Dehydrogenase Activity at the Molecular Level. Journal of Physical Chemistry C, 2008, 112, 18034-18038.	3.1	10
50	Studies on the effects of Al(III) on the lactate dehydrogenase activity by differential pulse voltammetry. Talanta, 2007, 73, 529-533.	5.5	14
51	Direct electrochemistry of lactate dehydrogenase immobilized on silica sol-gel modified gold electrode and its application. Biosensors and Bioelectronics, 2007, 23, 682-687.	10.1	38
52	Theoretical investigation on cyclic reciprocal derivative chronopotentiometry. Electrochimica Acta, 2007, 52, 8020-8030.	5.2	5
53	LC Determination of Trace Short-Chain Organic Acids in Wheat Root Exudates Under Aluminum Stress. Chromatographia, 2007, 66, 867-872.	1.3	13
54	Aluminum Tolerance of Two Wheat Cultivars (BrevorandAtlas66) in Relation to Their Rhizosphere pH and Organic Acids Exuded from Roots. Journal of Agricultural and Food Chemistry, 2006, 54, 10033-10039.	5.2	35

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55	Variation of Wheat Root Exudates under Aluminum Stress. <i>Journal of Agricultural and Food Chemistry</i> , 2006, 54, 10040-10046.	5.2	49
56	Direct voltammetry of catalase immobilized on silica sol-gel and cysteine modified gold electrode and its application. <i>Biosensors and Bioelectronics</i> , 2006, 22, 247-252.	10.1	50
57	Study of reversible electrode processes with unsymmetrical cyclic reciprocal derivative chronopotentiometry. <i>Electrochimica Acta</i> , 2006, 51, 5548-5555.	5.2	7
58	Study on the interaction of copper-zinc superoxide dismutase with aluminum ions by electrochemical and fluorescent method. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2006, 65, 896-900.	3.9	16
59	Non-chromatographic speciation analysis of mercury by flow injection on-line preconcentration in combination with chemical vapor generation atomic fluorescence spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2006, 61, 831-840.	2.9	50
60	Linear scan voltammetric indirect determination of Al(III) by the catalytic cathodic response of norepinephrine at the hanging mercury drop electrode. <i>Journal of Inorganic Biochemistry</i> , 2005, 99, 1756-1761.	3.5	19
61	Electrochemical Studies of the Inhibition and Activation Effects of Al (III) on the Activity of Bovine Liver Glutamate Dehydrogenase. <i>Sensors</i> , 2005, 5, 235-244.	3.8	11
62	Electrochemical Studies of Guanosine in DMF and Detection of Its Radical Cation in a Scanning Electrochemical Microscopy Nanogap Experiment. <i>Journal of the American Chemical Society</i> , 2005, 127, 3690-3691.	13.7	42
63	Density functional theory study on the bridge structure in dimeric aluminum (III) water complexes. <i>Journal of Chemical Physics</i> , 2004, 121, 4650-4656.	3.0	14
64	Resonance Rayleigh scattering study of the reaction of nucleic acids with thionine and its analytical application. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2004, 60, 455-462.	3.9	23
65	Indirect Voltammetric Determination of Aluminum in Environmental and Biological Samples in the Presence of the Aluminum Chelating Drugs. <i>Electroanalysis</i> , 2004, 16, 644-649.	2.9	13
66	The Electrochemical Behavior of $\alpha$ -Ketoglutarate at the Hanging Mercury Drop Electrode in Acidic Aqueous Solution and Its Practical Application in Environmental and Biological Samples. <i>Electroanalysis</i> , 2004, 16, 1051-1058.	2.9	3
67	Resonance Rayleigh scattering determination of trace amounts of Al in natural waters and biological samples based on the formation of an Al(III)-morin-surfactant complex. <i>Analytica Chimica Acta</i> , 2004, 501, 89-97.	5.4	43
68	Fractionation of aluminum in natural waters by fluorometry based on the competitive complexation. <i>Analytica Chimica Acta</i> , 2004, 511, 25-31.	5.4	10
69	Third-generation superoxide anion sensor based on superoxide dismutase directly immobilized by sol-gel thin film on gold electrode. <i>Biosensors and Bioelectronics</i> , 2004, 19, 1479-1486.	10.1	87
70	A study on the interaction of proteins with some heteropoly compounds and their analytical application by resonance Rayleigh scattering method. <i>Talanta</i> , 2004, 63, 279-286.	5.5	26
71	Aluminum Facilitation of the Iron-Mediated Oxidation of DOPA to Melanin. <i>Analytical Sciences</i> , 2004, 20, 629-634.	1.6	8
72	Solid phase extraction-spectrophotometric determination of dissolved aluminum in soil extracts and ground waters. <i>Journal of Inorganic Biochemistry</i> , 2003, 97, 173-178.	3.5	45

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73	Effect of aluminum (III) on the conversion of dopachrome in the melanin synthesis pathway. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2003, 59, 1689-1696.	3.9	10
74	Multi-NMR and fluorescence spectra study the effects of aluminum(III) on coenzyme NADH in aqueous solutions. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2003, 59, 2561-2569.	3.9	13
75	Potentiometric and multinuclear NMR studies on the interaction of aluminum with ascorbic acid in acidic aqueous solution. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2003, 59, 2655-2665.	3.9	11
76	Aluminum ions accelerated the oxidative stress of copper-mediated melanin formation. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2003, 59, 3075-3083.	3.9	16
77	Extraction with Toluene and HPLC Determination of Aluminum in the Form of an 8-Hydroxyquinoline Derivative. <i>Journal of Liquid Chromatography and Related Technologies</i> , 2003, 26, 273-283.	1.0	0
78	Application of Dopamine as an Electroactive Ligand for the Determination of Aluminum in Biological Fluids. <i>Analytical Sciences</i> , 2002, 18, 293-299.	1.6	12
79	ELECTROCHEMICAL AND SPECTROMETRIC STUDIES ON THE PRINCIPLE OF INDIRECT DETERMINATION OF ALUMINUM USING DOPA AS AN ELECTROACTIVE COMPLEXING LIGAND. <i>Analytical Letters</i> , 2002, 35, 135-152.	1.8	13
80	Speciation analysis of aluminium(III) in natural waters and biological fluids by complexing with various catechols followed by differential pulse voltammetry detection. <i>Analyst</i> , 2002, 127, 1657-1665.	3.5	32
81	Speciation of aluminium(III) in natural waters using differential pulse voltammetry with a Pyrocatechol Violet-modified electrode. <i>Analyst</i> , 2001, 126, 1404-1408.	3.5	13
82	ADVANCES IN A. C. OSCILLOPolarography. <i>Instrumentation Science and Technology</i> , 2001, 29, 295-307.	1.8	0
83	INVESTIGATION ON CYCLIC RECIPROCAL DERIVATIVE CHRONOPOTENTIOMETRY. IV. CYCLIC CONTROLLED LOGIC CIRCUIT AND ANOTHER SIMPLE RECIPROCAL SIMULATOR. <i>Instrumentation Science and Technology</i> , 2001, 29, 17-24.	1.8	2
84	Speciation of aluminum in the stream waters from the Susquehanna River watershed, Chesapeake Bay. <i>Environmental Geology</i> , 2001, 40, 300-304.	1.2	10
85	Computer simulation of the distribution of aluminum speciation in soil solutions in equilibrium with the mineral phase imogolite. <i>Journal of Inorganic Biochemistry</i> , 2001, 87, 97-104.	3.5	11
86	Neurotransmitter dopamine applied in electrochemical determination of aluminum in drinking waters and biological samples. <i>Journal of Inorganic Biochemistry</i> , 2001, 87, 105-113.	3.5	28
87	Application of L-Dopa as an Electroactive Ligand for Indirect Determination of Aluminum in Biological Samples by Differential Pulse Voltammetry. <i>Electroanalysis</i> , 2001, 13, 1054-1058.	2.9	14
88	Determination of the speciation of aluminum(III) in natural waters by adsorption stripping voltammetry and complexation with Al III -solochrome violet RS. <i>Analytica Chimica Acta</i> , 2001, 449, 35-44.	5.4	34
89	FRACTIONATION OF ALUMINUM IN NATURAL WATERS BY CATION-EXCHANGE RESIN COUPLED WITH CHLOROFORM EXTRACTION/8-HYDROXYQUINOLINE FLUORIMETRIC DETERMINATION. <i>Instrumentation Science and Technology</i> , 2001, 29, 153-160.	1.8	2
90	Fast Evaluation of Differential Capacity and Surface Charge in Electrical Double Layers with A.C. Oscillopolarography. <i>Collection of Czechoslovak Chemical Communications</i> , 2000, 65, 371-379.	1.0	1

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91	Speciation of aluminum equilibria with kaolinite in acidic natural water. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2000, 35, 1849-1857.	1.7	3
92	INVESTIGATION ON CYCLIC RECIPROCAL DERIVATIVE CHRONOPOTENTIOMETRY. II. A SIMPLE ELECTRONIC SIMULATOR. <i>Instrumentation Science and Technology</i> , 2000, 28, 303-310.	1.8	4
93	Indirect Differential Pulse Voltammetric Determination of Aluminum Biological Samples in the Presence of 3, 4-Dihydroxyphenylalanine. <i>Analytical Letters</i> , 2000, 33, 209-219.	1.8	8
94	Investigation on Cyclic Reciprocal Derivative Chronopotentiometry. Part II. Theoretical Equation for an Irreversible Reaction. <i>Collection of Czechoslovak Chemical Communications</i> , 2000, 65, 971-978.	1.0	5
95	Differential pulse voltammetric indirect determination of aluminium in drinking waters, blood, urine, hair, and medicament samples using l-dopa under alkaline conditions. <i>Analyst, The</i> , 2000, 125, 1299-1302.	3.5	22
96	Indirect A.C. Oscillopolarographic Determination of Total Monomeric and Acid-Reactive Aluminum in Natural Waters by Using Pyrocatechol Violet. <i>Analytical Letters</i> , 2000, 33, 677-689.	1.8	5
97	Direct Determination of Labile Monomeric Aluminum in Natural Waters By A.C. Oscillopolarography in the Presence of Rubenic Acid. <i>Analytical Letters</i> , 1999, 32, 1435-1446.	1.8	10
98	Determination of Aluminum in Drinking Waters by A.C. Oscillopolarography in a Lithium Chloride System. <i>Analytical Letters</i> , 1998, 31, 669-677.	1.8	5
99	Chronopotentiometric Determination of Aluminum by Solochrome Violet RS. <i>Analytical Letters</i> , 1998, 31, 1937-1946.	1.8	4
100	Estimation of Aluminum Speciation in Surface Waters of Low Ionic Strength by a Simple Computer Model. <i>International Journal of Environmental Analytical Chemistry</i> , 1997, 68, 479-495.	3.3	6
101	Derivative adsorption chronopotentiometric determination of aluminum in natural and drinking waters using the Al(III)-1,2-dihydroxyanthraquinone-3-sulfonic acid system. <i>Electroanalysis</i> , 1997, 9, 1369-1371.	2.9	10
102	Investigations on cyclic reciprocal derivative chronopotentiometry. Part 1. Theory for a reversible reaction. <i>Journal of Electroanalytical Chemistry</i> , 1996, 405, 51-58.	3.8	29
103	A.C. Oscillopolarographic Determination of Aluminum in Natural and Drinking Waters Using the Adsorption of the Al(III)-1,2-Dihydroxyanthraquinone-3-sulfonic Acid Complex. <i>Collection of Czechoslovak Chemical Communications</i> , 1996, 61, 1745-1753.	1.0	8
104	Fourier spectrum of ac cyclic oscillochronopotentiometry responses. <i>Journal of Electroanalytical Chemistry</i> , 1995, 390, 1-9.	3.8	8
105	Investigation of the factors influencing aluminium speciation in natural water equilibria with the mineral phase gibbsite. <i>Analyst, The</i> , 1995, 120, 2033.	3.5	18