Guowen Zhang

List of Publications by Year in descending order

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127 papers	7,170 citations	50244 46 h-index	62565 80 g-index
127 all docs	127 docs citations	127 times ranked	5732 citing authors

#	Article	IF	Citations
1	Study of the interaction between icariin and human serum albumin by fluorescence spectroscopy. Journal of Molecular Structure, 2008, 881, 132-138.	1.8	286
2	Inhibitory kinetics and mechanism of kaempferol on Î±-glucosidase. Food Chemistry, 2016, 190, 207-215.	4.2	270
3	Î±-Glucosidase inhibition by luteolin: Kinetics, interaction and molecular docking. International Journal of Biological Macromolecules, 2014, 64, 213-223.	3.6	247
4	Inhibitory Mechanism of Apigenin on Î±-Glucosidase and Synergy Analysis of Flavonoids. Journal of Agricultural and Food Chemistry, 2016, 64, 6939-6949.	2.4	235
5	Novel Insights into the Inhibitory Mechanism of Kaempferol on Xanthine Oxidase. Journal of Agricultural and Food Chemistry, 2015, 63, 526-534.	2.4	206
6	Probing the Binding of the Flavonoid Diosmetin to Human Serum Albumin by Multispectroscopic Techniques. Journal of Agricultural and Food Chemistry, 2012, 60, 2721-2729.	2.4	201
7	Inhibitory effect of morin on tyrosinase: Insights from spectroscopic and molecular docking studies. Food Chemistry, 2014, 163, 226-233.	4.2	185
8	Quercetin as a tyrosinase inhibitor: Inhibitory activity, conformational change and mechanism. Food Research International, 2017, 100, 226-233.	2.9	178
9	Mechanistic and conformational studies on the interaction of food dye amaranth with human serum albumin by multispectroscopic methods. Food Chemistry, 2013, 136, 442-449.	4.2	168
10	Molecular Spectroscopic Studies of Farrerol Interaction with Calf Thymus DNA. Journal of Agricultural and Food Chemistry, 2011, 59, 8944-8952.	2.4	162
11	Optimized ultrasonic-assisted extraction of flavonoids from Prunella vulgaris L. and evaluation of antioxidant activities in vitro. Innovative Food Science and Emerging Technologies, 2011, 12, 18-25.	2.7	158
12	Multispectroscopic studies on the interaction of maltol, a food additive, with bovine serum albumin. Food Chemistry, 2012, 133, 264-270.	4.2	149
13	Galangin inhibits Î±-glucosidase activity and formation of non-enzymatic glycation products. Food Chemistry, 2019, 271, 70-79.	4.2	148
14	Dietary Flavonoids as Xanthine Oxidase Inhibitors: Structureâ€“Affinity and Structureâ€“Activity Relationships. Journal of Agricultural and Food Chemistry, 2015, 63, 7784-7794.	2.4	146
15	Effect of luteolin on xanthine oxidase: Inhibition kinetics and interaction mechanism merging with docking simulation. Food Chemistry, 2013, 141, 3766-3773.	4.2	144
16	Simultaneous spectrophotometric determination of maltol, ethyl maltol, vanillin and ethyl vanillin in foods by multivariate calibration and artificial neural networks. Food Chemistry, 2005, 89, 465-473.	4.2	134
17	New Insights into the Inhibition Mechanism of Betulinic Acid on Î±-Glucosidase. Journal of Agricultural and Food Chemistry, 2018, 66, 7065-7075.	2.4	129
18	Optimization of microwave-assisted enzymatic extraction of polyphenols from waste peanut shells and evaluation of its antioxidant and antibacterial activities in vitro. Food and Bioproducts Processing, 2013, 91, 158-168.	1.8	128

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19	Spectroscopic Studies of DNA Interactions with Food Colorant Indigo Carmine with the Use of Ethidium Bromide as a Fluorescence Probe. Journal of Agricultural and Food Chemistry, 2012, 60, 10867-10875.	2.4	113
20	Binding Characteristics of Sodium Saccharin with Calf Thymus DNA in Vitro. Journal of Agricultural and Food Chemistry, 2014, 62, 991-1000.	2.4	108
21	Inhibitory mechanism of two allosteric inhibitors, oleanolic acid and ursolic acid on Î±-glucosidase. International Journal of Biological Macromolecules, 2018, 107, 1844-1855.	3.6	106
22	Interaction of the irisflorentin with bovine serum albumin: A fluorescence quenching study. Journal of Molecular Structure, 2008, 891, 93-97.	1.8	105
23	Spectroscopic investigation of the interaction between chrysin and bovine serum albumin. Journal of Molecular Structure, 2009, 921, 346-351.	1.8	94
24	Inhibitory mechanism of vitexin on Î±-glucosidase and its synergy with acarbose. Food Hydrocolloids, 2020, 105, 105824.	5.6	93
25	Spectroscopic studies on the interaction of morinâ€“Eu(III) complex with calf thymus DNA. Journal of Molecular Structure, 2009, 923, 114-119.	1.8	92
26	Inhibitory mechanism of morin on Î±-glucosidase and its anti-glycation properties. Food and Function, 2016, 7, 3953-3963.	2.1	91
27	Interaction of alpinetin with bovine serum albumin: Probing of the mechanism and binding site by spectroscopic methods. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2010, 76, 410-417.	2.0	86
28	Mechanistic insights into the inhibition of quercetin on xanthine oxidase. International Journal of Biological Macromolecules, 2018, 112, 405-412.	3.6	83
29	Spectroscopic studies on the interaction between carbaryl and calf thymus DNA with the use of ethidium bromide as a fluorescence probe. Journal of Photochemistry and Photobiology B: Biology, 2012, 108, 53-61.	1.7	82
30	Myricetin inhibits the generation of superoxide anion by reduced form of xanthine oxidase. Food Chemistry, 2017, 221, 1569-1577.	4.2	82
31	Potential Toxicity of Phthalic Acid Esters Plasticizer: Interaction of Dimethyl Phthalate with Trypsin in Vitro. Journal of Agricultural and Food Chemistry, 2015, 63, 75-84.	2.4	80
32	Exploring inhibitory mechanism of gallocatechin gallate on a-amylase and a-glucosidase relevant to postprandial hyperglycemia. Journal of Functional Foods, 2018, 48, 200-209.	1.6	80
33	Study of interaction between kaempferolâ€“Eu3+ complex and DNA with the use of the Neutral Red dye as a fluorescence probe. Sensors and Actuators B: Chemical, 2010, 144, 239-246.	4.0	76
34	Studies on the interaction of aminocarb with calf thymus DNA by spectroscopic methods. Pesticide Biochemistry and Physiology, 2010, 98, 206-212.	1.6	75
35	Spectroscopic studies of the interaction between pirimicarb and calf thymus DNA. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2011, 78, 687-694.	2.0	73
36	Probing the Binding of Insecticide Permethrin to Calf Thymus DNA by Spectroscopic Techniques Merging with Chemometrics Method. Journal of Agricultural and Food Chemistry, 2013, 61, 2638-2647.	2.4	70

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37	Comparing the inhibitory abilities of epigallocatechin-3-gallate and gallocatechin gallate against tyrosinase and their combined effects with kojic acid. Food Chemistry, 2021, 349, 129172.	4.2	60
38	Inhibition of chrysin on xanthine oxidase activity and its inhibition mechanism. International Journal of Biological Macromolecules, 2015, 81, 274-282.	3.6	59
39	Spectroscopic studies on the interaction of sodium benzoate, a food preservative, with calf thymus DNA. Food Chemistry, 2013, 141, 41-47.	4.2	55
40	Phytochemical profiles and antioxidant activity of processed brown rice products. Food Chemistry, 2017, 232, 67-78.	4.2	55
41	Interaction of prometryn to human serum albumin: Insights from spectroscopic and molecular docking studies. Pesticide Biochemistry and Physiology, 2014, 108, 66-73.	1.6	54
42	Probing the binding of vitexin to human serum albumin by multispectroscopic techniques. Journal of Luminescence, 2011, 131, 880-887.	1.5	53
43	Inhibitory mechanism of epicatechin gallate on Î±-amylase and Î±-glucosidase and its combinational effect with acarbose or epigallocatechin gallate. Journal of Molecular Liquids, 2019, 290, 111202.	2.3	53
44	Fluorescence spectrometric studies on the binding of puerarin to human serum albumin using warfarin, ibuprofen and digitoxin as site markers with the aid of chemometrics. Journal of Luminescence, 2011, 131, 2716-2724.	1.5	52
45	Probing the binding mode of psoralen to calf thymus DNA. International Journal of Biological Macromolecules, 2014, 67, 228-237.	3.6	52
46	Inhibition mechanism of baicalein and baicalin on xanthine oxidase and their synergistic effect with allopurinol. Journal of Functional Foods, 2018, 50, 172-182.	1.6	52
47	Inhibitory mechanism of epicatechin gallate on tyrosinase: inhibitory interaction, conformational change and computational simulation. Food and Function, 2020, 11, 4892-4902.	2.1	51
48	An inhibition mechanism of dihydromyricetin on tyrosinase and the joint effects of vitamins B₆, D₃ or E. Food and Function, 2017, 8, 2601-2610.	2.1	49
49	Kaempferol inhibits the activity of pancreatic lipase and its synergistic effect with orlistat. Journal of Functional Foods, 2020, 72, 104041.	1.6	47
50	Groove binding interaction between daphnetin and calf thymus DNA. International Journal of Biological Macromolecules, 2015, 74, 185-194.	3.6	46
51	Galangin competitively inhibits xanthine oxidase by a ping-pong mechanism. Food Research International, 2016, 89, 152-160.	2.9	45
52	New insights into the binding mechanism between osthole and Î²-lactoglobulin: Spectroscopic, chemometrics and docking studies. Food Research International, 2019, 120, 226-234.	2.9	45
53	Relationships of dietary flavonoid structure with its tyrosinase inhibitory activity and affinity. LWT - Food Science and Technology, 2019, 107, 25-34.	2.5	43
54	Deciphering the groove binding modes of tau-fluvalinate and flumethrin with calf thymus DNA. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2016, 155, 28-37.	2.0	42

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55	Authentication of vegetable oils on the basis of their physico-chemical properties with the aid of chemometrics. Talanta, 2006, 70, 293-300.	2.9	41
56	Determination of metolcarb binding to DNA by spectroscopic and chemometrics methods with the use of acridine orange as a probe. Sensors and Actuators B: Chemical, 2014, 191, 464-472.	4.0	39
57	Mechanism of ultrasound and tea polyphenol assisted ultrasound modification of egg white protein gel. Ultrasonics Sonochemistry, 2021, 81, 105857.	3.8	39
58	Deciphering the inhibitory mechanism of genistein on xanthine oxidase in vitro. Journal of Photochemistry and Photobiology B: Biology, 2015, 153, 463-472.	1.7	37
59	Changes in physicochemical properties, gel structure and in vitro digestion of marinated egg white gel during braising. Food Chemistry, 2020, 330, 127321.	4.2	37
60	Spectroscopic studies of cyanazine binding to calf thymus DNA with the use of ethidium bromide as a probe. Sensors and Actuators B: Chemical, 2013, 182, 453-460.	4.0	36
61	Binding properties of herbicide chlorpropham to DNA: Spectroscopic, chemometrics and modeling investigations. Journal of Photochemistry and Photobiology B: Biology, 2014, 138, 109-117.	1.7	35
62	Binding mechanism of 4â^'octylphenol with human serum albumin: Spectroscopic investigations, molecular docking and dynamics simulation. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 255, 119662.	2.0	35
63	Phytochemical profiles of rice and their cellular antioxidant activity against ABAP induced oxidative stress in human hepatocellular carcinoma HepG2 cells. Food Chemistry, 2020, 318, 126484.	4.2	33
64	Vitexin Inhibits Protein Glycation through Structural Protection, Methylglyoxal Trapping, and Alteration of Glycation Site. Journal of Agricultural and Food Chemistry, 2021, 69, 2462-2476.	2.4	33
65	Study of DNA interactions with bifenthrin by spectroscopic techniques and molecular modeling. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2013, 112, 7-14.	2.0	32
66	Multispectroscopic studies of paeoniflorin binding to calf thymus DNA in vitro. Journal of Luminescence, 2013, 134, 303-309.	1.5	32
67	Improvement of gel properties and digestibility of the water-soluble polymer of tea polyphenol-egg white under thermal treatment. Food Chemistry, 2022, 372, 131319.	4.2	32
68	Binding properties of food colorant allura red with human serum albumin in vitro. Molecular Biology Reports, 2014, 41, 3381-3391.	1.0	30
69	Mechanism of fisetin suppressing superoxide anion and xanthine oxidase activity. Journal of Functional Foods, 2019, 58, 1-10.	1.6	30
70	Molecular characteristics of gallocatechin gallate affecting protein glycation. Food Hydrocolloids, 2020, 105, 105782.	5.6	30
71	Synthesis, characterization and xanthine oxidase inhibition of Cu(II)â€"chrysin complex. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 178, 71-78.	2.0	28
72	Interaction between 8-methoxypsoralen and trypsin: Monitoring by spectroscopic, chemometrics and molecular docking approaches. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 173, 188-195.	2.0	28

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73	Colorimetric detection of cadmium in water using L-cysteine Functionalized goldâ€“silver nanoparticles. Analytical Letters, 2018, 51, 2906-2919.	1.0	28
74	Interaction characterization of 5â^'hydroxymethylâ^'2â^'furaldehyde with human serum albumin: Binding characteristics, conformational change and mechanism. Journal of Molecular Liquids, 2020, 297, 111835.	2.3	28
75	Mechanistic insights into the inhibition of pancreatic lipase by apigenin: Inhibitory interaction, conformational change and molecular docking studies. Journal of Molecular Liquids, 2021, 335, 116505.	2.3	28
76	Mechanism and conformational studies of farrerol binding to bovine serum albumin by spectroscopic methods. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2011, 82, 424-431.	2.0	27
77	Characterization of the groove binding between di-(2-ethylhexyl) phthalate and calf thymus DNA. International Journal of Biological Macromolecules, 2017, 101, 736-746.	3.6	27
78	Inhibitory effect of epicatechin gallate on protein glycation. Food Research International, 2019, 122, 230-240.	2.9	27
79	Characterization of the interaction between resmethrin and calf thymus DNA in vitro. New Journal of Chemistry, 2015, 39, 3665-3674.	1.4	26
80	Inhibitory effect of corosolic acid on Î±â€glucosidase: kinetics, interaction mechanism, and molecular simulation. Journal of the Science of Food and Agriculture, 2019, 99, 5881-5889.	1.7	26
81	Interaction of isoeugenol with calf thymus DNA and its protective effect on DNA oxidative damage. Journal of Molecular Liquids, 2019, 282, 356-365.	2.3	26
82	Intercalation binding of food antioxidant butylated hydroxyanisole to calf thymus DNA. Journal of Photochemistry and Photobiology B: Biology, 2014, 141, 253-261.	1.7	25
83	Binding characteristics of psoralen with trypsin: Insights from spectroscopic and molecular modeling studies. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 151, 498-505.	2.0	25
84	Study on the interaction of triadimenol with calf thymus DNA by multispectroscopic methods and molecular modeling. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2012, 96, 1012-1019.	2.0	23
85	Intercalation of herbicide propyzamide into DNA using acridine orange as a fluorescence probe. Sensors and Actuators B: Chemical, 2015, 206, 630-639.	4.0	23
86	Influence of transglutaminaseâ€assisted ultrasound treatment on the structure and functional properties of soy protein isolate. Journal of Food Processing and Preservation, 2019, 43, e14203.	0.9	23
87	Simultaneous spectrophotometric determination of atrazine and cyanazine by chemometric methods. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2011, 78, 238-242.	2.0	22
88	Spectroscopic and molecular simulation studies on the interaction of diâ€(2â€ethylhexyl) phthalate and human serum albumin. Luminescence, 2015, 30, 198-206.	1.5	22
89	Inhibition of Î±-glucosidase by vitamin D₃ and the effect of vitamins B₁ and B₂. Food and Function, 2016, 7, 982-991.	2.1	22
90	Determination of acetamiprid partial-intercalative binding to DNA by use of spectroscopic, chemometrics, and molecular docking techniques. Analytical and Bioanalytical Chemistry, 2013, 405, 8871-8883.	1.9	21

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91	Binding properties of butylated hydroxytoluene with calf thymus DNA in vitro. Journal of Photochemistry and Photobiology B: Biology, 2013, 126, 112-118.	1.7	19
92	Intercalation of the daphnetinâ€“Cu(<scp>ii</scp>) complex with calf thymus DNA. RSC Advances, 2016, 6, 5408-5418.	1.7	18
93	The inhibition of oleanolic acid on protein non-enzymatic glycation. LWT - Food Science and Technology, 2020, 125, 109253.	2.5	18
94	Epicatechin Gallate as Xanthine Oxidase Inhibitor: Inhibitory Kinetics, Binding Characteristics, Synergistic Inhibition, and Action Mechanism. Foods, 2021, 10, 2191.	1.9	18
95	Binding of 8-methoxypsoralen to DNA in vitro: Monitoring by spectroscopic and chemometrics approaches. Journal of Luminescence, 2014, 154, 116-123.	1.5	17
96	Exploring the binding interaction of Maillard reaction byâ€product 5â€hydroxymethylâ€2â€furaldehyde with calf thymus DNA. Journal of the Science of Food and Agriculture, 2019, 99, 3192-3202.	1.7	15
97	Interaction between quinoline yellow and human serum albumin: spectroscopic, chemometric and molecular docking studies. Journal of the Science of Food and Agriculture, 2019, 99, 73-82.	1.7	14
98	The inhibitory kinetics and mechanism of dietary vitamins D₃and B₂on xanthine oxidase. Food and Function, 2016, 7, 2849-2861.	2.1	13
99	Change of benzo(a)pyrene during frying and its groove binding to calf thymus DNA. Food Chemistry, 2021, 350, 129276.	4.2	13
100	Inhibitory Mechanism of Baicalein on Acetylcholinesterase: Inhibitory Interaction, Conformational Change, and Computational Simulation. Foods, 2022, 11, 168.	1.9	13
101	Detection of interaction between lysionotin and bovine serum albumin using spectroscopic techniques combined with molecular modeling. Molecular Biology Reports, 2014, 41, 1693-1702.	1.0	12
102	Insights into the mechanism of groove binding between 4â€“octylphenol and calf thymus DNA. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 238, 118454.	2.0	12
103	Novel insights into the interaction mechanism of 5-hydroxymethyl-2-furaldehyde with Î²-casein and its effects on the structure and function of Î²-casein. LWT - Food Science and Technology, 2021, 152, 112360.	2.5	12
104	Effects of interaction between hesperetin/hesperidin and glutenin on the structure and functional properties of glutenin. LWT - Food Science and Technology, 2022, 155, 112983.	2.5	12
105	Interaction Between Toddalolatone and Human Serum Albumin. Journal of Solution Chemistry, 2014, 43, 727-745.	0.6	11
106	A combination of alkaline pH-shifting/acidic pH and thermal treatments improves the solubility and emulsification properties of wheat glutenin. Food Chemistry, 2022, 393, 133358.	4.2	11
107	Partial intercalative binding of the food colorant erythrosine to herring sperm DNA. RSC Advances, 2015, 5, 98366-98376.	1.7	10
108	Characterizing the binding of tert-butylhydroquinone and its oxidation product tert-butylquinone with calf thymus DNA in vitro. Journal of Molecular Liquids, 2020, 302, 112338.	2.3	10

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109	Revealing the groove binding characteristics of plant growth regulator 3-indoleacetic acid with calf thymus DNA. Journal of Molecular Liquids, 2021, 326, 115265.	2.3	10
110	Effects of Baicalein and Chrysin on the Structure and Functional Properties of Î²-Lactoglobulin. Foods, 2022, 11, 165.	1.9	10
111	Colorimetric detection of the Î²-agonist ractopamine in animal feed, tissue and urine samples using goldâ€“silver alloy nanoparticles modified with sulfanilic acid. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2019, 36, 35-45.	1.1	9
112	Groove binding of indole-3-butyric acid to calf thymus DNA: Spectroscopic and in silico approaches. Journal of Molecular Liquids, 2022, 347, 118323.	2.3	8
113	Effects of stewing with tea polyphenol on the gel properties, microstructure, and secondary structure of boiled egg white. Journal of Food Science, 2021, 86, 4262-4274.	1.5	7
114	Groove Binding of Vanillin and Ethyl Vanillin to Calf Thymus DNA. Journal of Fluorescence, 2017, 27, 1815-1828.	1.3	6
115	Exploring the binding mechanism of ferulic acid and ovalbumin: insights from spectroscopy, molecular docking and dynamics simulation. Journal of the Science of Food and Agriculture, 2022, 102, 3835-3846.	1.7	6
116	Action mechanisms of two key xanthine oxidase inhibitors in tea polyphenols and their combined effect with allopurinol. Journal of the Science of Food and Agriculture, 2022, 102, 7195-7208.	1.7	6
117	Intercalation of 2-butyl-4-methylphenol to Gâ€“C rich region of DNA and the role of hydroxypropyl-Î²-cyclodextrin. Journal of Photochemistry and Photobiology B: Biology, 2015, 151, 125-134.	1.7	5
118	Mechanism of the amelioration of the protein digestibility of whole marinated eggs by strong alkali pickling: Physicochemical properties, gel structure, and proteomics. Food Research International, 2022, 156, 111348.	2.9	5
119	Spectroscopic and Chemometrics Analysis of the Hydrolytic Process of Folpet and Its Interaction with DNA. Journal of Solution Chemistry, 2014, 43, 1388-1401.	0.6	4
120	Deciphering the intercalative binding modes of benzoyl peroxide with calf thymus DNA. Luminescence, 2017, 32, 988-998.	1.5	4
121	Groove binding between ferulic acid and calf thymus DNA: spectroscopic methodology combined with chemometrics and molecular docking studies. Journal of Biomolecular Structure and Dynamics, 2020, 38, 2029-2037.	2.0	3
122	Study on the mechanism of enhanced gel strength of heat-induced egg white by shikimic acid braising. Poultry Science, 2022, 101, 101774.	1.5	3
123	Multi-Spectroscopic and Molecular Simulation Approaches to Characterize the Intercalation Binding of 1-Naphthaleneacetic Acid With Calf Thymus DNA. Frontiers in Toxicology, 2021, 3, 620501.	1.6	2
124	Investigation on activation of inactive sulfur in oil-immersed transformer based on molecular dynamics simulation. , 2021, , .		1
125	Investigation on the effects of Irgamet 39 on stray gassing generation in the insulating oil. , 2021, , .		1
126	Response to the comments published in Food Res Int. 2022,153,110944. Food Research International, 2022, 153, 110954.	2.9	0

#	Article	IF	Citations
127	Structure Identification and Functional Mechanism of Natural Active Components: A Special Issue. Foods, 2022, 11, 1285.	1.9	0