

# Bijan Ranjbar

## List of Publications by Year in descending order

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100  
papers

3,065  
citations

186265

28  
h-index

175258

52  
g-index

102  
all docs

102  
docs citations

102  
times ranked

4397  
citing authors

#	ARTICLE	IF	CITATIONS
1	Circular Dichroism Techniques: Biomolecular and Nanostructural Analyses—A Review. <i>Chemical Biology and Drug Design</i> , 2009, 74, 101-120.	3.2	483
2	Differential scanning calorimetry techniques: applications in biology and nanoscience. <i>Journal of Biomolecular Techniques</i> , 2010, 21, 167-93.	1.5	202
3	Thermodynamic and spectroscopic study on the binding of cationic Zn(ii) and Co(ii) tetrapyrroline porphyrins to calf thymus DNA: the role of the central metal in binding parameters. <i>New Journal of Chemistry</i> , 2004, 28, 1227.	2.8	132
4	A Ca-independent $\alpha$ -amylase that is active and stable at low pH from the <i>Bacillus</i> sp. KR-8104. <i>Enzyme and Microbial Technology</i> , 2005, 36, 666-671.	3.2	110
5	Conformation and Thermal Denaturation of Apocalmodulin: A Role of Electrostatic Mutations. <i>Biochemistry</i> , 1997, 36, 2017-2024.	2.5	104
6	Interaction of Saffron Carotenoids as Anticancer Compounds with ctDNA, Oligo (dG.dC) <sub>15</sub> , and Oligo (dA.dT) <sub>15</sub> . <i>DNA and Cell Biology</i> , 2007, 26, 533-540.	1.9	97
7	The Influence of Insertion of a Critical Residue (Arg356) in Structure and Bioluminescence Spectra of Firefly Luciferase. <i>Journal of Biological Chemistry</i> , 2007, 282, 8641-8647.	3.4	92
8	Isolation and biochemical characterization of laccase and tyrosinase activities in a novel melanogenic soil bacterium. <i>Enzyme and Microbial Technology</i> , 2006, 39, 1409-1416.	3.2	68
9	Chemical modification of lysine residues in <i>Bacillus</i> $\alpha$ -amylases: effect on activity and stability. <i>Enzyme and Microbial Technology</i> , 2001, 28, 543-549.	3.2	66
10	Effect of ionic liquids on the structure, stability and activity of two related $\alpha$ -amylases. <i>International Journal of Biological Macromolecules</i> , 2011, 48, 93-97.	7.5	64
11	Deglycosylation of glucoamylase from <i>Aspergillus niger</i> : Effects on structure, activity and stability. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2005, 1750, 61-68.	2.3	63
12	Enhancement of a bacterial laccase thermostability through directed mutagenesis of a surface loop. <i>Enzyme and Microbial Technology</i> , 2011, 49, 446-452.	3.2	62
13	Chemical modification of bacterial $\alpha$ -amylases: changes in tertiary structures and the effect of additional calcium. <i>BBA - Proteins and Proteomics</i> , 2001, 1548, 229-237.	2.1	55
14	A study on the binding of two water-soluble tetrapyrroline porphyrinato copper(II) complexes to DNA. <i>Journal of Molecular Structure</i> , 2005, 754, 116-123.	3.6	50
15	Protein engineering of laccase to enhance its activity and stability in the presence of organic solvents. <i>Engineering in Life Sciences</i> , 2014, 14, 442-448.	3.6	49
16	Site-directed mutagenesis of firefly luciferase: implication of conserved residue(s) in bioluminescence emission spectra among firefly luciferases. <i>Biochemical Journal</i> , 2008, 412, 27-33.	3.7	48
17	Structure of <i>Bacillus amyloquelicifaciens</i> $\alpha$ -amylase at high resolution: implications for thermal stability. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2010, 66, 121-129.	0.7	48
18	Horseradish peroxidase thermostabilization: The combinatorial effects of the surface modification and the polyols. <i>Enzyme and Microbial Technology</i> , 2006, 38, 118-125.	3.2	47

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19	Functional Motions of <i>Candida antarctica</i> Lipase B: A Survey through Open-Close Conformations. PLoS ONE, 2012, 7, e40327.	2.5	44
20	MicroRNA and Transcription Factor Gene Regulatory Network Analysis Reveals Key Regulatory Elements Associated with Prostate Cancer Progression. PLoS ONE, 2016, 11, e0168760.	2.5	44
21	Purification and characterization of a novel amylopullulanase that converts pullulan to glucose, maltose, and maltotriose and starch to glucose and maltose. Enzyme and Microbial Technology, 2010, 46, 57-63.	3.2	43
22	A facile and rapid aptasensor based on split peroxidase DNAzyme for visual detection of carcinoembryonic antigen in saliva. Sensors and Actuators B: Chemical, 2017, 253, 794-803.	7.8	40
23	Effects of water-miscible solvents and polyhydroxy compounds on the structure and enzymatic activity of thermolysin. Journal of Biotechnology, 2006, 127, 45-53.	3.8	37
24	Dendrosomes as novel gene porters-III. Journal of Chemical Technology and Biotechnology, 2008, 83, 912-920.	3.2	30
25	Spectral properties and thermal stability of AS1411 G-quadruplex. International Journal of Biological Macromolecules, 2015, 72, 806-811.	7.5	30
26	Interaction of lysozyme with gold nanorods: conformation and activity investigations. International Journal of Biological Macromolecules, 2011, 49, 629-636.	7.5	28
27	Enhancement of catalysis and functional expression of a bacterial laccase by single amino acid replacement. International Journal of Biological Macromolecules, 2013, 60, 56-61.	7.5	28
28	An efficient in vitro refolding of recombinant bacterial laccase in <i>Escherichia coli</i> . Enzyme and Microbial Technology, 2013, 52, 325-330.	3.2	28
29	PCR-based Gene Synthesis, Molecular Cloning, High Level Expression, Purification, and Characterization of Novel Antimicrobial Peptide, Brevinin-2R, in <i>Escherichia Coli</i> . Applied Biochemistry and Biotechnology, 2008, 149, 109-118.	2.9	27
30	Roles of trehalose and magnesium sulfate on structural and functional stability of firefly luciferase. Journal of Molecular Catalysis B: Enzymatic, 2010, 62, 127-132.	1.8	27
31	Enhanced activity and stability in the presence of organic solvents by increased active site polarity and stabilization of a surface loop in a metalloprotease. Journal of Biochemistry, 2010, 148, 231-238.	1.7	27
32	Effects of trehalose and sorbitol on the activity and structure of <i>Pseudomonas cepacia</i> lipase: Spectroscopic insight. International Journal of Biological Macromolecules, 2011, 49, 652-656.	7.5	26
33	Inhibition mediated stabilization effect of imidazolium based ionic liquids on alcohol dehydrogenase. Journal of Molecular Liquids, 2012, 170, 66-71.	4.9	26
34	A semi-rational approach to obtain an ionic liquid tolerant bacterial laccase through $\pi$ -type interactions. International Journal of Biological Macromolecules, 2015, 79, 822-829.	7.5	25
35	Ultra-sensitive, rapid gold nanoparticle-quantum dot pleocitonic self-assembled aptamer-based nanobiosensor for the detection of human cardiac troponin I. Engineering in Life Sciences, 2017, 17, 165-174.	3.6	25
36	Recent advances in the rational synthesis of red-emissive carbon dots for nanomedicine applications: A review. FlatChem, 2021, 29, 100271.	5.6	24

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37	Structural studies of hen egg-white lysozyme dimer: Comparison with monomer. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2008, 1784, 1043-1049.	2.3	23
38	Chemical modification of glucose oxidase: possible formation of molten globule-like intermediate structure. <i>FEBS Letters</i> , 2004, 561, 213-216.	2.8	22
39	Nanotechnology helps medicine: Nanoscale swimmers and their future applications. <i>Medical Hypotheses</i> , 2005, 65, 198-199.	1.5	22
40	Spectroscopic and functional characterization of <i>Lamproloma turkestanicus</i> luciferase: a comparative study. <i>Acta Biochimica Et Biophysica Sinica</i> , 2008, 40, 365-374.	2.0	22
41	Assembly of Gold Nanorods on HSA Amyloid Fibrils to Develop a Conductive Nanoscaffold for Potential Biomedical and Biosensing Applications. <i>Scientific Reports</i> , 2018, 8, 9333.	3.3	22
42	Expression, purification and immobilization of firefly luciferase on alkyl-substituted Sepharose 4B. <i>Enzyme and Microbial Technology</i> , 2007, 40, 740-746.	3.2	21
43	Heat induced aggregation of gold nanorods for rapid visual detection of lysozyme. <i>Talanta</i> , 2015, 144, 778-787.	5.5	21
44	Acid-induced conformational changes in <i>Bacillus amyloliquefaciens</i> $\alpha$ -amylase: appearance of a molten globule like state. <i>Enzyme and Microbial Technology</i> , 2004, 35, 51-57.	3.2	20
45	Implication of a critical residue (Glu175) in structure and function of bacterial luciferase. <i>FEBS Letters</i> , 2005, 579, 4701-4706.	2.8	20
46	The potential impact of carboxylic-functionalized multi-walled carbon nanotubes on trypsin: A Comprehensive spectroscopic and molecular dynamics simulation study. <i>PLoS ONE</i> , 2018, 13, e0198519.	2.5	19
47	Critical Role of a Loop at C-Terminal Domain on the Conformational Stability and Catalytic Efficiency of Chondroitinase ABC I. <i>Molecular Biotechnology</i> , 2015, 57, 727-734.	2.4	18
48	Conformation and activity of lysozyme on binding to two types of gold nanorods: A comparative study. <i>International Journal of Biological Macromolecules</i> , 2012, 51, 91-96.	7.5	17
49	Relationship between stability and bioluminescence color of firefly luciferase. <i>Photochemical and Photobiological Sciences</i> , 2010, 9, 376-383.	2.9	16
50	Plasmonic Circular Dichroism Study of DNA-Gold Nanoparticles Bioconjugates. <i>Plasmonics</i> , 2014, 9, 273-281.	3.4	16
51	An insight into the potentials of carbon dots for in vitro live-cell imaging: recent progress, challenges, and prospects. <i>Mikrochimica Acta</i> , 2022, 189, 190.	5.0	16
52	Stepwise modification of lysine residues of glucose oxidase with citraconic anhydride. <i>International Journal of Biological Macromolecules</i> , 2006, 39, 192-196.	7.5	15
53	Comparison of the molten globule states of thermophilic and mesophilic $\alpha$ -amylases. <i>Biophysical Chemistry</i> , 2006, 122, 58-65.	2.8	15
54	Rational design toward developing a more efficient laccase: Catalytic efficiency and selectivity. <i>International Journal of Biological Macromolecules</i> , 2018, 112, 775-779.	7.5	14

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55	Thermostabilization of <i>Bacillus amyloliquefaciens</i> $\alpha$ -amylase by chemical cross-linking. <i>Journal of Biotechnology</i> , 2006, 123, 434-442.	3.8	13
56	Acidic and proteolytic digestion of $\alpha$ -amylases from <i>Bacillus licheniformis</i> and <i>Bacillus amyloliquefaciens</i> : Stability and flexibility analysis. <i>Enzyme and Microbial Technology</i> , 2006, 38, 422-428.	3.2	13
57	Purification, Characterization, and Structural Investigation of a New Moderately Thermophilic and Partially Calcium-Independent Extracellular $\alpha$ -Amylase From <i>Bacillus</i> sp. TM1. <i>Applied Biochemistry and Biotechnology</i> , 2004, 119, 41-50.	2.9	12
58	A study on the self assembly of $\text{Fe(II)}$ and dual binding of $\text{Ni(II)}$ porphyrazines on CT-DNA. <i>Journal of Porphyrins and Phthalocyanines</i> , 2007, 11, 805-814.	0.8	12
59	Kinetic analysis, structural studies and prediction of pKa values of <i>Bacillus</i> KR-8104 $\alpha$ -amylase: The determinants of pH-activity profile. <i>Enzyme and Microbial Technology</i> , 2007, 41, 337-345.	3.2	12
60	Engineering of a disulfide loop instead of a Zn binding loop restores the anti-proliferative, anti-angiogenic and anti-tumor activities of the N-terminal fragment of endostatin: Mechanistic and therapeutic insights. <i>Vascular Pharmacology</i> , 2015, 72, 73-82.	2.1	12
61	Renin inhibition by soyasaponin I: a potent native anti-hypertensive compound. <i>Journal of Biomolecular Structure and Dynamics</i> , 2018, 36, 166-176.	3.5	12
62	Design and Fabrication of a Silver Nanocluster-Based Aptasensor for Lysozyme Detection. <i>Plasmonics</i> , 2019, 14, 1765-1774.	3.4	12
63	Comparative studies on trifluoroethanol (TFE) state of a thermophilic $\alpha$ -amylase and its mesophilic counterpart: limited proteolysis, conformational analysis, aggregation and reactivation of the enzymes. <i>International Journal of Biological Macromolecules</i> , 2004, 34, 173-179.	7.5	11
64	Comparative studies of wild type <i>Escherichia coli</i> 5-enolpyruvylshikimate 3-phosphate synthase with three glyphosate-insensitive mutated forms: Activity, stability and structural characterization. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2008, 1784, 1167-1175.	2.3	11
65	Co-solvent effects on structure and function properties of savinase: Solvent-induced thermal stabilization. <i>International Journal of Biological Macromolecules</i> , 2009, 44, 311-315.	7.5	11
66	Surface plasmon resonance coupled circular dichroism of DNA-gold nanorods assembly. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 315401.	2.8	11
67	Improving the stability of chondroitinase ABC I via interaction with gold nanorods. <i>International Journal of Biological Macromolecules</i> , 2018, 107, 297-304.	7.5	11
68	Electrochemical study of thermodynamics of interaction of lysozyme with sodium dodecyl sulfate in binary ethanol-water mixtures. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2003, 212, 211-218.	4.7	10
69	Electrochemical detection of DNA mismatches using a branch-shaped hierarchical SWNT-DNA nano-hybrid bioelectrode. <i>Materials Science and Engineering C</i> , 2019, 104, 109886.	7.3	10
70	Kinetic and thermodynamic properties of <i>Pseudomonas fluorescens</i> lipase upon addition of proline. <i>International Journal of Biological Macromolecules</i> , 2013, 55, 123-126.	7.5	9
71	Applying Central Composite Design and Response Surface Methodology to Optimize Growth and Biomass Production of <i>Haemophilus influenzae</i> Type b. <i>Jundishapur Journal of Microbiology</i> , 2016, 9, e25246.	0.5	9
72	The effect of surface charge balance on thermodynamic stability and kinetics of refolding of firefly luciferase. <i>BMB Reports</i> , 2011, 44, 102-106.	2.4	9

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73	Evaluation of Rationally Designed Label-free Stem-loop DNA Probe Opening in the Presence of miR-21 by Circular Dichroism and Fluorescence Techniques. <i>Scientific Reports</i> , 2020, 10, 4018.	3.3	8
74	An experimental investigation on the influence of various buffer concentrations, osmolytes and gold nanoparticles on lysozyme: Spectroscopic and calorimetric study. <i>International Journal of Biological Macromolecules</i> , 2021, 172, 162-169.	7.5	8
75	Nucleotide Sequence, Structural Investigation and Homology Modeling Studies of a Ca <sup>2+</sup> -independent $\alpha$ -amylase with Acidic pH-profile. <i>BMB Reports</i> , 2007, 40, 315-324.	2.4	8
76	Critical Role of Glu175 on Stability and Folding of Bacterial Luciferase: Stopped-flow Fluorescence Study. <i>BMB Reports</i> , 2007, 40, 453-458.	2.4	8
77	Prediction of protein secondary structure based on residue pair types and conformational states using dynamic programming algorithm. <i>FEBS Letters</i> , 2005, 579, 3397-3400.	2.8	7
78	Evidence regarding the hypothesis that the histidine-histidine contact pairs may affect protein stability. <i>International Journal of Biological Macromolecules</i> , 2012, 50, 1040-1047.	7.5	7
79	Structure-function analysis of a new bacterial lipase: Effect of local structure reorganization on lipase activity. <i>International Journal of Biological Macromolecules</i> , 2013, 54, 180-185.	7.5	7
80	Biophysical and electrochemical properties of Self-assembled noncovalent SWNT/DNA hybrid and electroactive nanostructure. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 93, 208-215.	2.7	7
81	A study of the oxidation-induced conformational and functional changes in neuroserpin. <i>Iranian Biomedical Journal</i> , 2007, 11, 41-46.	0.7	7
82	Application of zero-length cross-linking to form lysozyme, horseradish peroxidase and lysozyme-peroxidase dimers: Activity and stability. <i>International Journal of Biological Macromolecules</i> , 2007, 41, 624-630.	7.5	6
83	Characterization of Acid-Induced Partially Folded Conformation Resembling a Molten Globule State of Polygalacturonase from a Filamentous Fungus <i>Tetracoccusporium</i> sp.. <i>Applied Biochemistry and Biotechnology</i> , 2010, 160, 1921-1932.	2.9	6
84	Acid-Induced Formation of Molten Globule States in the Wild Type <i>Escherichia coli</i> 5-Enolpyruvylshikimate 3-Phosphate Synthase and its Three Mutated Forms: G96A, A183T and G96A/A183T. <i>Protein Journal</i> , 2011, 30, 132-137.	1.6	6
85	Unfolding of chondroitinase ABC $\hat{I}^M$ is dependent on thermodynamic driving force by kinetically rate constant-amplitude compensation: A stopped-flow fluorescence study. <i>Enzyme and Microbial Technology</i> , 2016, 93-94, 200-206.	3.2	5
86	Determination of structural elements on the folding reaction of mnemiopsin by spectroscopic techniques. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2016, 158, 49-55.	3.9	5
87	Structural and functional study of a simple, rapid, and label-free DNAzyme-based DNA biosensor for optimization activity. <i>Biopolymers</i> , 2017, 107, e23028.	2.4	5
88	Biomolecular and structural analyses of cauliflower-like DNAs by ultraviolet, circular dichroism, and fluorescence spectroscopies in comparison with natural DNA. <i>Journal of Biomolecular Techniques</i> , 2011, 22, 60-6.	1.5	5
89	Interaction of an Intermediate Structure of <i>Bacillus subtilis</i> $\hat{I}^M$ -Amylase With Alkyl-Substituted Sepharose 4B: A Model of Membrane Translocation. <i>Applied Biochemistry and Biotechnology</i> , 2004, 117, 123-132.	2.9	3
90	Adjustment of local conformational flexibility and accessible surface area alterations of Serine128 and Valine183 in mnemiopsin. <i>Journal of Molecular Structure</i> , 2016, 1117, 287-292.	3.6	3

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91	Evolutionary conservation of EF-hand $\hat{\text{T}}^{\text{M}}\hat{\text{T}}^{\text{M}}$ loop in aequorin: Priority of intensity to decay rate in bioluminescence emission. Archives of Biochemistry and Biophysics, 2017, 634, 29-37.	3.0	3
92	Conformational changes of a chemically modified HRP: formation of a molten globule like structure at pH 5. EXCLI Journal, 2014, 13, 611-22.	0.7	3
93	Stabilization of Bacillus licheniformis $\hat{\text{I}}_{\pm}$ -amylase by specific antibody which recognizes the N-terminal fragment of the enzyme. International Journal of Biological Macromolecules, 2007, 41, 162-167.	7.5	2
94	A stopped-flow fluorescence study of the native and modified lysozyme. Biologia (Poland), 2007, 62, 258-264.	1.5	2
95	A novel application of quantum dots as a tool for storage of CD spectra data in proteomics. Medical Hypotheses, 2005, 65, 821-822.	1.5	1
96	Application of quantum dots in quantitative proteomics for multiplex colour system assay. Medical Hypotheses, 2006, 67, 203-204.	1.5	1
97	Surface Arginine Saturation Effect on Unfolding Reaction of Firefly Luciferase: A Thermodynamic and Kinetic Perspective. Photochemistry and Photobiology, 2016, 92, 688-693.	2.5	1
98	Development of Gold Nanorods-Insulin Amyloid Fibril Assemblies: A Hybrid Nanoscaffold with Enhanced Conductivity. Nano, 2019, 14, 1950158.	1.0	1
99	A Novel Strategy for Trinitrotoluene Detection Using Functionalized Gold Nanoparticles. Journal of Analytical Chemistry, 2021, 76, 459-465.	0.9	1
100	Ca <sup>2+</sup> Binding and Conformational Switch of the Photoprotein Mnemiopsin. Protein and Peptide Letters, 2017, 24, 476-482.	0.9	1