

Mojtaba Falahati

List of Publications by Year in descending order

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Version: 2024-02-01

100
papers

3,868
citations

136950

32
h-index

149698

56
g-index

102
all docs

102
docs citations

102
times ranked

5076
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on the cleavage priming of the spike protein on coronavirus by angiotensin-converting enzyme-2 and furin. <i>Journal of Biomolecular Structure and Dynamics</i> , 2021, 39, 3025-3033.	3.5	230
2	Health Concerns of Various Nanoparticles: A Review of Their in Vitro and in Vivo Toxicity. <i>Nanomaterials</i> , 2018, 8, 634.	4.1	210
3	Plasmonic gold nanoparticles: Optical manipulation, imaging, drug delivery and therapy. <i>Journal of Controlled Release</i> , 2019, 311-312, 170-189.	9.9	195
4	Electrospun chitosan membranes containing bioactive and therapeutic agents for enhanced wound healing. <i>International Journal of Biological Macromolecules</i> , 2020, 156, 153-170.	7.5	171
5	Cancer diagnosis using nanomaterials based electrochemical nanobiosensors. <i>Biosensors and Bioelectronics</i> , 2019, 126, 773-784.	10.1	146
6	Interaction of single and multi wall carbon nanotubes with the biological systems: tau protein and PC12 cells as targets. <i>Scientific Reports</i> , 2016, 6, 26508.	3.3	111
7	Gold nanoparticles fabrication by plant extracts: synthesis, characterization, degradation of 4-nitrophenol from industrial wastewater, and insecticidal activity – A review. <i>Journal of Cleaner Production</i> , 2018, 184, 740-753.	9.3	111
8	Nanozymes with intrinsic peroxidase-like activities. <i>Journal of Molecular Liquids</i> , 2019, 278, 130-144.	4.9	110
9	Enzyme immobilization onto the nanomaterials: Application in enzyme stability and prodrug-activated cancer therapy. <i>International Journal of Biological Macromolecules</i> , 2020, 143, 665-676.	7.5	89
10	Gold nanomaterials as key suppliers in biological and chemical sensing, catalysis, and medicine. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2020, 1864, 129435.	2.4	86
11	Gold nanozyme: Biosensing and therapeutic activities. <i>Materials Science and Engineering C</i> , 2020, 108, 110422.	7.3	83
12	Thermodynamic and conformational changes of protein toward interaction with nanoparticles: a spectroscopic overview. <i>RSC Advances</i> , 2016, 6, 105903-105919.	3.6	79
13	A health concern regarding the protein corona, aggregation and disaggregation. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2019, 1863, 971-991.	2.4	71
14	Investigating the Interaction of Fe Nanoparticles with Lysozyme by Biophysical and Molecular Docking Studies. <i>PLoS ONE</i> , 2016, 11, e0164878.	2.5	70
15	Targeting SARS-CoV2 Spike Protein Receptor Binding Domain by Therapeutic Antibodies. <i>Biomedicine and Pharmacotherapy</i> , 2020, 130, 110559.	5.6	64
16	Spectroscopic studies of interaction between CuO nanoparticles and bovine serum albumin. <i>Journal of Biomolecular Structure and Dynamics</i> , 2016, 34, 1962-1968.	3.5	54
17	Aminopropyl-functionalized cubic Ia3d mesoporous silica nanoparticle as an efficient support for immobilization of superoxide dismutase. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2011, 1814, 1195-1202.	2.3	53
18	Plasmonic and chiroplasmonic nanobiosensors based on gold nanoparticles. <i>Talanta</i> , 2020, 212, 120782.	5.5	52

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19	Polymeric-based microneedle arrays as potential platforms in the development of drugs delivery systems. <i>Journal of Advanced Research</i> , 2020, 26, 137-147.	9.5	50
20	Albumin binding and anticancer effect of magnesium oxide nanoparticles. <i>International Journal of Nanomedicine</i> , 2019, Volume 14, 257-270.	6.7	49
21	Nanozyme-based sensing platforms for detection of toxic mercury ions: An alternative approach to conventional methods. <i>Talanta</i> , 2020, 215, 120939.	5.5	48
22	Involvement of planned cell death of necroptosis in cancer treatment by nanomaterials: Recent advances and future perspectives. <i>Journal of Controlled Release</i> , 2019, 299, 121-137.	9.9	47
23	<p>Cerium oxide NPs mitigate the amyloid formation of β -synuclein and associated cytotoxicity</p>. <i>International Journal of Nanomedicine</i> , 2019, Volume 14, 6989-7000.	6.7	44
24	Combined chemo-magnetic field-photothermal breast cancer therapy based on porous magnetite nanospheres. <i>Scientific Reports</i> , 2020, 10, 5925.	3.3	44
25	Development of point-of-care nanobiosensors for breast cancers diagnosis. <i>Talanta</i> , 2020, 217, 121091.	5.5	40
26	Antimetastatic Activity of Lactoferrin-Coated Mesoporous Maghemite Nanoparticles in Breast Cancer Enabled by Combination Therapy. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 3574-3584.	5.2	39
27	Investigating the Interaction of Silicon Dioxide Nanoparticles with Human Hemoglobin and Lymphocyte Cells by Biophysical, Computational, and Cellular Studies. <i>Journal of Physical Chemistry B</i> , 2018, 122, 4278-4288.	2.6	36
28	Diagnostic and drug release systems based on microneedle arrays in breast cancer therapy. <i>Journal of Controlled Release</i> , 2021, 338, 341-357.	9.9	36
29	Novel therapeutic strategies for Alzheimer's disease: Implications from cell-based therapy and nanotherapy. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2020, 24, 102149.	3.3	35
30	Nitric oxide-releasing biomaterials for promoting wound healing in impaired diabetic wounds: State of the art and recent trends. <i>Biomedicine and Pharmacotherapy</i> , 2022, 149, 112707.	5.6	35
31	Probing the conformational changes and peroxidase-like activity of cytochrome c upon interaction with iron nanoparticles. <i>Journal of Biomolecular Structure and Dynamics</i> , 2017, 35, 2565-2577.	3.5	34
32	<p> β -synuclein interaction with zero-valent iron nanoparticles accelerates structural rearrangement into amyloid-susceptible structure with increased cytotoxic tendency</p>. <i>International Journal of Nanomedicine</i> , 2019, Volume 14, 4637-4648.	6.7	33
33	Magnetic nanocatalysts as multifunctional platforms in cancer therapy through the synthesis of anticancer drugs and facilitated Fenton reaction. <i>Journal of Advanced Research</i> , 2021, 30, 171-184.	9.5	33
34	Studies on the interaction between nanodiamond and human hemoglobin by surface tension measurement and spectroscopy methods. <i>Journal of Biomolecular Structure and Dynamics</i> , 2017, 35, 603-615.	3.5	32
35	Albumin binding, anticancer and antibacterial properties of synthesized zero valent iron nanoparticles. <i>International Journal of Nanomedicine</i> , 2019, Volume 14, 243-256.	6.7	32
36	An Updated Review on EPR-Based Solid Tumor Targeting Nanocarriers for Cancer Treatment. <i>Cancers</i> , 2022, 14, 2868.	3.7	32

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37	Exosomes: Multiple-targeted multifunctional biological nanoparticles in the diagnosis, drug delivery, and imaging of cancer cells. <i>Biomedicine and Pharmacotherapy</i> , 2020, 129, 110442.	5.6	31
38	Gold Nanoparticle-Based Platforms for Diagnosis and Treatment of Myocardial Infarction. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 6460-6477.	5.2	30
39	Development of remdesivir repositioning as a nucleotide analog against COVID-19 RNA dependent RNA polymerase. <i>Journal of Biomolecular Structure and Dynamics</i> , 2021, 39, 3771-3779.	3.5	30
40	Interaction of iron nanoparticles with nervous system: an <i>in vitro</i> study. <i>Journal of Biomolecular Structure and Dynamics</i> , 2018, 36, 928-937.	3.5	29
41	The effect of functionalization of mesoporous silica nanoparticles on the interaction and stability of confined enzyme. <i>International Journal of Biological Macromolecules</i> , 2012, 50, 1048-1054.	7.5	27
42	In vivo guiding inorganic nanozymes for biosensing and therapeutic potential in cancer, inflammation and microbial infections. <i>Talanta</i> , 2021, 224, 121805.	5.5	27
43	The expression level of angiotensin-converting enzyme 2 determines the severity of COVID-19: lung and heart tissue as targets. <i>Journal of Biomolecular Structure and Dynamics</i> , 2021, 39, 3780-3786.	3.5	26
44	Rapid diagnostics of coronavirus disease 2019 in early stages using nanobiosensors: Challenges and opportunities. <i>Talanta</i> , 2021, 223, 121704.	5.5	26
45	Enzyme-polymeric/inorganic metal oxide/hybrid nanoparticle bio-conjugates in the development of therapeutic and biosensing platforms. <i>Journal of Advanced Research</i> , 2021, 33, 227-239.	9.5	25
46	Probing the interaction of silver nanoparticles with tau protein and neuroblastoma cell line as nervous system models. <i>Journal of Biomolecular Structure and Dynamics</i> , 2018, 36, 4057-4071.	3.5	25
47	A review of the berberine natural polysaccharide nanostructures as potential anticancer and antibacterial agents. <i>Biomedicine and Pharmacotherapy</i> , 2022, 146, 112531.	5.6	25
48	Aluminium oxide nanoparticles induce structural changes in tau and cytotoxicity of the neuroblastoma cell line. <i>International Journal of Biological Macromolecules</i> , 2018, 120, 1140-1148.	7.5	24
49	<p>Exploring the Interaction of Cobalt Oxide Nanoparticles with Albumin, Leukemia Cancer Cells and Pathogenic Bacterial by Multispectroscopic, Docking, Cellular and Antibacterial Approaches</p>. <i>International Journal of Nanomedicine</i> , 2020, Volume 15, 4607-4623.	6.7	24
50	3D bioprinting of engineered breast cancer constructs for personalized and targeted cancer therapy. <i>Journal of Controlled Release</i> , 2021, 333, 91-106.	9.9	24
51	Fabrication and evaluation of anti-cancer efficacy of lactoferrin-coated maghemite and magnetite nanoparticles. <i>Journal of Biomolecular Structure and Dynamics</i> , 2020, 38, 2945-2954.	3.5	23
52	Highly efficient immobilization of beta-lactoglobulin in functionalized mesoporous nanoparticles: A simple and useful approach for enhancement of protein stability. <i>Biophysical Chemistry</i> , 2012, 165-166, 13-20.	2.8	22
53	A spectroscopic study on the absorption of carbonic anhydrase onto the nanoporous silica nanoparticle. <i>International Journal of Biological Macromolecules</i> , 2017, 99, 739-745.	7.5	22
54	<p>Amorphous aggregation of tau in the presence of titanium dioxide nanoparticles: biophysical, computational, and cellular studies</p>. <i>International Journal of Nanomedicine</i> , 2019, Volume 14, 901-911.	6.7	22

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55	Probing the interaction of zero valent iron nanoparticles with blood system by biophysical, docking, cellular, and molecular studies. <i>International Journal of Biological Macromolecules</i> , 2018, 109, 639-650.	7.5	21
56	ROS-mediated heme degradation and cytotoxicity induced by iron nanoparticles: hemoglobin and lymphocyte cells as targets. <i>Journal of Biomolecular Structure and Dynamics</i> , 2018, 36, 4235-4245.	3.5	21
57	Biophysical, bioinformatical, cellular, and molecular investigations on the effects of graphene oxide nanosheets on the hemoglobin structure and lymphocyte cell cytotoxicity. <i>International Journal of Nanomedicine</i> , 2018, Volume 13, 6871-6884.	6.7	21
58	Albumin binding, antioxidant and antibacterial effects of cerium oxide nanoparticles. <i>Journal of Molecular Liquids</i> , 2019, 296, 111839.	4.9	21
59	Strategies of enzyme immobilization on nanomatrix supports and their intracellular delivery. <i>Journal of Biomolecular Structure and Dynamics</i> , 2020, 38, 2746-2762.	3.5	21
60	Interaction of manganese nanoparticle with cytochrome c: A multi-spectroscopic study. <i>International Journal of Biological Macromolecules</i> , 2018, 106, 78-86.	7.5	20
61	A review on the interaction of nucleoside analogues with SARS-CoV-2 RNA dependent RNA polymerase. <i>International Journal of Biological Macromolecules</i> , 2021, 181, 605-611.	7.5	20
62	Explaining chemical clues of metal organic framework-nanozyme nano-/micro-motors in targeted treatment of cancers: benchmarks and challenges. <i>Journal of Nanobiotechnology</i> , 2022, 20, 153.	9.1	20
63	<i>cis</i> -pT231-Tau Drives Neurodegeneration in Bipolar Disorder. <i>ACS Chemical Neuroscience</i> , 2019, 10, 1214-1221.	3.5	19
64	Silymarin-albumin nanoplex: Preparation and its potential application as an antioxidant in nervous system in vitro and in vivo. <i>International Journal of Pharmaceutics</i> , 2019, 572, 118824.	5.2	18
65	Titanium oxide nanoparticles fabrication, hemoglobin interaction, white blood cells cytotoxicity, and antibacterial studies. <i>Journal of Biomolecular Structure and Dynamics</i> , 2019, 37, 3007-3017.	3.5	17
66	Silica nanoparticles induce conformational changes of tau protein and oxidative stress and apoptosis in neuroblastoma cell line. <i>International Journal of Biological Macromolecules</i> , 2019, 124, 1312-1320.	7.5	17
67	Advances of exosome isolation techniques in lung cancer. <i>Molecular Biology Reports</i> , 2020, 47, 7229-7251.	2.3	17
68	Interaction of silica nanoparticles with tau proteins and PC12 cells: Colloidal stability, thermodynamic, docking, and cellular studies. <i>International Journal of Biological Macromolecules</i> , 2018, 118, 1963-1973.	7.5	16
69	The effects of nickel oxide nanoparticles on tau protein and neuron-like cells: Biothermodynamics and molecular studies. <i>International Journal of Biological Macromolecules</i> , 2019, 127, 330-339.	7.5	16
70	Exploring the interaction of synthesized nickel oxide nanoparticles through hydrothermal method with hemoglobin and lymphocytes: Bio-thermodynamic and cellular studies. <i>Journal of Molecular Liquids</i> , 2020, 317, 113893.	4.9	16
71	Silybin as a potent inhibitor of α -synuclein aggregation and associated cytotoxicity against neuroblastoma cells induced by zinc oxide nanoparticles. <i>Journal of Molecular Liquids</i> , 2020, 310, 113198.	4.9	16
72	Thermodynamic and anticancer properties of inorganic zinc oxide nanoparticles synthesized through co-precipitation method. <i>Journal of Molecular Liquids</i> , 2021, 330, 115602.	4.9	16

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73	Criteria, Challenges, and Opportunities for Acellularized Allogeneic/Xenogeneic Bone Grafts in Bone Repairing. <i>ACS Biomaterials Science and Engineering</i> , 2022, 8, 3199-3219.	5.2	16
74	Human hemoglobin adsorption onto colloidal cerium oxide nanoparticles: a new model based on zeta potential and spectroscopy measurements. <i>Journal of Biomolecular Structure and Dynamics</i> , 2018, 36, 2908-2916.	3.5	15
75	Heme degradation and iron release of hemoglobin and oxidative stress of lymphocyte cells in the presence of silica nanoparticles. <i>International Journal of Biological Macromolecules</i> , 2018, 118, 800-807.	7.5	15
76	Biophysical, molecular dynamics and cellular studies on the interaction of nickel oxide nanoparticles with tau proteins and neuron-like cells. <i>International Journal of Biological Macromolecules</i> , 2019, 125, 778-784.	7.5	15
77	Biophysical, docking, and cellular studies on the effects of cerium oxide nanoparticles on blood components: in vitro. <i>International Journal of Nanomedicine</i> , 2018, Volume 13, 4575-4589.	6.7	14
78	The effect of aluminum oxide on red blood cell integrity and hemoglobin structure at nanoscale. <i>International Journal of Biological Macromolecules</i> , 2019, 138, 800-809.	7.5	14
79	Nanoporous iron oxide nanoparticle: hydrothermal fabrication, human serum albumin interaction and potential antibacterial effects. <i>Journal of Biomolecular Structure and Dynamics</i> , 2021, 39, 2595-2606.	3.5	14
80	Molecular mechanisms of thyroid cancer: A competing endogenous RNA (ceRNA) point of view. <i>Biomedicine and Pharmacotherapy</i> , 2022, 146, 112251.	5.6	14
81	Acceleration of α -synuclein fibril formation and associated cytotoxicity stimulated by silica nanoparticles as a model of neurodegenerative diseases. <i>International Journal of Biological Macromolecules</i> , 2021, 169, 532-540.	7.5	13
82	Cobalt oxide nanoparticles mediate tau denaturation and cytotoxicity against PC-12 cell line. <i>International Journal of Biological Macromolecules</i> , 2018, 118, 1763-1772.	7.5	12
83	Reactive oxygen species generated by titanium oxide nanoparticles stimulate the hemoglobin denaturation and cytotoxicity against human lymphocyte cell. <i>Journal of Biomolecular Structure and Dynamics</i> , 2019, 37, 4875-4881.	3.5	12
84	Tau folding and cytotoxicity of neuroblastoma cells in the presence of manganese oxide nanoparticles: Biophysical, molecular dynamics, cellular, and molecular studies. <i>International Journal of Biological Macromolecules</i> , 2019, 125, 674-682.	7.5	12
85	5-Fluorouracil-containing inorganic iron oxide/platinum nanozymes with dual drug delivery and enzyme-like activity for the treatment of breast cancer. <i>Arabian Journal of Chemistry</i> , 2022, 15, 103966.	4.9	12
86	<p>Vitamin K1 As A Potential Molecule For Reducing Single-Walled Carbon Nanotubes-Stimulated α -Synuclein Structural Changes And Cytotoxicity</p>. <i>International Journal of Nanomedicine</i> , 2019, Volume 14, 8433-8444.	6.7	11
87	The effects of nickel oxide nanoparticles on structural changes, heme degradation, aggregation of hemoglobin and expression of apoptotic genes in lymphocytes. <i>Journal of Biomolecular Structure and Dynamics</i> , 2020, 38, 3676-3686.	3.5	10
88	Biothermodynamic, antiproliferative and antimicrobial properties of synthesized copper oxide nanoparticles. <i>Journal of Molecular Liquids</i> , 2021, 324, 114693.	4.9	9
89	Hydrothermal method-based synthesized tin oxide nanoparticles: Albumin binding and antiproliferative activity against K562 cells. <i>Materials Science and Engineering C</i> , 2021, 119, 111649.	7.3	9
90	Evaluation of heptelidic acid as a potential inhibitor for tau aggregation-induced Alzheimer's disease and associated neurotoxicity. <i>International Journal of Biological Macromolecules</i> , 2021, 183, 1155-1161.	7.5	7

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91	Copper oxide nanoparticles promote amyloid- β^2 -triggered neurotoxicity through formation of oligomeric species as a prelude to Alzheimer's diseases. <i>International Journal of Biological Macromolecules</i> , 2022, 207, 121-129.	7.5	7
92	Combined Spectroscopic and Calorimetric Studies to Reveal Absorption Mechanisms and Conformational Changes of Protein on Nanoporous Biomaterials. <i>International Journal of Molecular Sciences</i> , 2015, 16, 17289-17302.	4.1	6
93	<p>The interaction of silica nanoparticles with catalase and human mesenchymal stem cells: biophysical, theoretical and cellular studies</p>. <i>International Journal of Nanomedicine</i> , 2019, Volume 14, 5355-5368.	6.7	6
94	Tin oxide nanoparticles trigger the formation of amyloid β^2 oligomers/protofibrils and underlying neurotoxicity as a marker of Alzheimer's diseases. <i>International Journal of Biological Macromolecules</i> , 2022, 204, 154-160.	7.5	6
95	Irreversible thermal inactivation and conformational lock of alpha glucosidase. <i>Journal of Biomolecular Structure and Dynamics</i> , 2021, 39, 1-7.	3.5	5
96	Fabrication of inorganic alumina particles at nanoscale by a pulsed laser ablation technique in liquid and exploring their protein binding, anticancer and antipathogenic activities. <i>Arabian Journal of Chemistry</i> , 2021, 14, 102923.	4.9	5
97	Immobilization of superoxide dismutase onto ordered mesoporous silica nanoparticles and improvement of its stability. <i>Journal of the Iranian Chemical Society</i> , 2012, 9, 157-161.	2.2	4
98	Exploring the interaction of quercetin-3-O-sophoroside with SARS-CoV-2 main proteins by theoretical studies: A probable prelude to control some variants of coronavirus including Delta. <i>Arabian Journal of Chemistry</i> , 2021, 14, 103353.	4.9	4
99	Human tau fibrillization and neurotoxicity in the presence of magnesium oxide nanoparticle fabricated through laser ablation method. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2022, 278, 121372.	3.9	3
100	A bio-mimetic zinc/tau protein as an artificial catalase. <i>International Journal of Biological Macromolecules</i> , 2016, 92, 1307-1312.	7.5	1