Mojtaba Falahati

List of Publications by Citations

98 papers	2,316 citations	26 h-index	43 g-index
102 ext. papers	3,028 ext. citations	6.3 avg, IF	5.65 L-index

#	Paper	IF	Citations
98	A review on the cleavage priming of the spike protein on coronavirus by angiotensin-converting enzyme-2 and furin. *Journal of Biomolecular Structure and Dynamics*, **2021**, 39, 3025-3033	3.6	181
97	Health Concerns of Various Nanoparticles: A Review of Their in Vitro and in Vivo Toxicity. *Nanomaterials*, **2018**, 8,	5.4	131
96	Plasmonic gold nanoparticles: Optical manipulation, imaging, drug delivery and therapy. *Journal of Controlled Release*, **2019**, 311-312, 170-189	11.7	102
95	Cancer diagnosis using nanomaterials based electrochemical nanobiosensors. *Biosensors and Bioelectronics*, **2019**, 126, 773-784	11.8	90
94	Interaction of single and multi wall carbon nanotubes with the biological systems: tau protein and PC12 cells as targets. *Scientific Reports*, **2016**, 6, 26508	4.9	87
93	Electrospun chitosan membranes containing bioactive and therapeutic agents for enhanced wound healing. *International Journal of Biological Macromolecules*, **2020**, 156, 153-170	7.9	81
92	Gold nanoparticles fabrication by plant extracts: synthesis, characterization, degradation of 4-nitrophenol from industrial wastewater, and insecticidal activity A review. *Journal of Cleaner Production*, **2018**, 184, 740-753	10.3	72
91	Nanozymes with intrinsic peroxidase-like activities. *Journal of Molecular Liquids*, **2019**, 278, 130-144	6	64
90	Thermodynamic and conformational changes of protein toward interaction with nanoparticles: a spectroscopic overview. *RSC Advances*, **2016**, 6, 105903-105919	3.7	56
89	Investigating the Interaction of Fe Nanoparticles with Lysozyme by Biophysical and Molecular Docking Studies. *PLoS ONE*, **2016**, 11, e0164878	3.7	56
88	The toxicity and therapeutic effects of single-and multi-wall carbon nanotubes on mice breast cancer. *Scientific Reports*, **2018**, 8, 8375	4.9	55
87	Spectroscopic studies of interaction between CuO nanoparticles and bovine serum albumin. *Journal of Biomolecular Structure and Dynamics*, **2016**, 34, 1962-8	3.6	50
86	Enzyme immobilization onto the nanomaterials: Application in enzyme stability and prodrug-activated cancer therapy. *International Journal of Biological Macromolecules*, **2020**, 143, 665-676	7.9	50
85	Aminopropyl-functionalized cubic Ia3d mesoporous silica nanoparticle as an efficient support for immobilization of superoxide dismutase. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, **2011**, 1814, 1195-202	4	48
84	A health concern regarding the protein corona, aggregation and disaggregation. *Biochimica Et Biophysica Acta - General Subjects*, **2019**, 1863, 971-991	4	48
83	Gold nanomaterials as key suppliers in biological and chemical sensing, catalysis, and medicine. *Biochimica Et Biophysica Acta - General Subjects*, **2020**, 1864, 129435	4	45
82	Gold nanozyme: Biosensing and therapeutic activities. *Materials Science and Engineering C*, **2020**, 108, 110422	8.3	41

81	Involvement of planned cell death of necroptosis in cancer treatment by nanomaterials: Recent advances and future perspectives. *Journal of Controlled Release*, **2019**, 299, 121-137	11.7	39
80	Albumin binding and anticancer effect of magnesium oxide nanoparticles. *International Journal of Nanomedicine*, **2019**, 14, 257-270	7.3	32
79	Probing the conformational changes and peroxidase-like activity of cytochrome c upon interaction with iron nanoparticles. *Journal of Biomolecular Structure and Dynamics*, **2017**, 35, 2565-2577	3.6	31
78	Studies on the interaction between nanodiamond and human hemoglobin by surface tension measurement and spectroscopy methods. *Journal of Biomolecular Structure and Dynamics*, **2017**, 35, 603-615	3.6	30
77	Cerium oxide NPs mitigate the amyloid formation of □synuclein and associated cytotoxicity. *International Journal of Nanomedicine*, **2019**, 14, 6989-7000	7.3	30
76	Targeting SARS-CoV2 Spike Protein Receptor Binding Domain by Therapeutic Antibodies. *Biomedicine and Pharmacotherapy*, **2020**, 130, 110559	7.5	29
75	Investigating the Interaction of Silicon Dioxide Nanoparticles with Human Hemoglobin and Lymphocyte Cells by Biophysical, Computational, and Cellular Studies. *Journal of Physical Chemistry B*, **2018**, 122, 4278-4288	3.4	28
74	Plasmonic and chiroplasmonic nanobiosensors based on gold nanoparticles. *Talanta*, **2020**, 212, 120782	6.2	27
73	The effect of functionalization of mesoporous silica nanoparticles on the interaction and stability of confined enzyme. *International Journal of Biological Macromolecules*, **2012**, 50, 1048-54	7.9	27
72	Interaction of iron nanoparticles with nervous system: an in vitro study. *Journal of Biomolecular Structure and Dynamics*, **2018**, 36, 928-937	3.6	26
71	Antimetastatic Activity of Lactoferrin-Coated Mesoporous Maghemite Nanoparticles in Breast Cancer Enabled by Combination Therapy. *ACS Biomaterials Science and Engineering*, **2020**, 6, 3574-3584	5.5	24
70	Nanozyme-based sensing platforms for detection of toxic mercury ions: An alternative approach to conventional methods. *Talanta*, **2020**, 215, 120939	6.2	24
69	Combined chemo-magnetic□field-photothermal breast cancer therapy based on porous magnetite nanospheres. *Scientific Reports*, **2020**, 10, 5925	4.9	24
68	□synuclein interaction with zero-valent iron nanoparticles accelerates structural rearrangement into amyloid-susceptible structure with increased cytotoxic tendency. *International Journal of Nanomedicine*, **2019**, 14, 4637-4648	7.3	22
67	Highly efficient immobilization of beta-lactoglobulin in functionalized mesoporous nanoparticles: a simple and useful approach for enhancement of protein stability. *Biophysical Chemistry*, **2012**, 165-166, 13-20	3.5	22
66	Albumin binding, anticancer and antibacterial properties of synthesized zero valent iron nanoparticles. *International Journal of Nanomedicine*, **2019**, 14, 243-256	7.3	22
65	Development of point-of-care nanobiosensors for breast cancers diagnosis. *Talanta*, **2020**, 217, 121091	6.2	21
64	The expression level of angiotensin-converting enzyme 2 determines the severity of COVID-19: lung and heart tissue as targets. *Journal of Biomolecular Structure and Dynamics*, **2021**, 39, 3780-3786	3.6	19

63	Probing the interaction of silver nanoparticles with tau protein and neuroblastoma cell line as nervous system models. *Journal of Biomolecular Structure and Dynamics*, **2018**, 36, 4057-4071	3.6	19
62	Novel therapeutic strategies for Alzheimer's disease: Implications from cell-based therapy and nanotherapy. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2020**, 24, 102149	6	19
61	Probing the interaction of zero valent iron nanoparticles with blood system by biophysical, docking, cellular, and molecular studies. *International Journal of Biological Macromolecules*, **2018**, 109, 639-650	7.9	18
60	Development of remdesivir repositioning as a nucleotide analog against COVID-19 RNA dependent RNA polymerase. *Journal of Biomolecular Structure and Dynamics*, **2021**, 39, 3771-3779	3.6	18
59	A spectroscopic study on the absorption of carbonic anhydrase onto the nanoporous silica nanoparticle. *International Journal of Biological Macromolecules*, **2017**, 99, 739-745	7.9	16
58	Amorphous aggregation of tau in the presence of titanium dioxide nanoparticles: biophysical, computational, and cellular studies. *International Journal of Nanomedicine*, **2019**, 14, 901-911	7.3	16
57	Exosomes: Multiple-targeted multifunctional biological nanoparticles in the diagnosis, drug delivery, and imaging of cancer cells. *Biomedicine and Pharmacotherapy*, **2020**, 129, 110442	7.5	16
56	Interaction of manganese nanoparticle with cytochrome c: A multi-spectroscopic study. *International Journal of Biological Macromolecules*, **2018**, 106, 78-86	7.9	16
55	Albumin binding, antioxidant and antibacterial effects of cerium oxide nanoparticles. *Journal of Molecular Liquids*, **2019**, 296, 111839	6	16
54	In vivo guiding inorganic nanozymes for biosensing and therapeutic potential in cancer, inflammation and microbial infections. *Talanta*, **2021**, 224, 121805	6.2	16
53	Biophysical, bioinformatical, cellular, and molecular investigations on the effects of graphene oxide nanosheets on the hemoglobin structure and lymphocyte cell cytotoxicity. *International Journal of Nanomedicine*, **2018**, 13, 6871-6884	7.3	16
52	Rapid diagnostics of coronavirus disease 2019 in early stages using nanobiosensors: Challenges and opportunities. *Talanta*, **2021**, 223, 121704	6.2	15
51	ROS-mediated heme degradation and cytotoxicity induced by iron nanoparticles: hemoglobin and lymphocyte cells as targets. *Journal of Biomolecular Structure and Dynamics*, **2018**, 36, 4235-4245	3.6	15
50	Aluminium oxide nanoparticles induce structural changes in tau and cytotoxicity of the neuroblastoma cell line. *International Journal of Biological Macromolecules*, **2018**, 120, 1140-1148	7.9	15
49	Polymeric-based microneedle arrays as potential platforms in the development of drugs delivery systems. *Journal of Advanced Research*, **2020**, 26, 137-147	13	14
48	Strategies of enzyme immobilization on nanomatrix supports and their intracellular delivery. *Journal of Biomolecular Structure and Dynamics*, **2020**, 38, 2746-2762	3.6	14
47	Fabrication and evaluation of anti-cancer efficacy of lactoferrin-coated maghemite and magnetite nanoparticles. *Journal of Biomolecular Structure and Dynamics*, **2020**, 38, 2945-2954	3.6	14
46	Biophysical, docking, and cellular studies on the effects of cerium oxide nanoparticles on blood components: in vitro. *International Journal of Nanomedicine*, **2018**, 13, 4575-4589	7.3	13

45	Silica nanoparticles induce conformational changes of tau protein and oxidative stress and apoptosis in neuroblastoma cell line. *International Journal of Biological Macromolecules*, **2019**, 124, 1312-1320	7.9	13
44	Silymarin-albumin nanoplex: Preparation and its potential application as an antioxidant in nervous system in vitro and in vivo. *International Journal of Pharmaceutics*, **2019**, 572, 118824	6.5	12
43	Magnetic nanocatalysts as multifunctional platforms in cancer therapy through the synthesis of anticancer drugs and facilitated Fenton reaction. *Journal of Advanced Research*, **2021**, 30, 171-184	13	12
42	cis pT231-Tau Drives Neurodegeneration in Bipolar Disorder. *ACS Chemical Neuroscience*, **2019**, 10, 1214-1221	5.7	12
41	Exploring the Interaction of Cobalt Oxide Nanoparticles with Albumin, Leukemia Cancer Cells and Pathogenic Bacteria by Multispectroscopic, Docking, Cellular and Antibacterial Approaches. *International Journal of Nanomedicine*, **2020**, 15, 4607-4623	7.3	11
40	Interaction of silica nanoparticles with tau proteins and PC12 cells: Colloidal stability, thermodynamic, docking, and cellular studies. *International Journal of Biological Macromolecules*, **2018**, 118, 1963-1973	7.9	11
39	Titanium oxide nanoparticles fabrication, hemoglobin interaction, white blood cells cytotoxicity, and antibacterial studies. *Journal of Biomolecular Structure and Dynamics*, **2019**, 37, 3007-3017	3.6	11
38	The effects of nickel oxide nanoparticles on tau protein and neuron-like cells: Biothermodynamics and molecular studies. *International Journal of Biological Macromolecules*, **2019**, 127, 330-339	7.9	11
37	Vitamin K1 As A Potential Molecule For Reducing Single-Walled Carbon Nanotubes-Stimulated Synuclein Structural Changes And Cytotoxicity. *International Journal of Nanomedicine*, **2019**, 14, 8433-8444	7.3	10
36	Tau folding and cytotoxicity of neuroblastoma cells in the presence of manganese oxide nanoparticles: Biophysical, molecular dynamics, cellular, and molecular studies. *International Journal of Biological Macromolecules*, **2019**, 125, 674-682	7.9	10
35	Biophysical, molecular dynamics and cellular studies on the interaction of nickel oxide nanoparticles with tau proteins and neuron-like cells. *International Journal of Biological Macromolecules*, **2019**, 125, 778-784	7.9	10
34	Silybin as a potent inhibitor of a-synuclein aggregation and associated cytotoxicity against neuroblastoma cells induced by zinc oxide nanoparticles. *Journal of Molecular Liquids*, **2020**, 310, 113198	6	10
33	Cobalt oxide nanoparticles mediate tau denaturation and cytotoxicity against PC-12 cell line. *International Journal of Biological Macromolecules*, **2018**, 118, 1763-1772	7.9	9
32	Gold Nanoparticle-Based Platforms for Diagnosis and Treatment of Myocardial Infarction. *ACS Biomaterials Science and Engineering*, **2020**, 6, 6460-6477	5.5	9
31	A review on the interaction of nucleoside analogues with SARS-CoV-2 RNA dependent RNA polymerase. *International Journal of Biological Macromolecules*, **2021**, 181, 605-611	7.9	9
30	Heme degradation and iron release of hemoglobin and oxidative stress of lymphocyte cells in the presence of silica nanoparticles. *International Journal of Biological Macromolecules*, **2018**, 118, 800-807	7.9	9
29	Diagnostic and drug release systems based on microneedle arrays in breast cancer therapy. *Journal of Controlled Release*, **2021**, 338, 341-357	11.7	9
28	Reactive oxygen species generated by titanium oxide nanoparticles stimulate the hemoglobin denaturation and cytotoxicity against human lymphocyte cell. *Journal of Biomolecular Structure and Dynamics*, **2019**, 37, 4875-4881	3.6	8

27	The effect of aluminum oxide on red blood cell integrity and hemoglobin structure at nanoscale. *International Journal of Biological Macromolecules*, **2019**, 138, 800-809	7.9	8
26	Enzyme-polymeric/inorganic metal oxide/hybrid nanoparticle bio-conjugates in the development of therapeutic and biosensing platforms. *Journal of Advanced Research*, **2021**, 33, 227-239	13	8
25	Human hemoglobin adsorption onto colloidal cerium oxide nanoparticles: a new model based on zeta potential and spectroscopy measurements. *Journal of Biomolecular Structure and Dynamics*, **2018**, 36, 2908-2916	3.6	7
24	The effects of nickel oxide nanoparticles on structural changes, heme degradation, aggregation of hemoglobin and expression of apoptotic genes in lymphocytes. *Journal of Biomolecular Structure and Dynamics*, **2020**, 38, 3676-3686	3.6	7
23	Combined Spectroscopic and Calorimetric Studies to Reveal Absorption Mechanisms and Conformational Changes of Protein on Nanoporous Biomaterials. *International Journal of Molecular Sciences*, **2015**, 16, 17289-302	6.3	6
22	Exploring the interaction of synthesized nickel oxide nanoparticles through hydrothermal method with hemoglobin and lymphocytes: Bio-thermodynamic and cellular studies. *Journal of Molecular Liquids*, **2020**, 317, 113893	6	6
21	Thermodynamic and anticancer properties of inorganic zinc oxide nanoparticles synthesized through co-precipitation method. *Journal of Molecular Liquids*, **2021**, 330, 115602	6	5
20	3D bioprinting of engineered breast cancer constructs for personalized and targeted cancer therapy. *Journal of Controlled Release*, **2021**, 333, 91-106	11.7	5
19	Nanoporous iron oxide nanoparticle: hydrothermal fabrication, human serum albumin interaction and potential antibacterial effects. *Journal of Biomolecular Structure and Dynamics*, **2021**, 39, 2595-2606	3.6	5
18	Acceleration of α-synuclein fibril formation and associated cytotoxicity stimulated by silica nanoparticles as a model of neurodegenerative diseases. *International Journal of Biological Macromolecules*, **2021**, 169, 532-540	7.9	5
17	Biothermodynamic, antiproliferative and antimicrobial properties of synthesized copper oxide nanoparticles. *Journal of Molecular Liquids*, **2021**, 324, 114693	6	4
16	Hydrothermal method-based synthesized tin oxide nanoparticles: Albumin binding and antiproliferative activity against K562 cells. *Materials Science and Engineering C*, **2021**, 119, 111649	8.3	4
15	Irreversible thermal inactivation and conformational lock of alpha glucosidase. *Journal of Biomolecular Structure and Dynamics*, **2021**, 39, 3256-3262	3.6	3
14	The interaction of silica nanoparticles with catalase and human mesenchymal stem cells: biophysical, theoretical and cellular studies. *International Journal of Nanomedicine*, **2019**, 14, 5355-5368	7.3	3
13	Immobilization of superoxide dismutase onto ordered mesoporous silica nanoparticles and improvement of its stability. *Journal of the Iranian Chemical Society*, **2012**, 9, 157-161	2	3
12	Molecular mechanisms of thyroid cancer: A competing endogenous RNA (ceRNA) point of view.. *Biomedicine and Pharmacotherapy*, **2021**, 146, 112251	7.5	3
11	Advances of exosome isolation techniques in lung cancer. *Molecular Biology Reports*, **2020**, 47, 7229-7251	2.8	3
10	Evaluation of heptelidic acid as a potential inhibitor for tau aggregation-induced Alzheimer's disease and associated neurotoxicity. *International Journal of Biological Macromolecules*, **2021**, 183, 1155-1161	7.9	2

9	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.. *Arabian Journal of Chemistry*, **2021**, 14, 103353	5.9	2
8	Explaining chemical clues of metal organic framework-nanozyme nano-/micro-motors in targeted treatment of cancers: benchmarks and challenges.. *Journal of Nanobiotechnology*, **2022**, 20, 153	9.4	2
7	Nitric oxide-releasing biomaterials for promoting wound healing in impaired diabetic wounds: State of the art and recent trends.. *Biomedicine and Pharmacotherapy*, **2022**, 149, 112707	7.5	2
6	A bio-mimetic zinc/tau protein as an artificial catalase. *International Journal of Biological Macromolecules*, **2016**, 92, 1307-1312	7.9	1
5	A review of the berberine natural polysaccharide nanostructures as potential anticancer and antibacterial agents.. *Biomedicine and Pharmacotherapy*, **2021**, 146, 112531	7.5	1
4	Fabrication of inorganic alumina particles at nanoscale by a pulsed laser ablation technique in liquid and exploring their protein binding, anticancer and antipathogenic activities. *Arabian Journal of Chemistry*, **2021**, 14, 102923	5.9	1
3	Copper oxide nanoparticles promote amyloid-□triggered neurotoxicity through formation of oligomeric species as a prelude to Alzheimer's diseases.. *International Journal of Biological Macromolecules*, **2022**, 207, 121-129	7.9	1
2	Human tau fibrillization and neurotoxicity in the presence of magnesium oxide nanoparticle fabricated through laser ablation method.. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2022**, 278, 121372	4.4	1
1	5-Fluorouracil-containing inorganic iron oxide/platinum nanozymes with dual drug delivery and enzyme-like activity for the treatment of breast cancer. *Arabian Journal of Chemistry*, **2022**, 15, 103966	5.9	0