Madjid Soltani

List of Publications by Year
in descending order

132 papers	4,555 citations	101496 36 h-index	118793 62 g-index
134 all docs	134 docs citations	134 times ranked	2811 citing authors

#	Article	IF	Citations
1	Diabatic Compressed Air Energy Storage (CAES) Systems: State of the Art. , 2022, , 173-187.		6
2	Synthesis of chitosan-g-itaconic acid hydrogel as an antibacterial drug carrier: optimization through RSM-CCD. Polymer Bulletin, 2022, 79, 8575-8598.	1.7	11
3	Engineered strategies to enhance tumor penetration of drug-loaded nanoparticles. Journal of Controlled Release, 2022, 341, 227-246.	4.8	65
4	Renewable energy integration with hot compressed water in heavy oil upgrading: A practice toward sustainability. Journal of Cleaner Production, 2022, 334, 130268.	4.6	11
5	Energy simulation of residential house integrated with novel IoT windows and occupant behavior. Sustainable Cities and Society, 2022, 78, 103594.	5.1	9
6	Mathematical Modeling of Targeted Drug Delivery Using Magnetic Nanoparticles during Intraperitoneal Chemotherapy. Pharmaceutics, 2022, 14, 324.	2.0	12
7	Improving Energy Efficiency by Utilizing Wetted Cellulose Pads in Passive Cooling Systems. Energies, 2022, 15, 369.	1.6	4
8	Optimization of shell and tube thermal energy storage unit based on the effects of adding fins, nanoparticles and rotational mechanism. Journal of Cleaner Production, 2022, 331, 129922.	4.6	38
9	Towards principled design of cancer nanomedicine to accelerate clinical translation. Materials Today Bio, 2022, 13, 100208.	2.6	47
10	Deep neural networks for neuro-oncology: Towards patient individualized design of chemo-radiation therapy for Glioblastoma patients. Journal of Biomedical Informatics, 2022, 127, 104006.	2.5	3
11	A multiscale cell€based model of tumor growth for chemotherapy assessment and tumor€targeted therapy through a 3D computational approach. Cell Proliferation, 2022, 55, e13187.	2.4	8
12	Numerical Investigation on the Anti-Angiogenic Therapy-Induced Normalization in Solid Tumors. Pharmaceutics, 2022, 14, 363.	2.0	8
13	Computational Modeling of Combination of Magnetic Hyperthermia and Temperature-Sensitive Liposome for Controlled Drug Release in Solid Tumor. Pharmaceutics, 2022, 14, 35.	2.0	13
14	Anti-COVID-19 Nanomaterials: Directions to Improve Prevention, Diagnosis, and Treatment. Nanomaterials, 2022, 12, 783.	1.9	10
15	Formulation and Characterization of Poly (Ethylene Glycol)-Coated Core-Shell Methionine Magnetic Nanoparticles as a Carrier for Naproxen Delivery: Growth Inhibition of Cancer Cells. Cancers, 2022, 14, 1797.	1.7	13
16	Capillary network formation and structure in a modified discrete mathematical model of angiogenesis. Biomedical Physics and Engineering Express, 2022, 8, 015023.	0.6	4
17	Analysis of Magneto-Hyperthermia Duration in Nano-sized Drug Delivery System to Solid Tumors Using Intravascular-Triggered Thermosensitive-Liposome. Pharmaceutical Research, 2022, 39, 753-765.	1.7	20
18	Modeling the efficacy of different anti-angiogenic drugs on treatment of solid tumors using 3D computational modeling and machine learning. Computers in Biology and Medicine, 2022, 146, 105511.	3.9	10

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19	Drug delivery through nanoparticles in solid tumors: a mechanistic understanding. Nanomedicine, 2022, 17, 695-716.	1.7	20
20	Synthetic 18F-FDG PET Image Generation Using a Combination of Biomathematical Modeling and Machine Learning. Cancers, 2022, 14, 2786.	1.7	10
21	A spatiotemporal multi-scale computational model for FDG PET imaging at different stages of tumor growth and angiogenesis. Scientific Reports, 2022, 12, .	1.6	20
22	3D Printed Hydrogels for Ocular Wound Healing. Biomedicines, 2022, 10, 1562.	1.4	11
23	A review of nanotechnology fluid applications in geothermal energy systems. Renewable and Sustainable Energy Reviews, 2022, 167, 112729.	8.2	25
24	A comprehensive analysis of a power-to-gas energy storage unit utilizing captured carbon dioxide as a raw material in a large-scale power plant. Energy Conversion and Management, 2021, 227, 113613.	4.4	42
25	Optimization and energy assessment of geothermal heat exchangers for different circulating fluids. Energy Conversion and Management, 2021, 228, 113733.	4.4	16
26	Numerical Modelling of Drug Delivery in an Isolated Solid Tumor Under the Influence of Vascular Normalization. Springer Proceedings in Mathematics and Statistics, 2021, , 565-577.	0.1	1
27	Numerical Assessment of an Air Cleaner Device under Different Working Conditions in an Indoor Environment. Sustainability, 2021, 13, 369.	1.6	9
28	Nexus between in silico and in vivo models to enhance clinical translation of nanomedicine. Nano Today, 2021, 36, 101057.	6.2	58
29	Effect of Upstream Side Flow of Wind Turbine on Aerodynamic Noise: Simulation Using Open-Loop Vibration in the Rod in Rod-Airfoil Configuration. Energies, 2021, 14, 1170.	1.6	5
30	A neuro evolutionary algorithm for patient calibrated prediction of survival in Glioblastoma patients. Journal of Biomedical Informatics, 2021, 115, 103694.	2.5	2
31	Computational modeling of drug delivery to solid tumors: A pilot study based on a real image. Journal of Drug Delivery Science and Technology, 2021, 62, 102347.	1.4	16
32	Design, thermodynamic, and wind assessments of a compressed air energy storage (CAES) integrated with two adjacent wind farms: A case study at Abhar and Kahak sites, Iran. Energy, 2021, 221, 119902.	4.5	91
33	Environmental, economic, and social impacts of geothermal energy systems. Renewable and Sustainable Energy Reviews, 2021, 140, 110750.	8.2	162
34	Numerical Methods in Studies of Liquid Crystal Elastomers. Polymers, 2021, 13, 1650.	2.0	11
35	Enhancing Clinical Translation of Cancer Using Nanoinformatics. Cancers, 2021, 13, 2481.	1.7	25
36	Multiscale modeling of tumor growth and angiogenesis: Evaluation of tumor-targeted therapy. PLoS Computational Biology, 2021, 17, e1009081.	1.5	18

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37	The effect of coarctation degrees on wall shear stress indices. Scientific Reports, 2021, 11, 12757.	1.6	12
38	Enhanced Drug Delivery to Solid Tumors via Drug-Loaded Nanocarriers: An Image-Based Computational Framework. Frontiers in Oncology, 2021, 11, 655781.	1.3	38
39	Mathematical simulation and prediction of tumor volume using RBF artificial neural network at different circumstances in the tumor microenvironment. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2021, 235, 095441192110283.	1.0	6
40	Efficacy of Location-Based Features for Survival Prediction of Patients With Glioblastoma Depending on Resection Status. Frontiers in Oncology, 2021, 11, 661123.	1.3	6
41	The effect of beta-blockers on hemodynamic parameters in patient-specific blood flow simulations of type-B aortic dissection: a virtual study. Scientific Reports, 2021, 11, 16058.	1.6	15
42	Microfluidic platform for synthesis and optimization of chitosan-coated magnetic nanoparticles in cisplatin delivery. Carbohydrate Polymers, 2021, 265, 118027.	5.1	35
43	Power Enhancement of a Vertical Axis Wind Turbine Equipped with an Improved Duct. Energies, 2021, 14, 5780.	1.6	16
44	Lower extremity energy absorption strategies at different phases during single and double-leg landings with knee valgus in pubertal female athletes. Scientific Reports, 2021, 11, 17516.	1.6	2
45	Effects of hypoxia and nanocarrier size on pH-responsive nano-delivery system to solid tumors. Scientific Reports, 2021, 11, 19350.	1.6	37
46	Transient thermodynamic modeling and economic analysis of an adiabatic compressed air energy storage (A-CAES) based on cascade packed bed thermal energy storage with encapsulated phase change materials. Energy Conversion and Management, 2021, 243, 114379.	4.4	54
47	Computational modeling of thermal combination therapies by magneto-ultrasonic heating to enhance drug delivery to solid tumors. Scientific Reports, 2021, 11, 19539.	1.6	32
48	Heat transfer enhancement in latent heat thermal energy storage unit using a combination of fins and rotational mechanisms. International Journal of Heat and Mass Transfer, 2021, 179, 121667.	2.5	55
49	Investigation of a green energy storage system based on liquid air energy storage (LAES) and high-temperature concentrated solar power (CSP): Energy, exergy, economic, and environmental (4E) assessments, along with a case study for San Diego, US. Sustainable Cities and Society, 2021, 75, 103305.	5.1	56
50	Experimental Investigation on Improvement of Wet Cooling Tower Efficiency with Diverse Packing Compaction Using ANN-PSO Algorithm. Energies, 2021, 14, 167.	1.6	15
51	Integrated anaerobic co-digestion of municipal organic waste to biogas using geothermal and CHP plants: A comprehensive analysis. Renewable and Sustainable Energy Reviews, 2021, 152, 111709.	8.2	14
52	Evaluation of solid tumor response to sequential treatment cycles via a new computational hybrid approach. Scientific Reports, 2021, 11, 21475.	1.6	29
53	Computational modeling of PET tracer distribution in solid tumors integrating microvasculature. BMC Biotechnology, 2021, 21, 67.	1.7	4
54	The Effects of Curcumin Nanoparticles Incorporated into Collagen-Alginate Scaffold on Wound Healing of Skin Tissue in Trauma Patients. Polymers, 2021, 13, 4291.	2.0	23

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55	Personalized image-based tumor growth prediction in a convection–diffusion–reaction model. Acta Neurologica Belgica, 2020, 120, 49-57.	0.5	8
56	Mathematical modeling reveals how the density of initial tumor and its distance to parent vessels alter the growth trend of vascular tumors. Microcirculation, 2020, 27, e12584.	1.0	9
57	Analysis of an indoor air decontamination device inside an aerobiology chamber: a numerical-experimental study. Air Quality, Atmosphere and Health, 2020, 13, 281-288.	1.5	8
58	Estimation of drug and tumor properties using novel hybrid meta-heuristic methods. Journal of Theoretical Biology, 2020, 488, 110121.	0.8	5
59	A novel in silico platform for a fully automatic personalized brain tumor growth. Magnetic Resonance Imaging, 2020, 68, 121-126.	1.0	5
60	Optimization and energy-economic assessment of a geothermal heat pump system. Renewable and Sustainable Energy Reviews, 2020, 133, 110282.	8.2	29
61	Magnetofluidic spreading in circular chambers under a uniform magnetic field. Microfluidics and Nanofluidics, 2020, 24, 1.	1.0	3
62	Energy, exergy, and economic analyses of an innovative energy storage system; liquid air energy storage (LAES) combined with high-temperature thermal energy storage (HTES). Energy Conversion and Management, 2020, 226, 113486.	4.4	149
63	Thermo-environmental analysis of a novel cogeneration system based on solid oxide fuel cell (SOFC) and compressed air energy storage (CAES) coupled with turbocharger. Applied Thermal Engineering, 2020, 181, 115978.	3.0	103
64	Effect of vascular normalization on drug delivery to different stages of tumor progression: In-silico analysis. Journal of Drug Delivery Science and Technology, 2020, 60, 101989.	1.4	25
65	Acoustic streaming and thermosensitive liposomes for drug delivery into hepatocellular carcinoma tumor adjacent to major hepatic veins; an acoustics–thermal–fluid-mass transport coupling model. International Journal of Thermal Sciences, 2020, 158, 106540.	2.6	22
66	A comparative study between ORC and Kalina based waste heat recovery cycles applied to a green compressed air energy storage (CAES) system. Energy Conversion and Management, 2020, 222, 113203.	4.4	139
67	Controlled anti-cancer drug release through advanced nano-drug delivery systems: Static and dynamic targeting strategies. Journal of Controlled Release, 2020, 327, 316-349.	4.8	236
68	Biodegradable Nanoparticle for Cornea Drug Delivery: Focus Review. Pharmaceutics, 2020, 12, 1232.	2.0	26
69	Drug delivery to solid tumors with heterogeneous microvascular networks: Novel insights from image-based numerical modeling. European Journal of Pharmaceutical Sciences, 2020, 151, 105399.	1.9	29
70	Numerical study of microwave induced thermoacoustic imaging for initial detection of cancer of breast on anatomically realistic breast phantom. Computer Methods and Programs in Biomedicine, 2020, 196, 105606.	2.6	25
71	Use of microwave ablation for thermal treatment of solid tumors with different shapes and sizes—A computational approach. PLoS ONE, 2020, 15, e0233219.	1.1	46
72	Reinforcement learning for optimal scheduling of Glioblastoma treatment with Temozolomide. Computer Methods and Programs in Biomedicine, 2020, 193, 105443.	2.6	11

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73	An optimization study on heavy oil upgrading in supercritical water through the response surface methodology (RSM). Fuel, 2020, 271, 117618.	3.4	35
74	Quantifying the effect of nanoparticles addition to a hybrid absorption/recompression refrigeration cycle. Journal of Cleaner Production, 2020, 260, 121084.	4.6	47
75	Effects of magnetic nanoparticle diffusion on microwave ablation treatment: A numerical approach. Journal of Magnetism and Magnetic Materials, 2020, 514, 167196.	1.0	21
76	Assessment of the Huntorf compressed air energy storage plant performance under enhanced modifications. Energy Conversion and Management, 2020, 209, 112662.	4.4	61
77	Evaluation of inverse methods for estimation of mechanical parameters in solid tumors. Biomedical Physics and Engineering Express, 2020, 6, 035027.	0.6	7
78	A new computational method of modeling and evaluation of dissolving microneedle for drug delivery applications: Extension to theoretical modeling of a novel design of microneedle (array in array) for efficient drug delivery. European Journal of Pharmaceutical Sciences, 2020, 150, 105339.	1.9	26
79	Mathematical modeling and simulation of molecular mass transfer across blood brain barrier in brain capillary. Journal of Molecular Liquids, 2020, 310, 113254.	2.3	12
80	Microneedle Systems for Vaccine Delivery: the story so far. Expert Review of Vaccines, 2020, 19, 1153-1166.	2.0	26
81	Numerical simulation of synergistic interaction of magnetic hyperthermia and intraperitoneal delivery of temperature-sensitive liposomes. , 2020, , .		1
82	A comprehensive review of geothermal energy evolution and development. International Journal of Green Energy, 2019, 16, 971-1009.	2.1	61
83	Thermodynamic analysis of in-situ hydrogen from hot compressed water for heavy oil upgrading. International Journal of Hydrogen Energy, 2019, 44, 27671-27684.	3.8	16
84	Numerical modeling of high-intensity focused ultrasound-mediated intraperitoneal delivery of thermosensitive liposomal doxorubicin for cancer chemotherapy. Drug Delivery, 2019, 26, 898-917.	2.5	41
85	Thermodynamic analysis of compressed air energy storage (CAES) hybridized with a multi-effect desalination (MED) system. Energy Conversion and Management, 2019, 199, 112047.	4.4	121
86	Image-based spatio-temporal model of drug delivery in a heterogeneous vasculature of a solid tumor â€" Computational approach. Microvascular Research, 2019, 123, 111-124.	1.1	59
87	Investigation of an efficient and environmentally-friendly CCHP system based on CAES, ORC and compression-absorption refrigeration cycle: Energy and exergy analysis. Energy Conversion and Management, 2019, 195, 1199-1211.	4.4	145
88	In vitro investigation of anticancer efficacy of carboplatin-loaded PEGylated nanoliposome particles on brain cancer cell lines. Journal of Nanoparticle Research, 2019, 21, 1.	0.8	20
89	Effects of magnetic nanoparticles on mixing in droplet-based microfluidics. Physics of Fluids, 2019, 31, .	1.6	45
90	Thermodynamic and economic investigation of a novel integration of the absorption-recompression refrigeration system with compressed air energy storage (CAES). Energy Conversion and Management, 2019, 187, 262-273.	4.4	163

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91	Breast cancer diagnosis with a microwave thermoacoustic imaging technique—a numerical approach. Medical and Biological Engineering and Computing, 2019, 57, 1497-1513.	1.6	29
92	Various Mathematical Models of Tumor Growth with Reference to Cancer Stem Cells: A Review. Iranian Journal of Science and Technology, Transaction A: Science, 2019, 43, 687-700.	0.7	11
93	The impact of endothelial cells proliferation in a multiscale realistic reproduction of angiogenesis. Biochemical Engineering Journal, 2019, 142, 74-83.	1.8	7
94	A novel numerical modeling paradigm for bio particle tracing in non-inertial microfluidics devices. Microsystem Technologies, 2019, 25, 3703-3711.	1.2	6
95	Reduced Order Modeling of Transient Heat Transfer in Microchip Interconnects. Journal of Electronic Packaging, Transactions of the ASME, 2019, 141, .	1.2	9
96	A comprehensive study of geothermal heating and cooling systems. Sustainable Cities and Society, 2019, 44, 793-818.	5.1	150
97	Energy and exergy analysis of an environmentally-friendly hybrid absorption/recompression refrigeration system. Energy Conversion and Management, 2018, 164, 59-69.	4.4	103
98	A novel single and multi-objective optimization approach based on Bees Algorithm Hybrid with Particle Swarm Optimization (BAHPSO): Application to thermal-economic design of plate fin heat exchangers. International Journal of Thermal Sciences, 2018, 129, 552-564.	2.6	30
99	Modeling of FMISO [F 18] nanoparticle PET tracer in normal-cancerous tissue based on real clinical image. Microvascular Research, 2018, 118, 20-30.	1.1	12
100	Optimization of oxygen transport within a tissue engineered vascular graft model using embedded micro-channels inspired by vasa vasorum. Chemical Engineering Science, 2018, 184, 1-13.	1.9	4
101	Comprehensive study of the impacts of surrounding structures on the aero-dynamic performance and flow characteristics of an outdoor unit of split-type air conditioner. Building Simulation, 2018, 11, 325-337.	3.0	13
102	Investigation of Airflow Patterns in a New Design of Wind Tower with a Wetted Surface. Energies, 2018, 11, 1100.	1.6	43
103	The pivotal role of angiogenesis in a multi-scale modeling of tumor growth exhibiting the avascular and vascular phases. Microvascular Research, 2018, 119, 105-116.	1.1	19
104	Mechanical responses of maxillary canine and surrounding tissues under orthodontic loading: a non-linear three-dimensional finite element analysis. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 2353-2369.	0.8	7
105	Brain tumor growth simulation: model validation through uncertainty quantification. International Journal of Systems Assurance Engineering and Management, 2017, 8, 655-662.	1.5	4
106	Multi-objective optimization of radiotherapy: distributed Q-learning and agent-based simulation. Journal of Experimental and Theoretical Artificial Intelligence, 2017, 29, 1071-1086.	1.8	18
107	Biocompatible polymer microneedle for topical/dermal delivery of tranexamic acid. Journal of Controlled Release, 2017, 261, 87-92.	4.8	67
108	Spatiotemporal distribution modeling of PET tracer uptake in solid tumors. Annals of Nuclear Medicine, 2017, 31, 109-124.	1.2	24

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109	Image based modeling of tumor growth. Australasian Physical and Engineering Sciences in Medicine, 2016, 39, 601-613.	1.4	11
110	Mathematical modeling and simulation of bacterial distribution in an aerobiology chamber using computational fluid dynamics. American Journal of Infection Control, 2016, 44, S127-S137.	1.1	15
111	Blood flow and endothelial cell phenotype regulation during sprouting angiogenesis. Medical and Biological Engineering and Computing, 2016, 54, 547-558.	1.6	13
112	Effect of tumor size on drug delivery to lung tumors. , 2015, , .		3
113	The Vital Role of Blood Flow-Induced Proliferation and Migration in Capillary Network Formation in a Multiscale Model of Angiogenesis. PLoS ONE, 2015, 10, e0128878.	1.1	31
114	Activation of Apoptotic Signal in Endothelial Cells through Intracellular Signaling Molecules Blockade in Tumor-Induced Angiogenesis. BioMed Research International, 2015, 2015, 1-12.	0.9	0
115	Effect of Fluid Friction on Interstitial Fluid Flow Coupled with Blood Flow through Solid Tumor Microvascular Network. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-8.	0.7	13
116	A new design of wind tower for passive ventilation in buildings to reduce energy consumption in windy regions. Renewable and Sustainable Energy Reviews, 2015, 42, 182-195.	8.2	107
117	Numerical modeling of drug delivery in a dynamic solid tumor microvasculature. Microvascular Research, 2015, 99, 43-56.	1.1	122
118	SUâ€Dâ€201â€04: Study On the Impact of Tumor Shape and Size On Drug Delivery to Pancreatic Tumors. Medical Physics, 2015, 42, 3220-3220.	1.6	5
119	WE-AB-204-07: Spatiotemporal Distribution of the FDG PET Tracer in Solid Tumors: Contributions of Diffusion and Convection Mechanisms. Medical Physics, 2015, 42, 3660-3660.	1.6	2
120	Interstitial flow in cancerous tissue: Effect of fluid friction. , 2014, , .		2
121	A multi-scale cell-based model of lumen formation in single endothelial cell. , 2014, , .		1
122	Effect of remodeled tumor-induced capillary network on interstitial flow in cancerous tissue. , 2014, , .		6
123	Effect of tumor shape, size, and tissue transport properties on drug delivery to solid tumors. Journal of Biological Engineering, 2014, 8, 12.	2.0	102
124	Comprehensive modeling of the spatiotemporal distribution of PET tracer uptake in solid tumors based on the convection-diffusion-reaction equation. , 2014, , .		4
125	The effect of dispersant on toughening mechanism and structure behaviors of Polypropylene Nanocomposites reinforced with nano Î±-alumina particles. Journal of Thermoplastic Composite Materials, 2013, 26, 1377-1392.	2.6	1
126	Bone regeneration based on nano-hydroxyapatite and hydroxyapatite/chitosan nanocomposites: an in vitro and in vivo comparative study. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	51

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127	Numerical Modeling of Interstitial Fluid Flow Coupled with Blood Flow through a Remodeled Solid Tumor Microvascular Network. PLoS ONE, 2013, 8, e67025.	1.1	108
128	Nonviral Approach for Targeted Nucleic Acid Delivery. Current Medicinal Chemistry, 2012, 19, 197-208.	1.2	109
129	Effect of tumor shape and size on drug delivery to solid tumors. Journal of Biological Engineering, 2012, 6, 4.	2.0	81
130	Numerical Modeling of Fluid Flow in Solid Tumors. PLoS ONE, 2011, 6, e20344.	1.1	132
131	Shape Design of Internal Flow with Minimum Pressure Loss. Advanced Science Letters, 2009, 2, 347-355.	0.2	11
132	Modeling and Analysis of Nanoparticle with Non-Uniform Drug Concentration Distribution: How to Approach a Programmed Delivery?. Journal of Pharmaceutical Innovation, 0, , 1.	1.1	0