

Mehrab Mehrvar

List of Publications by Year in descending order

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109
papers

3,402
citations

126907

33
h-index

168389

53
g-index

110
all docs

110
docs citations

110
times ranked

3356
citing authors

#	ARTICLE	IF	CITATIONS
1	Slaughterhouse wastewater characteristics, treatment, and management in the meat processing industry: A review on trends and advances. <i>Journal of Environmental Management</i> , 2015, 161, 287-302.	7.8	282
2	Recent Developments, Characteristics, and Potential Applications of Electrochemical Biosensors. <i>Analytical Sciences</i> , 2004, 20, 1113-1126.	1.6	201
3	Fiber-Optic Biosensors. Trends and Advances.. <i>Analytical Sciences</i> , 2000, 16, 677-692.	1.6	124
4	Study of solidâ€“liquid mixing in agitated tanks through electrical resistance tomography. <i>Chemical Engineering Science</i> , 2010, 65, 1374-1384.	3.8	123
5	Study of Solidâ€“Liquid Mixing in Agitated Tanks through Computational Fluid Dynamics Modeling. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 4426-4435.	3.7	117
6	Slaughterhouse wastewater treatment by combined anaerobic baffled reactor and UV/H ₂ O ₂ processes. <i>Chemical Engineering Research and Design</i> , 2011, 89, 1136-1143.	5.6	84
7	Health effects, environmental impacts, and photochemical degradation of selected surfactants in water. <i>International Journal of Photoenergy</i> , 2004, 6, 115-125.	2.5	83
8	Enhancement of photocatalytic activity of titanium dioxide using non-metal doping methods under visible light: a review. <i>International Journal of Environmental Science and Technology</i> , 2018, 15, 2009-2032.	3.5	81
9	Photocatalytic efficiency of Fe ₂ O ₃ /TiO ₂ for the degradation of typical dyes in textile industries: Effects of calcination temperature and UV-assisted thermal synthesis. <i>Journal of Environmental Management</i> , 2017, 196, 487-498.	7.8	80
10	Treatment of actual slaughterhouse wastewater by combined anaerobicâ€“aerobic processes for biogas generation and removal of organics and nutrients: An optimization study towards a cleaner production in the meat processing industry. <i>Journal of Cleaner Production</i> , 2017, 141, 278-289.	9.3	76
11	Photocatalytic degradation of aqueous organic solvents in the presence of hydroxyl radical scavengers. <i>International Journal of Photoenergy</i> , 2001, 3, 187-191.	2.5	73
12	Cost-effectiveness analysis of TOC removal from slaughterhouse wastewater using combined anaerobicâ€“aerobic and UV/H ₂ O ₂ processes. <i>Journal of Environmental Management</i> , 2014, 134, 145-152.	7.8	72
13	Photochemical treatment of benzene, toluene, ethylbenzene, and xylenes (BTEX) in aqueous solutions using advanced oxidation processes: Towards a cleaner production in the petroleum refining and petrochemical industries. <i>Journal of Cleaner Production</i> , 2018, 186, 609-617.	9.3	63
14	Sonophotolytic degradation of synthetic pharmaceutical wastewater: Statistical experimental design and modeling. <i>Journal of Environmental Management</i> , 2015, 150, 128-137.	7.8	62
15	Integration of Advanced Oxidation Technologies and Biological Processes: Recent Developments, Trends, and Advances. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2004, 39, 3029-3081.	1.7	59
16	Photoreactor scale-up for degradation of aqueous poly(vinyl alcohol) using UV/H ₂ O ₂ process. <i>Chemical Engineering Journal</i> , 2014, 245, 133-142.	12.7	58
17	Experimental study of polyvinyl alcohol degradation in aqueous solution by UV/H ₂ O ₂ process. <i>Polymer Degradation and Stability</i> , 2014, 103, 75-82.	5.8	58
18	Treatment of an actual slaughterhouse wastewater by integration of biological and advanced oxidation processes: Modeling, optimization, and cost-effectiveness analysis. <i>Journal of Environmental Management</i> , 2016, 182, 651-666.	7.8	54

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19	Photolytic treatment of organic constituents and bacterial pathogens in secondary effluent of synthetic slaughterhouse wastewater. <i>Chemical Engineering Research and Design</i> , 2012, 90, 1335-1350.	5.6	53
20	Aqueous Metronidazole Degradation by UV/H ₂ O ₂ Process in Single-and Multi-Lamp Tubular Photoreactors: Kinetics and Reactor Design. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 6525-6537.	3.7	51
21	Photocatalytic degradation of aqueous Methyl Orange using nitrogen-doped TiO ₂ photocatalyst prepared by novel method of ultraviolet-assisted thermal synthesis. <i>Journal of Environmental Sciences</i> , 2018, 66, 81-93.	6.1	49
22	Slaughterhouse Wastewater Characterization and Treatment: An Economic and Public Health Necessity of the Meat Processing Industry in Ontario, Canada. <i>Journal of Geoscience and Environment Protection</i> , 2016, 04, 175-186.	0.5	47
23	New advancements, challenges, and future needs on treatment of oilfield produced water: A state-of-the-art review. <i>Separation and Purification Technology</i> , 2022, 289, 120652.	7.9	45
24	Combined anaerobic-aerobic and UV/H ₂ O ₂ processes for the treatment of synthetic slaughterhouse wastewater. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2013, 48, 1122-1135.	1.7	43
25	Combination of sonophotolysis and aerobic activated sludge processes for treatment of synthetic pharmaceutical wastewater. <i>Chemical Engineering Journal</i> , 2014, 255, 411-423.	12.7	43
26	An assessment of the grey water footprint of winery wastewater in the Niagara Region of Ontario, Canada. <i>Journal of Cleaner Production</i> , 2019, 214, 623-632.	9.3	43
27	Modification of TiO ₂ to enhance photocatalytic degradation of organics in aqueous solutions. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 4072-4082.	6.7	41
28	Photocatalytic degradation of aqueous tetrahydrofuran, 1,4-dioxane, and their mixture with TiO ₂ . <i>International Journal of Photoenergy</i> , 2000, 2, 67-80.	2.5	36
29	Optimization of phenol degradation in a combined photochemical–biological wastewater treatment system. <i>Chemical Engineering Research and Design</i> , 2008, 86, 1243-1252.	5.6	36
30	Free-Radical-Induced Degradation of Aqueous Polyethylene Oxide by UV/H ₂ O ₂ : Experimental Design, Reaction Mechanisms, and Kinetic Modeling. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 14980-14993.	3.7	36
31	Assessing the performance of uv/H ₂ O ₂ as a pretreatment process in TOC removal of an actual petroleum refinery wastewater and its inhibitory effects on activated sludge. <i>Canadian Journal of Chemical Engineering</i> , 2015, 93, 798-807.	1.7	36
32	Pilot-plant study for the photochemical treatment of aqueous linear alkylbenzene sulfonate. <i>Separation and Purification Technology</i> , 2006, 49, 115-121.	7.9	35
33	Photochemical degradation of an actual slaughterhouse wastewater by continuous UV/H ₂ O ₂ photoreactor with recycle. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 719-732.	6.7	35
34	Preliminary analysis of a trickle-bed photocatalytic reactor. <i>Journal of Environmental Management</i> , 2002, 6, 411-418.	1.7	34
35	Slaughterhouse Wastewater: Treatment, Management and Resource Recovery. , 0, , .		33
36	CFD Modeling of Metronidazole Degradation in Water by the UV/H ₂ O ₂ Process in Single and Multilamp Photoreactors. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 5367-5382.	3.7	32

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37	Photochemical Degradation of Aqueous Polyvinyl Alcohol in a Continuous UV/H ₂ O ₂ Process: Experimental and Statistical Analysis. <i>Journal of Polymers and the Environment</i> , 2016, 24, 72-83.	5.0	30
38	Improving the dynamic performance of continuous-flow mixing of pseudoplastic fluids possessing yield stress using Maxblend impeller. <i>Chemical Engineering Research and Design</i> , 2012, 90, 514-523.	5.6	29
39	Comparison of the photoactivities of two commercial titanium dioxide powders in the degradation of 1,4-dioxane. <i>International Journal of Photoenergy</i> , 2002, 4, 141-146.	2.5	28
40	Kinetic modeling of aqueous phenol degradation by UV/H ₂ O ₂ process. <i>International Journal of Chemical Kinetics</i> , 2008, 40, 34-43.	1.6	28
41	Photocatalytic Treatment of An Actual Confectionery Wastewater Using Ag/TiO ₂ /Fe ₂ O ₃ : Optimization of Photocatalytic Reactions Using Surface Response Methodology. <i>Catalysts</i> , 2018, 8, 409.	3.5	28
42	Mixing time in an agitated multi-amp cylindrical photoreactor using electrical resistance tomography. <i>Journal of Chemical Technology and Biotechnology</i> , 2008, 83, 1676-1688.	3.2	27
43	Photoassisted Fenton-like degradation of aqueous poly(acrylic acid): From mechanistic kinetic model to CFD modeling. <i>Chemical Engineering Research and Design</i> , 2013, 91, 2617-2629.	5.6	27
44	Evaluation of low-copy genetic targets for waterborne bacterial pathogen detection via qPCR. <i>Water Research</i> , 2011, 45, 3378-3388.	11.3	26
45	CFD analysis of two-phase turbulent flow in internal airlift reactors. <i>Canadian Journal of Chemical Engineering</i> , 2012, 90, 1612-1631.	1.7	26
46	Photoreactor design and CFD modelling of a UV/H ₂ O ₂ process for distillery wastewater treatment. <i>Canadian Journal of Chemical Engineering</i> , 2012, 90, 719-729.	1.7	24
47	Optimisation of photo-Fenton-like degradation of aqueous polyacrylic acid using Box-Behnken experimental design. <i>Canadian Journal of Chemical Engineering</i> , 2014, 92, 97-108.	1.7	24
48	Non-linear parameter estimation for a dynamic model in photocatalytic reaction engineering. <i>Chemical Engineering Science</i> , 2000, 55, 4885-4891.	3.8	22
49	Dynamic Performance of Continuous-Flow Mixing of Pseudoplastic Fluids Exhibiting Yield Stress in Stirred Reactors. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 9377-9389.	3.7	22
50	Effect of rheological parameters on non-ideal flows in the continuous-flow mixing of biopolymer solutions. <i>Chemical Engineering Research and Design</i> , 2015, 100, 126-134.	5.6	22
51	Using an external-loop airlift sonophotoreactor to enhance the biodegradability of aqueous sulfadiazine solution. <i>Separation and Purification Technology</i> , 2012, 90, 173-181.	7.9	21
52	Synthesis & crystal structures of four new biochemical active Ni(II) complexes of thiosemicarbazone and isothiosemicarbazone-based ligands: In-vitro antimicrobial study. <i>Journal of Molecular Structure</i> , 2019, 1181, 287-294.	3.6	21
53	A traffic noise model for road intersections in the city of Cartagena de Indias, Colombia. <i>Transportation Research, Part D: Transport and Environment</i> , 2016, 47, 149-161.	6.8	20
54	Characterization of the continuous-flow mixing of non-Newtonian fluids using the ratio of residence time to batch mixing time. <i>Chemical Engineering Research and Design</i> , 2013, 91, 1223-1234.	5.6	18

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55	Comparison of Biobutanol Production Pathways via Acetone-Butanol-Ethanol Fermentation Using a Sustainability Exergy-Based Metric. ACS Omega, 2020, 5, 18710-18730.	3.5	18
56	Effects of Photocatalysis on the Biodegradability of Cibacron Brilliant Yellow 3G-P (Reactive Yellow) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Environmental Engineering, 2004, 39, 113-126.	1.7	17
57	The Ludwig-Soret Effect on the Thermally Induced Phase Separation Process in Polymer Solutions: A Computational Study. Macromolecular Theory and Simulations, 2009, 18, 97-107.	1.4	17
58	Winery wastewater management and treatment in the Niagara Region of Ontario, Canada: A review and analysis of current regional practices and treatment performance. Canadian Journal of Chemical Engineering, 2020, 98, 5-24.	1.7	17
59	Effects of hydrogen peroxide feeding strategies on the photochemical degradation of polyvinyl alcohol. Environmental Technology (United Kingdom), 2016, 37, 2731-2742.	2.2	15
60	Photocatalytic Treatment of Cibacron Brilliant Yellow 3G-P (Reactive Yellow 2 Textile Dye). Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2003, 38, 1903-1914.	1.7	14
61	Experimental investigation of phenolic wastewater treatment using combined activated carbon and UV processes. Clean Technologies and Environmental Policy, 2005, 7, 177-181.	4.1	14
62	Effects of pilot-plant photochemical pre-treatment (UV/H ₂ O ₂) on the biodegradability of aqueous linear alkylbenzene sulfonate (LAS). International Journal of Photoenergy, 2005, 7, 169-174.	2.5	14
63	Photolytic Treatment of Aqueous Linear Alkylbenzene Sulfonate. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2005, 40, 1731-1739.	1.7	14
64	Degradation of aqueous methyltert-butyl ether by photochemical, biological, and their combined processes. International Journal of Photoenergy, 2006, 2006, 1-7.	2.5	14
65	Particulates and bacteria removal by ceramic microfiltration, UV photolysis, and their combination. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2007, 42, 895-901.	1.7	14
66	Effect of impeller type on continuous-flow mixing of non-Newtonian fluids in stirred vessels through dynamic tests. Canadian Journal of Chemical Engineering, 2012, 90, 290-298.	1.7	14
67	A statistical experimental design approach for photochemical degradation of aqueous polyacrylic acid using photo-Fenton-like process. Polymer Degradation and Stability, 2014, 110, 492-497.	5.8	14
68	Tomography images to analyze the deformation of the cavern in the continuous-flow mixing of non-Newtonian fluids. AIChE Journal, 2014, 60, 315-331.	3.6	14
69	Combined UV-C/H ₂ O ₂ -VUV processes for the treatment of an actual slaughterhouse wastewater. Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes, 2017, 52, 314-325.	1.5	14
70	Recent Achievements in Combination of Ultrasonolysis and Other Advanced Oxidation Processes for Wastewater Treatment. International Journal of Chemical Reactor Engineering, 2010, 8, .	1.1	13
71	Optimization of aqueous p-aminophenol degradation by external-loop airlift sonophotoreactor using response surface methodology. Chemical Engineering Research and Design, 2012, 90, 1221-1234.	5.6	13
72	Nano mesoporous silica for cancer treatment: ROS-responsive and redox-responsive carriers. Journal of Drug Delivery Science and Technology, 2020, 57, 101510.	3.0	13

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73	A hybrid scaffold of gelatin glycosaminoglycan matrix and fibrin as a carrier of human corneal fibroblast cells. <i>Materials Science and Engineering C</i> , 2021, 118, 111430.	7.3	13
74	Photocatalytic Treatment of Linear Alkylbenzene Sulfonate (LAS) in Water. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2005, 40, 1003-1012.	1.7	11
75	Combined Photochemical and Biological Processes for the Treatment of Linear Alkylbenzene Sulfonate in Water. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2006, 41, 581-597.	1.7	11
76	Synthesis of FeO@SiO ₂ "DNA core" shell engineered nanostructures for rapid adsorption of heavy metals in aqueous solutions. <i>RSC Advances</i> , 2020, 10, 39284-39294.	3.6	11
77	Using Tomography to Characterize the Mixing of Non-Newtonian Fluids with a Maxblend Impeller. <i>Chemical Engineering and Technology</i> , 2013, 36, 687-695.	1.5	10
78	Pharmaceutical wastewater treatment using granular activated carbon and UV/H ₂ O ₂ processes: Experimental analysis and modelling. <i>Canadian Journal of Chemical Engineering</i> , 2014, 92, 1163-1173.	1.7	10
79	Characterising winery wastewater composition to optimise treatment and reuse. <i>Australian Journal of Grape and Wine Research</i> , 2020, 26, 410-416.	2.1	10
80	Kinetic study of photodegradation of water soluble polymers. <i>Iranian Polymer Journal (English)</i> Tj ETQqO 0 0 rgBT /Overlock 10 Tf 50 462	2.4	9
81	Photochemical Kinetic Modeling of Degradation of Aqueous Polyvinyl Alcohol in a UV/H ₂ O ₂ Photoreactor. <i>Journal of Polymers and the Environment</i> , 2018, 26, 3283-3293.	5.0	9
82	Recent Advances in Dynamic Modeling and Process Control of PVA Degradation by Biological and Advanced Oxidation Processes: A Review on Trends and Advances. <i>Environments - MDPI</i> , 2021, 8, 116.	3.3	9
83	Utilization of multiple organisms in a proposed early-warning biomonitoring system for real-time detection of contaminants: preliminary results and modeling. <i>Journal of Hazardous Materials</i> , 2012, 219-220, 95-102.	12.4	8
84	Treatment of mature landfill leachate using hybrid processes of hydrogen peroxide and adsorption in an activated carbon fixed bed column. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2018, 53, 238-243.	1.7	8
85	Computer Simulation of Anisotropic Polymeric Materials Using Polymerization-Induced Phase Separation under Combined Temperature and Concentration Gradients. <i>Polymers</i> , 2019, 11, 1076.	4.5	8
86	Highly sensitive and selective non-enzymatic measurement of glucose using arraying of two separate sweat sensors at physiological pH. <i>Electrochimica Acta</i> , 2022, 404, 139749.	5.2	8
87	Correlation and prediction of azo dye degradation by nonlinear least-square regression in combined ozonation and ultrasonolysis processes. <i>Water Quality Research Journal of Canada</i> , 2011, 46, 250-258.	2.7	7
88	Single- and two-step procedures of AGET emulsion ATRP of methyl methacrylate in a well-mixed batch reactor. <i>Journal of Applied Polymer Science</i> , 2017, 134, 45308.	2.6	7
89	Treatment of Actual Winery Wastewater by Fenton-like Process: Optimization to Improve Organic Removal, Reduce Inorganic Sludge Production and Enhance Co-Treatment at Municipal Wastewater Treatment Facilities. <i>Water (Switzerland)</i> , 2022, 14, 39.	2.7	7
90	Modeling organic matter and nitrogen removal from domestic wastewater in a pilot-scale vertical subsurface flow constructed wetland. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2016, 51, 414-424.	1.7	6

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91	Statistical parameter optimization and modeling of photodegradation of methyl orange using a composite photocatalyst prepared by thermal synthesis. <i>Environmental Science and Pollution Research</i> , 2020, 27, 45650-45660.	5.3	6
92	Photochemical degradation of aqueous artificial sweeteners by UV/H_2O_2 and their biodegradability studies. <i>Journal of Chemical Technology and Biotechnology</i> , 2020, 95, 2509-2521.	3.2	6
93	Identification and Model Predictive Control (MPC) of Aqueous Polyvinyl Alcohol Degradation in UV/H_2O_2 Photochemical Reactors. <i>Journal of Polymers and the Environment</i> , 2021, 29, 2572-2584.	5.0	6
94	Experimental Design and Statistical Analysis of AGET ATRP of MMA in Emulsion Polymer Reactor. <i>Macromolecular Reaction Engineering</i> , 2019, 13, 1900006.	1.5	5
95	Scientific discussion of selected viruses including COVID-19 in hot springs. , 2020, , .		4
96	Modeling PVA degradation in a continuous photochemical reactor using experimental step testing and process identification. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 104983.	6.7	4
97	Seawater transport through quartz pores of coastal aquifers: A molecular dynamics study. <i>Advances in Water Resources</i> , 2022, 161, 104121.	3.8	4
98	Nonlinear Modeling for the Degradation of Aqueous Azo Dyes by Combined Advanced Oxidation Processes Using Artificial Neural Networks. <i>Chemical Product and Process Modeling</i> , 2011, 6, .	0.9	3
99	Long-Range Surface-Directed Polymerization-Induced Phase Separation: A Computational Study. <i>Polymers</i> , 2021, 13, 256.	4.5	3
100	Environmental and Exergetic Analysis of Large-Scale Production of Citric Acid-Coated Magnetite Nanoparticles via Computer-Aided Process Engineering Tools. <i>ACS Omega</i> , 2021, 6, 3644-3658.	3.5	3
101	Degradation of aqueous methylene blue using an external loop airlift sonophotoreactor: Statistical analysis and optimization. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2016, 51, 722-735.	1.7	2
102	Application of Artificial Neural Network and Information Entropy Theory to Assess Rainfall Station Distribution: A Case Study from Colombia. <i>Water (Switzerland)</i> , 2020, 12, 1973.	2.7	2
103	Computational analysis of short-range surface-directed polymerization-induced phase separation. <i>Canadian Journal of Chemical Engineering</i> , 2021, , .	1.7	2
104	From Field to Bottle: Water Footprint Estimation in the Winery Industry. <i>Environmental Footprints and Eco-design of Products and Processes</i> , 2021, , 103-136.	1.1	2
105	Nonlinear System Identification for Aqueous PVA Degradation in a Continuous UV/H_2O_2 Tubular Photoreactor. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 1302-1315.	3.7	2
106	Automated image analysis of <i>Euglena gracilis</i> Klebs (Euglenophyta) for measuring sublethal effects of three model contaminants. <i>Water Science and Technology</i> , 2012, 66, 1708-1715.	2.5	1
107	A traffic noise model for road intersections in the city of Cartagena de Indias, Colombia. , 2016, 47, 149-149.		1
108	Kinetic Modeling of Photodegradation of Water-Soluble Polymers in Batch Photochemical Reactor. , 0, , .		0

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109	Preventive measures pertaining to COVID-19 in swimming pools and hot springs in Europe, Canada, United States, and Colombia. , 2021, , .		0