

Grzegorz Boczkaj

List of Publications by Year in descending order

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Version: 2024-02-01

111
papers

6,648
citations

76196

40
h-index

64668

79
g-index

112
all docs

112
docs citations

112
times ranked

4276
citing authors

#	ARTICLE	IF	CITATIONS
1	Wastewater treatment by means of advanced oxidation processes at basic pH conditions: A review. <i>Chemical Engineering Journal</i> , 2017, 320, 608-633.	6.6	838
2	Wastewater treatment by means of advanced oxidation processes based on cavitation – A review. <i>Chemical Engineering Journal</i> , 2018, 338, 599-627.	6.6	550
3	Hydrophobic deep eutectic solvents as “green”-extraction media for polycyclic aromatic hydrocarbons in aqueous samples. <i>Journal of Chromatography A</i> , 2018, 1570, 28-37.	1.8	240
4	Advanced oxidation processes (AOPs) based wastewater treatment - unexpected nitration side reactions - a serious environmental issue: A review. <i>Chemical Engineering Journal</i> , 2022, 430, 133002.	6.6	237
5	Solar light driven degradation of norfloxacin using as-synthesized Bi ³⁺ and Fe ²⁺ co-doped ZnO with the addition of HSO ₅ ⁻ : Toxicities and degradation pathways investigation. <i>Chemical Engineering Journal</i> , 2018, 351, 841-855.	6.6	209
6	Treatment of bitumen post oxidative effluents by sulfate radicals based advanced oxidation processes (S-AOPs) under alkaline pH conditions. <i>Journal of Cleaner Production</i> , 2018, 195, 374-384.	4.6	157
7	Ultrasound-assisted heterogeneous activation of persulfate and peroxymonosulfate by asphaltenes for the degradation of BTEX in water. <i>Journal of Hazardous Materials</i> , 2020, 397, 122804.	6.5	154
8	Pilot scale degradation study of 16 selected volatile organic compounds by hydroxyl and sulfate radical based advanced oxidation processes. <i>Journal of Cleaner Production</i> , 2019, 208, 54-64.	4.6	150
9	Membrane technologies assisting plant-based and agro-food by-products processing: A comprehensive review. <i>Trends in Food Science and Technology</i> , 2020, 95, 219-232.	7.8	143
10	Sonocatalytic degradation of tetracycline antibiotic using zinc oxide nanostructures loaded on nano-cellulose from waste straw as nanosonocatalyst. <i>Ultrasonics Sonochemistry</i> , 2019, 55, 117-124.	3.8	141
11	Integrated photocatalytic advanced oxidation system (TiO ₂ /UV/O ₃ /H ₂ O ₂) for degradation of volatile organic compounds. <i>Separation and Purification Technology</i> , 2019, 224, 1-14.	3.9	137
12	3D mesoporous γ -Co(OH) ₂ nanosheets electrodeposited on nickel foam: A new generation of macroscopic cobalt-based hybrid for peroxymonosulfate activation. <i>Chemical Engineering Journal</i> , 2020, 380, 122447.	6.6	127
13	Chitin and derivative chitosan-based structures – Preparation strategies aided by deep eutectic solvents: A review. <i>Carbohydrate Polymers</i> , 2022, 275, 118702.	5.1	123
14	Synergistic effect of TiO ₂ photocatalytic advanced oxidation processes in the treatment of refinery effluents. <i>Chemical Engineering Journal</i> , 2020, 391, 123488.	6.6	117
15	Synergistic effects of hybrid advanced oxidation processes (AOPs) based on hydrodynamic cavitation phenomenon – A review. <i>Chemical Engineering Journal</i> , 2022, 432, 134191.	6.6	117
16	Hydrodynamic cavitation based advanced oxidation processes: Studies on specific effects of inorganic acids on the degradation effectiveness of organic pollutants. <i>Journal of Molecular Liquids</i> , 2020, 307, 113002.	2.3	116
17	Effective method of treatment of effluents from production of bitumens under basic pH conditions using hydrodynamic cavitation aided by external oxidants. <i>Ultrasonics Sonochemistry</i> , 2018, 40, 969-979.	3.8	114
18	Synthesis of eosin modified TiO ₂ film with co-exposed {001} and {101} facets for photocatalytic degradation of para-aminobenzoic acid and solar H ₂ production. <i>Applied Catalysis B: Environmental</i> , 2020, 265, 118557.	10.8	106

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19	Deep eutectic solvents based highly efficient extractive desulfurization of fuels – Eco-friendly approach. <i>Journal of Molecular Liquids</i> , 2019, 296, 111916.	2.3	98
20	Hierarchical MnO ₂ nanoflowers blooming on 3D nickel foam: A novel micro-macro catalyst for peroxymonosulfate activation. <i>Journal of Colloid and Interface Science</i> , 2020, 571, 142-154.	5.0	94
21	Characteristics of volatile organic compounds emission profiles from hot road bitumens. <i>Chemosphere</i> , 2014, 107, 23-30.	4.2	93
22	Effect of the cavitation generation unit structure on the performance of an advanced hydrodynamic cavitation reactor for process intensifications. <i>Chemical Engineering Journal</i> , 2021, 412, 128600.	6.6	92
23	Combination of hydrodynamic cavitation and SR-AOPs for simultaneous degradation of BTEX in water. <i>Chemical Engineering Journal</i> , 2021, 417, 128081.	6.6	86
24	Effective method of treatment of industrial effluents under basic pH conditions using acoustic cavitation – A comprehensive comparison with hydrodynamic cavitation processes. <i>Chemical Engineering and Processing: Process Intensification</i> , 2018, 128, 103-113.	1.8	85
25	Highly effective degradation of selected groups of organic compounds by cavitation based AOPs under basic pH conditions. <i>Ultrasonics Sonochemistry</i> , 2018, 45, 257-266.	3.8	84
26	Investigation of volatile low molecular weight compounds formed during continuous reclaiming of ground tire rubber. <i>Polymer Degradation and Stability</i> , 2015, 119, 113-120.	2.7	77
27	Study of Different Advanced Oxidation Processes for Wastewater Treatment from Petroleum Bitumen Production at Basic pH. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 8806-8814.	1.8	77
28	Ultrafast degradation of brilliant cresyl blue under hydrodynamic cavitation based advanced oxidation processes (AOPs). <i>Water Resources and Industry</i> , 2020, 24, 100134.	1.9	76
29	Sample preparation procedure using extraction and derivatization of carboxylic acids from aqueous samples by means of deep eutectic solvents for gas chromatographic-mass spectrometric analysis. <i>Journal of Chromatography A</i> , 2018, 1555, 10-19.	1.8	70
30	Towards azeotropic MeOH-MTBE separation using pervaporation chitosan-based deep eutectic solvent membranes. <i>Separation and Purification Technology</i> , 2022, 281, 119979.	3.9	69
31	Effective degradation of sulfide ions and organic sulfides in cavitation-based advanced oxidation processes (AOPs). <i>Ultrasonics Sonochemistry</i> , 2019, 58, 104610.	3.8	67
32	Deep eutectic solvents microbial toxicity: Current state of art and critical evaluation of testing methods. <i>Journal of Hazardous Materials</i> , 2022, 425, 127963.	6.5	64
33	Methods of assaying volatile oxygenated organic compounds in effluent samples by gas chromatography – A review. <i>Journal of Chromatography A</i> , 2019, 1592, 143-160.	1.8	62
34	Combination of air-dispersion cathode with sacrificial iron anode generating Fe ₂ +Fe ₃ +2O ₄ nanostructures to degrade paracetamol under ultrasonic irradiation. <i>Journal of Molecular Liquids</i> , 2019, 284, 536-546.	2.3	58
35	First deep eutectic solvent-based (DES) stationary phase for gas chromatography and future perspectives for DES application in separation techniques. <i>Journal of Chromatography A</i> , 2021, 1635, 461701.	1.8	53
36	Latest Insights on Novel Deep Eutectic Solvents (DES) for Sustainable Extraction of Phenolic Compounds from Natural Sources. <i>Molecules</i> , 2021, 26, 5037.	1.7	51

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37	Deep eutectic solvents based assay for extraction and determination of zinc in fish and eel samples using FAAS. <i>Journal of Molecular Liquids</i> , 2021, 333, 115930.	2.3	50
38	Stone cutting industry waste-supported zinc oxide nanostructures for ultrasonic assisted decomposition of an anti-inflammatory non-steroidal pharmaceutical compound. <i>Ultrasonics Sonochemistry</i> , 2019, 58, 104669.	3.8	47
39	Recent advances in hydrodynamic cavitation-based pretreatments of lignocellulosic biomass for valorization. <i>Bioresource Technology</i> , 2022, 345, 126251.	4.8	43
40	A comprehensive review on current and emerging technologies toward the valorization of bio-based wastes and by products from foods. <i>Comprehensive Reviews in Food Science and Food Safety</i> , 2022, 21, 46-105.	5.9	42
41	Application of dispersive liquid-liquid microextraction and gas chromatography with mass spectrometry for the determination of oxygenated volatile organic compounds in effluents from the production of petroleum bitumen. <i>Journal of Separation Science</i> , 2016, 39, 2604-2615.	1.3	41
42	Application of dynamic headspace and gas chromatography coupled to mass spectrometry (DHS-GC-MS) for the determination of oxygenated volatile organic compounds in refinery effluents. <i>Analytical Methods</i> , 2016, 8, 3570-3577.	1.3	39
43	Sample preparation procedure for the determination of polycyclic aromatic hydrocarbons in petroleum vacuum residue and bitumen. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 401, 1059-1069.	1.9	38
44	New Procedures for Control of Industrial Effluents Treatment Processes. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 1503-1514.	1.8	38
45	Method for the simultaneous determination of monoaromatic and polycyclic aromatic hydrocarbons in industrial effluents using dispersive liquid-liquid microextraction with gas chromatography-mass spectrometry. <i>Journal of Separation Science</i> , 2018, 41, 2360-2367.	1.3	37
46	Techno-economic evaluation of a natural deep eutectic solvent-based biorefinery: Exploring different design scenarios. <i>Biofuels, Bioproducts and Biorefining</i> , 2020, 14, 746-763.	1.9	37
47	Deep eutectic solvent based method for analysis of Niclosamide in pharmaceutical and wastewater samples – A green analytical chemistry approach. <i>Journal of Molecular Liquids</i> , 2021, 335, 116142.	2.3	36
48	Multi-objective optimization of the cavitation generation unit structure of an advanced rotational hydrodynamic cavitation reactor. <i>Ultrasonics Sonochemistry</i> , 2021, 80, 105771.	3.8	35
49	Process Control and Investigation of Oxidation Kinetics of Postoxidative Effluents Using Gas Chromatography with Pulsed Flame Photometric Detection (GC-PFPD). <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 12654-12662.	1.8	34
50	S-scheme heterojunction Bi ₂ O ₃ -ZnO/Bentonite clay composite with enhanced photocatalytic performance. <i>Sustainable Energy Technologies and Assessments</i> , 2021, 45, 101194.	1.7	34
51	Enabling simultaneous redox transformation of toxic chromium(VI) and arsenic(III) in aqueous media – A review. <i>Journal of Hazardous Materials</i> , 2021, 417, 126041.	6.5	34
52	Ultrasound-assisted deep eutectic solvent-based liquid-liquid microextraction for simultaneous determination of Ni (II) and Zn (II) in food samples. <i>Food Chemistry</i> , 2022, 393, 133384.	4.2	33
53	A comprehensive assessment of environmental pollution by means of heavy metal analysis for oysters' reefs at Hab River Delta, Balochistan, Pakistan. <i>Marine Pollution Bulletin</i> , 2020, 153, 110970.	2.3	31
54	Deep eutectic solvent (DES) with silver nanoparticles (Ag-NPs) based assay for analysis of lead (II) in edible oils. <i>Food Chemistry</i> , 2022, 379, 132085.	4.2	30

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55	Solvent dependency of carbon dioxide Henry's constant in aqueous solutions of choline chloride-ethylene glycol based deep eutectic solvent. <i>Journal of Molecular Liquids</i> , 2020, 319, 114173.	2.3	29
56	Isolation and Characterization of Phenol-Degrading Psychrotolerant Yeasts. <i>Water, Air, and Soil Pollution</i> , 2017, 228, 210.	1.1	28
57	A new procedure for the determination of distillation temperature distribution of high-boiling petroleum products and fractions. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 399, 3253-3260.	1.9	27
58	Method for the determination of carboxylic acids in industrial effluents using dispersive liquid-liquid microextraction with injection port derivatization gas chromatography-mass spectrometry. <i>Journal of Chromatography A</i> , 2017, 1517, 26-34.	1.8	27
59	Activation of peroxymonosulfate using carbon black nano-spheres/calcium alginate hydrogel matrix for degradation of acetaminophen: Fe ₃ O ₄ co-immobilization and microbial community response. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 91, 240-251.	2.9	27
60	A natural deep eutectic solvent - protonated L-proline-xylitol - based stationary phase for gas chromatography. <i>Journal of Chromatography A</i> , 2022, 1676, 463238.	1.8	27
61	New procedure for the control of the treatment of industrial effluents to remove volatile organosulfur compounds. <i>Journal of Separation Science</i> , 2016, 39, 3946-3956.	1.3	26
62	Deep eutectic solvents – A new platform in membrane fabrication and membrane-assisted technologies. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 106414.	3.3	26
63	Novel –acid tuned–deep eutectic solvents based on protonated L-proline. <i>Journal of Molecular Liquids</i> , 2021, 333, 115965.	2.3	25
64	Thermally activated persulfate-based Advanced Oxidation Processes – recent progress and challenges in mineralization of persistent organic chemicals: a review. <i>Current Opinion in Chemical Engineering</i> , 2022, 37, 100839.	3.8	25
65	Research on the separation properties of empty-column gas chromatography (EC-GC) and conditions for simulated distillation (SIMDIS). <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 8377-8382.	1.9	24
66	Bismuth-Doped Nano Zerovalent Iron: A Novel Catalyst for Chloramphenicol Degradation and Hydrogen Production. <i>ACS Omega</i> , 2020, 5, 30610-30624.	1.6	24
67	New procedure for the examination of the degradation of volatile organonitrogen compounds during the treatment of industrial effluents. <i>Journal of Separation Science</i> , 2017, 40, 1301-1309.	1.3	23
68	Highly effective asphaltene-derived adsorbents for gas phase removal of volatile organic compounds. <i>Separation and Purification Technology</i> , 2019, 224, 315-321.	3.9	23
69	Hybrid cross-linked chitosan/protonated-proline:glucose DES membranes with superior pervaporation performance for ethanol dehydration. <i>Journal of Molecular Liquids</i> , 2022, 360, 119499.	2.3	22
70	An improved scalable method of isolating asphaltenes. <i>Journal of Petroleum Science and Engineering</i> , 2018, 167, 608-614.	2.1	21
71	Determination of phenol biodegradation pathways in three psychrotolerant yeasts, <i>Candida subhashii</i> A011, <i>Candida oregonensis</i> B021 and <i>Schizoblastosporion starkeyi-henricii</i> L012, isolated from Rucianka peatland. <i>Enzyme and Microbial Technology</i> , 2020, 141, 109663.	1.6	21
72	Pervaporation Zeolite-Based Composite Membranes for Solvent Separations. <i>Molecules</i> , 2021, 26, 1242.	1.7	21

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73	Novel stationary phases based on asphaltenes for gas chromatography. <i>Journal of Separation Science</i> , 2016, 39, 2527-2536.	1.3	19
74	A review on recent advances in the application of biosurfactants in wastewater treatment. <i>Sustainable Energy Technologies and Assessments</i> , 2021, 48, 101576.	1.7	19
75	Enhanced solar light photocatalytic performance of Fe-ZnO in the presence of H ₂ O ₂ , S ₂ O ₈ ²⁻ , and HSO ₅ ⁻ for degradation of chlorpyrifos from agricultural wastes: Toxicities investigation. <i>Chemosphere</i> , 2022, 287, 132331.	4.2	19
76	Cavitation based cleaner technologies for biodiesel production and processing of hydrocarbon streams: A perspective on key fundamentals, missing process data and economic feasibility – A review. <i>Ultrasonics Sonochemistry</i> , 2022, 88, 106081.	3.8	18
77	Application of normal-phase high-performance liquid chromatography followed by gas chromatography for analytics of diesel fuel additives. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 6095-6103.	1.9	17
78	Determination of modifier contents in polymer-modified bitumens and in samples collected from the roads using high-performance gel permeation/size-exclusion chromatography. <i>Road Materials and Pavement Design</i> , 2016, 17, 547-562.	2.0	17
79	Carbon Nanomaterials From Metal-Organic Frameworks: A New Material Horizon for CO ₂ Reduction. <i>Frontiers in Chemistry</i> , 2020, 8, 573797.	1.8	17
80	Disinfection characteristics of an advanced rotational hydrodynamic cavitation reactor in pilot scale. <i>Ultrasonics Sonochemistry</i> , 2021, 73, 105543.	3.8	17
81	Ultrasound-assisted wet-impregnation of Ag-Co nanoparticles on cellulose nanofibers: Enhanced catalytic hydrogenation of 4-nitrophenol. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105719.	3.3	17
82	Novel strategies to enhance hydrodynamic cavitation in a circular venturi using RANS numerical simulations. <i>Water Research</i> , 2021, 204, 117559.	5.3	17
83	Evaluation and start-up of an electro-Fenton-sequencing batch reactor for dairy wastewater treatment. <i>Water Resources and Industry</i> , 2021, 25, 100149.	1.9	16
84	Desulfurization of raw naphtha cuts using hybrid systems based on acoustic cavitation and advanced oxidation processes (AOPs). <i>Chemical Engineering Journal</i> , 2022, 439, 135354.	6.6	16
85	Microbial fuel cell applications for removal of petroleum hydrocarbon pollutants: A review. <i>Water Resources and Industry</i> , 2022, 28, 100178.	1.9	15
86	Recent advancements in LC-MS based analysis of biotoxins: Present and future challenges. <i>Mass Spectrometry Reviews</i> , 2021, , .	2.8	14
87	Advanced oxidation processes for the treatment of contaminants of emerging concern. , 2020, , 299-365.		13
88	Characterization of diatomaceous earth coated with nitrated asphaltenes as superior adsorbent for removal of VOCs from gas phase in fixed bed column. <i>Chemical Engineering Journal</i> , 2022, 427, 130653.	6.6	13
89	Hybrid metal and non-metal activation of Oxone by magnetite nanostructures co-immobilized with nano-carbon black to degrade tetracycline: Fenton and electrochemical enhancement with bio-assay. <i>Separation and Purification Technology</i> , 2021, 274, 119055.	3.9	12
90	Chemical analysis of low carbon content coals and their applications as dye adsorbent. <i>Chemosphere</i> , 2022, 287, 132286.	4.2	12

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91	Degradation of 1,4-dioxane by sono-activated persulfates for water and wastewater treatment applications. <i>Water Resources and Industry</i> , 2022, 28, 100183.	1.9	11
92	Size-exclusion chromatography for the determination of the boiling point distribution of high-boiling petroleum fractions. <i>Journal of Separation Science</i> , 2015, 38, 741-748.	1.3	9
93	Synthesis of bimetallic Co-Pt/cellulose nanocomposites for catalytic reduction of <i>p</i> -nitrophenol. <i>Reaction Chemistry and Engineering</i> , 2022, 7, 641-652.	1.9	8
94	Degradation of tetracycline antibiotic utilizing light driven-activated oxone in the presence of g-C ₃ N ₄ /ZnFe LDH binary heterojunction nanocomposite. <i>Chemosphere</i> , 2022, 303, 135201.	4.2	8
95	Chromium-based metal organic framework for pipette tip micro-solid phase extraction: an effective approach for determination of methyl and propyl parabens in wastewater and shampoo samples. <i>BMC Chemistry</i> , 2021, 15, 60.	1.6	7
96	Selecting wells for an optimal design of groundwater monitoring network based on monitoring priority map: A Kish Island case study. <i>Water Resources and Industry</i> , 2022, 27, 100172.	1.9	7
97	Numerical investigation on distribution characteristics of oxidation air in a lime slurry desulfurization system with rotary jet agitators. <i>Chemical Engineering and Processing: Process Intensification</i> , 2021, 163, 108372.	1.8	6
98	Network design for surface water quality monitoring in a road construction project using Gamma Test theory. <i>Water Resources and Industry</i> , 2021, 26, 100162.	1.9	6
99	New Simple and Robust Method for Determination of Polarity of Deep Eutectic Solvents (DESs) by Means of Contact Angle Measurement. <i>Molecules</i> , 2022, 27, 4198.	1.7	6
100	Application of cyanated asphaltene in gas-phase adsorption processes for removal of volatile organic compounds. <i>Chemical Papers</i> , 2020, 74, 995-1008.	1.0	5
101	Determination of phenylbutazone, sulfamethazine, carbendazim and linuron using a novel pine bark biosorbent for solid-phase extraction (SPE) with high-performance liquid chromatography (HPLC). <i>Instrumentation Science and Technology</i> , 2022, 50, 507-519.	0.9	5
102	Photolysis for the Removal and Transformation of Pesticide Residues During Food Processing: A State-of-the-Art Minireview. <i>Frontiers in Nutrition</i> , 2022, 9, .	1.6	5
103	Cannabinoids: Challenges, opportunities and current techniques towards its extraction and purification for edibles. <i>Food Bioscience</i> , 2022, 49, 101835.	2.0	5
104	Studies of the separation performance of silanized silica gel for simulated distillation. <i>Journal of Separation Science</i> , 2016, 39, 748-755.	1.3	3
105	Comparison of Ozonation and Evaporation as Treatment Methods of Recycled Water for Bioethanol Fermentation Process. <i>Waste and Biomass Valorization</i> , 2018, 9, 1141-1149.	1.8	3
106	Studies on Treatment of Bitumen Effluents by Means of Advanced Oxidation Processes (AOPs) in Basic pH Conditions. <i>Lecture Notes in Civil Engineering</i> , 2017, , 331-336.	0.3	2
107	Preconcentration and Analytical Methods for Determination of Methyl Tert-Butyl Ether and Other Fuel Oxygenates and Their Degradation Products in Environment: A Review. <i>Critical Reviews in Analytical Chemistry</i> , 2021, 51, 1-27.	1.8	2
108	Metal-Organic Frameworks-Based Sensors for the Detection of Toxins in Food: A Critical Mini-Review on the Applications and Mechanisms. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, .	2.0	2

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109	Agregacja, koagulacja i wytrącanie sił™ asfaltu ze strumieni procesowych – przegląd literatury. Táip ChY Há»± PhÁ²ng = Journal of Preventive Medicine, 2016, 72, 294-299.	0.0	1
110	Cavitation-Based Processes for Water and Wastewater Treatment. Handbook of Environmental Chemistry, 2022, , 331-377.	0.2	1
111	Study on a Polish peat bog –Rucianka– as a source of yeast strains capable of effective phenol biodegradation. New Biotechnology, 2016, 33, S143.	2.4	0