StanisÅ‚aw WacÅ‚awek

List of Publications by Year
in descending order

88 papers	3,629 citations	172457 29 h-index	138484 58 g-index
89 all docs	89 docs citations	89 times ranked	3468 citing authors

#	Article	IF	Citations
1	Synthesis, Characterization and Physicochemical Properties of Biogenic Silver Nanoparticle-Encapsulated Chitosan Bionanocomposites. Polymers, 2022, 14, 463.	4.5	7
2	Making waves: Defining advanced reduction technologies from the perspective of water treatment. Water Research, 2022, 212, 118101.	11.3	16
3	Enhanced degradation of sulfamethoxazole by a modified nano zero-valent iron with a Î²-cyclodextrin polymer: Mechanism and toxicity evaluation. Science of the Total Environment, 2022, 817, 152888.	8.0	26
4	Sustainable and safer nanoclay composites for multifaceted applications. Green Chemistry, 2022, 24, 3081-3114.	9.0	28
5	Dialdehyde Modified Tree Gum Karaya: A Sustainable Green Crosslinker for Gelatinâ€Based Edible Films. Advanced Sustainable Systems, 2022, 6, .	5.3	4
6	Pd decorated Coâ€“Ni nanowires as a highly efficient catalyst for direct ethanol fuel cells. International Journal of Hydrogen Energy, 2022, 47, 41279-41293.	7.1	5
7	Is Active Moss Biomonitoring Comparable to Air Filter Standard Sampling?. International Journal of Environmental Research and Public Health, 2022, 19, 4706.	2.6	3
8	Aegle marmelos Leaf Extract Based Synthesis of Nanoiron and Nanoiron+Au Particles for Degradation of Methylene Blue. Ecological Chemistry and Engineering S, 2022, 29, 7-14.	1.5	0
9	Activation of Peroxydisulfate by Bimetallic Nano Zero-Valent Iron for Waste-Activated Sludge Disintegration. Catalysts, 2022, 12, 590.	3.5	0
10	Developing functional carbon nitride materials for efficient peroxymonosulfate activation: From interface catalysis to irradiation synergy. , 2022, 1, 21-33.		1
11	Commemorative Issue in Honor of Professor Gerhard Ertl on the Occasion of His 85th Birthday. Catalysts, 2022, 12, 624.	3.5	1
12	Surface modification of zero-valent iron nanoparticles with Î²-cyclodextrin for 4-nitrophenol conversion. Journal of Colloid and Interface Science, 2021, 586, 655-662.	9.4	26
13	Modification of nZVI with a bio-conjugate containing amine and carbonyl functional groups for catalytic activation of persulfate. Separation and Purification Technology, 2021, 257, 117880.	7.9	26
14	Influence of catalyst zeta potential on the activation of persulfate. Chemical Communications, 2021, 57, 7814-7817.	4.1	13
15	Eco-Friendly and Economic, Adsorptive Removal of Cationic and Anionic Dyes by Bio-Based Karaya Gumâ€“Chitosan Sponge. Polymers, 2021, 13, 251.	4.5	38
16	Electrospun fibers based on botanical, seaweed, microbial, and animal sourced biomacromolecules and their multidimensional applications. International Journal of Biological Macromolecules, 2021, 171, 130-149.	7.5	35
17	Hierarchically Porous Bioâ€Based Sustainable Conjugate Sponge for Highly Selective Oil/Organic Solvent Absorption. Advanced Functional Materials, 2021, 31, 2100640.	14.9	43
18	Do We Still Need a Laboratory to Study Advanced Oxidation Processes? A Review of the Modelling of Radical Reactions used for Water Treatment. Ecological Chemistry and Engineering S, 2021, 28, 11-28.	1.5	16

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19	Biomacromolecule assembly based on gum kondagogu-sodium alginate composites and their expediency in flexible packaging films. International Journal of Biological Macromolecules, 2021, 177, 526-534.	7.5	33
20	Greener Catalysis for Environmental Applications. Catalysts, 2021, 11, 585.	3.5	3
21	Chitosan/Gelatin/Silver Nanoparticles Composites Films for Biodegradable Food Packaging Applications. Polymers, 2021, 13, 1680.	4.5	77
22	Cinnamomum tamala Leaf Extract Stabilized Zinc Oxide Nanoparticles: A Promising Photocatalyst for Methylene Blue Degradation. Nanomaterials, 2021, 11, 1558.	4.1	34
23	Insights into paracetamol degradation in aqueous solutions by ultrasound-assisted heterogeneous electro-Fenton process: Key operating parameters, mineralization and toxicity assessment. Separation and Purification Technology, 2021, 266, 118533.	7.9	113
24	Alkenyl succinic anhydride modified tree-gum kondagogu: A bio-based material with potential for food packaging. Carbohydrate Polymers, 2021, 266, 118126.	10.2	22
25	Electrochemical activation of peroxides for treatment of contaminated water with landfill leachate: Efficacy, toxicity and biodegradability evaluation. Chemosphere, 2021, 279, 130610.	8.2	95
26	Selective spectrophotometric determination of peroxydisulfate based on a by-product formation. Sensors and Actuators B: Chemical, 2021, 344, 130214.	7.8	6
27	Laser-synthesized Ag/TiO nanoparticles to integrate catalytic pollutant degradation and antifouling enhancement in nanofibrous membranes for oilâ€“water separation. Applied Surface Science, 2021, 564, 150471.	6.1	17
28	Comparative investigation of acetaminophen degradation in aqueous solution by UV/Chlorine and UV/H2O2 processes: Kinetics and toxicity assessment, process feasibility and products identification. Chemosphere, 2021, 285, 131455.	8.2	48
29	A comparative study of the degradation efficiency of chlorinated organic compounds by bimetallic zero-valent iron nanoparticles. Environmental Science: Water Research and Technology, 2021, 8, 162-172.	2.4	16
30	The Application of Active Biomonitoring with the Use of Mosses to Identify Polycyclic Aromatic Hydrocarbons in an Atmospheric Aerosol. Molecules, 2021, 26, 7258.	3.8	8
31	Effect of CoSi2 interfacial layer on the magnetic properties of Si|CoSi2|Sm-Co thin films. Journal of Magnetism and Magnetic Materials, 2020, 493, 165716.	2.3	1
32	Tree Gumâ€“Graphene Oxide Nanocomposite Films as Gas Barriers. ACS Applied Nano Materials, 2020, 3, 633-640.	5.0	33
33	Synthesis of Ag nanoparticles by a chitosan-poly(3-hydroxybutyrate) polymer conjugate and their superb catalytic activity. Carbohydrate Polymers, 2020, 232, 115806.	10.2	27
34	Advances in biogenically synthesized shaped metal- and carbon-based nanoarchitectures and their medicinal applications. Advances in Colloid and Interface Science, 2020, 283, 102236.	14.7	46
35	A Polymeric Composite Material (rGO/PANI) for Acid Blue 129 Adsorption. Polymers, 2020, 12, 1051.	4.5	10
36	PVDF nanofibrous membranes modified via laser-synthesized Ag nanoparticles for a cleaner oily water separation. Applied Surface Science, 2020, 526, 146575.	6.1	13

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37	Microscopic Techniques for the Analysis of Micro and Nanostructures of Biopolymers and Their Derivatives. Polymers, 2020, 12, 512.	4.5	59
38	Electrospun fibers based on carbohydrate gum polymers and their multifaceted applications. Carbohydrate Polymers, 2020, 247, 116705.	10.2	39
39	Recycling non-food-grade tree gum wastes into nanoporous carbon for sustainable energy harvesting. Green Chemistry, 2020, 22, 1198-1208.	9.0	33
40	Benchtop ¹⁹F NMR spectroscopy as a practical tool for testing of remedial technologies for the degradation of perfluorooctanoic acid, a persistent organic pollutant. Magnetic Resonance in Chemistry, 2020, 58, 1160-1167.	1.9	13
41	Limitations and prospects of sulfate-radical based advanced oxidation processes. Journal of Environmental Chemical Engineering, 2020, 8, 103849.	6.7	116
42	UV-Catalyzed Persulfate Oxidation of an Anthraquinone Based Dye. Catalysts, 2020, 10, 456.	3.5	20
43	The Development and Challenges of Oxidative Abatement for Contaminants of Emerging Concern. , 2020, , 131-152.		5
44	Development of ZnO Nanoflake Type Structures Using Silk Fibres as Template for Water Pollutants Remediation. Polymers, 2020, 12, 1151.	4.5	6
45	SYNERGISTIC EFFECT OF NANO ZERO-VALENT IRON AND CYCLODEXTRINS: A NANO-STRUCTURE FOR WATER PURIFICATION. , 2020, , .		2
46	Other Chemical Reductive Methods. Applied Environmental Science and Engineering for A Sustainable Future, 2020, , 53-64.	0.5	1
47	Chemical Oxidation of Polycyclic Aromatic Hydrocarbons in Water By Ferrates(VI). Ecological Chemistry and Engineering S, 2020, 27, 529-542.	1.5	2
48	Radical Reactions and Their Application for Water Treatment. Applied Environmental Science and Engineering for A Sustainable Future, 2020, , 203-219.	0.5	1
49	A new method for assessment of the sludge disintegration degree with the use of differential centrifugal sedimentation. Environmental Technology (United Kingdom), 2019, 40, 3086-3093.	2.2	10
50	Waste-activated sludge disruption by dry ice: bench scale study and evaluation of heat phase transformations. Environmental Science and Pollution Research, 2019, 26, 26488-26499.	5.3	9
51	Chemical oxidation and reduction of hexachlorocyclohexanes: A review. Water Research, 2019, 162, 302-319.	11.3	81
52	Microwave-assisted sustainable co-digestion of sewage sludge and rapeseed cakes. Energy Conversion and Management, 2019, 199, 112012.	9.2	14
53	Gum Kondagogu/Reduced Graphene Oxide Framed Platinum Nanoparticles and Their Catalytic Role. Molecules, 2019, 24, 3643.	3.8	21
54	Improvement of the thermophilic anaerobic digestion and hygienisation of waste activated sludge by synergistic pretreatment. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2019, 54, 694-700.	1.7	3

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55	Bioplastic Fibers from Gum Arabic for Greener Food Wrapping Applications. ACS Sustainable Chemistry and Engineering, 2019, 7, 5900-5911.	6.7	37
56	The Use of a Biopolymer Conjugate for an Eco-Friendly One-Pot Synthesis of Palladium-Platinum Alloys. Polymers, 2019, 11, 1948.	4.5	9
57	Interfacial layer formation during high-temperature deposition of Sm-Co magnetic thin films on Si (100) substrates. Intermetallics, 2019, 106, 36-47.	3.9	7
58	Disintegration of Wastewater Activated Sludge (WAS) for Improved Biogas Production. Energies, 2019, 12, 21.	3.1	31
59	Laser-assisted synthesis of Fe-Cu oxide nanocrystals. Applied Surface Science, 2019, 469, 1007-1015.	6.1	11
60	Production of electrospun nanofibers based on graphene oxide/gum Arabic. International Journal of Biological Macromolecules, 2019, 124, 396-402.	7.5	40
61	Major Advances and Challenges in Heterogeneous Catalysis for Environmental Applications: A Review. Ecological Chemistry and Engineering S, 2018, 25, 9-34.	1.5	58
62	Synergetic disintegration of waste activated sludge: improvement of the anaerobic digestion and hygienization of sludge. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2018, 53, 1067-1074.	1.7	8
63	Green Synthesis of High Temperature Stable Anatase Titanium Dioxide Nanoparticles Using Gum Kondagogu: Characterization and Solar Driven Photocatalytic Degradation of Organic Dye. Nanomaterials, 2018, 8, 1002.	4.1	68
64	A poly(3-hydroxybutyrate)â€“chitosan polymer conjugate for the synthesis of safer gold nanoparticles and their applications. Green Chemistry, 2018, 20, 4975-4982.	9.0	40
65	Tree gum-based renewable materials: Sustainable applications in nanotechnology, biomedical and environmental fields. Biotechnology Advances, 2018, 36, 1984-2016.	11.7	106
66	Green synthesis of gold nanoparticles using Artemisia dracunculus extract: control of the shape and size by varying synthesis conditions. Environmental Science and Pollution Research, 2018, 25, 24210-24219.	5.3	32
67	Gum karaya (Sterculia urens) stabilized zero-valent iron nanoparticles: characterization and applications for the removal of chromium and volatile organic pollutants from water. RSC Advances, 2017, 7, 13997-14009.	3.6	44
68	TiO₂ immobilised on biopolymer nanofibers for the removal of bisphenol A and diclofenac from water. Ecological Chemistry and Engineering S, 2017, 24, 417-429.	1.5	10
69	Chemistry of persulfates in water and wastewater treatment: A review. Chemical Engineering Journal, 2017, 330, 44-62.	12.7	1,320
70	Stabilization of Iron (Micro)Particles with Polyhydroxybutyrate for In Situ Remediation Applications. Applied Sciences (Switzerland), 2016, 6, 417.	2.5	13
71	The Impact of Oxone on Disintegration and Dewaterability of Waste Activated Sludge. Water Environment Research, 2016, 88, 152-157.	2.7	18
72	Green Synthesis: Nanoparticles and Nanofibres Based on Tree Gums for Environmental Applications. Ecological Chemistry and Engineering S, 2016, 23, 533-557.	1.5	30

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73	Electrospun fibers based on Arabic, karaya and kondagogu gums. International Journal of Biological Macromolecules, 2016, 91, 299-309.	7.5	54
74	Electrospun membrane composed of poly[acrylonitrile-co-(methyl acrylate)-co-(itaconic acid)] terpolymer and ZVI nanoparticles and its application for the removal of arsenic from water. RSC Advances, 2016, 6, 110288-110300.	3.6	20
75	Chemical Degradation of PCDD/F in Contaminated Sediment. Ecological Chemistry and Engineering S, 2016, 23, 473-482.	1.5	15
76	Remediation of hexachlorocyclohexanes by electrochemically activated persulfates. Environmental Science and Pollution Research, 2016, 23, 765-773.	5.3	44
77	Remediation of hexachlorocyclohexanes by cobalt-mediated activation of peroxymonosulfate. Desalination and Water Treatment, 2016, 57, 26274-26279.	1.0	23
78	A novel approach for simultaneous improvement of dewaterability, post-digestion liquor properties and toluene removal from anaerobically digested sludge. Chemical Engineering Journal, 2016, 291, 192-198.	12.7	51
79	The impact of peroxydisulphate and peroxymonosulphate on disintegration and settleability of activated sludge. Environmental Technology (United Kingdom), 2016, 37, 1296-1304.	2.2	19
80	Use of Various Zero Valent Irons for Degradation of Chlorinated Ethenes and Ethanes. Ecological Chemistry and Engineering S, 2015, 22, 577-587.	1.5	15
81	Simple spectrophotometric determination of monopersulfate. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 149, 928-933.	3.9	121
82	Impact of peroxydisulphate on disintegration and sedimentation properties of municipal wastewater activated sludge. Chemical Papers, 2015, 69, .	2.2	14
83	Mesophilic-thermophilic fermentation process of waste activated sludge after hybrid disintegration. Ecological Chemistry and Engineering S, 2014, 21, 125-136.	1.5	15
84	Atmospheric Chemistry and Climate in the Anthropocene / Chemia Atmosferyczna I Klimat W Antropocenie. Chemistry, Didactics, Ecology, Metrology, 2014, 19, 9-28.	0.6	13
85	Impact of Alkalization of Surplus Activated Sludge on Biogas Production. Ecological Chemistry and Engineering S, 2013, 20, 343-351.	1.5	12
86	Alkalization as a method of preliminary hydrolysis of waste activated sludge before the anaerobic digestion process. Polish Journal of Materials and Environmental Engineering, 0, 1(21), 16-26.	0.0	0
87	Enhancement of stability and reactivity of nanosized zero-valent iron with polyhydroxybutyrate. , 0, 69, 302-307.		5
88	High Barrier, Biodegradable Nanocomposite Films Based on Clayâ€Coated and Chemically Modified Gum Kondagogu. Macromolecular Materials and Engineering, 0, , 2200008.	3.6	0