Willis Gwenzi

List of Publications by Year
in descending order

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128 papers	4,197 citations	156536 32 h-index	145109 60 g-index
135 all docs	135 docs citations	135 times ranked	5069 citing authors

#	Article	IF	Citations
1	Dangerous liaisons? As the COVID-19 wave hits Africa with potential for novel transmission dynamics: a perspective. Zeitschrift Fur Gesundheitswissenschaften, 2022, 30, 1353-1366.	0.8	5
2	Wastewater, waste, and water-based epidemiology (WWW-BE): A novel hypothesis and decision-support tool to unravel COVID-19 in low-income settings?. Science of the Total Environment, 2022, 806, 150680.	3.9	22
3	The air-borne antibiotic resistome: Occurrence, health risks, and future directions. Science of the Total Environment, 2022, 804, 150154.	3.9	38
4	Investigating the Fe0/H2O systems using the methylene blue method: Validity, applications, and future directions. Chemosphere, 2022, 291, 132913.	4.2	14
5	The Suitability of Hybrid Fe0/Aggregate Filtration Systems for Water Treatment. Water (Switzerland), 2022, 14, 260.	1.2	9
6	COVID-19 drugs in aquatic systems: a review. Environmental Chemistry Letters, 2022, 20, 1275-1294.	8.3	37
7	Visible light photodegradation of methyl orange and Escherichia coli O157:H7 in wastewater. South African Journal of Science, 2022, 118, .	0.3	1
8	Strategies and options for the sustainable recovery of rare earth elements from electrical and electronic waste. Chemical Engineering Journal, 2022, 442, 135992.	6.6	50
9	Air-borne emerging contaminants: An under-studied reservoir and a potential health risk?. , 2022, , 139-150.		0
10	Occurrence, human exposure pathways, and health risks of (micro)plastics. , 2022, , 291-306.		0
11	Health risk assessment and mitigation of emerging contaminants: A call for an integrated approach. , 2022, , 325-342.		0
12	The environmental resistome: Human exposure, health risks, and research needs. , 2022, , 307-322.		1
13	Epilogue: Summary, the next-frontier emerging contaminants/novel entities, and a look ahead. , 2022, , 395-404.		0
14	(Micro)plastics in aquatic systems: Current research focal areas, under-studied matrices, and future directions. , 2022, , 103-119.		0
15	Editor biography. , 2022, , xvii.		0
16	Ten (10) key research questions on emerging contaminants and novel entities, and their health risks. , 2022, , 383-394.		1
17	(Micro)plastics in the soil system: Occurrence, behaviour, fate, and future directions. , 2022, , 47-64.		0
18	Ecological health risks of antibiotic resistance: A perspective on the evidence, challenges, and research needs. , 2022, , 195-213.		0

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19	Occurrence and behaviour of emerging organic contaminants in aquatic systems. , 2022, , 67-86.		1
20	Rare earth elements: Human exposure, risk factors, and health risks. , 2022, , 273-290.		2
21	Antibiotic-resistant bacteria and antibiotic resistance genes in aquatic systems: Occurrence, behaviour, and fate. , 2022, , 121-136.		1
22	High-technology rare earth elements in the soil-plant system: Occurrence, behaviour, and fate. , 2022, , 29-46.		0
23	Detection and Quantification of Dam Leakages Based on Tracer Tests: A Field Case Study. Water (Switzerland), 2022, 14, 1448.	1.2	4
24	Metallic Iron for Water Remediation: Plenty of Room for Collaboration and Convergence to Advance the Science. Water (Switzerland), 2022, 14, 1492.	1.2	8
25	Metallic iron (Fe0)-based materials for aqueous phosphate removal: A critical review. Journal of Environmental Management, 2022, 315, 115157.	3.8	24
26	Occurrence and ecological health risks of microplastics. , 2022, , 243-270.		1
27	Emerging contaminants: A handful of conceptual and organizing frameworks. , 2022, , 3-15.		1
28	Ecological health risks of high-technology rare earth elements. , 2022, , 171-194.		1
29	Ecological health risks of emerging organic contaminants. , 2022, , 215-242.		1
30	Anthropogenic rare earth elements in aquatic environments: Occurrence, behaviour, and fate. , 2022, , 87-102.		0
31	Emerging contaminants in the terrestrial-aquatic-atmosphere continuum: A global perspective. , 2022, , 17-25.		6
32	Circular bioeconomy potential and challenges within an African context: From theory to practice. Journal of Cleaner Production, 2022, 367, 133068.	4.6	18
33	Biochars as media for air pollution control systems: Contaminant removal, applications and future research directions. Science of the Total Environment, 2021, 753, 142249.	3.9	72
34	Leaving no stone unturned in light of the COVID-19 faecal-oral hypothesis? A water, sanitation and hygiene (WASH) perspective targeting low-income countries. Science of the Total Environment, 2021, 753, 141751.	3.9	93
35	Maize nitrogen uptake and productivity under reduced and conventional tillage. Nutrient Cycling in Agroecosystems, 2021, 119, 23-36.	1.1	5
36	Autopsy, thanatopraxy, cemeteries and crematoria as hotspots of toxic organic contaminants in the funeral industry continuum. Science of the Total Environment, 2021, 753, 141819.	3.9	30

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37	Comparative removal efficiencies of natural organic matter by conventional drinking water treatment plants in Zimbabwe and South Africa. Water Environment Research, 2021, 93, 570-581.	1.3	0
38	Characterizing the impact of pyrite addition on the efficiency of Fe0/H2O systems. Scientific Reports, 2021, 11, 2326.	1.6	11
39	Insects, Rodents, and Pets as Reservoirs, Vectors, and Sentinels of Antimicrobial Resistance. Antibiotics, 2021, 10, 68.	1.5	35
40	Acid Mine Drainage Formation, Dissemination and Control: Mining and Hydrological Perspectives. , 2021, , 3-30.		1
41	The Suitability of Methylene Blue Discoloration (MB Method) to Investigate the Fe0/MnO2 System. Processes, 2021, 9, 548.	1.3	12
42	When silence goes viral, Africa sneezes! A perspective on Africa's subdued research response to COVID-19 and a call for local scientific evidence. Environmental Research, 2021, 194, 110637.	3.7	32
43	Defluoridation of drinking water using a ceramic filter decorated with iron oxideâ€biochar composites. International Journal of Applied Ceramic Technology, 2021, 18, 1321-1329.	1.1	7
44	Rethinking restoration indicators and end-points for post-mining landscapes in light of novel ecosystems. Geoderma, 2021, 387, 114944.	2.3	28
45	Occurrence, behavior, and human exposure and health risks of potentially toxic elements in edible mushrooms with focus on Africa. Environmental Monitoring and Assessment, 2021, 193, 302.	1.3	5
46	Characterizing the impact of MnO2 addition on the efficiency of Fe0/H2O systems. Scientific Reports, 2021, 11, 9814.	1.6	9
47	Microplastics in the Aquatic Environmentâ€"The Occurrence, Sources, Ecological Impacts, Fate, and Remediation Challenges. Pollutants, 2021, 1, 95-118.	1.0	27
48	The key role of contact time in elucidating the mechanisms of enhanced decontamination by Fe0/MnO2/sand systems. Scientific Reports, 2021, 11, 12069.	1.6	4
49	Integrated Water Resource Management: Rethinking the Contribution of Rainwater Harvesting. Sustainability, 2021, 13, 8338.	1.6	24
50	Application of the Kilimanjaro Concept in Reversing Seawater Intrusion and Securing Water Supply in Zanzibar, Tanzania. Water (Switzerland), 2021, 13, 2085.	1.2	6
51	Changes in physicochemical properties on a chronosequence of gold mine tailings. Geoderma, 2021, 395, 115037.	2.3	11
52	Universal Access to Safe Drinking Water: Escaping the Traps of Non-Frugal Technologies. Sustainability, 2021, 13, 9645.	1.6	15
53	Recent advances in the polyurethane-based adsorbents for the decontamination of hazardous wastewater pollutants. Journal of Hazardous Materials, 2021, 417, 125960.	6.5	60
54	The mechanism of contaminant removal in Fe(0)/H2O systems: The burden of a poor literature review. Chemosphere, 2021, 280, 130614.	4.2	13

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55	Organic pollutants in deep sea: Occurrence, fate, and ecological implications. Water Research, 2021, 205, 117658.	5.3	30
56	Antibiotic resistance and class 1 integron genes distribution in irrigation water-soil-crop continuum as a function of irrigation water sources. Environmental Pollution, 2021, 289, 117930.	3.7	13
57	Kanchan Arsenic Filters and the Future of Fe0-Based Filtration Systems for Single Household Drinking Water Supply. Processes, 2021, 9, 58.	1.3	9
58	COVID-19 pandemic in Uttarakhand, India: Environmental recovery or degradation?. Journal of Environmental Chemical Engineering, 2021, 9, 106595.	3.3	21
59	Metallic Iron for Environmental Remediation: The Fallacy of the Electron Efficiency Concept. Frontiers in Environmental Chemistry, 2021, 2, .	0.7	21
60	Sources and Health Risks of Rare Earth Elements in Waters. Environmental Chemistry for A Sustainable World, 2021, , 1-36.	0.3	5
61	COVID-19 Vaccine Boosters: The Good, the Bad, and the Ugly. Vaccines, 2021, 9, 1299.	2.1	58
62	A Hybrid Model for Achieving Universal Safe Drinking Water in the Medium-Sized City of BangangtÃ© (Cameroon). Water (Switzerland), 2021, 13, 3177.	1.2	9
63	Sources, behaviour and health risks of antimicrobial resistance genes in wastewaters: A hotspot reservoir. Journal of Environmental Chemical Engineering, 2020, 8, 102220.	3.3	56
64	Occurrence, behaviour, and human exposure pathways and health risks of toxic geogenic contaminants in serpentinitic ultramafic geological environments (SUGEs): A medical geology perspective. Science of the Total Environment, 2020, 700, 134622.	3.9	25
65	A new generation low-cost biochar-clay composite â€˜biscuitâ€™ ceramic filter for point-of-use water treatment. Applied Clay Science, 2020, 185, 105409.	2.6	38
66	The â€˜thanato-resistomeâ€™ - The funeral industry as a potential reservoir of antibiotic resistance: Early insights and perspectives. Science of the Total Environment, 2020, 749, 141120.	3.9	32
67	Validating the Efficiency of the FeS2 Method for Elucidating the Mechanisms of Contaminant Removal Using Fe0/H2O Systems. Processes, 2020, 8, 1162.	1.3	13
68	Designing the Next Generation of Fe0-Based Filters for Decentralized Safe Drinking Water Treatment: A Conceptual Framework. Processes, 2020, 8, 745.	1.3	36
69	Tracing the Scientific History of Fe0-Based Environmental Remediation Prior to the Advent of Permeable Reactive Barriers. Processes, 2020, 8, 977.	1.3	17
70	Development, properties and potential applications of high-energy fuel briquettes incorporating coal dust, biowastes and post-consumer plastics. SN Applied Sciences, 2020, 2, 1.	1.5	12
71	Understanding the Operating Mode of Fe0/Fe-Sulfide/H2O Systems for Water Treatment. Processes, 2020, 8, 409.	1.3	20
72	Metallic Iron for Environmental Remediation: Starting an Overdue Progress in Knowledge. Water (Switzerland), 2020, 12, 641.	1.2	27

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73	Characterizing the Reactivity of Metallic Iron for Water Treatment: H2 Evolution in H2SO4 and Uranium Removal Efficiency. Water (Switzerland), 2020, 12, 1523.	1.2	12
74	Leguminous tree species create islands of fertility and influence the understory vegetation on nickel-mine tailings of different ages. Ecological Engineering, 2020, 155, 105902.	1.6	17
75	Development and evaluation of a low-cost ceramic filter for the removal of methyl orange, hexavalent chromium, and Escherichia coli from water. Materials Chemistry and Physics, 2020, 249, 122965.	2.0	15
76	A BIOCHAR-BASED POINT-OF-USE WATER TREATMENT SYSTEM FOR THE REMOVAL OF FLUORIDE, CHROMIUM AND BRILLIANT BLUE DYE IN TERNARY SYSTEMS. Environmental Engineering and Management Journal, 2020, 19, 143-156.	0.2	3
77	Cross-Layer Leaching of Coal Fly Ash and Mine Tailings to Control Acid Generation from Mine Wastes. Mine Water and the Environment, 2019, 38, 602-616.	0.9	6
78	Occurrence of biological crusts and their relationship with vegetation on a chronosequence of abandoned gold mine tailings. Ecological Engineering, 2019, 139, 105559.	1.6	15
79	Water Treatment Using Metallic Iron: A Tutorial Review. Processes, 2019, 7, 622.	1.3	31
80	Characterizing the Suitability of Granular Fe0 for the Water Treatment Industry. Processes, 2019, 7, 652.	1.3	19
81	White Teeth and Healthy Skeletons for All: The Path to Universal Fluoride-Free Drinking Water in Tanzania. Water (Switzerland), 2019, 11, 131.	1.2	21
82	Biological crusts enhance fertility and texture of gold mine tailings. Ecological Engineering, 2019, 135, 54-60.	1.6	20
83	Antibiotic resistance in drinking water systems: Occurrence, removal, and human health risks. Science of the Total Environment, 2019, 669, 785-797.	3.9	340
84	Fe0/H2O Filtration Systems for Decentralized Safe Drinking Water: Where to from Here?. Water (Switzerland), 2019, 11, 429.	1.2	25
85	Effect of Nitrogen Fertiliser Application on Maize Yield Across Agro-Ecological Regions and Soil Types in Zimbabwe: A Meta-analysis Approach. International Journal of Plant Production, 2019, 13, 251-266.	1.0	9
86	Recurrent Cholera Outbreaks in Sub-Saharan Africa: Moving beyond Epidemiology to Understand the Environmental Reservoirs and Drivers. Challenges, 2019, 10, 1.	0.9	32
87	Making Rainwater Harvesting a Key Solution for Water Management: The Universality of the Kilimanjaro Concept. Sustainability, 2019, 11, 5606.	1.6	30
88	Evaluation of the phytotoxicity of coal ash on lettuce (Lactuca sativa L.) germination, growth and metal uptake. Ecotoxicology and Environmental Safety, 2019, 170, 750-762.	2.9	24
89	Carbon Sequestration via Biomineralization: Processes, Applications and Future Directions. Sustainable Agriculture Reviews, 2019, , 93-106.	0.6	3
90	Comparative fertilization effects on maize productivity under conservation and conventional tillage on sandy soils in a smallholder cropping system in Zimbabwe. Field Crops Research, 2018, 218, 106-114.	2.3	24

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91	Sources, behaviour, and environmental and human health risks of high-technology rare earth elements as emerging contaminants. Science of the Total Environment, 2018, 636, 299-313.	3.9	440
92	Development, engineering properties and potential applications of unfired earth bricks reinforced by coal fly ash, lime and wood aggregates. Journal of Building Engineering, 2018, 18, 312-320.	1.6	40
93	Synthesis and nutrient release patterns of a biochar-based Nâ€“Pâ€“K slow-release fertilizer. International Journal of Environmental Science and Technology, 2018, 15, 405-414.	1.8	93
94	Organic contaminants in African aquatic systems: Current knowledge, health risks, and future research directions. Science of the Total Environment, 2018, 619-620, 1493-1514.	3.9	115
95	Fe0/H2O Systems for Environmental Remediation: The Scientific History and Future Research Directions. Water (Switzerland), 2018, 10, 1739.	1.2	20
96	Potential Leaching of Heavy Metals from Pristine and Accelerated Weathered Slag from Recycling of Automobile Lead-Acid Batteries. Environmental Processes, 2018, 5, 611-629.	1.7	9
97	Avoiding the Use of Exhausted Drinking Water Filters: A Filter-Clock Based on Rusting Iron. Water (Switzerland), 2018, 10, 591.	1.2	6
98	Synthesis, characterisation and methyl orange adsorption capacity of ferric oxideâ€“biochar nano-composites derived from pulp and paper sludge. Applied Water Science, 2017, 7, 2175-2186.	2.8	150
99	Removal of Trace Metals from Acid Mine Drainage Using a Sequential Combination of Coal Ash-Based Adsorbents and Phytoremediation by Bunchgrass (Vetiver [Vetiveria zizanioides L]). Mine Water and the Environment, 2017, 36, 520-531.	0.9	16
100	Concentration-discharge patterns in a small urban headwater stream in a seasonally dry water-limited tropical environment. Journal of Hydrology, 2017, 550, 12-25.	2.3	9
101	Biochar-based water treatment systems as a potential low-cost and sustainable technology for clean water provision. Journal of Environmental Management, 2017, 197, 732-749.	3.8	272
102	Comparative Adsorption of Zn2+ from Aqueous Solution Using Hydroxylated and Sulphonated Biochars Derived from Pulp and Paper Sludge. Water, Air, and Soil Pollution, 2017, 228, 1.	1.1	9
103	Ecotoxicological effects of citrus processing waste on earthworms, Lumbricus terrestris L.. Industrial Crops and Products, 2017, 110, 123-129.	2.5	6
104	Sorptive removal of methylene blue from simulated wastewater using biochars derived from pulp and paper sludge. Environmental Technology and Innovation, 2017, 8, 132-140.	3.0	48
105	An assessment of smallholder soil and water conservation practices and perceptions in contrasting agro-ecological regions in Zimbabwe. Water Resources and Rural Development, 2017, 9, 1-11.	1.1	5
106	PREDICTING ACID ROCK DRAINAGE FROM A NICKEL MINE WASTE PILE AND METAL LEVELS IN SURROUNDING SOILS. Environmental Engineering and Management Journal, 2017, 16, 2089-2096.	0.2	2
107	Comparative short-term effects of sewage sludge and its biochar on soil properties, maize growth and uptake of nutrients on a tropical clay soil in Zimbabwe. Journal of Integrative Agriculture, 2016, 15, 1395-1406.	1.7	56
108	Biosorbents for the removal of synthetic organics and emerging pollutants: Opportunities and challenges for developing countries. Environmental Development, 2016, 19, 84-89.	1.8	96

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109	Evaluation of heavy metal leaching from coal ash-versus conventional concrete monoliths and debris. Waste Management, 2016, 49, 114-123.	3.7	53
110	Potential uses and value-added products derived from waste polystyrene in developing countries: A review. Resources, Conservation and Recycling, 2016, 107, 157-165.	5.3	99
111	Potential for leaching of heavy metals in open-burning bottom ash and soil from a non-engineered solid waste landfill. Chemosphere, 2016, 147, 144-154.	4.2	24
112	Partitioning of turbulent flux reveals contrasting cooling potential for woody vegetation and grassland during heat waves. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 2528-2537.	1.0	12
113	Maize Water Productivity and Its Relationship to Soil Properties under Integrated Cattle Manure and Mineral-Nitrogen Fertilizer in a Smallholder Cropping System. Agronomy Journal, 2015, 107, 2410-2418.	0.9	4
114	Water quality and public health risks associated with roof rainwater harvesting systems for potable supply: Review and perspectives. Sustainability of Water Quality and Ecology, 2015, 6, 107-118.	2.0	87
115	Removal of Zn 2+ and Pb 2+ ions from aqueous solution using sulphonated waste polystyrene. Journal of Environmental Chemical Engineering, 2015, 3, 2528-2537.	3.3	37
116	Biochar production and applications in sub-Saharan Africa: Opportunities, constraints, risks and uncertainties. Journal of Environmental Management, 2015, 150, 250-261.	3.8	164
117	Adsorption of Zn2+ and Ni2+ in a binary aqueous solution by biosorbents derived from sawdust and water hyacinth (Eichhornia crassipes). Water Science and Technology, 2014, 70, 1419-1427.	1.2	34
118	Hydrological Impacts of Urbanization and Urban Roof Water Harvesting in Water-limited Catchments: A Review. Environmental Processes, 2014, 1, 573-593.	1.7	59
119	Transpiration and water relations of evergreen shrub species on an artificial landform for mine waste storage versus an adjacent natural site in semiâ€arid Western Australia. Ecohydrology, 2014, 7, 965-981.	1.1	18
120	Does hydrocarbon contamination induce water repellency and changes in hydraulic properties in inherently wettable tropical sandy soils?. Geoderma, 2014, 235-236, 279-289.	2.3	18
121	Understanding the role of ecohydrological feedbacks in ecosystem state change in drylands. Ecohydrology, 2012, 5, 174-183.	1.1	110
122	Transpiration and plant water relations of evergreen woody vegetation on a recently constructed artificial ecosystem under seasonally dry conditions in Western Australia. Hydrological Processes, 2012, 26, 3281-3292.	1.1	14
123	Field-scale spatial variability of saturated hydraulic conductivity on a recently constructed artificial ecosystem. Geoderma, 2011, 166, 43-56.	2.3	65
124	Spatial analysis of fine root distribution on a recently constructed ecosystem in a water-limited environment. Plant and Soil, 2011, 344, 255-272.	1.8	46
125	Spatial analysis of fine root distribution on a recently constructed ecosystem in a water-limited environment. Plant and Soil, 2011, 348, 471-489.	1.8	8
126	Effects of tillage systems on soil organic carbon dynamics, structural stability and crop yields in irrigated wheat (Triticum aestivum L.)â€“cotton (Gossypium hirsutum L.) rotation in semi-arid Zimbabwe. Nutrient Cycling in Agroecosystems, 2009, 83, 211-221.	1.1	64

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127	Long-term impacts of pasture irrigation with treated sewage effluent on nutrient status of a sandy soil in Zimbabwe. Nutrient Cycling in Agroecosystems, 2008, 82, 197-207.	1.1	40
128	Long-term impacts of pasture irrigation with treated sewage effluent on shallow groundwater quality. Water Science and Technology, 2008, 58, 2443-2452.	1.2	11