Adel Rabie A Usman

List of Publications by Year
in descending order

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98 papers	5,883 citations	57631 44 h-index	76769 74 g-index
101 all docs	101 docs citations	101 times ranked	5901 citing authors

#	Article	IF	Citations
1	Pyrolysis temperature induced changes in characteristics and chemical composition of biochar produced from conocarpus wastes. Bioresource Technology, 2013, 131, 374-379.	4.8	758
2	Biochar production from date palm waste: Charring temperature induced changes in composition and surface chemistry. Journal of Analytical and Applied Pyrolysis, 2015, 115, 392-400.	2.6	230
3	The relative adsorption selectivities of Pb, Cu, Zn, Cd and Ni by soils developed on shale in New Valley, Egypt. Geoderma, 2008, 144, 334-343.	2.3	197
4	Heavy metal contamination in sediments and mangroves from the coast of Red Sea: Avicennia marina as potential metal bioaccumulator. Ecotoxicology and Environmental Safety, 2013, 97, 263-270.	2.9	195
5	Conocarpus biochar as a soil amendment for reducing heavy metal availability and uptake by maize plants. Saudi Journal of Biological Sciences, 2015, 22, 503-511.	1.8	193
6	Effects of rapeseed residue on lead and cadmium availability and uptake by rice plants in heavy metal contaminated paddy soil. Chemosphere, 2011, 85, 677-682.	4.2	191
7	Impact of biochar properties on soil conditions and agricultural sustainability: A review. Land Degradation and Development, 2018, 29, 2124-2161.	1.8	184
8	Eggshell and coral wastes as low cost sorbents for the removal of Pb2+, Cd2+ and Cu2+ from aqueous solutions. Journal of Industrial and Engineering Chemistry, 2012, 18, 198-204.	2.9	167
9	Equilibrium and kinetic mechanisms of woody biochar on aqueous glyphosate removal. Chemosphere, 2016, 144, 2516-2521.	4.2	158
10	Phosphorus-loaded biochar changes soil heavy metals availability and uptake potential of maize (Zea) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	4.2	136
11	Conocarpus Biochar Induces Changes in Soil Nutrient Availability and Tomato Growth Under Saline Irrigation. Pedosphere, 2016, 26, 27-38.	2.1	126
12	Mechanistic modeling of glyphosate interaction with rice husk derived engineered biochar. Microporous and Mesoporous Materials, 2016, 225, 280-288.	2.2	125
13	Application of eggshell waste for the immobilization of cadmium and lead in a contaminated soil. Environmental Geochemistry and Health, 2011, 33, 31-39.	1.8	119
14	Carbon mineralization and nutrient availability in calcareous sandy soils amended with woody waste biochar. Chemosphere, 2015, 138, 67-73.	4.2	113
15	Soil pollution assessment and identification of hyperaccumulating plants in chromated copper arsenate (CCA) contaminated sites, Korea. Chemosphere, 2012, 87, 872-878.	4.2	98
16	Effect of Conocarpus Biochar Application on the Hydraulic Properties of a Sandy Loam Soil. Soil Science, 2013, 178, 165-173.	0.9	98
17	A critical review on organic micropollutants contamination in wastewater and removal through carbon nanotubes. Journal of Environmental Management, 2019, 246, 214-228.	3.8	97
18	Effect of microbial inoculation and EDTA on the uptake and translocation of heavy metal by corn and sunflower. Chemosphere, 2009, 76, 893-899.	4.2	96

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19	Effect of Clay Minerals on Immobilization of Heavy Metals and Microbial Activity in a Sewage Sludge-Contaminated Soil (8 pp). Journal of Soils and Sediments, 2005, 5, 245-252.	1.5	89
20	Effects of biochar, cow bone, and eggshell on Pb availability to maize in contaminated soil irrigated with saline water. Environmental Earth Sciences, 2014, 71, 1289-1296.	1.3	88
21	Biochar, a potential hydroponic growth substrate, enhances the nutritional status and growth of leafy vegetables. Journal of Cleaner Production, 2017, 156, 581-588.	4.6	79
22	Date palm biochar-polymer composites: An investigation of electrical, mechanical, thermal and rheological characteristics. Science of the Total Environment, 2018, 619-620, 311-318.	3.9	78
23	Heavy metals in the soils of the Arabian Gulf coast affected by industrial activities: analysis and assessment using enrichment factor and multivariate analysis. Arabian Journal of Geosciences, 2015, 8, 1691-1703.	0.6	75
24	Effects of Limeâ€Based Waste Materials on Immobilization and Phytoavailability of Cadmium and Lead in Contaminated Soil. Clean - Soil, Air, Water, 2013, 41, 1235-1241.	0.7	73
25	Date palm waste-derived biochar composites with silica and zeolite: synthesis, characterization and implication for carbon stability and recalcitrant potential. Environmental Geochemistry and Health, 2019, 41, 1687-1704.	1.8	73
26	Biochar composites with nano zerovalent iron and eggshell powder for nitrate removal from aqueous solution with coexisting chloride ions. Environmental Science and Pollution Research, 2018, 25, 25757-25771.	2.7	71
27	Engineered biochar composites with zeolite, silica, and nano-zerovalent iron for the efficient scavenging of chlortetracycline from aqueous solutions. Environmental Science and Pollution Research, 2019, 26, 15136-15152.	2.7	69
28	Performance of dry water- and porous carbon-based sorbents for carbon dioxide capture. Environmental Research, 2019, 174, 69-79.	3.7	67
29	Competitive sorption and availability of coexisting heavy metals in mining-contaminated soil: Contrasting effects of mesquite and fishbone biochars. Environmental Research, 2020, 181, 108846.	3.7	67
30	Effect of Corn Residue Biochar on the Hydraulic Properties of Sandy Loam Soil. Sustainability, 2017, 9, 266.	1.6	65
31	Dynamics of Organic C Mineralization and the Mobile Fraction of Heavy Metals in a Calcareous Soil Incubated with Organic Wastes. Water, Air, and Soil Pollution, 2004, 158, 401-418.	1.1	64
32	Sorption Process of Date Palm Biochar for Aqueous Cd (II) Removal: Efficiency and Mechanisms. Water, Air, and Soil Pollution, 2016, 227, 1.	1.1	63
33	Toxicity of synthetic chelators and metal availability in poultry manure amended Cd, Pb and As contaminated agricultural soil. Journal of Hazardous Materials, 2013, 262, 1022-1030.	6.5	62
34	Remediation of a soil contaminated with heavy metals by immobilizing compounds. Journal of Plant Nutrition and Soil Science, 2006, 169, 205-212.	1.1	61
35	Effect of Sodium Chloride-induced Salinity on Phyto-availability and Speciation of Cd in Soil Solution. Water, Air, and Soil Pollution, 2007, 185, 43-51.	1.1	59
36	An assessment of the utilization of waste resources for the immobilization of Pb and Cu in the soil from a Korean military shooting range. Environmental Earth Sciences, 2012, 67, 1023-1031.	1.3	57

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37	Changes of biochemical properties and heavy metal bioavailability in soil treated with natural liming materials. Environmental Earth Sciences, 2013, 70, 3411-3420.	1.3	55
38	Role of chelating agents on release kinetics of metals and their uptake by maize from chromated copper arsenate-contaminated soil. Environmental Technology (United Kingdom), 2013, 34, 747-755.	1.2	55
39	Chemically modified biochar produced from conocarpus waste increases NO3 removal from aqueous solutions. Environmental Geochemistry and Health, 2016, 38, 511-521.	1.8	55
40	Effects of conocarpus biochar on hydraulic properties of calcareous sandy soil: influence of particle size and application depth. Archives of Agronomy and Soil Science, 2017, 63, 185-197.	1.3	53
41	Date palm waste biochars alter a soil respiration, microbial biomass carbon, and heavy metal mobility in contaminated mined soil. Environmental Geochemistry and Health, 2019, 41, 1705-1722.	1.8	52
42	Effect of Immobilizing Substances and Salinity on Heavy Metals Availability to Wheat Grown on Sewage Sludge-Contaminated Soil. Soil and Sediment Contamination, 2005, 14, 329-344.	1.1	51
43	Chemically Modified Biochar Produced from Conocarpus Wastes: An Efficient Sorbent for Fe(II) Removal from Acidic Aqueous Solutions. Adsorption Science and Technology, 2013, 31, 625-640.	1.5	51
44	Operational control on environmental safety of potentially toxic elements during thermal conversion of metal-accumulator invasive ragweed to biochar. Journal of Cleaner Production, 2018, 195, 458-469.	4.6	51
45	Immobilization and mitigation of chromium toxicity in aqueous solutions and tannery waste-contaminated soil using biochar and polymer-modified biochar. Chemosphere, 2021, 266, 129198.	4.2	47
46	Effects of natural and calcined poultry waste on Cd, Pb and As mobility in contaminated soil. Environmental Earth Sciences, 2013, 69, 11-20.	1.3	45
47	Dynamics of CO2 Emission and Biochemical Properties of a Sandy Calcareous Soil Amended with Conocarpus Waste and Biochar. Pedosphere, 2015, 25, 46-56.	2.1	42
48	Effects of Synthetic Chelators and Low-Molecular-Weight Organic Acids on Chromium, Copper, and Arsenic Uptake and Translocation in Maize (Zea mays L.). Soil Science, 2012, 177, 655-663.	0.9	41
49	Bioenergy-derived waste biochar for reducing mobility, bioavailability, and phytotoxicity of chromium in anthropized tannery soil. Journal of Soils and Sediments, 2017, 17, 731-740.	1.5	38
50	Aging Effects of Organic and Inorganic Fertilizers on Phosphorus Fractionation in a Calcareous Sandy Loam Soil. Pedosphere, 2018, 28, 873-883.	2.1	38
51	Trace metal levels, sources, and ecological risk assessment in a densely agricultural area from Saudi Arabia. Environmental Monitoring and Assessment, 2017, 189, 252.	1.3	32
52	Effect of clay minerals on extractability of heavy metals and sewage sludge mineralization in soil. Chemistry and Ecology, 2004, 20, 123-135.	0.6	31
53	Pyrolytic and hydrothermal carbonization of date palm leaflets: Characteristics and ecotoxicological effects on seed germination of lettuce. Saudi Journal of Biological Sciences, 2019, 26, 665-672.	1.8	31
54	The Effects of Biochar Amendment on Soil Fertility. SSSA Special Publication Series, 0, , 123-144.	0.2	30

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55	In situ immobilization of Cr and its availability to maize plants in tannery wasteâ€“contaminated soil: effects of biochar feedstock and pyrolysis temperature. Journal of Soils and Sediments, 2020, 20, 330-339.	1.5	30
56	A comparison of two digestion methods for assessing heavy metals level in urban soils influenced by mining and industrial activities. Journal of Environmental Management, 2018, 206, 731-739.	3.8	29
57	Effect of phosphogypsum application and bacteria co-inoculation on biochemical properties and nutrient availability to maize plants in a saline soil. Archives of Agronomy and Soil Science, 2018, 64, 1394-1406.	1.3	26
58	Organoclay-based nanoparticles from montmorillonite and natural clay deposits: Synthesis, characteristics, and application for MTBE removal. Applied Clay Science, 2017, 142, 21-29.	2.6	25
59	Influence of bioenergy waste biochar on proton- and ligand-promoted release of Pb and Cu in a shooting range soil. Science of the Total Environment, 2018, 625, 547-554.	3.9	25
60	Turning date palm waste into carbon nanodots and nano zerovalent iron composites for excellent removal of methylthioninium chloride from water. Scientific Reports, 2020, 10, 16125.	1.6	25
61	Soil Enzyme Activities in Waste Biochar Amended Multi-Metal Contaminated Soil; Effect of Different Pyrolysis Temperatures and Application Rates. Communications in Soil Science and Plant Analysis, 2018, 49, 635-643.	0.6	23
62	Evaluating the efficiency of different natural clay sediments for the removal of chlortetracycline from aqueous solutions. Journal of Hazardous Materials, 2020, 384, 121500.	6.5	23
63	Fabrication and evaluation of silica embedded and zerovalent iron composited biochars for arsenate removal from water. Environmental Pollution, 2020, 266, 115256.	3.7	22
64	Sources, toxicity potential, and human health risk assessment of heavy metals-laden soil and dust of urban and suburban areas as affected by industrial and mining activities. Scientific Reports, 2022, 12, .	1.6	22
65	Sulphamethazine in poultry manure changes carbon and nitrogen mineralisation in soils. Chemistry and Ecology, 2016, 32, 899-918.	0.6	21
66	Heavy-metal fractionation and distribution in soil profiles short-term-irrigated with sewage wastewater. Chemistry and Ecology, 2006, 22, 267-278.	0.6	19
67	Assessment of heavy metals contamination in soils surrounding a gold mine: comparison of two digestion methods. Chemistry and Ecology, 2013, 29, 329-339.	0.6	19
68	An efficient phosphorus scavenging from aqueous solution using magnesiothermally modified bio-calcite. Environmental Technology (United Kingdom), 2018, 39, 1638-1649.	1.2	19
69	Influence of NaCl-Induced Salinity and Cd Toxicity on Respiration Activity and Cd Availability to Barley Plants in Farmyard Manure-Amended Soil. Applied and Environmental Soil Science, 2015, 2015, 1-8.	0.8	16
70	Fabrication of sand-based novel adsorbents embedded with biochar or binding agents via calcite precipitation for sulfathiazole scavenging. Journal of Hazardous Materials, 2021, 405, 124249.	6.5	16
71	Removal of Cr(VI) and Toxic Ions from Aqueous Solutions and Tannery Wastewater Using Polymer-Clay Composites. Sustainability, 2017, 9, 1993.	1.6	15
72	Role of microbial inoculation and industrial byâ€product phosphogypsum in growth and nutrient uptake of maize (Zea mays L.) grown in calcareous soil. Journal of the Science of Food and Agriculture, 2017, 97, 3665-3674.	1.7	13

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73	Carbon mineralization and biochemical effects of short-term wheat straw in crude oil contaminated sandy soil. Applied Geochemistry, 2018, 88, 276-287.	1.4	13
74	Designing chitosan based magnetic beads with conocarpus waste-derived biochar for efficient sulfathiazole removal from contaminated water. Saudi Journal of Biological Sciences, 2021, 28, 6218-6229.	1.8	11
75	Environmental assessment of tannery wastes in relation to dumpsite soil: a case study from Riyadh, Saudi Arabia. Arabian Journal of Geosciences, 2015, 8, 11019-11029.	0.6	10
76	Potential short-term negative versus positive effects of olive mill-derived biochar on nutrient availability in a calcareous loamy sand soil. PLoS ONE, 2020, 15, e0232811.	1.1	9
77	Identification, Quantification, and Toxicity of PCDDs and PCDFs in Soils from Industrial Areas in the Central and Eastern Regions of Saudi Arabia. Bulletin of Environmental Contamination and Toxicology, 2016, 96, 622-629.	1.3	8
78	Assessing the prevalence of veterinary antibiotics and associated potential ecological risk in dryland soil, manure, and compost: A case study from Saudi Arabia. Journal of King Saud University - Science, 2021, 33, 101558.	1.6	8
79	Extent of Climate Change in Saudi Arabia and Its Impacts on Agriculture: A Case Study from Qassim Region. , 2020, , 635-657.		8
80	Levels, Sources, and Risk Assessment of Polychlorinated Biphenyls (PCBs) in Soils from Industrial Areas: A Case Study from Saudi Arabia. Polycyclic Aromatic Compounds, 2018, 38, 420-433.	1.4	7
81	Environmental issues in relation to agricultural practices and attitudes of farmers: A case study from Saudi Arabia. Saudi Journal of Biological Sciences, 2021, 28, 1080-1087.	1.8	7
82	Carbon Nanodots-Embedded Pullulan Nanofibers for Sulfathiazole Removal from Wastewater Streams. Membranes, 2022, 12, 228.	1.4	7
83	Effect of sugar industry wastes on K status and nutrient availability of a newly reclaimed loamy sandy soil. Archives of Agronomy and Soil Science, 2008, 54, 665-679.	1.3	6
84	Levels, solid-phase fractions and sources of heavy metals at site received industrial effluents: a case study. Chemical Speciation and Bioavailability, 2017, 29, 78-88.	2.0	6
85	Acid-Modified and Unmodified Natural Clay Deposits for In Situ Immobilization and Reducing Phytoavailability of Molybdenum in a Sandy Loam Calcareous Soil. Sustainability, 2020, 12, 8203.	1.6	6
86	Influence of Acidified Biochar on CO2â€“C Efflux and Micronutrient Availability in an Alkaline Sandy Soil. Sustainability, 2021, 13, 5196.	1.6	6
87	Sorptionâ€“Desorption Behavior of Doxycycline in Soilâ€“Manure Systems Amended with Mesquite Wood Waste Biochar. Plants, 2021, 10, 2566.	1.6	6
88	Preparation of Activated and Non-Activated Carbon from Conocarpus Pruning Waste as Low-Cost Adsorbent for Removal of Heavy Metal Ions from Aqueous Solution. BioResources, 2015, 11, .	0.5	4
89	Environmental consequences of dam construction: a case study from Saudi Arabia. Arabian Journal of Geosciences, 2018, 11, 1.	0.6	4
90	Sulfamethoxazole Leaching from Manure-Amended Sandy Loam Soil as Affected by the Application of Jujube Wood Waste-Derived Biochar. Molecules, 2021, 26, 4674.	1.7	4

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91	Advances in Pyrolytic Technologies with Improved Carbon Capture and Storage to Combat Climate Change. , 2020, , 535-575.		4
92	Status of Selenium and Trace Elements in some Arid Soils Cultivated with Forage Plants: A Case Study from Saudi Arabia. International Journal of Agriculture and Biology, 2017, 19, 85-92.	0.2	4
93	The Potential Use of Zeolite, Montmorillonite, and Biochar for the Removal of Radium-226 from Aqueous Solutions and Contaminated Groundwater. Processes, 2020, 8, 1537.	1.3	2
94	Influence of Organic Amendments and Moisture Regime on Soil CO2-C Efflux and Polycyclic Aromatic Hydrocarbons (PAHs) Degradation. Sustainability, 2022, 14, 4116.	1.6	1
95	Title is missing!. , 2020, 15, e0232811.		0
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97	Title is missing!. , 2020, 15, e0232811.		0
98	Title is missing!. , 2020, 15, e0232811.		0