Zhengtao Shen

List of Publications by Year
in descending order

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52 papers	4,627 citations	126858 33 h-index	197736 49 g-index
52 all docs	52 docs citations	52 times ranked	4366 citing authors

#	Article	IF	Citations
1	Effect of pyrolysis temperature, heating rate, and residence time on rapeseed stem derived biochar. Journal of Cleaner Production, 2018, 174, 977-987.	4.6	513
2	Biochar application for the remediation of heavy metal polluted land: A review of in situ field trials. Science of the Total Environment, 2018, 619-620, 815-826.	3.9	429
3	Microplastics undergo accelerated vertical migration in sand soil due to small size and wet-dry cycles. Environmental Pollution, 2019, 249, 527-534.	3.7	287
4	Biochar Aging: Mechanisms, Physicochemical Changes, Assessment, And Implications for Field Applications. Environmental Science & Technology, 2020, 54, 14797-14814.	4.6	273
5	Green remediation of As and Pb contaminated soil using cement-free clay-based stabilization/solidification. Environment International, 2019, 126, 336-345.	4.8	249
6	Effect of production temperature on lead removal mechanisms by rice straw biochars. Science of the Total Environment, 2019, 655, 751-758.	3.9	214
7	Biochar as green additives in cement-based composites with carbon dioxide curing. Journal of Cleaner Production, 2020, 258, 120678.	4.6	180
8	Synthesis of MgO-coated corncob biochar and its application in lead stabilization in a soil washing residue. Environment International, 2019, 122, 357-362.	4.8	164
9	Qualitative and quantitative characterisation of adsorption mechanisms of lead on four biochars. Science of the Total Environment, 2017, 609, 1401-1410.	3.9	151
10	Characteristics and mechanisms of nickel adsorption on biochars produced from wheat straw pellets and rice husk. Environmental Science and Pollution Research, 2017, 24, 12809-12819.	2.7	145
11	Green synthesis of nanoparticles for the remediation of contaminated waters and soils: Constituents, synthesizing methods, and influencing factors. Journal of Cleaner Production, 2019, 226, 540-549.	4.6	139
12	Solidification/Stabilization for Soil Remediation: An Old Technology with New Vitality. Environmental Science & Technology, 2019, 53, 11615-11617.	4.6	131
13	Long-term impact of biochar on the immobilisation of nickel (II) and zinc (II) and the revegetation of a contaminated site. Science of the Total Environment, 2016, 542, 771-776.	3.9	120
14	Removal of lead by rice husk biochars produced at different temperatures and implications for their environmental utilizations. Chemosphere, 2019, 235, 825-831.	4.2	107
15	Sorption of lead by Salisbury biochar produced from British broadleaf hardwood. Bioresource Technology, 2015, 193, 553-556.	4.8	100
16	Stability of heavy metals in soil washing residue with and without biochar addition under accelerated ageing. Science of the Total Environment, 2018, 619-620, 185-193.	3.9	96
17	Lead contamination in Chinese surface soils: Source identification, spatial-temporal distribution and associated health risks. Critical Reviews in Environmental Science and Technology, 2019, 49, 1386-1423.	6.6	96
18	Field trials of phytomining and phytoremediation: A critical review of influencing factors and effects of additives. Critical Reviews in Environmental Science and Technology, 2020, 50, 2724-2774.	6.6	84

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19	Sulfur-modified biochar as a soil amendment to stabilize mercury pollution: An accelerated simulation of long-term aging effects. Environmental Pollution, 2020, 264, 114687.	3.7	71
20	Mechanisms of biochar assisted immobilization of Pb2+ by bioapatite in aqueous solution. Chemosphere, 2018, 190, 260-266.	4.2	64
21	Effective Dispersion of MgO Nanostructure on Biochar Support as a Basic Catalyst for Glucose Isomerization. ACS Sustainable Chemistry and Engineering, 2020, 8, 6990-7001.	3.2	63
22	Effects of excessive impregnation, magnesium content, and pyrolysis temperature on MgO-coated watermelon rind biochar and its lead removal capacity. Environmental Research, 2020, 183, 109152.	3.7	60
23	Assessing long-term stability of cadmium and lead in a soil washing residue amended with MgO-based binders using quantitative accelerated ageing. Science of the Total Environment, 2018, 643, 1571-1578.	3.9	57
24	Design and fabrication of exfoliated Mg/Al layered double hydroxides on biochar support. Journal of Cleaner Production, 2021, 289, 125142.	4.6	56
25	Adsorption of methyl tert-butyl ether (MTBE) onto ZSM-5 zeolite: Fixed-bed column tests, breakthrough curve modelling and regeneration. Chemosphere, 2019, 220, 422-431.	4.2	55
26	Phytoremediation: Climate change resilience and sustainability assessment at a coastal brownfield redevelopment. Environment International, 2019, 130, 104945.	4.8	54
27	Risk evaluation of biochars produced from Cd-contaminated rice straw and optimization of its production for Cd removal. Chemosphere, 2019, 233, 149-156.	4.2	54
28	Effect of biochar on desiccation cracking characteristics of clayey soils. Geoderma, 2020, 364, 114182.	2.3	54
29	Kinetic and equilibrium modelling of MTBE (methyl tert-butyl ether) adsorption on ZSM-5 zeolite: Batch and column studies. Journal of Hazardous Materials, 2018, 347, 461-469.	6.5	52
30	Lead-based paint in children's toys sold on China's major online shopping platforms. Environmental Pollution, 2018, 241, 311-318.	3.7	50
31	Temporal effect of MgO reactivity on the stabilization of lead contaminated soil. Environment International, 2019, 131, 104990.	4.8	49
32	Three-year performance of in-situ mass stabilised contaminated site soils using MgO-bearing binders. Journal of Hazardous Materials, 2016, 318, 302-307.	6.5	47
33	A green method for the simultaneous recovery of phosphate and potassium from hydrolyzed urine as value-added fertilizer using wood waste. Resources, Conservation and Recycling, 2020, 157, 104793.	5.3	38
34	Simultaneous reduction and immobilization of Cr(VI) in seasonally frozen areas: Remediation mechanisms and the role of ageing. Journal of Hazardous Materials, 2021, 415, 125650.	6.5	37
35	Salisbury biochar did not affect the mobility or speciation of lead in kaolin in a short-term laboratory study. Journal of Hazardous Materials, 2016, 316, 214-220.	6.5	32
36	Comparison of nickel adsorption on biochars produced from mixed softwood and Miscanthus straw. Environmental Science and Pollution Research, 2018, 25, 14626-14635.	2.7	30

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37	GMCs stabilized/solidified Pb/Zn contaminated soil under different curing temperature: Physical and microstructural properties. Chemosphere, 2020, 239, 124738.	4.2	29
38	Stabilization-based soil remediation should consider long-term challenges. Frontiers of Environmental Science and Engineering, 2018, 12, 1.	3.3	28
39	The need to prioritize sustainable phosphateâ€based fertilizers. Soil Use and Management, 2020, 36, 351-354.	2.6	28
40	Effect of production temperature and particle size of rice husk biochar on mercury immobilization and erosion prevention of a mercury contaminated soil. Journal of Hazardous Materials, 2021, 420, 126646.	6.5	22
41	Impact of biochar on the desiccation cracking behavior of silty clay and its mechanisms. Science of the Total Environment, 2021, 794, 148608.	3.9	20
42	Effects of phosphate-solubilizing bacteria on phosphorous release and sorption on montmorillonite. Applied Clay Science, 2019, 181, 105227.	2.6	18
43	GMCs stabilized/solidified Pb/Zn contaminated soil under different curing temperature: leachability and durability. Environmental Science and Pollution Research, 2019, 26, 26963-26971.	2.7	16
44	The geotechnical properties of GMZ buffer/backfill material used in high-level radioactive nuclear waste geological repository: a review. Environmental Earth Sciences, 2017, 76, 1.	1.3	14
45	An evaluation of stabilised/solidified contaminated model soil using PC-based and MgO-based binders under semi-dynamic leaching conditions. Environmental Science and Pollution Research, 2018, 25, 16050-16060.	2.7	13
46	Effects of biochar particle size and dosage on the desiccation cracking behavior of a silty clay. Science of the Total Environment, 2022, 837, 155788.	3.9	13
47	MgO-GGBS Binderâ€“Stabilized/Solidified PAE-Contaminated Soil: Strength and Leachability in Early Stage. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	1.5	9
48	Evaluating the potential of charred bone as P hotspot assisted by phosphate-solubilizing bacteria. Science of the Total Environment, 2019, 696, 133965.	3.9	8
49	The use of biochar for sustainable treatment of contaminated soils. , 2020, , 119-167.		5
50	Effects of biochar and polypropylene fibre on mechanical behaviour of cementâ€solidified sludge. Soil Use and Management, 2022, 38, 1667-1678.	2.6	2
51	Natural or engineered clays for stabilization/solidification. , 2022, , 31-47.		1
52	Performance Evaluation of Stabilised/Solidified Contaminated Model Soil Using PC-Based and MgO-Based Binders. Environmental Science and Engineering, 2019, , 661-668.	0.1	0