

# Abir Al-Tabbaa

## List of Publications by Year in descending order

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Version: 2024-02-01

74  
papers

3,776  
citations

109137

35  
h-index

128067

60  
g-index

74  
all docs

74  
docs citations

74  
times ranked

3089  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review of Self-Healing Concrete for Damage Management of Structures. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800074.	1.9	412
2	Environmental and health impacts of using food waste as animal feed: a comparative analysis of food waste management options. <i>Journal of Cleaner Production</i> , 2017, 140, 871-880.	4.6	284
3	Qualitative and quantitative characterisation of adsorption mechanisms of lead on four biochars. <i>Science of the Total Environment</i> , 2017, 609, 1401-1410.	3.9	151
4	Characteristics and mechanisms of nickel adsorption on biochars produced from wheat straw pellets and rice husk. <i>Environmental Science and Pollution Research</i> , 2017, 24, 12809-12819.	2.7	145
5	First UK field application and performance of microcapsule-based self-healing concrete. <i>Construction and Building Materials</i> , 2019, 208, 669-685.	3.2	132
6	Long-term impact of biochar on the immobilisation of nickel (II) and zinc (II) and the revegetation of a contaminated site. <i>Science of the Total Environment</i> , 2016, 542, 771-776.	3.9	120
7	Properties of Two Model Soils Stabilized with Different Blends and Contents of GGBS, MgO, Lime, and PC. <i>Journal of Materials in Civil Engineering</i> , 2014, 26, 267-274.	1.3	119
8	Thermogravimetric study on the hydration of reactive magnesia and silica mixture at room temperature. <i>Thermochimica Acta</i> , 2013, 566, 162-168.	1.2	116
9	Characterisation of different commercial reactive magnesia. <i>Advances in Cement Research</i> , 2014, 26, 101-113.	0.7	113
10	Carbonating magnesia for soil stabilization. <i>Canadian Geotechnical Journal</i> , 2013, 50, 899-905.	1.4	100
11	Sorption of lead by Salisbury biochar produced from British broadleaf hardwood. <i>Bioresource Technology</i> , 2015, 193, 553-556.	4.8	100
12	Leachability and heavy metal speciation of 17-year old stabilised/solidified contaminated site soils. <i>Journal of Hazardous Materials</i> , 2014, 278, 144-151.	6.5	96
13	Evaluation of novel reactive MgO activated slag binder for the immobilisation of lead and zinc. <i>Chemosphere</i> , 2014, 117, 285-294.	4.2	95
14	Three-year performance of in-situ solidified/stabilised soil using novel MgO-bearing binders. <i>Chemosphere</i> , 2016, 144, 681-688.	4.2	89
15	Mechanism of reactive magnesia $\alpha$ -ground granulated blastfurnace slag (GGBS) soil stabilization. <i>Canadian Geotechnical Journal</i> , 2016, 53, 773-782.	1.4	87
16	Autogenous self-healing of cement with expansive minerals-I: Impact in early age crack healing. <i>Construction and Building Materials</i> , 2018, 192, 768-784.	3.2	84
17	The performance of blended conventional and novel binders in the in-situ stabilisation/solidification of a contaminated site soil. <i>Journal of Hazardous Materials</i> , 2015, 285, 46-52.	6.5	82
18	Assessing seasonal precipitation trends in India using parametric and non-parametric statistical techniques. <i>Theoretical and Applied Climatology</i> , 2011, 103, 1-11.	1.3	77

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19	A holistic approach to the environmental evaluation of food waste prevention. <i>Waste Management</i> , 2017, 59, 442-450.	3.7	71
20	Microfluidic fabrication of microcapsules tailored for self-healing in cementitious materials. <i>Construction and Building Materials</i> , 2018, 184, 713-722.	3.2	71
21	Long-term changes and variability of monthly extreme temperatures in India. <i>Theoretical and Applied Climatology</i> , 2010, 100, 45-56.	1.3	63
22	Autogenous self-healing of cement with expansive minerals-II: Impact of age and the role of optimised expansive minerals in healing performance. <i>Construction and Building Materials</i> , 2019, 194, 266-275.	3.2	62
23	Property changes of reactive magnesia-stabilized soil subjected to forced carbonation. <i>Canadian Geotechnical Journal</i> , 2016, 53, 314-325.	1.4	60
24	Effects of Different Reactive MgOs on the Hydration of MgO-Activated GGBS Paste. <i>Journal of Materials in Civil Engineering</i> , 2015, 27, .	1.3	58
25	Adsorption of methyl tert-butyl ether (MTBE) onto ZSM-5 zeolite: Fixed-bed column tests, breakthrough curve modelling and regeneration. <i>Chemosphere</i> , 2019, 220, 422-431.	4.2	55
26	Kinetic and equilibrium modelling of MTBE (methyl tert-butyl ether) adsorption on ZSM-5 zeolite: Batch and column studies. <i>Journal of Hazardous Materials</i> , 2018, 347, 461-469.	6.5	52
27	Addressing the need for standardization of test methods for self-healing concrete: an inter-laboratory study on concrete with macrocapsules. <i>Science and Technology of Advanced Materials</i> , 2020, 21, 661-682.	2.8	50
28	Three-year performance of in-situ mass stabilised contaminated site soils using MgO-bearing binders. <i>Journal of Hazardous Materials</i> , 2016, 318, 302-307.	6.5	47
29	Time-dependent performance of soil mix technology stabilized/solidified contaminated site soils. <i>Journal of Hazardous Materials</i> , 2015, 286, 503-508.	6.5	45
30	The adoption of sustainable remediation behaviour in the US and UK: A cross country comparison and determinant analysis. <i>Science of the Total Environment</i> , 2014, 490, 905-913.	3.9	44
31	Preliminary Laboratory-Scale Model Auger Installation and Testing of Carbonated Soil-MgO Columns. <i>Geotechnical Testing Journal</i> , 2013, 36, 384-393.	0.5	42
32	Scaled-up commercial production of reactive magnesia cement pressed masonry units. Part II: Performance. <i>Proceedings of Institution of Civil Engineers: Construction Materials</i> , 2012, 165, 225-243.	0.7	41
33	An environmental evaluation of food waste downstream management options: a hybrid LCA approach. <i>International Journal of Recycling of Organic Waste in Agriculture</i> , 2018, 7, 217-229.	2.0	39
34	Development and Application of Novel Sodium Silicate Microcapsule-Based Self-Healing Oil Well Cement. <i>Materials</i> , 2020, 13, 456.	1.3	38
35	Scaled-up commercial production of reactive magnesium cement pressed masonry units. Part I: Production. <i>Proceedings of Institution of Civil Engineers: Construction Materials</i> , 2012, 165, 211-223.	0.7	37
36	Assessing effects of site characteristics on remediation secondary life cycle impact with a generalised framework. <i>Journal of Environmental Planning and Management</i> , 2014, 57, 1083-1100.	2.4	37

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37	The UK waste inputâ€“output table: Linking waste generation to the UK economy. <i>Waste Management and Research</i> , 2016, 34, 1089-1094.	2.2	35
38	Salisbury biochar did not affect the mobility or speciation of lead in kaolin in a short-term laboratory study. <i>Journal of Hazardous Materials</i> , 2016, 316, 214-220.	6.5	32
39	Comparison of nickel adsorption on biochars produced from mixed softwood and <i>Miscanthus</i> straw. <i>Environmental Science and Pollution Research</i> , 2018, 25, 14626-14635.	2.7	30
40	GMCs stabilized/solidified Pb/Zn contaminated soil under different curing temperature: Physical and microstructural properties. <i>Chemosphere</i> , 2020, 239, 124738.	4.2	29
41	Evaluation of Methodologies for Assessing Self-Healing Performance of Concrete with Mineral Expansive Agents: An Interlaboratory Study. <i>Materials</i> , 2021, 14, 2024.	1.3	29
42	Utilisation of Magnesium Phosphate Cements to Facilitate Biodegradation within a Stabilised/Solidified Contaminated Soil. <i>Water, Air, and Soil Pollution</i> , 2011, 216, 411-427.	1.1	27
43	Shale gas can be a double-edged sword for climate change. <i>Nature Climate Change</i> , 2012, 2, 385-387.	8.1	22
44	Feasibility of Using 3D Printed Polyvinyl Alcohol (PVA) for Creating Self-Healing Vascular Tunnels in Cement System. <i>Materials</i> , 2019, 12, 3872.	1.3	22
45	Effect of Natural Graphite Fineness on the Performance and Electrical Conductivity of Cement Paste Mixes for Self-Sensing Structures. <i>Materials</i> , 2020, 13, 5833.	1.3	17
46	GMCs stabilized/solidified Pb/Zn contaminated soil under different curing temperature: leachability and durability. <i>Environmental Science and Pollution Research</i> , 2019, 26, 26963-26971.	2.7	16
47	Monsoon rainfall extreme indices and tendencies from 1954â€“2003 in Kerala, India. <i>Climatic Change</i> , 2011, 106, 407-419.	1.7	15
48	Evaluation of Sulfate Resistance of Calcined Dolomite Activated Ground Granulated Blast Furnace Slag. <i>Journal of Materials in Civil Engineering</i> , 2016, 28, .	1.3	13
49	An evaluation of stabilised/solidified contaminated model soil using PC-based and MgO-based binders under semi-dynamic leaching conditions. <i>Environmental Science and Pollution Research</i> , 2018, 25, 16050-16060.	2.7	13
50	Biomimetic cementitious construction materials for next-generation infrastructure. <i>Proceedings of the Institution of Civil Engineers - Smart Infrastructure and Construction</i> , 2018, 171, 67-76.	1.1	13
51	Crack-resistant cementâ€“bentonite cut-off wall materials incorporating superabsorbent polymers. <i>Canadian Geotechnical Journal</i> , 2021, 58, 800-810.	1.4	13
52	Comparing the Adoption of Contaminated Land Remediation Technologies in the United States, United Kingdom, and China. <i>Remediation</i> , 2014, 25, 33-51.	1.1	11
53	Lead (Pb) sorption to hydrophobic and hydrophilic zeolites in the presence and absence of MTBE. <i>Journal of Hazardous Materials</i> , 2021, 420, 126528.	6.5	11
54	Regional changes of the severities of meteorological droughts and floods in India. <i>Journal of Chinese Geography</i> , 2011, 21, 195-206.	1.5	10

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55	Metal Retention Experiments for the Design of Soil-Mix Technology Permeable Reactive Barriers. <i>Clean - Soil, Air, Water</i> , 2011, 39, 844-852.	0.7	9
56	MgO-GGBS Binder-Stabilized/Solidified PAE-Contaminated Soil: Strength and Leachability in Early Stage. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021, 147, .	1.5	9
57	Use of superabsorbent polymer in soil-cement subsurface barriers for enhanced heavy metal sorption and self-healing. <i>Science of the Total Environment</i> , 2022, 831, 154708.	3.9	9
58	Soil Mix Cutoff Wall Materials with Microcapsule-Based Self-Healing Grout. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021, 147, .	1.5	8
59	Modeling the Diffusion of Contaminated Site Remediation Technologies. <i>Water, Air, and Soil Pollution</i> , 2014, 225, 1.	1.1	7
60	Spectroscopic and Modeling Investigation of Sorption of Pb(II) to ZSM-5 Zeolites. <i>ACS ES&amp;T Water</i> , 2021, 1, 108-116.	2.3	7
61	Stiffness and Strength of Stabilized Organic Soils-Part I/II: Experimental Database and Statistical Description for Machine Learning Modelling. <i>Geosciences (Switzerland)</i> , 2021, 11, 243.	1.0	7
62	First UK Commercial Deployment of Microcapsule-Based Self-Healing Reinforced Concrete. <i>Journal of Materials in Civil Engineering</i> , 2021, 33, .	1.3	7
63	High throughput production of microcapsules using microfluidics for self-healing of cementitious materials. <i>Lab on A Chip</i> , 2021, 21, 4652-4659.	3.1	6
64	Carbon Nanofibers Grown in CaO for Self-Sensing in Mortar. <i>Materials</i> , 2022, 15, 4951.	1.3	6
65	A novel membrane emulsification technique for microencapsulation in self-healing concrete: development and proof of concept. <i>Engineering Research Express</i> , 2021, 3, 025015.	0.8	5
66	Stiffness and Strength of Stabilized Organic Soils-Part II/II: Parametric Analysis and Modeling with Machine Learning. <i>Geosciences (Switzerland)</i> , 2021, 11, 218.	1.0	5
67	Organic Contaminant-Triggered Self-Healing Soil Mix Cut-Off Wall Materials Incorporating Oil Sorbents. <i>Materials</i> , 2020, 13, 5802.	1.3	4
68	Laboratory Strength Correlations for Cement-Treated Peat. , 2004, , 1403.		3
69	Suitability of different erosivity models used in RUSLE2 for the South West Indian region. <i>The Environmentalist</i> , 2009, 29, 405-410.	0.7	3
70	Strength correlations of cement-mixed soils using data mapping. <i>Proceedings of the Institution of Civil Engineers: Ground Improvement</i> , 2014, 167, 60-68.	0.7	3
71	The first microcapsule-based self-healing cement-bentonite cut-off wall materials. <i>Geotechnique</i> , 2023, 73, 105-114.	2.2	3
72	Taking a microfluidic approach to the production of self-healing construction materials. <i>Metal Powder Report</i> , 2019, 74, 121-125.	0.3	2

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73	SEBS-Polymer-Modified Slagâ€Cementâ€Bentonite for Resilient Slurry Walls. Sustainability, 2022, 14, 2093.	1.6	1
74	Assessing the influence of pore structure formation on heavy metal immobilization through image-based CFD. Chemosphere, 2021, 275, 129997.	4.2	0