

Souhail R Al-Abed

List of Publications by Year in descending order

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78
papers

5,004
citations

147801

31
h-index

88630

70
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79
all docs

79
docs citations

79
times ranked

5211
citing authors

#	ARTICLE	IF	CITATIONS
1	Sulfate radical-based ferrousâ€“peroxymonosulfate oxidative system for PCBs degradation in aqueous and sediment systems. <i>Applied Catalysis B: Environmental</i> , 2009, 85, 171-179.	20.2	953
2	Superoxide radical driving the activation of persulfate by magnetite nanoparticles: Implications for the degradation of PCBs. <i>Applied Catalysis B: Environmental</i> , 2013, 129, 325-332.	20.2	420
3	Effect of inorganic, synthetic and naturally occurring chelating agents on Fe(II) mediated advanced oxidation of chlorophenols. <i>Water Research</i> , 2009, 43, 684-694.	11.3	356
4	Sulfate radical-based degradation of polychlorinated biphenyls: Effects of chloride ion and reaction kinetics. <i>Journal of Hazardous Materials</i> , 2012, 227-228, 394-401.	12.4	356
5	Synthesis of Reactive Nano-Fe/Pd Bimetallic System-Impregnated Activated Carbon for the Simultaneous Adsorption and Dechlorination of PCBs. <i>Chemistry of Materials</i> , 2008, 20, 3649-3655.	6.7	232
6	Effects of pH on dechlorination of trichloroethylene by zero-valent iron. <i>Journal of Hazardous Materials</i> , 2001, 83, 243-254.	12.4	194
7	Arsenic release from iron rich mineral processing waste: Influence of pH and redox potential. <i>Chemosphere</i> , 2007, 66, 775-782.	8.2	165
8	Arsenic sorption on TiO ₂ nanoparticles: Size and crystallinity effects. <i>Water Research</i> , 2010, 44, 965-973.	11.3	164
9	Recent advances in flue gas desulfurization gypsum processes and applications â€“ A review. <i>Journal of Environmental Management</i> , 2019, 251, 109572.	7.8	157
10	Influence of trace metal distribution on its leachability from coal fly ash. <i>Fuel</i> , 2008, 87, 1887-1893.	6.4	126
11	Adsorption and Simultaneous Dechlorination of PCBs on GAC/Fe/Pd: Mechanistic Aspects and Reactive Capping Barrier Concept. <i>Environmental Science & Technology</i> , 2009, 43, 488-493.	10.0	106
12	Enhanced Corrosion-Based Pd/Mg Bimetallic Systems for Dechlorination of PCBs. <i>Environmental Science & Technology</i> , 2007, 41, 3722-3727.	10.0	94
13	Speciation, Characterization, and Mobility of As, Se, and Hg in Flue Gas Desulphurization Residues. <i>Environmental Science & Technology</i> , 2008, 42, 1693-1698.	10.0	88
14	Comparative evaluation of short-term leach tests for heavy metal release from mineral processing waste. <i>Science of the Total Environment</i> , 2006, 364, 14-23.	8.0	82
15	Influence of pH on the transport of nanoscale zinc oxide in saturated porous media. <i>Journal of Nanoparticle Research</i> , 2011, 13, 4035-4047.	1.9	81
16	Influence of Carboxymethyl Cellulose for the Transport of Titanium Dioxide Nanoparticles in Clean Silica and Mineral-Coated Sands. <i>Environmental Science & Technology</i> , 2009, 43, 4954-4959.	10.0	78
17	Adsorption of Cadmium on Biosolidsâ€“Amended Soils. <i>Journal of Environmental Quality</i> , 2001, 30, 903-911.	2.0	76
18	Sources, transport, measurement and impact of nano and microplastics in urban watersheds. <i>Reviews in Environmental Science and Biotechnology</i> , 2020, 19, 275-336.	8.1	69

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19	Biosorption of heavy metals from mining influenced water onto chitin products. <i>Chemical Engineering Journal</i> , 2011, 166, 1002-1009.	12.7	59
20	Dechlorination kinetics of monochlorobiphenyls by Fe/Pd: Effects of solvent, temperature, and PCB concentration. <i>Applied Catalysis B: Environmental</i> , 2008, 78, 371-380.	20.2	58
21	A comprehensive framework for evaluating the environmental health and safety implications of engineered nanomaterials. <i>Critical Reviews in Toxicology</i> , 2017, 47, 771-814.	3.9	54
22	Leaching behavior of mineral processing waste: Comparison of batch and column investigations. <i>Journal of Hazardous Materials</i> , 2008, 153, 1088-1092.	12.4	51
23	Depletion of the protective aluminum hydroxide coating in TiO ₂ -based sunscreens by swimming pool water ingredients. <i>Chemical Engineering Journal</i> , 2012, 191, 95-103.	12.7	51
24	Reactivity of Substituted Chlorines and Ensuing Dechlorination Pathways of Select PCB Congeners with Pd/Mg Bimetallics. <i>Environmental Science & Technology</i> , 2009, 43, 915-921.	10.0	50
25	Catalytic Role of Palladium and Relative Reactivity of Substituted Chlorines during Adsorption and Treatment of PCBs on Reactive Activated Carbon. <i>Environmental Science & Technology</i> , 2009, 43, 7510-7515.	10.0	46
26	Characterization of engineered nanoparticles in commercially available spray disinfectant products advertised to contain colloidal silver. <i>Science of the Total Environment</i> , 2018, 619-620, 1375-1384.	8.0	45
27	VOC Emissions and Formation Mechanisms from Carbon Nanotube Composites during 3D Printing. <i>Environmental Science & Technology</i> , 2019, 53, 4364-4370.	10.0	45
28	Effects of Aging and Oxidation of Palladized Iron Embedded in Activated Carbon on the Dechlorination of 2-Chlorobiphenyl. <i>Environmental Science & Technology</i> , 2009, 43, 4137-4142.	10.0	40
29	In Situ Technologies for Reclamation of PCB-Contaminated Sediments: Current Challenges and Research Thrust Areas. <i>Journal of Environmental Engineering, ASCE</i> , 2007, 133, 1075-1078.	1.4	35
30	Correlation of 2-Chlorobiphenyl Dechlorination by Fe/Pd with Iron Corrosion at Different pH. <i>Environmental Science & Technology</i> , 2008, 42, 6942-6948.	10.0	35
31	Transformation of silver nanoparticle consumer products during simulated usage and disposal. <i>Environmental Science: Nano</i> , 2019, 6, 592-598.	4.3	32
32	Effect of reaction environments on the reactivity of PCB (2-chlorobiphenyl) over activated carbon impregnated with palladized iron. <i>Journal of Hazardous Materials</i> , 2010, 179, 869-874.	12.4	31
33	Isotope ratio mass spectrometry and spectroscopic techniques for microplastics characterization. <i>Talanta</i> , 2021, 224, 121743.	5.5	30
34	Mechanisms and effectivity of sulfate reducing bioreactors using a chitinous substrate in treating mining influenced water. <i>Chemical Engineering Journal</i> , 2017, 323, 270-277.	12.7	26
35	Dissolution of silver nanoparticles in colloidal consumer products: effects of particle size and capping agent. <i>Journal of Nanoparticle Research</i> , 2019, 21, 1-155.	1.9	24
36	Influences of pH and current on electrolytic dechlorination of trichloroethylene at a granular-graphite packed electrode. <i>Chemosphere</i> , 2006, 64, 462-469.	8.2	23

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37	A feasibility study on Pd/Mg application in historically contaminated sediments and PCB spiked substrates. <i>Journal of Hazardous Materials</i> , 2009, 172, 1156-1162.	12.4	23
38	Bench-Scale and Pilot-Scale Treatment Technologies for the Removal of Total Dissolved Solids from Coal Mine Water: A Review. <i>Mine Water and the Environment</i> , 2016, 35, 94-112.	2.0	22
39	Nanosilver as a disinfectant in dental unit waterlines: Assessment of the physicochemical transformations of the AgNPs. <i>Chemosphere</i> , 2017, 173, 245-252.	8.2	22
40	Electrocatalytic dechlorination of a PCB congener at a palladized granular-graphite-packed electrode: Reaction equilibrium and mechanism. <i>Applied Catalysis B: Environmental</i> , 2008, 80, 327-334.	20.2	20
41	Environmental impact of the use of contaminated sediments as partial replacement of the aggregate used in road construction. <i>Journal of Hazardous Materials</i> , 2011, 189, 546-555.	12.4	20
42	Alterations of lead speciation by sulfate from addition of flue gas desulfurization gypsum (FGDG) in two contaminated soils. <i>Science of the Total Environment</i> , 2017, 575, 1522-1529.	8.0	20
43	Investigation of a Mercury Speciation Technique for Flue Gas Desulfurization Materials. <i>Journal of the Air and Waste Management Association</i> , 2009, 59, 972-979.	1.9	19
44	Novel Fe-Pd/SiO ₂ catalytic materials for degradation of chlorinated organic compounds in water. <i>Pure and Applied Chemistry</i> , 2014, 86, 1141-1158.	1.9	18
45	Palladium-facilitated electrolytic dechlorination of 2-chlorobiphenyl using a granular-graphite electrode. <i>Chemosphere</i> , 2007, 66, 226-233.	8.2	17
46	Chronic TiO ₂ nanoparticle exposure to a benthic organism, <i>Hyalella azteca</i> : impact of solar UV radiation and material surface coatings on toxicity. <i>Science of the Total Environment</i> , 2014, 499, 356-362.	8.0	17
47	Environmental aging alters Al(OH) ₃ coating of TiO ₂ nanoparticles enhancing their photocatalytic and phototoxic activities. <i>Environmental Science: Nano</i> , 2016, 3, 593-601.	4.3	17
48	Comparison of the efficiency of chitinous and ligneous substrates in metal and sulfate removal from mining-influenced water. <i>Journal of Environmental Management</i> , 2018, 227, 321-328.	7.8	17
49	Quantification of carbon nanotubes in different environmental matrices by a microwave induced heating method. <i>Science of the Total Environment</i> , 2017, 580, 509-517.	8.0	16
50	Use of Granular Graphite for Electrolytic Dechlorination of Trichloroethylene. <i>Environmental Engineering Science</i> , 2007, 24, 842-851.	1.6	15
51	Partitioning, Desorption, and Dechlorination of a PCB Congener in Sediment Slurry Supernatants. <i>Environmental Science & Technology</i> , 2007, 41, 6253-6258.	10.0	15
52	Impact of organic solvents and common anions on 2-chlorobiphenyl dechlorination kinetics with Pd/Mg. <i>Applied Catalysis B: Environmental</i> , 2009, 92, 17-22.	20.2	15
53	Influence of polymer additives on gas-phase emissions from 3D printer filaments. <i>Chemosphere</i> , 2021, 279, 130543.	8.2	15
54	Assessment of the functionality of a pilot-scale reactor and its potential for electrochemical degradation of calmagite, a sulfonated azo-dye. <i>Chemosphere</i> , 2008, 73, 837-843.	8.2	14

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55	Metal contamination in environmental media in residential areas around Romanian mining sites. <i>Reviews on Environmental Health</i> , 2017, 32, 215-220.	2.4	14
56	Transformation of Silver Nanoparticle Consumer Products during Simulated Usage and Disposal. <i>Environmental Science: Nano</i> , 2019, 6, 592-598.	4.3	13
57	Distinct structural behavior and transport of TiO ₂ nano- and nanostructured particles in sand. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2014, 443, 188-194.	4.7	11
58	Microbial removal of lead from solid media and soil. <i>Water, Air, and Soil Pollution</i> , 1996, 86, 207-219.	2.4	10
59	Assessing metal mobilization from industrially lead-contaminated soils located at an urban site. <i>Applied Geochemistry</i> , 2017, 83, 31-40.	3.0	10
60	Modeling the Electrolytic Dechlorination of Trichloroethylene in a Granular Graphite-Packed Reactor. <i>Environmental Engineering Science</i> , 2007, 24, 581-594.	1.6	9
61	Statistical evaluation of potential damage to the Al(OH) ₃ layer on nTiO ₂ particles in the presence of swimming pool and seawater. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	1.9	9
62	Evaluation of metal partitioning and mobility in a sulfidic mine tailing pile under oxic and anoxic conditions. <i>Journal of Environmental Management</i> , 2014, 140, 135-144.	7.8	9
63	Desorption, partitioning, and dechlorination characteristics of PCBs in sediments in interaction with reactive activated carbon. <i>Journal of Hazardous Materials</i> , 2015, 287, 118-125.	12.4	9
64	Biomarker analysis of liver cells exposed to surfactant-wrapped and oxidized multi-walled carbon nanotubes (MWCNTs). <i>Science of the Total Environment</i> , 2016, 565, 777-786.	8.0	9
65	Evaluation of the impact of lime softening waste disposal in natural environments. <i>Waste Management</i> , 2015, 43, 524-532.	7.4	8
66	Material- and Site-Specific Partition Coefficients for Beneficial Use Assessments. <i>Environmental Science & Technology</i> , 2019, 53, 9626-9635.	10.0	7
67	Groundwater and Soil Remediation Using Electrical Fields. <i>ACS Symposium Series</i> , 2002, , 434-448.	0.5	6
68	Effects of Electroosmosis on Soil Temperature and Hydraulic Head. II: Numerical Simulation. <i>Journal of Environmental Engineering, ASCE</i> , 2002, 128, 596-603.	1.4	6
69	Nanostructured Titanium Oxide Film- and Membrane-Based Photocatalysis for Water Treatment. , 2014, , 123-132.		6
70	Decision support for environmental management of industrial non-hazardous secondary materials: New analytical methods combined with simulation and optimization modeling. <i>Journal of Environmental Management</i> , 2017, 196, 137-147.	7.8	6
71	Silver Nanoparticle Interactions with Surfactant-Based Household Surface Cleaners. <i>Environmental Engineering Science</i> , 2021, 38, 481-488.	1.6	3
72	Multivariate calibration for carbon nanotubes in the environment using the microwave induced heating method. <i>Environmental Nanotechnology, Monitoring and Management</i> , 2019, 11, 100204.	2.9	2

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73	Zinc transport and partitioning of a mine-impacted watershed: An evaluation of water and sediment quality. <i>Applied Geochemistry</i> , 2022, 142, 105333.	3.0	2
74	Effects of Electroosmosis on Soil Temperature and Hydraulic Head. I: Field Observations. <i>Journal of Environmental Engineering, ASCE</i> , 2002, 128, 588-595.	1.4	1
75	Use of carbon stable isotope to investigate chloromethane formation in the electrolytic dechlorination of trichloroethylene. <i>Journal of Hazardous Materials</i> , 2007, 141, 729-735.	12.4	0
76	Assessing the Impact of Removing Select Materials from Coal Mine Overburden, Central Appalachia Region, USA. <i>Mine Water and the Environment</i> , 2018, 37, 31-41.	2.0	0
77	Rapid and versatile pre-treatment for quantification of multi-walled carbon nanotubes in the environment using microwave-induced heating. <i>Environmental Science and Pollution Research</i> , 2019, 26, 13999-14012.	5.3	0
78	Assessing the Impact of Removing Select Materials from Coal Mine Overburden, Central Appalachia Region, USA. <i>Mine Water and the Environment</i> , 2018, 37, 31-41.	2.0	0