Sharon L Walker

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/9097802/publications.pdf

Version: 2024-02-01

93 papers	6,612 citations	53794 45 h-index	62596 80 g-index
93 all docs	93 docs citations	93 times ranked	6992 citing authors

#	Article	IF	Citations
1	Bacterial Adhesion and Transport in Porous Media:Â Role of the Secondary Energy Minimum. Environmental Science & Technology, 2004, 38, 1777-1785.	10.0	448
2	Coupling of physical and chemical mechanisms of colloid straining in saturated porous media. Water Research, 2007, 41, 3012-3024.	11.3	319
3	Role of Cell Surface Lipopolysaccharides inEscherichia coliK12 Adhesion and Transport. Langmuir, 2004, 20, 7736-7746.	3.5	288
4	Comparative environmental fate and toxicity of copper nanomaterials. NanoImpact, 2017, 7, 28-40.	4.5	277
5	Resolving the Coupled Effects of Hydrodynamics and DLVO Forces on Colloid Attachment in Porous Media. Langmuir, 2007, 23, 9652-9660.	3.5	236
6	Transport and fate of bacteria in porous media: Coupled effects of chemical conditions and pore space geometry. Water Resources Research, 2008, 44, .	4.2	205
7	Mechanisms of TiO2 nanoparticle transport in porous media: Role of solution chemistry, nanoparticle concentration, and flowrate. Journal of Colloid and Interface Science, 2011, 360, 548-555.	9.4	200
8	Rethinking wastewater risks and monitoring in light of the COVID-19 pandemic. Nature Sustainability, 2020, 3, 981-990.	23.7	195
9	Combined Factors Influencing the Aggregation and Deposition of nano-TiO₂ in the Presence of Humic Acid and Bacteria. Environmental Science & Technology, 2012, 46, 6968-6976.	10.0	194
10	Influence of Growth Phase on Adhesion Kinetics of Escherichia coli D21g. Applied and Environmental Microbiology, 2005, 71, 3093-3099.	3.1	168
11	A Novel Asymmetric Clamping Cell for Measuring Streaming Potential of Flat Surfaces. Langmuir, 2002, 18, 2193-2198.	3.5	167
12	Transport and straining ofE. coliO157:H7 in saturated porous media. Water Resources Research, 2006, 42, .	4.2	160
13	<i>Escherichia coli</i> O157:H7 Transport in Saturated Porous Media: Role of Solution Chemistry and Surface Macromolecules. Environmental Science & Technology, 2009, 43, 4340-4347.	10.0	147
14	Effects of Solution Chemistry on the Transport of Graphene Oxide in Saturated Porous Media. Environmental Science & Technology, 2013, 47, 4255-4261.	10.0	144
15	Coupled Factors Influencing Concentration-Dependent Colloid Transport and Retention in Saturated Porous Media. Environmental Science & Technology, 2009, 43, 6996-7002.	10.0	140
16	Polyaniline-Coated Carbon Nanotube Ultrafiltration Membranes: Enhanced Anodic Stability for <i>In Situ</i> Cleaning and Electro-Oxidation Processes. ACS Applied Materials & Interfaces, 2016, 8, 22574-22584.	8.0	136
17	Stability and Transport of Graphene Oxide Nanoparticles in Groundwater and Surface Water. Environmental Engineering Science, 2014, 31, 350-359.	1.6	120
18	Microbial Attachment Inhibition through Low-Voltage Electrochemical Reactions on Electrically Conducting Membranes. Environmental Science & Technology, 2015, 49, 12741-12750.	10.0	114

#	Article	IF	Citations
19	Influence of Feedstock and Pyrolysis Temperature of Biochar Amendments on Transport of Escherichia coli in Saturated and Unsaturated Soil. Environmental Science & Technology, 2012, 46, 8097-8105.	10.0	104
20	Influence of Growth Phase on Bacterial Deposition:Â Interaction Mechanisms in Packed-Bed Column and Radial Stagnation Point Flow Systemsâ€. Environmental Science & Technology, 2005, 39, 6405-6411.	10.0	99
21	Reactions between bacterial exopolymers and goethite: AÂcombined macroscopic and spectroscopic investigation. Water Research, 2012, 46, 5613-5620.	11.3	99
22	Deposition and Survival of Escherichia coli O157:H7 on Clay Minerals in a Parallel Plate Flow System. Environmental Science & Technology, 2013, 47, 1896-1903.	10.0	97
23	The role of alginate inPseudomonas aeruginosaEPS adherence, viscoelastic properties and cell attachment. Biofouling, 2011, 27, 787-798.	2.2	93
24	Pseudomonas aeruginosa Attachment on QCM-D Sensors: The Role of Cell and Surface Hydrophobicities. Langmuir, 2012, 28, 6396-6402.	3.5	85
25	Role of Solution Chemistry and Ion Valence on the Adhesion Kinetics of Groundwater and Marine Bacteria. Langmuir, 2007, 23, 7162-7169.	3.5	84
26	Adhesion of bacterial pathogens to soil colloidal particles: Influences of cell type, natural organic matter, and solution chemistry. Water Research, 2014, 53, 35-46.	11.3	84
27	Bacillus subtilis biofilm development in the presence of soil clay minerals and iron oxides. Npj Biofilms and Microbiomes, 2017, 3, 4.	6.4	83
28	Transport of Iron-Based Nanoparticles: Role of Magnetic Properties. Environmental Science & Technology, 2009, 43, 8834-8839.	10.0	82
29	Escherichia coli transport in porous media: Influence of cell strain, solution chemistry, and temperature. Colloids and Surfaces B: Biointerfaces, 2009, 71, 160-167.	5.0	80
30	Influence of extracellular polymeric substances on the aggregation kinetics of TiO2 nanoparticles. Water Research, 2016, 104, 381-388.	11.3	77
31	Surface Characteristics and Adhesion Behavior of Escherichia coli O157:H7: Role of Extracellular Macromolecules. Biomacromolecules, 2009, 10, 2556-2564.	5.4	74
32	Fecal Indicator Bacteria Transport and Deposition in Saturated and Unsaturated Porous Media. Environmental Science & Technology, 2012, 46, 8782-8790.	10.0	74
33	Sulfate Radical-Induced Disinfection of Pathogenic Escherichia coli O157:H7 via Iron-Activated Persulfate. Environmental Science and Technology Letters, 2017, 4, 154-160.	8.7	73
34	Metal Oxide Nanoparticles Induce Minimal Phenotypic Changes in a Model Colon Gut Microbiota. Environmental Engineering Science, 2015, 32, 602-612.	1.6	72
35	Role of pH and ionic strength in the aggregation of TiO 2 nanoparticles in the presence of extracellular polymeric substances from Bacillus subtilis. Environmental Pollution, 2017, 228, 35-42.	7.5	66
36	Aggregate morphology of nano-TiO₂: role of primary particle size, solution chemistry, and organic matter. Environmental Sciences: Processes and Impacts, 2013, 15, 275-282.	3.5	64

#	Article	IF	Citations
37	Extraction and Analysis of Extracellular Polymeric Substances: Comparison of Methods and Extracellular Polymeric Substance Levels inSalmonella pullorumSA 1685. Environmental Engineering Science, 2009, 26, 1523-1532.	1.6	57
38	Removal of TiO₂ Nanoparticles During Primary Water Treatment: Role of Coagulant Type, Dose, and Nanoparticle Concentration. Environmental Engineering Science, 2014, 31, 127-134.	1.6	56
39	Understanding the Transformation, Speciation, and Hazard Potential of Copper Particles in a Model Septic Tank System Using Zebrafish to Monitor the Effluent. ACS Nano, 2015, 9, 2038-2048.	14.6	54
40	The role of starvation on Escherichia coli adhesion and transport in saturated porous media. Water Research, 2008, 42, 1547-1554.	11.3	53
41	Correlating Transport Behavior with Cell Properties for Eight Porcine Escherichia coli Isolates. Environmental Science & Technology, 2010, 44, 5008-5014.	10.0	51
42	Macromolecule mediated transport and retention of Escherichia coli O157:H7 in saturated porous media. Water Research, 2010, 44, 1082-1093.	11.3	51
43	Impact of Synthesis Methods on the Transport of Single Walled Carbon Nanotubes in the Aquatic Environment. Environmental Science & Technology, 2012, 46, 11752-11760.	10.0	47
44	Interactions of pathogens Escherichia coli and Streptococcus suis with clay minerals. Applied Clay Science, 2012, 69, 37-42.	5.2	46
45	Biofouling of Reverse Osmosis Membranes: Positively Contributing Factors of Sphingomonas. Environmental Science & Technology, 2014, 48, 13941-13950.	10.0	46
46	Concentrating ammonium in wastewater by forward osmosis using a surface modified nanofiltration membrane. Environmental Science: Water Research and Technology, 2019, 5, 246-255.	2.4	46
47	Efficient Photocatalytic Disinfection of Escherichia coli O157:H7 using C70-TiO2 Hybrid under Visible Light Irradiation. Scientific Reports, 2016, 6, 25702.	3.3	45
48	Lack of Influence of Extracellular Polymeric Substances (EPS) Level on Hydroxyl Radical Mediated Disinfection of Escherichia coli. Environmental Science & Technology, 2012, 46, 241-249.	10.0	44
49	Colloidal and Bacterial Deposition: Role of Gravity. Langmuir, 2010, 26, 314-319.	3.5	43
50	Coupling hydrothermal liquefaction and membrane distillation to treat anaerobic digestate from food and dairy farm waste. Bioresource Technology, 2018, 267, 408-415.	9.6	43
51	Initial Bacterial Deposition on Bare and Zeolite-Coated Aluminum Alloy and Stainless Steel. Langmuir, 2009, 25, 1620-1626.	3.5	42
52	Container to characterization: Impacts of metal oxide handling, preparation, and solution chemistry on particle stability. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 368, 91-95.	4.7	42
53	Food and Industrial Grade Titanium Dioxide Impacts Gut Microbiota. Environmental Engineering Science, 2017, 34, 537-550.	1.6	41
54	Impact of soil clay minerals on growth, biofilm formation, and virulence gene expression of Escherichia coli O157:H7. Environmental Pollution, 2018, 243, 953-960.	7.5	41

#	Article	IF	Citations
55	Initial Colloid Deposition on Bare and Zeolite-Coated Stainless Steel and Aluminum: Influence of Surface Roughness. Langmuir, 2010, 26, 12605-12613.	3.5	40
56	Epithelial Microvilli Establish an Electrostatic Barrier to Microbial Adhesion. Infection and Immunity, 2014, 82, 2860-2871.	2.2	40
57	The role of nutrient presence on the adhesion kinetics of Burkholderia cepacia G4g and ENV435g. Colloids and Surfaces B: Biointerfaces, 2005, 45, 181-188.	5.0	35
58	Reduced Bacterial Deposition and Attachment by Quorum-Sensing Inhibitor 4-Nitro-pyridine-N-oxide: The Role of Physicochemical Effects. Langmuir, 2010, 26, 12089-12094.	3.5	31
59	Electrochemical synthesis of FexNi1â^'x nanostructures for environmental remediation. Chemical Engineering Journal, 2009, 151, 66-72.	12.7	29
60	Titanium Dioxide Nanoparticle Removal in Primary Prefiltration Stages of Water Treatment: Role of Coating, Natural Organic Matter, Source Water, and Solution Chemistry. Environmental Engineering Science, 2015, 32, 292-300.	1.6	29
61	Study of bacterial adhesion onto immobilized TiO2: Effect on the photocatalytic activity for disinfection applications. Catalysis Today, 2013, 209, 140-146.	4.4	27
62	Metabolism, survival, and gene expression ofPseudomonas putidato hematite nanoparticles mediated by surface-bound humic acid. Environmental Science: Nano, 2018, 5, 682-695.	4.3	26
63	Deposition mechanisms of TiO2 nanoparticles in a parallel plate system. Journal of Colloid and Interface Science, 2012, 369, 16-22.	9.4	25
64	Impact of Physical and Chemical Cleaning Agents on Specific Biofilm Components and the Implications for Membrane Biofouling Management. Industrial & Engineering Chemistry Research, 2018, 57, 3359-3370.	3.7	24
65	O Antigen Modulates Insect Vector Acquisition of the Bacterial Plant Pathogen Xylella fastidiosa. Applied and Environmental Microbiology, 2015, 81, 8145-8154.	3.1	23
66	Contrasting effects of extracellular polymeric substances on the surface characteristics of bacterial pathogens and cell attachment to soil particles. Chemical Geology, 2015, 410, 79-88.	3.3	21
67	Impacts of antiscalants on the formation of calcium solids: implication on scaling potential of desalination concentrate. Environmental Science: Water Research and Technology, 2019, 5, 1285-1294.	2.4	21
68	Fate and Transport of Molybdenum Disulfide Nanomaterials in Sand Columns. Environmental Engineering Science, 2015, 32, 163-173.	1.6	19
69	Colloidal Deposition on Remotely Controlled Charged Micropatterned Surfaces in a Parallel-Plate Flow Chamber. Langmuir, 2008, 24, 9381-9385.	3.5	18
70	Survival of Escherichia coli O157:H7 in various soil particles: importance of the attached bacterial phenotype. Biology and Fertility of Soils, 2017, 53, 209-219.	4.3	17
71	Linking Microbial Community Structure to Function in Representative Simulated Systems. Applied and Environmental Microbiology, 2013, 79, 2552-2559.	3.1	16
72	Effects of copper particles on a model septic system's function and microbial community. Water Research, 2016, 91, 350-360.	11.3	15

#	Article	IF	Citations
73	Efficacy of post-harvest rinsing and bleach disinfection of E.Âcoli O157:H7 on spinach leaf surfaces. Food Microbiology, 2017, 62, 212-220.	4.2	15
74	Escherichia coli O157:H7 and Salmonella Typhimurium adhesion to spinach leaf surfaces: Sensitivity to water chemistry and nutrient availability. Food Microbiology, 2019, 78, 134-142.	4.2	15
75	Cell Preparation Methods Influence Escherichia coli D21g Surface Chemistry and Transport in Saturated Sand. Journal of Environmental Quality, 2008, 37, 2108-2115.	2.0	15
76	Effects of residual antibiotics in groundwater on Salmonella typhimurium: changes in antibiotic resistance, in vivo and in vitro pathogenicity. Journal of Environmental Monitoring, 2012, 14, 41-47.	2.1	14
77	Impact of growth conditions on transport behavior of E. coli. Journal of Environmental Monitoring, 2012, 14, 984.	2.1	13
78	Deposition and disinfection of Escherichia coli O157:H7 on naturally occurring photoactive materials in a parallel plate chamber. Environmental Sciences: Processes and Impacts, 2014, 16, 194-202.	3.5	10
79	Visualization of transport and fate of nano and micro-scale particles in porous media: modeling coupled effects of ionic strength and size. Environmental Science: Nano, 2017, 4, 1025-1036.	4.3	10
80	Reply to comment by William P. Johnson et al. on â€œTransport and fate of bacteria in porous media: Coupled effects of chemical conditions and pore space geometryâ€• Water Resources Research, 2009, 45, .	4.2	8
81	Antimicrobial behavior of novel surfaces generated by electrophoretic deposition and breakdown anodization. Colloids and Surfaces B: Biointerfaces, 2015, 134, 204-212.	5.0	8
82	Using the agricultural environment to select better surrogates for foodborne pathogens associated with fresh produce. International Journal of Food Microbiology, 2017, 262, 80-88.	4.7	8
83	Comparison of filtration mechanisms of food and industrial grade TiO2 nanoparticles. Analytical and Bioanalytical Chemistry, 2018, 410, 6133-6140.	3.7	7
84	Aggregation morphology of planar engineered nanomaterials. Journal of Colloid and Interface Science, 2020, 561, 849-853.	9.4	7
85	Disrupting Irreversible Bacterial Adhesion and Biofilm Formation with an Engineered Enzyme. Applied and Environmental Microbiology, 2021, 87, e0026521.	3.1	6
86	The effect of packing hydrophilization on bacterial attachment and the relationship with the performance of biotrickling filters. Biotechnology and Bioengineering, 2009, 103, 1060-1067.	3.3	5
87	Influence of septic system wastewater treatment on titanium dioxide nanoparticle subsurface transport mechanisms. Analytical and Bioanalytical Chemistry, 2018, 410, 6125-6132.	3.7	4
88	Functional foregut anatomy of the blueâ€“green sharpshooter illustrated using a 3D model. Scientific Reports, 2021, 11, 6536.	3.3	4
89	Impact of Growth Phase and Natural Organic Matter on the Attachment Kinetics of Salmonella typhimurium to Solid Surfaces. Environmental Engineering Science, 2015, 32, 111-120.	1.6	3
90	Influence of nano-CuO and -TiO₂ on deposition and detachment of Escherichia coli in two model systems. Environmental Science: Nano, 2019, 6, 3268-3279.	4.3	3

#	Article	IF	Citations
91	Degradation of Brominated Organic Compounds (Flame Retardants) by a Four-Strain Consortium Isolated from Contaminated Groundwater. Applied Sciences (Switzerland), 2021, 11, 6263.	2.5	2
92	Fluid dynamic simulations at the interface of the blue-green sharpshooter functional foregut and grapevine xylem sap with implications for transmission of Xylella fastidiosa. PLoS ONE, 2022, 17, e0265762.	2.5	2
93	Influence of Food and Industrial Grade Titanium Dioxide Nanoparticles on Microbial Diversity and Phenotypic Response in Model Septic System. Environmental Engineering Science, 2018, 35, 1049-1061.	1.6	1