

Yunkai Li

List of Publications by Year in descending order

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124
papers

3,047
citations

186265

28
h-index

197818

49
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all docs

125
docs citations

125
times ranked

1919
citing authors

#	ARTICLE	IF	CITATIONS
1	Assessing progress towards sustainable development over space and time. <i>Nature</i> , 2020, 577, 74-78.	27.8	407
2	Impacts of international trade on global sustainable development. <i>Nature Sustainability</i> , 2020, 3, 964-971.	23.7	150
3	Impacts of irrigated agriculture on food-€energy-water-CO2 nexus across metacoupled systems. <i>Nature Communications</i> , 2020, 11, 5837.	12.8	114
4	Eight emitters clogging characteristics and its suitability under on-site reclaimed water drip irrigation. <i>Irrigation Science</i> , 2014, 32, 141-157.	2.8	96
5	Micro-nano bubble water oxygation: Synergistically improving irrigation water use efficiency, crop yield and quality. <i>Journal of Cleaner Production</i> , 2019, 222, 835-843.	9.3	95
6	Spatial-temporal assessment of water footprint, water scarcity and crop water productivity in a major crop production region. <i>Journal of Cleaner Production</i> , 2019, 224, 375-383.	9.3	87
7	Towards sustainable coal industry: Turning coal bottom ash into wealth. <i>Science of the Total Environment</i> , 2022, 804, 149985.	8.0	75
8	Effect of optimization forms of flow path on emitter hydraulic and anti-clogging performance in drip irrigation system. <i>Irrigation Science</i> , 2018, 36, 37-47.	2.8	70
9	Time and space catch up with restoration programs that ignore ecosystem service trade-offs. <i>Science Advances</i> , 2021, 7, .	10.3	69
10	Soil fertility and crop production are fostered by micro-nano bubble irrigation with associated changes in soil bacterial community. <i>Soil Biology and Biochemistry</i> , 2020, 141, 107663.	8.8	64
11	Utilization of coal fly and bottom ash pellet for phosphorus adsorption: Sustainable management and evaluation. <i>Resources, Conservation and Recycling</i> , 2019, 149, 372-380.	10.8	60
12	Effects of average velocity on the growth and surface topography of biofilms attached to the reclaimed wastewater drip irrigation system laterals. <i>Irrigation Science</i> , 2012, 30, 103-113.	2.8	57
13	CFD and digital particle tracking to assess flow characteristics in the labyrinth flow path of a drip irrigation emitter. <i>Irrigation Science</i> , 2008, 26, 427-438.	2.8	53
14	Quantitative relationship between biofilms components and emitter clogging under reclaimed water drip irrigation. <i>Irrigation Science</i> , 2013, 31, 1251-1263.	2.8	51
15	Appropriate dissolved oxygen concentration and application stage of micro-nano bubble water oxygation in greenhouse crop plantation. <i>Agricultural Water Management</i> , 2019, 223, 105713.	5.6	50
16	Surface topographic characteristics of suspended particulates in reclaimed wastewater and effects on clogging in labyrinth drip irrigation emitters. <i>Irrigation Science</i> , 2012, 30, 43-56.	2.8	49
17	Effects of lateral flushing on emitter clogging and biofilm components in drip irrigation systems with reclaimed water. <i>Irrigation Science</i> , 2015, 33, 235-245.	2.8	49
18	Controlling mechanism of chlorination on emitter bio-clogging for drip irrigation using reclaimed water. <i>Agricultural Water Management</i> , 2017, 184, 36-45.	5.6	46

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19	Urban water sustainability: framework and application. <i>Ecology and Society</i> , 2016, 21, .	2.3	42
20	Effects of phosphorus-fertigation on emitter clogging in drip irrigation system with saline water. <i>Agricultural Water Management</i> , 2021, 243, 106392.	5.6	42
21	Effects of microbial community variation on bio-clogging in drip irrigation emitters using reclaimed water. <i>Agricultural Water Management</i> , 2017, 194, 139-149.	5.6	41
22	Climate variability and trends at a national scale. <i>Scientific Reports</i> , 2017, 7, 3258.	3.3	40
23	Modeling cherry orchard evapotranspiration based on an improved dual-source model. <i>Agricultural Water Management</i> , 2010, 98, 12-18.	5.6	36
24	Using phosphate fertilizer to reduce emitter clogging of drip fertigation systems with high salinity water. <i>Journal of Environmental Management</i> , 2020, 263, 110366.	7.8	34
25	Effect of drip irrigation frequency on emitter clogging using reclaimed water. <i>Irrigation Science</i> , 2015, 33, 221-234.	2.8	33
26	Energy consumption due to groundwater pumping for irrigation in the North China Plain. <i>Science of the Total Environment</i> , 2019, 669, 1033-1042.	8.0	32
27	Chemical Clogging of Emitters and Evaluation of Their Suitability for Saline Water Drip Irrigation. <i>Irrigation and Drainage</i> , 2016, 65, 439-450.	1.7	31
28	Dynamic effects of chemical precipitates on drip irrigation system clogging using water with high sediment and salt loads. <i>Agricultural Water Management</i> , 2019, 213, 833-842.	5.6	30
29	Assessing the water and carbon footprint of hydropower stations at a national scale. <i>Science of the Total Environment</i> , 2019, 676, 595-612.	8.0	29
30	Preliminary surface topographical characteristics of biofilms attached on drip irrigation emitters using reclaimed water. <i>Irrigation Science</i> , 2013, 31, 557-574.	2.8	27
31	Anti-clogging evaluation for drip irrigation emitters using reclaimed water. <i>Irrigation Science</i> , 2017, 35, 181-192.	2.8	27
32	Environmental risk of chlorine-controlled clogging in drip irrigation system using reclaimed water: the perspective of soil health. <i>Journal of Cleaner Production</i> , 2019, 232, 1452-1464.	9.3	27
33	Increasing phosphorus availability by reducing clogging in drip fertigation systems. <i>Journal of Cleaner Production</i> , 2020, 262, 121319.	9.3	26
34	Composite fouling of drip emitters applying surface water with high sand concentration: Dynamic variation and formation mechanism. <i>Agricultural Water Management</i> , 2019, 215, 25-43.	5.6	25
35	Environmental impact assessment of water-saving irrigation systems across 60 irrigation construction projects in northern China. <i>Journal of Cleaner Production</i> , 2020, 245, 118883.	9.3	25
36	Effect of Lateral Flushing on Emitter Clogging under Drip Irrigation with Yellow River Water and a Suitable Method. <i>Irrigation and Drainage</i> , 2018, 67, 199-209.	1.7	24

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37	Influence of operating pressure on emitter anti-clogging performance of drip irrigation system with high-sediment water. <i>Agricultural Water Management</i> , 2019, 213, 174-184.	5.6	24
38	Mitigation of biofouling in agricultural water distribution systems with nanobubbles. <i>Environment International</i> , 2020, 141, 105787.	10.0	24
39	Water absorption characteristics of organic-inorganic composite superabsorbent polymers and its effect on summer maize root growth. <i>Journal of Applied Polymer Science</i> , 2012, 126, 423-435.	2.6	23
40	Electromagnetic fields for biofouling mitigation in reclaimed water distribution systems. <i>Water Research</i> , 2020, 173, 115562.	11.3	23
41	Effects of Flow Path Geometrical Parameters on Flow Characteristics and Hydraulic Performance of Drip Irrigation Emitters. <i>Irrigation and Drainage</i> , 2016, 65, 426-438.	1.7	22
42	Using electromagnetic fields to inhibit biofouling and scaling in biogas slurry drip irrigation emitters. <i>Journal of Hazardous Materials</i> , 2021, 401, 123265.	12.4	22
43	An in-situ accelerated experimental testing method for drip irrigation emitter clogging with inferior water. <i>Agricultural Water Management</i> , 2019, 212, 136-154.	5.6	21
44	A kinetic model for biofilm growth inside non-PC emitters under reclaimed water drip irrigation. <i>Agricultural Water Management</i> , 2016, 168, 23-34.	5.6	20
45	Mechanism of intermittent fluctuated water pressure on emitter clogging substances formation in drip irrigation system utilizing high sediment water. <i>Agricultural Water Management</i> , 2019, 215, 16-24.	5.6	20
46	Interactive national virtual water-energy nexus networks. <i>Science of the Total Environment</i> , 2019, 673, 128-135.	8.0	20
47	Electrochemical biofilm control by reconstructing microbial community in agricultural water distribution systems. <i>Journal of Hazardous Materials</i> , 2021, 403, 123616.	12.4	20
48	Flow Characteristics in Energy Dissipation Units of Labyrinth Path in the Drip Irrigation Emitters with DPIV Technology. <i>Journal of Hydrodynamics</i> , 2010, 22, 137-145.	3.2	19
49	Chemical Clogging Behavior in Drip Irrigation Systems Using Reclaimed Water. <i>Transactions of the ASABE</i> , 2018, 61, 1667-1675.	1.1	19
50	Composite clogging characteristics of emitters in drip irrigation systems. <i>Irrigation Science</i> , 2019, 37, 105-122.	2.8	19
51	Formation mechanism for emitter composite-clogging in drip irrigation system. <i>Irrigation Science</i> , 2019, 37, 169-181.	2.8	19
52	Phosphorus transport in riverbed sediments and related adsorption and desorption characteristics in the Beiyun River, China. <i>Environmental Pollution</i> , 2020, 266, 115153.	7.5	19
53	Subsystem-level groundwater footprint assessment in North China Plain – The world's largest groundwater depression cone. <i>Ecological Indicators</i> , 2020, 117, 106662.	6.3	19
54	Structural and fractal characteristics of biofilm attached on the surfaces of aquatic plants and gravels in the rivers and lakes reusing reclaimed wastewater. <i>Environmental Earth Sciences</i> , 2013, 70, 2319-2333.	2.7	18

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55	Micromorphology of macromolecular superabsorbent polymer and its fractal characteristics. <i>Journal of Applied Polymer Science</i> , 2009, 113, 3510-3519.	2.6	17
56	Synergistic improvement in spring maize yield and quality with micro/nanobubbles water oxygation. <i>Scientific Reports</i> , 2019, 9, 5226.	3.3	16
57	Phosphorus pollution control using waste-based adsorbents: Material synthesis, modification, and sustainability. <i>Critical Reviews in Environmental Science and Technology</i> , 2022, 52, 2023-2059.	12.8	16
58	Impacts and mechanisms of nanobubbles level in drip irrigation system on soil fertility, water use efficiency and crop production: The perspective of soil microbial community. <i>Journal of Cleaner Production</i> , 2022, 333, 130050.	9.3	16
59	Physical, chemical and biological emitter clogging behaviors in drip irrigation systems using high-sediment loaded water. <i>Agricultural Water Management</i> , 2022, 270, 107738.	5.6	16
60	Dynamic Impacts of Climate and Land-Use Changes on Surface Runoff in the Mountainous Region of the Haihe River Basin, China. <i>Advances in Meteorology</i> , 2018, 2018, 1-10.	1.6	15
61	Different operation patterns on mineral components of emitters clogging substances in drip phosphorus fertigation system. <i>Irrigation Science</i> , 2019, 37, 691-707.	2.8	14
62	Effects of fractal flow path designing and its parameters on emitter hydraulic performance. <i>Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering</i> , 2007, 43, 109.	0.5	14
63	Adsorption and desorption characteristics of ammonium in eight loams irrigated with reclaimed wastewater from intensive hogpen. <i>Environmental Earth Sciences</i> , 2013, 69, 41-49.	2.7	13
64	EFFECTS OF FLOW PATH DEPTH ON EMITTER CLOGGING AND SURFACE TOPOGRAPHICAL CHARACTERISTICS OF BIOFILMS. <i>Irrigation and Drainage</i> , 2014, 63, 46-58.	1.7	13
65	Using an anti-clogging relative index (CRI) to assess emitters rapidly for drip irrigation systems with multiple low-quality water sources. <i>Agricultural Water Management</i> , 2019, 221, 270-278.	5.6	13
66	Variation of microorganisms in drip irrigation systems using high-sand surface water. <i>Agricultural Water Management</i> , 2019, 218, 37-47.	5.6	13
67	An Intelligent Controlling System for Greenhouse Environment Based on the Architecture of the Internet of Things. <i>Sensor Letters</i> , 2012, 10, 514-522.	0.4	13
68	The influence of chlorination timing and concentration on microbial communities in labyrinth channels: implications for biofilm removal. <i>Biofouling</i> , 2019, 35, 401-415.	2.2	12
69	Visualizing, quantifying, and controlling local hydrodynamic effects on biofilm accumulation in complex flow paths. <i>Journal of Hazardous Materials</i> , 2021, 416, 125937.	12.4	12
70	Flow Characteristics and Pressure-Compensating Mechanism of Non-Pressure-Compensating Drip Irrigation Emitters. <i>Irrigation and Drainage</i> , 2015, 64, 637-646.	1.7	11
71	Biofilm growth kinetics and nutrient (N/P) adsorption in an urban lake using reclaimed water: A quantitative baseline for ecological health assessment. <i>Ecological Indicators</i> , 2016, 71, 598-607.	6.3	11
72	Dynamic biofilm component in reclaimed water during rapid growth period. <i>Environmental Earth Sciences</i> , 2015, 73, 4325-4338.	2.7	10

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73	Organic contaminant removal efficiency of sodium bentonite/clay (BC) mixtures in high permeability regions utilizing reclaimed wastewater: A meso-scale study. <i>Journal of Contaminant Hydrology</i> , 2018, 210, 1-14.	3.3	10
74	Effect of magnetic field on calcium - silica fouling and interactions in brackish water distribution systems. <i>Science of the Total Environment</i> , 2021, 798, 148900.	8.0	10
75	Biofilms on the surface of gravels and aquatic plants in rivers and lakes with reusing reclaimed water. <i>Environmental Earth Sciences</i> , 2014, 72, 743-755.	2.7	9
76	Effects of flow path boundary optimizations on particle transport in drip irrigation emitters. <i>Irrigation and Drainage</i> , 2016, 65, 417-425.	1.7	9
77	Visualizing the macroscale spatial distributions of biofilms in complex flow channels using industrial computed tomography. <i>Biofouling</i> , 2020, 36, 115-125.	2.2	9
78	Selenium fertigation with nanobubbles influences soil selenium residual and plant performance by modulation of bacterial community. <i>Journal of Hazardous Materials</i> , 2022, 423, 127114.	12.4	9
79	A modified attapulgite clay for controlling infiltration of reclaimed water riverbed. <i>Environmental Earth Sciences</i> , 2015, 73, 3887-3900.	2.7	8
80	Reducing riverbed infiltration using mixtures of sodium bentonite and clay. <i>Environmental Earth Sciences</i> , 2015, 74, 3089-3098.	2.7	8
81	Spatial-Temporal Footprints Assessment and Driving Mechanism of China Household Diet Based on CHNS. <i>Foods</i> , 2021, 10, 1858.	4.3	8
82	ANALYSIS OF TRACING ABILITY OF DIFFERENT SIZED PARTICLES IN DRIP IRRIGATION EMITTERS WITH COMPUTATIONAL FLUID DYNAMICS. <i>Irrigation and Drainage</i> , 2013, 62, 340-351.	1.7	7
83	Biofilm microbial community structure in an urban lake utilizing reclaimed water. <i>Environmental Earth Sciences</i> , 2016, 75, 1.	2.7	7
84	Variations in the microbial community of biofilms under different near-wall hydraulic shear stresses in agricultural irrigation systems. <i>Biofouling</i> , 2020, 36, 44-55.	2.2	7
85	Salinity threshold of desalinated saline water used for drip irrigating: The perspective of emitter clogging. <i>Journal of Cleaner Production</i> , 2022, 361, 132143.	9.3	7
86	Characteristics of <i>E. japonicus</i> stomatal conductance under water-deficit stress using a nonlinear Jarvis modified model. <i>Mathematical and Computer Modelling</i> , 2013, 58, 799-806.	2.0	6
87	Nitrogen and phosphate adsorption on biofilms in reclaimed water. <i>Environmental Earth Sciences</i> , 2015, 74, 451-461.	2.7	6
88	Visualizing Particle Movement In Flat Drip Irrigation Emitters With Digital Particle Image Velocimetry. <i>Irrigation and Drainage</i> , 2016, 65, 390-403.	1.7	6
89	Comparative advantage for the areas irrigated with underground blue water in North China Plain. <i>Water Policy</i> , 2015, 17, 1033-1044.	1.5	5
90	A Case Study on Settling Process in Inclined-Tube Gravity Sedimentation Tank for Drip Irrigation with the Yellow River Water. <i>Water (Switzerland)</i> , 2020, 12, 1685.	2.7	5

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91	<i>Bacillus amyloliquefaciens</i> application to prevent biofilms in reclaimed water microirrigation systems*. Irrigation and Drainage, 2021, 70, 4-15.	1.7	5
92	An improved canopy transpiration model and parameter uncertainty analysis by Bayesian approach. Mathematical and Computer Modelling, 2010, 51, 1368-1374.	2.0	4
93	Visualizing Particle Movement in Cylindrical Drip Irrigation Emitters with Digital Particle Image Velocimetry. Irrigation and Drainage, 2016, 65, 404-416.	1.7	4
94	Effects of riverbed and lake bottom sediment thickness on infiltration and purification of reclaimed water. Environmental Earth Sciences, 2017, 76, 1.	2.7	4
95	Agricultural water and carbon footprint driving mechanisms at the household scale in North China Plain. Water and Environment Journal, 2020, 34, 216-228.	2.2	4
96	Multiple fouling dynamics, interactions and synergistic effects in brackish surface water distribution systems. Chemosphere, 2022, 287, 132268.	8.2	4
97	Chelated copper reduces yet manganese fertilizer increases calcium-silica fouling in brackish water drip irrigation systems. Agricultural Water Management, 2022, 269, 107655.	5.6	4
98	Compounding with humic acid improved nutrient uniformity in drip fertigation system using brackish water: The perspective of emitter clogging. Agricultural Water Management, 2022, 269, 107670.	5.6	4
99	Effects of nanobubble in subsurface drip irrigation on the yield, quality, irrigation water use efficiency and nitrogen partial productivity of watermelon and muskmelon. International Agrophysics, 2022, 36, 163-171.	1.7	4
100	Using monitoring data of surface soil to predict whole crop-root zone soil water content with PSO-LSSVM, GRNN and WNN. Earth Science Informatics, 2014, 7, 59-68.	3.2	3
101	Critical controlling threshold of internal water shear force of anti-clogging drip irrigation emitters using reclaimed water. Irrigation Science, 2019, 37, 469-481.	2.8	3
102	Effects of fertilizer types on biofilm growth in the drip irrigation system using the reclaimed water. Irrigation Science, 2021, 39, 725-734.	2.8	3
103	Horizontal roughing filter for reducing emitter composite clogging in drip irrigation systems using high sediment water. Agricultural Water Management, 2021, 258, 107215.	5.6	3
104	An improved design of irrigation centrifugal filter for separating water and fine sediment: appropriately increase head loss for high efficiency. Irrigation Science, 2022, 40, 151-161.	2.8	3
105	Pilot electrochemical prevention of reclaimed water irrigation clogging: Function interactions and microbial metabolism. Journal of Cleaner Production, 2022, 336, 130436.	9.3	3
106	The effect of transpiration uncertainty on root zone soil water by Bayesian analysis. Mathematical and Computer Modelling, 2013, 58, 691-700.	2.0	2
107	Estimation method for ET_{0} with PSO-LSSVM based on the HHT in cold and arid data-sparse area. Cluster Computing, 2019, 22, 8207-8216.	5.0	2
108	Assessment of Flat Emitter Anti-Clogging Performance in Drip Irrigation Systems. Transactions of the ASABE, 2019, 62, 641-653.	1.1	2

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109	Prototype Observation of Flow Characteristics in an Inclined-Tube Settling Tank for Fine Sandy Water Treatment. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 3586.	2.5	2
110	Effects of coupling multiple factors on CaCO ₃ fouling in agricultural saline water distribution systems. <i>Agricultural Water Management</i> , 2021, 248, 106757.	5.6	2
111	An Analysis on the Inter-annual Spatial and Temporal Variation of the Water Table Depth and Salinity in Hetao Irrigation District, Inner Mongolia, China. <i>International Federation for Information Processing</i> , 2011, , 155-177.	0.4	2
112	Evaluating the Effects of Climate Changes and LUCC on the Hydrological Processes Using Soil and Water Assessment Tool Models in Wangkuai Reservoir Watershed in China. <i>Sensor Letters</i> , 2012, 10, 405-414.	0.4	2
113	Analysis on the Characteristics of Temperature Environment and Optimal Sensor Placement in Roof Solar Greenhouse Using Computational Fluid Dynamics Simulation Methods. <i>Sensor Letters</i> , 2012, 10, 146-154.	0.4	2
114	Development of water quality management strategies based on multi-scale field investigation of nitrogen distribution: a case study of Beiyun River, China. <i>Environmental Science and Pollution Research</i> , 2022, 29, 56511-56524.	5.3	2
115	Response of Landscape and Ecological Characteristics to the Optimal Rainwater Harvesting Dual-Element Mulch Covered Soil Model in Beijing. <i>Water (Switzerland)</i> , 2019, 11, 654.	2.7	1
116	Evolution Characteristics for Water Eco-Environment of Baiyangdian Lake with 3S Technologies in the Past 60 Years. <i>International Federation for Information Processing</i> , 2012, , 434-460.	0.4	1
117	HYDRUS-CLIMGEN Coupling Model and Its Applications in Analyzing Nitrogen Leaching Under Long-Term Piggery Wastewater Irrigation. <i>Sensor Letters</i> , 2012, 10, 649-659.	0.4	1
118	Spatial Variability of Nitrogen Content in Topsoil and Nitrogen Distribution in Vadose Zones and Groundwater Under Different Types of Farmland Use in Beijing, China. <i>Sensor Letters</i> , 2014, 12, 860-866.	0.4	1
119	River eco-environment water right and its calculation framework in water resources justification of construction projects. , 2005, 5884, 486.		0
120	Effects of Municipal Reclaimed Wastewater Irrigation on Soil Biochemical Properties. <i>International Conference on Bioinformatics and Biomedical Engineering: [proceedings] International Conference on Bioinformatics and Biomedical Engineering</i> , 2010, , .	0.0	0
121	Effects of Reclaimed Water on the Characteristics of Dimethyl Phthalate Adsorption on Sediments. <i>Water Environment Research</i> , 2017, 89, 274-280.	2.7	0
122	3D-CFD Method Driven with the Dynamic Data Using Real-Time Online Monitoring for Temperature Simulation of Greenhouse. <i>Sensor Letters</i> , 2011, 9, 947-957.	0.4	0
123	Water-Landscape-Ecological Relationship and the Optimized Irrigation Strategy for Green-Roof Plants in Beijing, a Case Study for <i>Euonymus japonicus</i> . <i>IFIP Advances in Information and Communication Technology</i> , 2014, , 358-370.	0.7	0
124	Effect of Polyacrylamide on Soil Pore Structures and Its Quantitative Evaluating Based on Multifractal Theory. <i>Sensor Letters</i> , 2014, 12, 917-923.	0.4	0