Woo-Hyoung Lee

List of Publications by Year
in descending order

81	1,978	236912 25	276858 41
papers	citations	h-index	g-index

81	81	81	2278
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bismuth-Chitosan Nanocomposite Sensors for Trace Level Detection of Ni(II) and Co(II) in Water Samples. Water (Switzerland), 2022, 14, 302.	2.7	2
2	Interpretation of ensemble learning to predict water quality using explainable artificial intelligence. Science of the Total Environment, 2022, 832, 155070.	8.0	54
3	Recycling urine for bioelectrochemical hydrogen production using a MoS2 nano carbon coated electrode in a microbial electrolysis cell. Journal of Power Sources, 2022, 527, 231209.	7.8	7
4	Effect of surface area to catchment area ratio on pollutant removal efficiency in vegetation-type facilities. Ecological Engineering, 2022, 179, 106609.	3.6	4
5	2D MoS2-polyurethane sponge for solar-to-thermal energy conversion in environmental applications: Crude oil recovery and seawater desalination. Journal of Water Process Engineering, 2022, 47, 102665.	5.6	9
6	Nanoparticle-embedded hydrogel synthesized electrodes for electrochemical oxidation of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). Chemosphere, 2022, 296, 134001.	8.2	10
7	Experimental investigation of biofilm carriers of varying shapes, sizes, and materials for wastewater treatment in fixed bed biofilm reactor: a qualitative study of biocarrier performance. Journal of Chemical Technology and Biotechnology, 2022, 97, 2592-2606.	3.2	3
8	Impact of Interfacial Tension and Critical Micelle Concentration on Bilgewater Oil Separation. Journal of Water Process Engineering, 2021, 39, 101684.	5.6	17
9	Recent advances in biosensors for detecting viruses in water and wastewater. Journal of Hazardous Materials, 2021, 410, 124656.	12.4	32
10	A strategy for power generation from bilgewater using a photosynthetic microalgal fuel cell (MAFC). Journal of Power Sources, 2021, 484, 229222.	7.8	10
11	Roughness and wettability of biofilm carriers: A systematic review. Environmental Technology and Innovation, 2021, 21, 101233.	6.1	61
12	Renewable algal photo H2 production without S control using acetate enriched fermenter effluents. International Journal of Hydrogen Energy, 2021, 46, 1740-1751.	7.1	12
13	Different Adsorption Behavior between Perfluorohexane Sulfonate (PFHxS) and Perfluorooctanoic Acid (PFOA) on Granular Activated Carbon in Full-Scale Drinking Water Treatment Plants. Processes, 2021, 9, 571.	2.8	2
14	Impact of Endocrine-Disrupting Chemicals in Breast Milk on Postpartum Depression in Korean Mothers. International Journal of Environmental Research and Public Health, 2021, 18, 4444.	2.6	7
15	Continuous photosynthetic biohydrogen production from acetate-rich wastewater: Influence of light intensity. International Journal of Hydrogen Energy, 2021, 46, 21812-21821.	7.1	10
16	Direct Mercury Detection in Landfill Leachate Using a Novel AuNP-Biopolymer Carbon Screen-Printed Electrode Sensor. Micromachines, 2021, 12, 649.	2.9	8
17	Stabilization of Bilgewater Emulsions by Shipboard Oils. ACS ES&T Water, 2021, 1, 1745-1755.	4.6	3
18	Flexible copper-biopolymer nanocomposite sensors for trace level lead detection in water. Sensors and Actuators B: Chemical, 2021, 344, 130263.	7.8	31

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19	Evaluation of Bilgewater Emulsion Stability Using Nondestructive Analytical Methods. Industrial & Engineering Chemistry Research, 2021, 60, 1014-1025.	3.7	4
20	Microalgae: An Eco-friendly Tool for the Treatment of Wastewaters for Environmental Safety. , 2020, , 283-304.		2
21	Superhydrophobic MoS2-based multifunctional sponge for recovery and detection of spilled oil. Current Applied Physics, 2020, 20, 344-351.	2.4	16
22	Enhanced Fouling Resistance and Antimicrobial Property of Ultrafiltration Membranes Via Polyelectrolyte-Assisted Silver Phosphate Nanoparticle Immobilization. Membranes, 2020, 10, 293.	3.0	10
23	Recent Developments of PFAS-Detecting Sensors and Future Direction: A Review. Micromachines, 2020, 11, 667.	2.9	57
24	Ensemble Model Development for the Prediction of a Disaster Index in Water Treatment Systems. Water (Switzerland), 2020, 12, 3195.	2.7	9
25	Fabrication of a Pseudo-reference Electrode on a Flexible Substrate and Its Application to Heavy Metal Ion Detection. , 2020, , .		1
26	Recent Advances in Information and Communications Technology (ICT) and Sensor Technology for Monitoring Water Quality. Water (Switzerland), 2020, 12, 510.	2.7	60
27	Identification and characterization of bilgewater emulsions. Science of the Total Environment, 2019, 691, 981-995.	8.0	45
28	A Novel Bismuth-Chitosan Nanocomposite Sensor for Simultaneous Detection of Pb(II), Cd(II) and Zn(II) in Wastewater. Micromachines, 2019, 10, 511.	2.9	32
29	Algal Morphological Identification in Watersheds for Drinking Water Supply Using Neural Architecture Search for Convolutional Neural Network. Water (Switzerland), 2019, 11, 1338.	2.7	33
30	Improving Electrochemical Pb²⁺ Detection Using a Vertically Aligned 2D MoS₂ Nanofilm. Analytical Chemistry, 2019, 91, 11770-11777.	6.5	73
31	Microelectrode Investigation on the Corrosion Initiation at Leadâ€“Brass Galvanic Interfaces in Chlorinated Drinking Water. Langmuir, 2019, 35, 12947-12954.	3.5	9
32	A novel nanoporous bismuth electrode sensor for in situ heavy metal detection. Electrochimica Acta, 2019, 298, 440-448.	5.2	72
33	Cavitational activity in heterogeneous systems containing fine particles. Ultrasonics Sonochemistry, 2019, 58, 104599.	8.2	14
34	A novel Fe-Chitosan-coated carbon electrode sensor for in situ As(III) detection in mining wastewater and soil leachate. Sensors and Actuators B: Chemical, 2019, 294, 89-97.	7.8	51
35	Silica-quaternary ammonium â€œFixed-Quatâ€•nanofilm coated fiberglass mesh for water disinfection and harmful algal blooms control. Journal of Environmental Sciences, 2019, 82, 213-224.	6.1	10
36	Enhanced Electrochemical Detection of Multiheavy Metal Ions Using a Biopolymer-Coated Planar Carbon Electrode. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 2387-2393.	4.7	22

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37	Variation of efficiencies and limits of ultrasonication for practical algal bloom control in fields. Ultrasonics Sonochemistry, 2019, 55, 8-17.	8.2	33
38	Surfactant addition to enhance bioavailability of bilge water in single chamber microbial fuel cells (MFCs). Journal of Hazardous Materials, 2019, 368, 732-738.	12.4	49
39	A novel method for cell counting of Microcystis colonies in water resources using a digital imaging flow cytometer and microscope. Environmental Engineering Research, 2019, 24, 397-403.	2.5	16
40	Three-Dimensional Free Chlorine and Monochloramine Biofilm Penetration: Correlating Penetration with Biofilm Activity and Viability. Environmental Science & Technology, 2018, 52, 1889-1898.	10.0	42
41	In Situ Monitoring of Pb²⁺ Leaching from the Galvanic Joint Surface in a Prepared Chlorinated Drinking Water. Environmental Science & Technology, 2018, 52, 2126-2133.	10.0	21
42	Development and Characterization of Needleâ€type Ionâ€selective Microsensors for inâ€...situ Determination of Foliar Uptake of Zn²⁺ in Citrus Plants. Electroanalysis, 2018, 30, 626-632.	2.9	15
43	Dewatering algae using an aquaporin-based polyethersulfone forward osmosis membrane. Separation and Purification Technology, 2018, 204, 154-161.	7.9	51
44	Photosynthetic biohydrogen production in a wastewater environment and its potential as renewable energy. Energy, 2018, 149, 222-229.	8.8	21
45	Evaluation of weir construction on water quality related to algal blooms in the Nakdong River. Environmental Earth Sciences, 2018, 77, 1.	2.7	13
46	Sensor response mechanism and characterization of co-based phosphate nanosensors. , 2018, , .		1
47	Multiscale investigation of a symbiotic microalgal-integrated fixed film activated sludge (MAIFAS) process for nutrient removal and photo-oxygenation. Bioresource Technology, 2018, 268, 128-138.	9.6	21
48	Enhanced electrochemical detection of multi-heavy metal ions using a biopolymer-coated planar carbon electrode. , 2018, , .		3
49	A novel approach for in situ monitoring of Zn in citrus plants using two-step square-wave anodic stripping voltammetry. MRS Communications, 2018, 8, 404-410.	1.8	5
50	Recent advances in ultrasonic treatment: Challenges and field applications for controlling harmful algal blooms (HABs). Ultrasonics Sonochemistry, 2017, 38, 326-334.	8.2	92
51	ZnO nanoflakes as a template for in-situ electrodeposition of nanostructured cobalt electrodes as amperometric phosphate sensors. Materials Letters, 2017, 192, 107-110.	2.6	19
52	In situ2D maps of pH shifts across brassâ€“lead galvanic joints using microelectrodes. Measurement Science and Technology, 2017, 28, 025101.	2.6	11
53	Noble metal-coated MoS2 nanofilms with vertically-aligned 2D layers for visible light-driven photocatalytic degradation of emerging water contaminants. Scientific Reports, 2017, 7, 14944.	3.3	51
54	In Situ Characterization of Oil-in-Water Emulsions Stabilized by Surfactant and Salt Using Microsensors. Langmuir, 2017, 33, 9731-9739.	3.5	30

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55	Effect of salt type and concentration on the growth and lipid content of Chlorella vulgaris in synthetic saline wastewater for biofuel production. Bioresource Technology, 2017, 243, 147-153.	9.6	119
56	Recycled concrete aggregate coated with quaternary ammonium compounds for water disinfection. International Journal of Environmental Science and Technology, 2017, 14, 543-552.	3.5	2
57	An Innovative Symbiotic Microalgae-IFAS Process for Nutrient Removal and Photo-oxygenation: Multiscale Investigations Using Microelectrodes and Next-generation Molecular Tools. Proceedings of the Water Environment Federation, 2017, 2017, 161-169.	0.0	1
58	Algal Growth Potential of <I>Microcystis aeruginosa</I> from Reclaimed Water. Water Environment Research, 2016, 88, 54-62.	2.7	4
59	Use of Microalgae for Advanced Wastewater Treatment and Sustainable Bioenergy Generation. Environmental Engineering Science, 2016, 33, 882-897.	1.6	105
60	A Graphene-Based Nanosensor for In Situ Monitoring of Polycyclic Aromatic Hydrocarbons (PAHs). Journal of Nanoscience and Nanotechnology, 2016, 16, 1620-1623.	0.9	8
61	Monochloramine-sensitive amperometric microelectrode: optimization of gold, platinum, and carbon fiber sensing materials for removal of dissolved oxygen interference. Ionics, 2015, 21, 2663-2674.	2.4	7
62	Dishwashing water recycling system and related water quality standards for military use. Science of the Total Environment, 2015, 529, 275-284.	8.0	12
63	Phosphate sensors based on Co-Cu electrodes fabricated with a sacrificial glass fiber paper template. , 2015, , .		4
64	Needle-type environmental microelectrode sensors for biofilm study in aqueous systems. , 2014, , .		2
65	Selective Reactivity of Monochloramine with Extracellular Matrix Components Affects the Disinfection of Biofilm and Detached Clusters. Environmental Science & Technology, 2014, 48, 3832-3839.	10.0	51
66	Detection of Trace Zinc by an Electrochemical Microsensor based on Carbon Nanotube Threads. Electroanalysis, 2013, 25, 1599-1604.	2.9	17
67	Amperometric carbon fiber nitrite microsensor for in situ biofilm monitoring. Sensors and Actuators B: Chemical, 2013, 188, 1263-1269.	7.8	23
68	Material Science Chemistry of Electrochemical Microsensors and Applications for Biofilm Research. Key Engineering Materials, 2012, 521, 113-139.	0.4	4
69	Effect of free ammonia concentration on monochloramine penetration within a nitrifying biofilm and its effect on activity, viability, and recovery. Water Research, 2012, 46, 882-894.	11.3	45
70	Free Chlorine and Monochloramine Application to Nitrifying Biofilm: Comparison of Biofilm Penetration, Activity, and Viability. Environmental Science & Technology, 2011, 45, 1412-1419.	10.0	105
71	Needle-type environmental microsensors: design, construction and uses of microelectrodes and multi-analyte MEMS sensor arrays. Measurement Science and Technology, 2011, 22, 042001.	2.6	35
72	Characterization and application of a chlorine microelectrode for measuring monochloramine within a biofilm. Sensors and Actuators B: Chemical, 2010, 145, 734-742.	7.8	23

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73	In Situ Microscale Analyses of Activated Sludge Flocs in the Enhanced Biological Phosphate Removal Process by the Use of Microelectrodes and Fluorescent In Situ Hybridization. Journal of Environmental Engineering, ASCE, 2010, 136, 561-567.	1.4	9
74	Needle-Type Multi-Analyte MEMS Sensor Arrays for In Situ Measurements in Biofilms. , 2010, , 115-145.		3
75	A cobalt-coated needle-type microelectrode array sensor forin situmonitoring of phosphate. Journal of Micromechanics and Microengineering, 2009, 19, 025022.	2.6	25
76	Characteristics of a cobalt-based phosphate microelectrode for in situ monitoring of phosphate and its biological application. Sensors and Actuators B: Chemical, 2009, 137, 121-128.	7.8	58
77	Biological Application of Microâ€Electro Mechanical Systems Microelectrode Array Sensors for Direct Measurement of Phosphate in the Enhanced Biological Phosphorous Removal Process. Water Environment Research, 2009, 81, 748-754.	2.7	20
78	Recycling Urine for Hydrogen Production in a Microbial Electrolysis Cell (MEC) System Using a Novel Mos2 Nano Carbon Coated Electrode s. , 0, , .		0
79	Recycling Urine for Bioelectrochemical Hydrogen Production Using a MoS ₂ Nano Carbon Coated Electrode in a Microbial Electrolysis Cell. SSRN Electronic Journal, 0, , .	0.4	0
80	Nanoparticle-Embedded Hydrogel Synthesized Electrodes for Electrochemical Oxidation of Perfluorooctanoic Acid (Pfoa) and Perfluorooctanesulfonic Acid (Pfos). SSRN Electronic Journal, 0, , .	0.4	0
81	Promoting Undergraduate Research and Education through Extracurricular EPA P3 Projects. , 0, , .		0