

Wook-Jin Chung

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3594283/publications.pdf>

Version: 2024-02-01

79
papers

2,581
citations

172457

29
h-index

214800

47
g-index

82
all docs

82
docs citations

82
times ranked

2677
citing authors

#	ARTICLE	IF	CITATIONS
1	Hyper-crosslinked tetraphenylborate as a regenerable sorbent for Cs ⁺ sequestration in aqueous media through cation-π interactions. <i>Chemosphere</i> , 2022, 288, 132501.	8.2	4
2	Hydroxypicolinic acid tethered on magnetite core-silica shell (HPCA@SiO ₂ @Fe ₃ O ₄) as an effective and reusable adsorbent for practical Co(II) recovery. <i>Chemosphere</i> , 2022, 298, 134301.	8.2	2
3	Forward osmosis with direct contact membrane distillation using tetrabutylphosphonium p-toluenesulfonate as an effective and safe thermo-recyclable osmotic agent for seawater desalination. <i>Chemosphere</i> , 2021, 263, 128070.	8.2	20
4	Engineering of xylose metabolism in <i>Escherichia coli</i> for the production of valuable compounds. <i>Critical Reviews in Biotechnology</i> , 2021, 41, 649-668.	9.0	11
5	Enhanced glycolic acid yield through xylose and cellobiose utilization by metabolically engineered <i>Escherichia coli</i> . <i>Bioprocess and Biosystems Engineering</i> , 2021, 44, 1081-1091.	3.4	11
6	Supramolecular host-guest complex of methylated β ² -cyclodextrin with polymerized ionic liquid ([vbim]TFSI) as highly effective and energy-efficient thermo-regenerable draw solutes in forward osmosis. <i>Chemical Engineering Journal</i> , 2021, 411, 128520.	12.7	15
7	Understanding D-xyloonic acid accumulation: a cornerstone for better metabolic engineering approaches. <i>Applied Microbiology and Biotechnology</i> , 2021, 105, 5309-5324.	3.6	13
8	Apocarotenals of Phenolic Carotenoids for Superior Antioxidant Activities. <i>ACS Omega</i> , 2021, 6, 25096-25108.	3.5	3
9	Asparagine anchored on mesoporous silica for Au (III) capture: Elucidation of adsorption-reduction mechanisms and their implications towards selective Au (III) recovery. <i>Applied Surface Science</i> , 2021, 567, 150743.	6.1	20
10	Multidentate thia-crown ethers as hyper-crosslinked macroporous adsorbent resins for the efficient Pd/Pt recovery and separation from highly acidic spent automotive catalyst leachate. <i>Chemical Engineering Journal</i> , 2021, 424, 130379.	12.7	21
11	Chemically Cross-Linked Graphene Oxide as a Selective Layer on Electrospun Polyvinyl Alcohol Nanofiber Membrane for Nanofiltration Application. <i>Nanomaterials</i> , 2021, 11, 2867.	4.1	16
12	Covalently decorated crown ethers on magnetic graphene oxides as bi-functional adsorbents with tailorable ion recognition properties for selective metal ion capture in water. <i>Chemical Engineering Journal</i> , 2020, 389, 123421.	12.7	50
13	Synthesis and application of novel hydroxylated thia-crown ethers as composite ionophores for selective recovery of Ag ⁺ from aqueous sources. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 81, 415-426.	5.8	9
14	A pH-responsive genetic sensor for the dynamic regulation of D-xyloonic acid accumulation in <i>Escherichia coli</i> . <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 2097-2108.	3.6	12
15	Sulfur Copolymerization with Hydrophilic Comonomers as Polysulfides in Microbeads for Highly Efficient Hg ²⁺ Removal from Wastewater. <i>ACS Applied Polymer Materials</i> , 2020, 2, 4677-4689.	4.4	18
16	Thia-crown ether functionalized mesoporous silica (SBA-15) adsorbent for selective recovery of gold (Au ³⁺) ions from electronic waste leachate. <i>Microporous and Mesoporous Materials</i> , 2020, 305, 110301.	4.4	30
17	Crown ethers on fibrous polyglycidyl methacrylate for selective Li ⁺ retrieval from aqueous sources. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 596, 124709.	4.7	12
18	Overexpression and characterization of a novel GH16 β ² -agarase (Aga1) from <i>Cellulophaga omnivescoria</i> W5C. <i>Biotechnology Letters</i> , 2020, 42, 2231-2238.	2.2	2

#	ARTICLE	IF	CITATIONS
19	Highly selective extraction of palladium from spent automotive catalyst acid leachate using novel alkylated dioxo-dithiacrown ether derivatives. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 89, 428-435.	5.8	18
20	Synthetic Strategy for Tetraphenyl-Substituted All-E-Carotenoids with Improved Molecular Properties. <i>European Journal of Organic Chemistry</i> , 2020, 2020, 1769-1777.	2.4	4
21	Tyrosinase-Catalyzed Phenol-Mediated Immobilization of β -Agarase on L-Lysine-Coated Magnetic Particles for the Production of Neogaroooligosaccharides from <i>Gelidium amansii</i> . <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 3573-3582.	6.7	11
22	Current advances in ionic liquid-based pre-treatment and depolymerization of macroalgal biomass. <i>Renewable Energy</i> , 2020, 152, 283-299.	8.9	26
23	Water-insoluble hydrophilic polysulfides as microfibrinous composites towards highly effective and practical Hg ²⁺ capture. <i>Chemical Engineering Journal</i> , 2019, 378, 122216.	12.7	25
24	Discovering a novel d-xylonate-responsive promoter: the Pyjhl-driven genetic switch towards better 1,2,4-butanetriol production. <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 8063-8074.	3.6	14
25	Efficient Dehydration of Glucose, Sucrose, and Fructose to 5-Hydroxymethylfurfural Using Tri-cationic Ionic Liquids. <i>Catalysis Letters</i> , 2019, 149, 672-687.	2.6	41
26	Aqueous Synthesis of 14-Membered Crown Ethers with Mixed O, N and S Heteroatoms: Experimental and Theoretical Binding Studies with Platinum-Group Metals. <i>ChemPlusChem</i> , 2019, 84, 210-221.	2.8	11
27	Ionic Liquid Pretreatment in Tandem with Recombinant Agarase Cocktail Saccharification of <i>Gelidium amansii</i> for D-Galactose and 3,6-Anhydro-D-Galactose Production. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 7563-7571.	6.7	17
28	Development of high capacity Li ⁺ adsorbents from H ₂ TiO ₃ /polymer nanofiber composites: Systematic polymer screening, characterization and evaluation. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 70, 124-135.	5.8	50
29	Improved cell growth and biosynthesis of glycolic acid by overexpression of membrane-bound pyridine nucleotide transhydrogenase. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2019, 46, 159-169.	3.0	9
30	Engineering <i>Escherichia coli</i> for glycolic acid production from D-xylose through the Dahms pathway and glyoxylate bypass. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 2179-2189.	3.6	36
31	Draft Genome Sequence of Newly Isolated Agarolytic Bacteria <i>Cellulophaga omnivescoria</i> sp. nov. W5C Carrying Several Gene Loci for Marine Polysaccharide Degradation. <i>Current Microbiology</i> , 2018, 75, 925-933.	2.2	7
32	Identification and characterization of a thermostable endolytic β -agarase Aga2 from a newly isolated marine agarolytic bacteria <i>Cellulophaga omnivescoria</i> W5C. <i>New Biotechnology</i> , 2018, 40, 261-267.	4.4	31
33	Performance evaluation of poly-urethane foam packed-bed chemical scrubber for the oxidative absorption of NH ₃ and H ₂ S gases. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2018, 53, 25-32.	1.7	7
34	Collective use of deep eutectic solvent for one-pot synthesis of ternary Sn/SnO ₂ @C electrode for supercapacitor. <i>Journal of Alloys and Compounds</i> , 2018, 732, 694-704.	5.5	24
35	Dual Role of Deep Eutectic Solvent as a Solvent and Template for the Synthesis of Octahedral Cobalt Vanadate for an Oxygen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 16255-16266.	6.7	54
36	Removal of odorous compounds emitted from a food-waste composting facility in Korea using a pilot-scale scrubber. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2018, 53, 1094-1101.	1.7	1

#	ARTICLE	IF	CITATIONS
37	The potential of monocationic imidazolium-, phosphonium-, and ammonium-based hydrophilic ionic liquids as draw solutes for forward osmosis. <i>Desalination</i> , 2018, 444, 94-106.	8.2	33
38	Everyone loves an underdog: metabolic engineering of the xylose oxidative pathway in recombinant microorganisms. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 7703-7716.	3.6	32
39	Systematic Synthesis of Diphenyl-Substituted Carotenoids as Molecular Wires. <i>European Journal of Organic Chemistry</i> , 2017, 2017, 6390-6400.	2.4	6
40	Overexpression and characterization of a novel β -neoagarobiose hydrolase and its application in the production of D-galactonate from <i>Gelidium amansii</i> . <i>Process Biochemistry</i> , 2017, 63, 105-112.	3.7	12
41	Engineering of <i>Corynebacterium glutamicum</i> for Consolidated Conversion of Hemicellulosic Biomass into Xylonic Acid. <i>Biotechnology Journal</i> , 2017, 12, 1700040.	3.5	32
42	Aerosol Cross-Linked Crown Ether Diols Melded with Poly(vinyl alcohol) as Specialized Microfibrous Li ⁺ Adsorbents. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 42862-42874.	8.0	47
43	Free standing growth of MnCo ₂ O ₄ nanoflakes as an electrocatalyst for methanol electro-oxidation. <i>New Journal of Chemistry</i> , 2017, 41, 15058-15063.	2.8	34
44	N-Carbon from Waste Tea as Efficient Anode Electrode Material in Lithium Ion Batteries. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 1838-1846.	0.9	3
45	Design of lithium selective crown ethers: Synthesis, extraction and theoretical binding studies. <i>Chemical Engineering Journal</i> , 2017, 326, 921-933.	12.7	78
46	Enhanced yield of ethylene glycol production from d-xylose by pathway optimization in <i>Escherichia coli</i> . <i>Enzyme and Microbial Technology</i> , 2017, 97, 11-20.	3.2	34
47	Macroalgal biomass hydrolysis using dicationic acidic ionic liquids. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 1290-1297.	3.2	14
48	Continuous lithium mining from aqueous resources by an adsorbent filter with a 3D polymeric nanofiber network infused with ion sieves. <i>Chemical Engineering Journal</i> , 2017, 309, 49-62.	12.7	62
49	H ₂ TiO ₃ composite adsorbent foam for efficient and continuous recovery of Li ⁺ from liquid resources. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 504, 267-279.	4.7	79
50	Overexpression and secretion of AgaA7 from <i>Pseudoalteromonas hodoensis</i> sp. nov in <i>Bacillus subtilis</i> for the depolymerization of agarose. <i>Enzyme and Microbial Technology</i> , 2016, 90, 19-25.	3.2	18
51	SBA-15 supported ionic liquid phase (SILP) with H ₂ PW ₁₂ O ₄₀ for the hydrolytic catalysis of red macroalgal biomass to sugars. <i>RSC Advances</i> , 2016, 6, 33901-33909.	3.6	18
52	Mixed matrix nanofiber as a flow-through membrane adsorber for continuous Li ⁺ recovery from seawater. <i>Journal of Membrane Science</i> , 2016, 510, 141-154.	8.2	79
53	Liquid-liquid extraction of lithium using lipophilic dibenzo-14-crown-4 ether carboxylic acid in hydrophobic room temperature ionic liquid. <i>Hydrometallurgy</i> , 2016, 164, 362-371.	4.3	48
54	Adsorptive Li ⁺ mining from liquid resources by H ₂ TiO ₃ : Equilibrium, kinetics, thermodynamics, and mechanisms. <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 35, 347-356.	5.8	99

#	ARTICLE	IF	CITATIONS
55	One-pot synthesis of 2,5-diformylfuran from fructose using a magnetic bi-functional catalyst. RSC Advances, 2016, 6, 25678-25688.	3.6	41
56	Identification of aldehyde reductase catalyzing the terminal step for conversion of xylose to butanetriol in engineered Escherichia coli. Bioprocess and Biosystems Engineering, 2015, 38, 1761-1772.	3.4	18
57	Graphene oxide incorporated polysulfone substrate for the fabrication of flat-sheet thin-film composite forward osmosis membranes. Journal of Membrane Science, 2015, 493, 496-507.	8.2	213
58	A highly selective SBA-15 supported fluorescent "turn-on" sensor for the fluoride anion. New Journal of Chemistry, 2015, 39, 5570-5579.	2.8	24
59	Macroporous flexible polyvinyl alcohol lithium adsorbent foam composite prepared via surfactant blending and cryo-desiccation. Chemical Engineering Journal, 2015, 280, 536-548.	12.7	80
60	Hypercross-linked microporous polymeric ionic liquid membranes: synthesis, properties and their application in H ₂ generation. Journal of Materials Chemistry A, 2015, 3, 22960-22968.	10.3	18
61	Synthesis and characterization of multi-walled carbon nanotubes-supported dibenzo-14-crown-4 ether with proton ionizable carboxyl sidearm as Li ⁺ adsorbents. Chemical Engineering Journal, 2015, 264, 89-98.	12.7	56
62	Liquid-liquid extraction of Li ⁺ using mixed ion carrier system at room temperature ionic liquid. Desalination and Water Treatment, 2015, 53, 2774-2781.	1.0	23
63	l-arabonate and d-galactonate production by expressing a versatile sugar dehydrogenase in metabolically engineered Escherichia coli. Bioresource Technology, 2014, 159, 455-459.	9.6	14
64	Blended ionic liquid systems for macroalgae pretreatment. Renewable Energy, 2014, 66, 596-604.	8.9	32
65	Metabolic engineering of Escherichia coli for biosynthesis of d-galactonate. Bioprocess and Biosystems Engineering, 2014, 37, 383-391.	3.4	9
66	Direct bioconversion of d-xylose to 1,2,4-butanetriol in an engineered Escherichia coli. Process Biochemistry, 2014, 49, 25-32.	3.7	52
67	Metal-free mild oxidation of 5-hydroxymethylfurfural to 2,5-diformylfuran. Korean Journal of Chemical Engineering, 2014, 31, 1362-1367.	2.7	27
68	Recyclable composite nanofiber adsorbent for Li ⁺ recovery from seawater desalination retentate. Chemical Engineering Journal, 2014, 254, 73-81.	12.7	150
69	Microwave-Assisted Synthesis of Dibenzo-Crown Ethers. Letters in Organic Chemistry, 2014, 11, 109-115.	0.5	7
70	Surface-functionalized silica nanoparticles as fillers in polydimethylsiloxane membrane for the pervaporative recovery of 1-butanol from aqueous solution. Journal of Chemical Technology and Biotechnology, 2013, 88, 2216-2226.	3.2	20
71	Biosynthesis of ethylene glycol in Escherichia coli. Applied Microbiology and Biotechnology, 2013, 97, 3409-3417.	3.6	86
72	Recent advances in the metabolic engineering of microorganisms for the production of 3-hydroxypropionic acid as C3 platform chemical. Applied Microbiology and Biotechnology, 2013, 97, 3309-3321.	3.6	66

#	ARTICLE	IF	CITATIONS
73	Partial nitrification in a membrane-aerated biofilm reactor with composite PEBA/PVDF hollow fibers. <i>Desalination and Water Treatment</i> , 2013, 51, 5275-5282.	1.0	7
74	Combination of Entner-Doudoroff Pathway with MEP Increases Isoprene Production in Engineered <i>Escherichia coli</i> . <i>PLoS ONE</i> , 2013, 8, e83290.	2.5	64
75	Brown algae hydrolysis in 1-n-butyl-3-methylimidazolium chloride with mineral acid catalyst system. <i>Bioresource Technology</i> , 2012, 118, 545-552.	9.6	29
76	Silver nanoparticles in a polyether-block-polyamide copolymer towards antimicrobial and antifouling membranes. <i>RSC Advances</i> , 2012, 2, 2439.	3.6	30
77	High yield production of d-xylonic acid from d-xylose using engineered <i>Escherichia coli</i> . <i>Bioresource Technology</i> , 2012, 115, 244-248.	9.6	103
78	Dimethyl silane-modified silica in polydimethylsiloxane as gas permeation mixed matrix membrane. <i>Journal of Polymer Research</i> , 2011, 18, 2415-2424.	2.4	25
79	Carbon dioxide and methane gas permeations in thermally annealed and chemically cross-linked commercial polyimide hollow fiber membrane. <i>Fibers and Polymers</i> , 2011, 12, 572-579.	2.1	4