Jung-Hyun Lee

List of Publications by Year
in descending order

101 papers	4,207 citations	101543 36 h-index	123424 61 g-index
102 all docs	102 docs citations	102 times ranked	4115 citing authors

#	Article	IF	Citations
1	Critical review and comprehensive analysis of trace organic compound (TOrC) removal with polyamide RO/NF membranes: Mechanisms and materials. Chemical Engineering Journal, 2022, 427, 130957.	12.7	46
2	Biocidal surfactant-assisted fabrication of thin film composite membranes with excellent and durable anti-biofouling performance. Chemical Engineering Journal, 2022, 431, 134114.	12.7	18
3	Advances in Ion Conducting Membranes and Binders for High Temperature Polymer Electrolyte Membrane Fuel Cells. Polymer Reviews, 2022, 62, 789-825.	10.9	12
4	Î²-cyclodextrinâ€“polyacryloyl hydrazide-based surface modification for efficient electron-collecting electrodes of indoor organic photovoltaics. Journal of Materials Research and Technology, 2022, 16, 1659-1666.	5.8	12
5	Contrasting Catalytic Functions of Metal Vanadates and Their Oxide Composite Analogues for NH₃-Assisted, Selective NO_X Transformation. Chemistry of Materials, 2022, 34, 1078-1097.	6.7	10
6	Tailoring the Stabilization and Pyrolysis Processes of Carbon Molecular Sieve Membrane Derived from Polyacrylonitrile for Ethylene/Ethane Separation. Membranes, 2022, 12, 93.	3.0	3
7	Highly Selective and pH-Stable Reverse Osmosis Membranes Prepared via Layered Interfacial Polymerization. Membranes, 2022, 12, 156.	3.0	5
8	Antibacterial and cytotoxic properties of star-shaped quaternary ammonium-functionalized polymers with different pendant groups. Polymer Chemistry, 2022, 13, 1763-1773.	3.9	8
9	Synthesis of Thermo-Controlled Cyclic Olefin Polymers via Ring Opening Metathesis Polymerization: Effect of Copolymerization with Flexible Modifier. Macromolecular Research, 2022, 30, 205-211.	2.4	5
10	Star polymer-assembled adsorptive membranes for effective Cr(VI) removal. Chemical Engineering Journal, 2022, 449, 137883.	12.7	10
11	High-performance and durable pressure retarded osmosis membranes fabricated using hydrophilized polyethylene separators. Journal of Membrane Science, 2021, 619, 118796.	8.2	31
12	Identifying the colloidal fouling behavior on the sharkskin-mimetic surface: In-situ monitoring and lattice Boltzmann simulation. Chemical Engineering Journal, 2021, 405, 126617.	12.7	8
13	Overcoming the permeability-selectivity trade-off of desalination membranes via controlled solvent activation. Journal of Membrane Science, 2021, 620, 118870.	8.2	37
14	Chloride-Mediated Enhancement in Heat-Induced Activation of Peroxymonosulfate: New Reaction Pathways for Oxidizing Radical Production. Environmental Science & Technology, 2021, 55, 5382-5392.	10.0	86
15	Desalination membranes with ultralow biofouling via synergistic chemical and topological strategies. Journal of Membrane Science, 2021, 626, 119212.	8.2	23
16	Robust Nanocellulose/Metalâ€“Organic Framework Aerogel Composites: Superior Performance for Static and Continuous Disposal of Chemical Warfare Agent Simulants. ACS Applied Materials & Interfaces, 2021, 13, 33516-33523.	8.0	21
17	Weldable and Reprocessable Biomimetic Polymer Networks Based on a Hydrogen Bonding and Dynamic Covalent Thiourea Motif. ACS Applied Polymer Materials, 2021, 3, 3714-3720.	4.4	12
18	Polyvinyl alcohol hydrogel-supported forward osmosis membranes with high performance and excellent pH stability. Journal of Industrial and Engineering Chemistry, 2021, 99, 246-255.	5.8	17

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19	Structureâ€“Property Relationships of 3D-Printable Chain-Extended Block Copolymers with Tunable Elasticity and Biodegradability. ACS Applied Polymer Materials, 2021, 3, 4708-4716.	4.4	8
20	Demonstration of Hybrid High-Q Hexagonal Boron Nitride Microresonators. ACS Photonics, 2021, 8, 3027-3033.	6.6	7
21	Star polymer-mediated in-situ synthesis of silver-incorporated reverse osmosis membranes with excellent and durable biofouling resistance. Journal of Membrane Science, 2021, 639, 119778.	8.2	15
22	Positively charged membranes with fine-tuned nanopores for ultrafast and high-precision cation separation. Journal of Materials Chemistry A, 2021, 9, 24355-24364.	10.3	17
23	High performance and thermally stable PDMS pervaporation membranes prepared using a phenyl-containing tri-functional crosslinker for n-butanol recovery. Separation and Purification Technology, 2020, 235, 116142.	7.9	22
24	High-performance and acid-resistant nanofiltration membranes prepared by solvent activation on polyamide reverse osmosis membranes. Journal of Membrane Science, 2020, 595, 117590.	8.2	88
25	Mechanical properties and decomposition performance of peelable coating containing UiO-66 catalyst and waterborne silane-terminated polyurethane dispersions. Journal of Materials Science, 2020, 55, 2604-2617.	3.7	13
26	Structural tailoring of sharkskin-mimetic patterned reverse osmosis membranes for optimizing biofouling resistance. Journal of Membrane Science, 2020, 595, 117602.	8.2	49
27	Comparative Study on the Impact Wedge-Peel Performance of Epoxy-Based Structural Adhesives Modified with Different Toughening Agents. Polymers, 2020, 12, 1549.	4.5	16
28	Rationally designed in-situ fabrication of thin film nanocomposite membranes with enhanced desalination and anti-biofouling performance. Journal of Membrane Science, 2020, 615, 118542.	8.2	40
29	Enhanced Heat Resistance of Acrylic Pressure-Sensitive Adhesive by Incorporating Silicone Blocks Using Silicone-Based Macro-Azo-Initiator. Polymers, 2020, 12, 2410.	4.5	9
30	Efficient Removal of Ammonia by Hierarchically Porous Carbons from a CO₂ Capture Process. Chemical Engineering and Technology, 2020, 43, 2031-2040.	1.5	7
31	Tunable Crystalline Phases in UV-Curable PEG-Grafted Ladder-Structured Silsesquioxane/Polyimide Composites. Materials, 2020, 13, 2295.	2.9	4
32	Facile Direct Seed-Mediated Growth of AuPt Bimetallic Shell on the Surface of Pd Nanocubes and Application for Direct H2O2 Synthesis. Catalysts, 2020, 10, 650.	3.5	12
33	Performance Differences of Hexavalent Chromium Adsorbents Caused by Graphene Oxide Drying Process. Scientific Reports, 2020, 10, 4882.	3.3	2
34	Poly(acryloyl hydrazide)-grafted cellulose nanocrystal adsorbents with an excellent Cr(VI) adsorption capacity. Journal of Hazardous Materials, 2020, 394, 122512.	12.4	74
35	Most suitable amino silane molecules for surface functionalization of graphene oxide toward hexavalent chromium adsorption. Chemosphere, 2020, 251, 126387.	8.2	38
36	Continuous Flow Composite Membrane Catalysts for Efficient Decomposition of Chemical Warfare Agent Simulants. ACS Applied Materials & Interfaces, 2020, 12, 32778-32787.	8.0	24

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37	Fabrication of high-performance reverse osmosis membranes via dual-layer slot coating with tailoring interfacial adhesion. Journal of Membrane Science, 2020, 614, 118449.	8.2	27
38	Fabrication and structural tailoring of reverse osmosis membranes using Î²-cyclodextrin-cored star polymers. Journal of Membrane Science, 2020, 611, 118415.	8.2	19
39	Unravelling lewis acidic and reductive characters of normal and inverse nickel-cobalt thiospinels in directing catalytic H2O2 cleavage. Journal of Hazardous Materials, 2020, 392, 122347.	12.4	19
40	Feasibility of the highly-permselective forward osmosis membrane process for the post-treatment of the anaerobic fluidized bed bioreactor effluent. Desalination, 2020, 485, 114451.	8.2	8
41	Pattern flow dynamics over rectangular Sharklet patterned membrane surfaces. Applied Surface Science, 2020, 514, 145961.	6.1	20
42	Hydrosilylation-based UV-curable polydimethylsiloxane pervaporation membranes for n-butanol recovery. Separation and Purification Technology, 2019, 209, 383-391.	7.9	17
43	Effect of the silsesquioxane structure on the mechanical properties of the silsesquioxane-reinforced polymer composite films. Progress in Organic Coatings, 2019, 137, 105316.	3.9	15
44	Surface-concentrated chitosan-doped MIL-100(Fe) nanofiller-containing PVDF composites for enhanced antibacterial activity. European Polymer Journal, 2019, 120, 109221.	5.4	8
45	Cellulose nanocrystal-assembled reverse osmosis membranes with high rejection performance and excellent antifouling. Journal of Materials Chemistry A, 2019, 7, 3992-4001.	10.3	52
46	Fabrication of high performance and durable forward osmosis membranes using mussel-inspired polydopamine-modified polyethylene supports. Journal of Membrane Science, 2019, 584, 89-99.	8.2	54
47	Facile performance enhancement of reverse osmosis membranes via solvent activation with benzyl alcohol. Journal of Membrane Science, 2019, 578, 220-229.	8.2	85
48	Improving Open-circuit Voltage in PbS-based QDPVs Using Different Pb Precursors. Journal of the Korean Physical Society, 2019, 75, 985-989.	0.7	2
49	High performance polyacrylonitrile-supported forward osmosis membranes prepared via aromatic solvent-based interfacial polymerization. Separation and Purification Technology, 2019, 212, 449-457.	7.9	49
50	Surface immobilization of chlorhexidine on a reverse osmosis membrane for in-situ biofouling control. Journal of Membrane Science, 2019, 576, 17-25.	8.2	30
51	Synthesis of a novel isosorbide-based dental material with improved water sorption. European Polymer Journal, 2019, 112, 629-635.	5.4	9
52	Triclosan-immobilized polyamide thin film composite membranes with enhanced biofouling resistance. Applied Surface Science, 2018, 443, 458-466.	6.1	38
53	Fabrication of a pilot scale module of thin film composite hollow fiber membrane for osmotic pressureâ€driven processes. Journal of Applied Polymer Science, 2018, 135, 46110.	2.6	8
54	Polyethylene-supported high performance reverse osmosis membranes with enhanced mechanical and chemical durability. Desalination, 2018, 436, 28-38.	8.2	103

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55	The Lifshitz-van der Waals acid-base theory assisted fabrication of MFI-containing mixed matrix membranes for gas separations. Microporous and Mesoporous Materials, 2018, 264, 60-69.	4.4	7
56	Mechanical properties of ladder-like polysilsesquioxane-based hard coating films containing different organic functional groups. Progress in Organic Coatings, 2018, 121, 105-111.	3.9	28
57	Aromatic solvent-assisted interfacial polymerization to prepare high performance thin film composite reverse osmosis membranes based on hydrophilic supports. Polymer, 2018, 144, 159-167.	3.8	76
58	Improved production of isobutanol in pervaporation-coupled bioreactor using sugarcane bagasse hydrolysate in engineered Enterobacter aerogenes. Bioresource Technology, 2018, 259, 373-380.	9.6	19
59	Star polymer-assembled thin film composite membranes with high separation performance and low fouling. Journal of Membrane Science, 2018, 555, 369-378.	8.2	37
60	Thermal Stability Enhanced Tetraethylenepentamine/Silica Adsorbents for High Performance CO2 Capture. Industrial & Engineering Chemistry Research, 2018, 57, 4632-4639.	3.7	46
61	Effects of methacrylate based amphiphilic block copolymer additives on ultra filtration PVDF membrane formation. Separation and Purification Technology, 2018, 202, 34-44.	7.9	39
62	Thin film composite membrane prepared by interfacial polymerization as an ion exchange membrane for salinity gradient power. Journal of Industrial and Engineering Chemistry, 2018, 59, 362-371.	5.8	16
63	Sharkskin-mimetic desalination membranes with ultralow biofouling. Journal of Materials Chemistry A, 2018, 6, 23034-23045.	10.3	78
64	Polyethylene Battery Separator as a Porous Support for Thin Film Composite Organic Solvent Nanofiltration Membranes. ACS Applied Materials & Interfaces, 2018, 10, 44050-44058.	8.0	55
65	Investigation of the mechanism of chromium removal in (3-aminopropyl)trimethoxysilane functionalized mesoporous silica. Scientific Reports, 2018, 8, 12078.	3.3	24
66	Effect of methacryloxypropyl and phenyl functional groups on crosslinking and rheological and mechanical properties of ladder-like polysilsesquioxane hard coatings. Progress in Organic Coatings, 2018, 124, 129-136.	3.9	11
67	Thin film composite reverse osmosis membranes prepared via layered interfacial polymerization. Journal of Membrane Science, 2017, 527, 121-128.	8.2	117
68	A facile and scalable fabrication method for thin film composite reverse osmosis membranes: dual-layer slot coating. Journal of Materials Chemistry A, 2017, 5, 6648-6655.	10.3	75
69	Fabrication of polyamide thin film composite reverse osmosis membranes via support-free interfacial polymerization. Journal of Membrane Science, 2017, 526, 52-59.	8.2	161
70	Highly permeable and mechanically durable forward osmosis membranes prepared using polyethylene lithium ion battery separators. Journal of Membrane Science, 2017, 544, 213-220.	8.2	71
71	Direct incorporation of silver nanoparticles onto thin-film composite membranes via arc plasma deposition for enhanced antibacterial and permeation performance. Journal of Membrane Science, 2016, 513, 226-235.	8.2	72
72	Effect of Final Monomer Deposition Steps on Molecular Layer-by-Layer Polyamide Surface Properties. Langmuir, 2016, 32, 10815-10823.	3.5	15

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73	CO2 absorption characteristics of a piperazine derivative with primary, secondary, and tertiary amino groups. Korean Journal of Chemical Engineering, 2016, 33, 3222-3230.	2.7	26
74	Utilization of the Donnan potential induced by reverse salt flux in pressure retarded osmosis systems. Physical Chemistry Chemical Physics, 2016, 18, 23469-23473.	2.8	6
75	Nanoscale Pillar-Enhanced Tribological Surfaces as Antifouling Membranes. ACS Applied Materials & Interfaces, 2016, 8, 31433-31441.	8.0	46
76	Side-chain engineering of ladder-structured polysilsesquioxane membranes for gas separations. Journal of Membrane Science, 2016, 516, 202-214.	8.2	40
77	Interconnection of electrospun nanofibers via a post co-solvent treatment and its open pore size effect on pressure-retarded osmosis performance. Macromolecular Research, 2016, 24, 314-322.	2.4	15
78	Immobilization of silver nanoparticle-decorated silica particles on polyamide thin film composite membranes for antibacterial properties. Journal of Membrane Science, 2016, 499, 80-91.	8.2	144
79	Tailor-Made Polyamide Membranes for Water Desalination. ACS Nano, 2015, 9, 345-355.	14.6	109
80	Molecular layer-by-layer assembled forward osmosis membranes. Journal of Membrane Science, 2015, 488, 111-120.	8.2	67
81	Rational molecular design of PEOlated ladder-structured polysilsesquioxane membranes for high performance CO₂ removal. Chemical Communications, 2015, 51, 15308-15311.	4.1	34
82	Tailoring interlayer structure of molecular layer-by-layer assembled polyamide membranes for high separation performance. Applied Surface Science, 2015, 356, 659-667.	6.1	38
83	Free-standing, polysilsesquioxane-based inorganic/organic hybrid membranes for gas separations. Journal of Membrane Science, 2015, 475, 384-394.	8.2	37
84	3-Dimensionally disordered mesoporous silica (DMS)-containing mixed matrix membranes for CO2 and non-CO2 greenhouse gas separations. Separation and Purification Technology, 2014, 136, 286-295.	7.9	37
85	Molecular Layerâ€byâ€Layer Assembled Thinâ€Film Composite Membranes for Water Desalination. Advanced Materials, 2013, 25, 4778-4782.	21.0	258
86	Correlating chlorine-induced changes in mechanical properties to performance in polyamide-based thin film composite membranes. Journal of Membrane Science, 2013, 433, 72-79.	8.2	56
87	Layer-by-Layer Assembly of Graphene Oxide Nanosheets on Polyamide Membranes for Durable Reverse-Osmosis Applications. ACS Applied Materials & Interfaces, 2013, 5, 12510-12519.	8.0	471
88	Swelling of Ultrathin Molecular Layerâ€byâ€Layer Polyamide Water Desalination Membranes. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1647-1655.	2.1	36
89	Exciton Dissociation and Charge Transport Properties at a Modified Donor/Acceptor Interface: Poly(3-hexylthiophene)/Thiol-ZnO Bulk Heterojunction Interfaces. Journal of Physical Chemistry C, 2012, 116, 4252-4258.	3.1	9
90	Composite proton exchange membranes from zirconiumâ€based solid acids and PVDF/acrylic polyelectrolyte blends. Journal of Applied Polymer Science, 2012, 124, E241.	2.6	8

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91	Non-DLVO Silica Interaction Forces in NMPâ€“Water Mixtures. II. An Asymmetric System. Langmuir, 2011, 27, 10000-10006.	3.5	13
92	Stiffness, Strength, and Ductility of Nanoscale Thin Films and Membranes: A Combined Wrinklingâ€“Cracking Methodology. Nano Letters, 2011, 11, 3361-3365.	9.1	125
93	Non-DLVO Silica Interaction Forces in NMPâ€“Water Mixtures. I. A Symmetric System. Langmuir, 2011, 27, 6897-6904.	3.5	14
94	Dye-labeled polystyrene latex microspheres prepared via a combined swelling-diffusion technique. Journal of Colloid and Interface Science, 2011, 363, 137-144.	9.4	49
95	Pollen: A Novel, Biorenewable Filler for Polymer Composites. Macromolecular Materials and Engineering, 2011, 296, 1055-1062.	3.6	11
96	Effect of nanowhisker-modified zeolites on mechanical and thermal properties of poly(vinyl acetate) composites with pure-silica MFI. Polymer, 2010, 51, 5744-5755.	3.8	14
97	Measuring the Influence of Solution Chemistry on the Adhesion of Au Nanoparticles to Mica Using Colloid Probe Atomic Force Microscopy. Langmuir, 2010, 26, 13995-14003.	3.5	27
98	Highly Scattering, Surface-Enhanced Raman Scattering-Active, Metal Nanoparticle-Coated Polymers Prepared via Combined Swellingâ^'Heteroaggregation. Chemistry of Materials, 2009, 21, 5654-5663.	6.7	55
99	Facile Preparation of Highly-Scattering Metal Nanoparticle-Coated Polymer Microbeads and Their Surface Plasmon Resonance. Journal of the American Chemical Society, 2009, 131, 5048-5049.	13.7	109
100	Role of Lewis Basicity and van der Waals Forces in Adhesion of Silica MFI Zeolites (010) with Polyimides. Langmuir, 2009, 25, 9101-9107.	3.5	20
101	Title is missing!. Plasma Chemistry and Plasma Processing, 2003, 23, 519-539.	2.4	14