Hyung-Il Lee

List of Publications by Year
in descending order

101 papers	5,760 citations	101543 36 h-index	74163 75 g-index
104 all docs	104 docs citations	104 times ranked	6599 citing authors

#	Article	IF	Citations
1	Photonic multilayers for ultrasensitive millisecond colorimetric discrimination between benzene, toluene, and xylene. Sensors and Actuators B: Chemical, 2022, 351, 130974.	7.8	6
2	Background color dependent photonic multilayer films for anti-counterfeiting labeling. Nanoscale, 2022, 14, 5377-5383.	5.6	12
3	Recent advances in polymeric chemosensors for the detection and removal of mercury ions in complex aqueous media. Journal of Macromolecular Science - Pure and Applied Chemistry, 2022, 59, 389-402.	2.2	2
4	Transparent nanocellulose paper-based biodegradable colorimetric nerve agent detectors. Carbohydrate Polymers, 2022, 295, 119845.	10.2	4
5	Recyclable macromolecular thermogels for Hg(II) detection and separation via sol-gel transition in complex aqueous environments. Journal of Hazardous Materials, 2021, 410, 124625.	12.4	16
6	Efficient colorimetric detection of cyanide ions using hemicyanine-based polymeric probes with detection-induced self-assembly in water. Polymer, 2021, 213, 123320.	3.8	5
7	Thermoresponsive Sulfone and Sulfoxideâ€Containing Polyacrylamides. Bulletin of the Korean Chemical Society, 2021, 42, 1143-1150.	1.9	3
8	Two-in-One Dual-Channel Boronic Ester Block Copolymer for the Colorimetric Detection of Cysteine and Glucose at Neutral pH. ACS Sustainable Chemistry and Engineering, 2021, 9, 9915-9922.	6.7	11
9	Reusable polymeric films for fluorometric Al3+ detection in anti-counterfeiting and security applications. Sensors and Actuators B: Chemical, 2021, 345, 130420.	7.8	19
10	Precisely Tunable Humidity Color Indicator Based on Photonic Polymer Films. Macromolecules, 2021, 54, 621-628.	4.8	23
11	Toward rapid and selective detection of hypochlorous acid in pure aqueous media and its application to cell imaging: BODIPY-derived water-soluble macromolecular chemosensor with high sensitivity. Dyes and Pigments, 2020, 172, 107858.	3.7	15
12	Azobenzeneâ€“Hemicyanine Conjugated Polymeric Chemosensor for the Rapid and Selective Detection of Cyanide in Pure Aqueous Media. Journal of Polymer Science, 2020, 58, 124-131.	3.8	10
13	Tuning the ability to discriminate between geometric isomers maleic acid and fumaric acid of water-soluble polymeric probes with a donor-Ï€-acceptor skeleton. Polymer, 2020, 186, 122040.	3.8	3
14	Chromophore-Free photonic multilayer films for the ultra-sensitive colorimetric detection of nerve agent mimics in the vapor phase. Sensors and Actuators B: Chemical, 2020, 323, 128698.	7.8	24
15	Waterâ€Soluble Polymeric Probes for the pHâ€Tunable Fluorometric Detection of Hydrogen Peroxide. Bulletin of the Korean Chemical Society, 2020, 41, 537-541.	1.9	2
16	A fluorimetric water-soluble polymeric pH chemosensor for extremely acidic conditions: Live-cell and bacterial imaging application. Sensors and Actuators B: Chemical, 2020, 320, 128379.	7.8	20
17	A Reusable Polymeric Film for the Alternating Colorimetric Detection of a Nerve Agent Mimic and Ammonia Vapor with Sub-Parts-per-Million Sensitivity. ACS Applied Materials & Interfaces, 2020, 12, 11055-11062.	8.0	32
18	Azobenzeneâ€“Hemicyanine Conjugated Polymeric Chemosensor for the Rapid and Selective Detection of Cyanide in Pure Aqueous Media. Journal of Polymer Science, 2020, 58, 124-131.	3.8	0

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19	Thermo-tunable colorimetric detection of mercury(<scp>ii</scp>) ions driven by the temperature-dependent assembly and disassembly of a block copolymer. Polymer Chemistry, 2019, 10, 4017-4024.	3.9	11
20	Water-soluble polymeric probe with dual recognition sites for the sequential colorimetric detection of cyanide and Fe (III) ions. Dyes and Pigments, 2019, 167, 174-180.	3.7	12
21	Microwave-Assisted Synthesis of Core-Crosslinked Star Polymers with Benzophenone Derivatives in the Core. Macromolecular Research, 2019, 27, 476-480.	2.4	3
22	BODIPY-Derived Polymeric Chemosensor Appended with Thiosemicarbazone Units for the Simultaneous Detection and Separation of Hg(II) Ions in Pure Aqueous Media. ACS Applied Materials & Interfaces, 2019, 11, 13685-13693.	8.0	81
23	Use of Core-Cross-Linked Polymeric Micelles Induced by the Selective Detection of Cu(II) Ions for the Sustained Release of a Model Drug. ACS Applied Materials & Interfaces, 2019, 11, 14368-14375.	8.0	7
24	A recyclable polymeric film for the consecutive colorimetric detection of cysteine and mercury ions in the aqueous solution. Sensors and Actuators B: Chemical, 2018, 257, 728-733.	7.8	26
25	Recyclable Polymeric Thin Films for the Selective Detection and Separation of Picric Acid. ACS Applied Materials & Interfaces, 2018, 10, 41717-41723.	8.0	26
26	Polymeric Micelles Based on Light-Responsive Block Copolymers for the Phototunable Detection of Mercury(II) Ions Modulated by Morphological Changes. ACS Applied Materials & Interfaces, 2018, 10, 34634-34639.	8.0	20
27	BODIPY-derived multi-channel polymeric chemosensor with pH-tunable sensitivity: selective colorimetric and fluorimetric detection of Hg²⁺ and HSO₄^{â¯} in aqueous media. Polymer Chemistry, 2018, 9, 4882-4890.	3.9	42
28	pH-Induced reversible formation of core-crosslinked star polymers. Macromolecular Research, 2017, 25, 542-545.	2.4	3
29	A Pyrene Derived CO₂-Responsive Polymeric Probe for the Turn-On Fluorescent Detection of Nerve Agent Mimics with Tunable Sensitivity. Macromolecules, 2017, 50, 6888-6895.	4.8	37
30	Water-Soluble Polymeric Probe for the Selective Sensing and Separation of Cu(II) Ions in Aqueous Media: pH-Tunable Detection Sensitivity and Efficient Separation by Thermal Precipitation. Macromolecules, 2017, 50, 8529-8535.	4.8	13
31	A dual responsive molecular probe for the efficient and selective detection of nerve agent mimics and copper (II) ions with controllable detection time. Sensors and Actuators B: Chemical, 2017, 242, 977-982.	7.8	38
32	Synthesis of Proteinâ€“Polymerâ€“Protein Bioconjugates by the Combination of Atom Transfer Radical Polymerization and Click Reaction. Bulletin of the Korean Chemical Society, 2016, 37, 1961-1965.	1.9	0
33	A Visible Light Responsive Onâ€“Off Polymeric Photoswitch for the Colorimetric Detection of Nerve Agent Mimics in Solution and in the Vapor Phase. Macromolecules, 2016, 49, 2568-2574.	4.8	100
34	Clustering and Dissolution of Triazole Branched Poly(ethyl methylacrylate). Macromolecular Chemistry and Physics, 2015, 216, 1251-1259.	2.2	1
35	Aldoxime-Derived Water-Soluble Polymer for the Multiple Analyte Sensing: Consecutive and Selective Detection of Hg²⁺, Ag⁺, ClO^{â€“}, and Cysteine in Aqueous Media. Macromolecules, 2015, 48, 3934-3940.	4.8	40
36	pH-responsive polymeric micelles from sulfamate-conjugated block copolymers. Macromolecular Research, 2015, 23, 129-133.	2.4	2

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37	Azoaniline-based rapid and selective dual sensor for copper and fluoride ions with two distinct output modes of detection. Sensors and Actuators B: Chemical, 2015, 211, 531-536.	7.8	40
38	Water-Soluble Polymeric Probes for the Selective Sensing of Mercury Ion: pH-Driven Controllable Detection Sensitivity and Time. Macromolecules, 2015, 48, 1048-1054.	4.8	38
39	Efficient oxidative self-coupling of polystyrene bearing chain-end primary amines. Polymer, 2015, 72, 336-340.	3.8	2
40	Single molecular probe for multiple analyte sensing: Efficient and selective detection of mercury and fluoride ions. Sensors and Actuators B: Chemical, 2015, 216, 80-85.	7.8	31
41	Properties of Graphene/Shape Memory Thermoplastic Polyurethane Composites Actuating by Various Methods. Materials, 2014, 7, 1520-1538.	2.9	63
42	Triazoleâ€Containing Hydrogels for Timeâ€Dependent Sustained Drug Release. Macromolecular Rapid Communications, 2014, 35, 442-446.	3.9	34
43	Polymeric micelles based on photocleavable linkers tethered with a model drug. Polymer, 2014, 55, 1436-1442.	3.8	21
44	Alumina-coated graphene nanosheet and its composite of acrylic rubber. Journal of Colloid and Interface Science, 2014, 416, 38-43.	9.4	36
45	The effects of graphene on the properties of acrylic pressure-sensitive adhesive. Journal of Industrial and Engineering Chemistry, 2014, 20, 4108-4111.	5.8	26
46	The first kinetic hydrate inhibition investigation on fluorinated polymers: Poly(fluoroalkylacrylamide)s. Chemical Engineering Science, 2014, 119, 230-235.	3.8	26
47	Graphene Modified Lipophilically by Stearic Acid and its Composite With Low Density Polyethylene. Journal of Macromolecular Science - Physics, 2014, 53, 1193-1204.	1.0	182
48	Thermoresponsive ureido-derivatized polymers: the effect of quaternization on UCST properties. Polymer Chemistry, 2014, 5, 2411.	3.9	49
49	New benzylidene oxazolone derived polymeric photoswitches for light-induced tunable thermoresponsive behaviors. Polymer Chemistry, 2014, 5, 6426-6430.	3.9	5
50	A water-soluble polymer for selective colorimetric sensing of cysteine and homocysteine with temperature-tunable sensitivity. Polymer Chemistry, 2014, 5, 4405.	3.9	13
51	Comparative dielectric studies of nanostructured BaTiO3, CaCu3Ti4O12 and 0.5BaTiO3â‹…0.5CaCu3Ti4O12 nano-composites synthesized by modified solâ€“gel and solid state methods. Materials Characterization, 2014, 96, 54-62.	4.4	34
52	Graphenes for low percolation threshold in electroconductive nylon 6 composites. Polymer International, 2014, 63, 1003-1010.	3.1	8
53	Well-Defined Thermoresponsive Copolymers with Tunable LCST and UCST in Water. Bulletin of the Korean Chemical Society, 2014, 35, 501-504.	1.9	7
54	A Multisegmented Polystyrene with pH-Cleavable Linkages. Bulletin of the Korean Chemical Society, 2014, 35, 2694-2698.	1.9	3

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55	Influence of Quaternization on UCST Properties of Hydroxyl-Derivatized Polymers. Bulletin of the Korean Chemical Society, 2014, 35, 3001-3004.	1.9	0
56	Thermoresponsive fluorinated polyacrylamides with low cytotoxicity. Polymer Chemistry, 2013, 4, 2219-2223.	3.9	35
57	Novel thermoresponsive fluorinated doubleâ€hydrophilic poly{[Nâ€(2,2â€difluoroethyl)acrylamide]â€bâ€[Nâ€(2â€fluoroethyl)acrylamide]} block copolymers. Journal of Polymer Science Part A, 2013, 51, 1976-1982.	2.3	18
58	Tunable thermoresponsiveness of copolymers with various amine groups in the side chains. Macromolecular Research, 2013, 21, 202-206.	2.4	3
59	Direct covalent modification of thermally exfoliated graphene forming functionalized graphene stably dispersible in water and poly(vinyl alcohol). Colloid and Polymer Science, 2013, 291, 2365-2374.	2.1	18
60	The modification of graphene with alcohols and its use in shape memory polyurethane composites. Polymer International, 2013, 62, 54-63.	3.1	36
61	Shape memory polyurethane nanocomposites with a functionalized graphene. , 2013, , .		2
62	The Effect of Oxidation on Properties of Graphene and Its Polycaprolactone Nanocomposites. Journal of Nanoscience and Nanotechnology, 2012, 12, 8420-8430.	0.9	14
63	Activation of Cholera Toxin Production by Anaerobic Respiration of Trimethylamine N-oxide in Vibrio cholerae. Journal of Biological Chemistry, 2012, 287, 39742-39752.	3.4	53
64	Molecular brushes with extreme grafted side chain densities. Polymer, 2012, 53, 3462-3468.	3.8	1
65	Shape memory polyurethane nanocomposites with functionalized graphene. Smart Materials and Structures, 2012, 21, 075017.	3.5	61
66	Properties of Graphene/Waterborne Polyurethane Nanocomposites Cast from Colloidal Dispersion Mixtures. Journal of Macromolecular Science - Physics, 2012, 51, 197-207.	1.0	263
67	pH-tunable aqueous dispersion of graphene nanocomposites functionalized with poly(acrylic acid) brushes. Polymer, 2012, 53, 4955-4960.	3.8	29
68	Time-dependent increase in aqueous solubility caused by the gradual disruption of hydrophobic aggregation. Polymer Chemistry, 2012, 3, 1002.	3.9	7
69	Functionalized graphene sheets/polycarbonate nanocomposites compatibilized by poly(phenylenevinylene). Macromolecular Research, 2012, 20, 768-771.	2.4	3
70	Thermoresponsive graphene nanosheets by functionalization with polymer brushes. Polymer, 2012, 53, 316-323.	3.8	53
71	Molecular Imaging and Analysis of Branching Topology in Polyacrylates by Atomic Force Microscopy. Macromolecules, 2011, 44, 5928-5936.	4.8	43
72	Novel Thermoresponsive Polymers Tunable by pH. Macromolecules, 2011, 44, 1628-1634.	4.8	58

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73	Graphite oxides as effective fire retardants of epoxy resin. Macromolecular Research, 2011, 19, 66-71.	2.4	242
74	The properties of functionalized graphene sheet/poly(ethyl methacrylate) nanocomposites: The effects of preparation method. Macromolecular Research, 2011, 19, 379-384.	2.4	15
75	Functionalized graphene sheet/polyurethane nanocomposites: Effect of particle size on physical properties. Macromolecular Research, 2011, 19, 809-814.	2.4	102
76	Effect of chain topology on the self-organization and the mechanical properties of poly(n-butyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	3.8	30
77	Functionalized graphene sheet/polyurethane nanocomposites: Effect of particle size on the physical properties. , 2010, , .		1
78	Effect of pyrene treatment on the properties of graphene/epoxy nanocomposites. Macromolecular Research, 2010, 18, 1125-1128.	2.4	22
79	Ligandâ€Clustered â€œPatchyâ€•Nanoparticles for Modulated Cellular Uptake and In Vivo Tumor Targeting. Angewandte Chemie - International Edition, 2010, 49, 7266-7270.	13.8	125
80	Stimuli-responsive molecular brushes. Progress in Polymer Science, 2010, 35, 24-44.	24.7	600
81	Crystallization of Molecular Brushes with Block Copolymer Side Chains. Macromolecules, 2009, 42, 9008-9017.	4.8	70
82	Dangling Chain Elastomers as Repeatable Fibrillar Adhesives. ACS Applied Materials & Interfaces, 2009, 1, 2277-2287.	8.0	32
83	pH-induced conformational changes of loosely grafted molecular brushes containing poly(acrylic) Tj ETQq1 1 0.784314 rgBT /Overloc	3.8	71
84	Hetero-Grafted Block Brushes with PCL and PBA Side Chains. Macromolecules, 2008, 41, 6073-6080.	4.8	87
85	Temperature-triggered reversible micellar self-assembly of linearâ€“dendritic block copolymers. Chemical Communications, 2008, , 3726.	4.1	60
86	â€œFatal Adsorptionâ€•of Brushlike Macromolecules:â€‰ High Sensitivity of Câ^'C Bond Cleavage Rates to Substrate Surface Energy. Journal of the American Chemical Society, 2008, 130, 4228-4229.	13.7	58
87	Rheooscillations of a Bottlebrush Polymer Solution Due to Shear-Induced Phase Transitions between a Shear Molten State and a Line Hexatic Phase. Macromolecules, 2007, 40, 7680-7688.	4.8	7
88	High Yield Synthesis of Molecular Brushes via ATRP in Miniemulsion. Macromolecules, 2007, 40, 6557-6563.	4.8	78
89	Flory Theorem for Structurally Asymmetric Mixtures. Physical Review Letters, 2007, 99, 137801.	7.8	28
90	Light-Induced Reversible Formation of Polymeric Micelles. Angewandte Chemie - International Edition, 2007, 46, 2453-2457.	13.8	368

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91	Biodegradable Nanogels Prepared by Atom Transfer Radical Polymerization as Potential Drug Delivery Carriers:Â Synthesis, Biodegradation, in Vitro Release, and Bioconjugation. Journal of the American Chemical Society, 2007, 129, 5939-5945.	13.7	449
92	Structural mobility of molecular bottle-brushes investigated by NMR relaxation dynamics. Polymer, 2007, 48, 496-501.	3.8	35
93	Phototunable Temperature-Responsive Molecular Brushes Prepared by ATRP. Macromolecules, 2006, 39, 3914-3920.	4.8	145
94	Cylindrical Coreâ"Shell Brushes Prepared by a Combination of ROP and ATRP. Macromolecules, 2006, 39, 4983-4989.	4.8	130
95	Adsorption-induced scission of carbonâ€"carbon bonds. Nature, 2006, 440, 191-194.	27.8	341
96	Molecular brushes as super-soft elastomers. Polymer, 2006, 47, 7198-7206.	3.8	194
97	Bottle-brush macromolecules in solution: Comparison between results obtained from scattering experiments and computer simulations. Polymer, 2006, 47, 7318-7327.	3.8	102
98	Molecular Brushes with Spontaneous Gradient by Atom Transfer Radical Polymerization. Macromolecules, 2005, 38, 8264-8271.	4.8	86
99	Tadpole Conformation of Gradient Polymer Brushes. Macromolecules, 2004, 37, 4235-4240.	4.8	110
100	Thermal Stability of Imidized Epoxy Blends Initiated byN-Benzylpyrazinium Hexafluoroantimonate Salt. Macromolecules, 2001, 34, 7573-7575.	4.8	91
101	Thin Polymeric Films for Real-Time Colorimetric Detection of Hydrazine Vapor with Parts-per-Million Sensitivity. ACS Applied Polymer Materials, 0, , .	4.4	2