Kyung-Youl Baek

List of Publications by Year
in descending order

74	2,223	201385	233125
papers	citations	27 h-index	45 g-index

75	75	75	2083
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Star-Shaped Polymers by Metal-Catalyzed Living Radical Polymerization. 1. Design of Ru(II)-Based Systems and Divinyl Linking Agents. Macromolecules, 2001, 34, 215-221.	2.2	201
2	Core-Functionalized Star Polymers by Transition Metal-Catalyzed Living Radical Polymerization. 1. Synthesis and Characterization of Star Polymers with PMMA Arms and Amide Cores1. Macromolecules, 2001, 34, 7629-7635.	2.2	102
3	Structural Control of Fully Condensed Polysilsesquioxanes: Ladderlike vs Cage Structured Polyphenylsilsesquioxanes. Macromolecules, 2015, 48, 6063-6070.	2.2	92
4	Synthesis of amine-functionalized ZIF-8 with 3-amino-1,2,4-triazole by postsynthetic modification for efficient CO₂-selective adsorbents and beyond. Journal of Materials Chemistry A, 2018, 6, 18912-18919.	5.2	87
5	Synthesis and characterization of UVâ€curable ladderâ€like polysilsesquioxane. Journal of Polymer Science Part A, 2011, 49, 5012-5018.	2.5	86
6	Core-Functionalized Star Polymers by Transition Metal-Catalyzed Living Radical Polymerization. 2. Selective Interaction with Protic Guests via Core Functionalities1. Macromolecules, 2002, 35, 1493-1498.	2.2	84
7	Facile control of defect site density and particle size of UiO-66 for enhanced hydrolysis rates: insights into feasibility of Zr(IV)-based metal-organic framework (MOF) catalysts. Applied Catalysis B: Environmental, 2019, 245, 635-647.	10.8	79
8	Amine-Functionalized Zeolitic Imidazolate Framework-8 (ZIF-8) Nanocrystals for Adsorption of Radioactive Iodine. ACS Applied Nano Materials, 2020, 3, 9852-9861.	2.4	74
9	Structural control of cellulose nanofibrous composite membrane with metal organic framework (ZIF-8) for highly selective removal of cationic dye. Carbohydrate Polymers, 2019, 222, 115018.	5.1	65
10	High photo- and electroluminescence efficiencies of ladder-like structured polysilsesquioxane with carbazole groups. Journal of Materials Chemistry, 2010, 20, 9852.	6.7	57
11	Synthesis of star-shaped copolymers with methyl methacrylate andn-butyl methacrylate by metal-catalyzed living radical polymerization: Block and random copolymer arms and microgel cores. Journal of Polymer Science Part A, 2002, 40, 633-641.	2.5	52
12	Molybdenum-Doped PdPt@Pt Coreâ€“Shell Octahedra Supported by Ionic Block Copolymer-Functionalized Graphene as a Highly Active and Durable Oxygen Reduction Electrocatalyst. ACS Applied Materials & Interfaces, 2017, 9, 1524-1535.	4.0	49
13	Ionic block copolymer doped reduced graphene oxide supports with ultra-fine Pd nanoparticles: strategic realization of ultra-accelerated nanocatalysis. Journal of Materials Chemistry A, 2015, 3, 20471-20476.	5.2	48
14	Star poly(methyl methacrylate) with end-functionalized arm chains by ruthenium-catalyzed living radical polymerization. Journal of Polymer Science Part A, 2002, 40, 1972-1982.	2.5	47
15	Amphiphilic diblock star polymer catalysts via atom transfer radical polymerization. Journal of Polymer Science Part A, 2006, 44, 4939-4951.	2.5	47
16	Stable 2D-structured supports incorporating ionic block copolymer-wrapped carbon nanotubes with graphene oxide toward compact decoration of metal nanoparticles and high-performance nano-catalysis. Carbon, 2016, 105, 340-352.	5.4	46
17	Synthesis of end-functionalized poly(methyl methacrylate) by ruthenium-catalyzed living radical polymerization with functionalized initiators. Journal of Polymer Science Part A, 2002, 40, 1937-1944.	2.5	45
18	Star-shaped polymers by Ru(II)-catalyzed living radical polymerization. II. Effective reaction conditions and characterization by multi-angle laser light scattering/size exclusion chromatography and small-angle X-ray scattering. Journal of Polymer Science Part A, 2002, 40, 2245-2255.	2.5	43

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19	Iron-catalyzed living radical polymerization of acrylates: Iodide-based initiating systems and block and random copolymerizations. Journal of Polymer Science Part A, 2002, 40, 2033-2043.	2.5	41
20	Highly enhanced electromechanical properties of PVDF-TrFE/SWCNT nanocomposites using an efficient polymer compatibilizer. Composites Science and Technology, 2018, 157, 21-29.	3.8	41
21	Organophosphorus hydrolase-poly-Î²-cyclodextrin as a stable self-decontaminating bio-catalytic material for sorption and degradation of organophosphate pesticide. Journal of Hazardous Materials, 2019, 365, 261-269.	6.5	40
22	Effects of methacrylate based amphiphilic block copolymer additives on ultra filtration PVDF membrane formation. Separation and Purification Technology, 2018, 202, 34-44.	3.9	39
23	Star polymer-assembled thin film composite membranes with high separation performance and low fouling. Journal of Membrane Science, 2018, 555, 369-378.	4.1	37
24	Dual-functionalized ZIF-8 as an efficient acid-base bifunctional catalyst for the one-pot tandem reaction. Catalysis Today, 2021, 359, 124-132.	2.2	36
25	Rational Design of Multiamphiphilic Polymer Compatibilizers: Versatile Solubility and Hybridization of Noncovalently Functionalized CNT Nanocomposites. ACS Applied Materials & Interfaces, 2015, 7, 9841-9850.	4.0	35
26	Recyclable palladiumâ€“graphene nanocomposite catalysts containing ionic polymers: efficient Suzuki coupling reactions. RSC Advances, 2017, 7, 11684-11690.	1.7	31
27	A facile synthetic route for highly durable mesoporous platinum thin film electrocatalysts based on graphene: morphological and support effects on the oxygen reduction reaction. Journal of Materials Chemistry A, 2017, 5, 3129-3135.	5.2	29
28	Interfacial control of PVDF-TrFE/SWCNT nanocomposites using P3HT-PMMA block copolymer for ultra-low percolation threshold. Polymer, 2015, 77, 55-63.	1.8	28
29	Synthesis and structure characterization of ladder-like polymethylsilsesquioxane (PMSQ) by isolation of stereoisomer. European Polymer Journal, 2012, 48, 1073-1081.	2.6	25
30	Incompletely condensed POSS-based spin-on-glass networks for impeccable ultra low-k integration. Journal of Materials Chemistry C, 2015, 3, 11605-11611.	2.7	25
31	Thermoresponsive amphiphilic star block copolymer photosensitizer: smart BTEX remover. Polymer Chemistry, 2013, 4, 2400.	1.9	24
32	Continuous Flow Composite Membrane Catalysts for Efficient Decomposition of Chemical Warfare Agent Simulants. ACS Applied Materials & Interfaces, 2020, 12, 32778-32787.	4.0	24
33	Synthesis and characterization of sulfonated block copolymers by atom transfer radical polymerization. Journal of Polymer Science Part A, 2008, 46, 5991-5998.	2.5	22
34	Synthesis and characterization of ladder-like structured polysilsesquioxane with carbazole group. Macromolecular Research, 2011, 19, 261-265.	1.0	22
35	Synthesis and characterization of organicâ€“inorganic hybrid block copolymers containing a fully condensed ladderâ€like polyphenylsilsesquioxane. Journal of Polymer Science Part A, 2012, 50, 4563-4570.	2.5	22
36	High mechanical properties of covalently functionalized carbon fiber and polypropylene composites by enhanced interfacial adhesion derived from rationally designed polymer compatibilizers. Composites Part B: Engineering, 2022, 228, 109439.	5.9	22

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37	Amine-functionalized bimetallic Co/Zn-zeolitic imidazolate frameworks as an efficient catalyst for the CO2 cycloaddition to epoxides under mild conditions. Journal of CO2 Utilization, 2022, 61, 102061.	3.3	22
38	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.	4.0	21
39	Controlled radical polymerization of 2-hydroxyethyl methacrylate with a hydrophilic ruthenium complex and the synthesis of amphiphilic random and block copolymers with methyl methacrylate. Journal of Polymer Science Part A, 2002, 40, 2055-2065.	2.5	20
40	Tuning the interface between poly(vinylidene fluoride)/UV-curable polysilsesquioxane hybrid composites: Compatibility, thermal, mechanical, electrical, and surface properties. Polymer, 2015, 77, 167-176.	1.8	20
41	Hydrolysis kinetics of a sol-gel equilibrium yielding ladder-like polysilsesquioxanes. Inorganic Chemistry Communication, 2016, 73, 7-11.	1.8	20
42	Rational design of epoxy/ ZIF-8 nanocomposites for enhanced suppression of copper ion migration. Polymer, 2018, 150, 159-168.	1.8	18
43	Electroactive methacrylateâ€based triblock copolymer elastomer for actuator application. Journal of Polymer Science Part A, 2013, 51, 1924-1932.	2.5	17
44	Control of hard block segments of methacrylate-based triblock copolymers for enhanced electromechanical performance. Polymer Chemistry, 2016, 7, 7391-7399.	1.9	17
45	The significance of the interfacial interaction in mixed matrix membranes for enhanced propylene/propane separation performance and plasticization resistance. Separation and Purification Technology, 2021, 261, 118279.	3.9	17
46	Decomposition of the Simulant 2-Chloroethyl Ethyl Sulfide Blister Agent under Ambient Conditions Using Metalâ€“Organic Frameworks. ACS Applied Materials & Interfaces, 2021, 13, 3782-3792.	4.0	16
47	Synthesis of multiarmed poly(3â€hexyl thiophene) star polymer with microgel core by GRIM and ATRP methods. Journal of Polymer Science Part A, 2011, 49, 4221-4226.	2.5	14
48	Tunable polymer actuators via a simple and versatile blending approach. Sensors and Actuators B: Chemical, 2012, 174, 547-554.	4.0	14
49	Fine-sized Pt nanoparticles dispersed on PdPt bimetallic nanocrystals with non-covalently functionalized graphene toward synergistic effects on the oxygen reduction reaction. Electrochimica Acta, 2017, 257, 412-422.	2.6	14
50	Morphology Control of Highly Sulfonated Block Copolymers by a Simple Thermal Process. Macromolecular Chemistry and Physics, 2010, 211, 613-617.	1.1	12
51	Synthesis of amphiphilic star block copolymer with photosensitive core by ATRP. Macromolecular Research, 2011, 19, 461-467.	1.0	11
52	Robust spin-on-glass poly(methyl)silsesquioxane-based low-k materials derived from a cyclic siloxane precursor. RSC Advances, 2015, 5, 66511-66517.	1.7	11
53	Controlled synthesis of multi-armed P3HT star polymers with gold nanoparticle core. RSC Advances, 2016, 6, 49206-49213.	1.7	10
54	Structural analysis of high molecular weight PMSQs and their related properties for interlayer dielectric (ILD) application. Macromolecular Research, 2012, 20, 1131-1136.	1.0	8

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55	Effect of thermal processing on brominated 6FDA-DAM for effective propylene/propane separation. Separation and Purification Technology, 2021, 262, 118331.	3.9	8
56	Highly purified cyclic olefin polymer by ROMP and In situ hydrogenation with ruthenium supported catalyst. Macromolecular Research, 2012, 20, 777-779.	1.0	7
57	Photocatalytic Degradation of Chlorophenol Compounds using Poly Aromatic Star Copolymer. Water, Air, and Soil Pollution, 2012, 223, 1437-1441.	1.1	7
58	Metalâ€“organic framework (UiOâ€66)â€dispersed polyurethane composite films for the decontamination of methyl paraoxon. Polymer International, 2019, 68, 1502-1508.	1.6	7
59	Efficient production of levulinic acid using metalâ€“organic framework catalyst: Role of brÃ¸nsted acid and flexibility. Chemical Engineering Journal, 2022, 444, 136566.	6.6	7
60	Preparation of high modulus thin films based on photocurable azido-functionalized ladder-like structured polysilsesquioxanes. Macromolecular Research, 2014, 22, 1109-1114.	1.0	6
61	Potentially self-dopable poly(3-hexylthiophene) block copolymers/carbon nanotube nanocomposites for enhanced processibility and electrical properties. Composites Science and Technology, 2019, 174, 149-157.	3.8	6
62	Amphiphilic Block Copolymer for adsorption of Organic Contaminants. Advances in Chemical Engineering and Science, 2011, 01, 77-82.	0.2	6
63	Pore-size control of chitin nanofibrous composite membrane using metal-organic frameworks. Carbohydrate Polymers, 2022, 275, 118754.	5.1	6
64	Preparation of highly emissive, thermally stable, <scp>UV</scp>â€cured polysilsesquioxane/ZnO nanoparticle composites. Journal of Applied Polymer Science, 2015, 132, .	1.3	5
65	Synthesis of water soluble metalloporphyrin-cored amphiphilic star block copolymer photocatalysts for an environmental application. Research on Chemical Intermediates, 2018, 44, 4663-4684.	1.3	5
66	Porphyrin-cored amphiphilic star block copolymer photocatalysts: Hydrophobic-layer effects on photooxidation. Materials Letters, 2022, 311, 131577.	1.3	5
67	Synthesis of Thermo-Controlled Cyclic Olefin Polymers via Ring Opening Metathesis Polymerization: Effect of Copolymerization with Flexible Modifier. Macromolecular Research, 2022, 30, 205-211.	1.0	5
68	Synthesis of a Photocurable Ladder-like Poly(phenyl-co-mercaptopropyl)silsesquioxane as Gate Dielectric Material. Molecular Crystals and Liquid Crystals, 2013, 580, 88-94.	0.4	4
69	Removal of Benzene Using the Characteristics of Block Copolymers for Encapsulation. Water, Air, and Soil Pollution, 2012, 223, 609-616.	1.1	3
70	Morphology effect of sulfonated triblock copolymers for water retention and proton conductivity at high temperature. Macromolecular Research, 2009, 17, 455-457.	1.0	2
71	Synthesis of Ladder-Like Polysilsesquioxane with Well-Defined Graft Polymers. Molecular Crystals and Liquid Crystals, 2011, 539, 174/[514]-183/[523].	0.4	2
72	Synthesis and Characterization of UV Crosslinkable and Highly Sulfonated Block Copolymer by Living Radical Polymerization. Molecular Crystals and Liquid Crystals, 2010, 520, 256/[532]-261/[537].	0.4	1

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73	Synthesis, characterization and photophysical behavior of heteroleptic ruthenium-complexed ladder-like structured polysilsesquioxanes. Macromolecular Research, 2017, 25, 591-598.	1.0	1
74	Synthesis and Characterization of Azido-Substituted Ladder-like Polysilsesquioxanes and their Click Chemistry. Molecular Crystals and Liquid Crystals, 2012, 566, 126-134.	0.4	0