

# Kyung-Youl Baek

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

74  
papers

1,728  
citations

24  
h-index

39  
g-index

75  
ext. papers

1,967  
ext. citations

5.4  
avg, IF

4.81  
L-index

#	Paper	IF	Citations
74	Porphyrin-cored amphiphilic star block copolymer photocatalysts: Hydrophobic-layer effects on photooxidation. <i>Materials Letters</i> , <b>2022</b> , 311, 131577	3.3	0
73	High mechanical properties of covalently functionalized carbon fiber and polypropylene composites by enhanced interfacial adhesion derived from rationally designed polymer compatibilizers. <i>Composites Part B: Engineering</i> , <b>2022</b> , 228, 109439	10	6
72	Pore-size control of chitin nanofibrous composite membrane using metal-organic frameworks. <i>Carbohydrate Polymers</i> , <b>2022</b> , 275, 118754	10.3	1
71	Synthesis of Thermo-Controlled Cyclic Olefin Polymers via Ring Opening Metathesis Polymerization: Effect of Copolymerization with Flexible Modifier. <i>Macromolecular Research</i> , <b>2022</b> , 30, 205-211	1.9	0
70	Efficient production of levulinic acid using metal-organic framework catalyst: Role of Brønsted acid and flexibility. <i>Chemical Engineering Journal</i> , <b>2022</b> , 444, 136566	14.7	1
69	Amine-functionalized bimetallic Co/Zn-zeolitic imidazolate frameworks as an efficient catalyst for the CO <sub>2</sub> cycloaddition to epoxides under mild conditions. <i>Journal of CO<sub>2</sub> Utilization</i> , <b>2022</b> , 61, 102061	7.6	1
68	The significance of the interfacial interaction in mixed matrix membranes for enhanced propylene/propane separation performance and plasticization resistance. <i>Separation and Purification Technology</i> , <b>2021</b> , 261, 118279	8.3	6
67	Effect of thermal processing on brominated 6FDA-DAM for effective propylene/propane separation. <i>Separation and Purification Technology</i> , <b>2021</b> , 262, 118331	8.3	1
66	Robust Nanocellulose/Metal-Organic Framework Aerogel Composites: Superior Performance for Static and Continuous Disposal of Chemical Warfare Agent Simulants. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 33516-33523	9.5	6
65	Dual-functionalized ZIF-8 as an efficient acid-base bifunctional catalyst for the one-pot tandem reaction. <i>Catalysis Today</i> , <b>2021</b> , 359, 124-132	5.3	14
64	Decomposition of the Simulant 2-Chloroethyl Ethyl Sulfide Blister Agent under Ambient Conditions Using Metal-Organic Frameworks. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 3782-3792	9.5	5
63	Continuous Flow Composite Membrane Catalysts for Efficient Decomposition of Chemical Warfare Agent Simulants. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 32778-32787	9.5	16
62	Amine-Functionalized Zeolitic Imidazolate Framework-8 (ZIF-8) Nanocrystals for Adsorption of Radioactive Iodine. <i>ACS Applied Nano Materials</i> , <b>2020</b> , 3, 9852-9861	5.6	24
61	Metal-organic framework (UiO-66)-dispersed polyurethane composite films for the decontamination of methyl paraoxon. <i>Polymer International</i> , <b>2019</b> , 68, 1502-1508	3.3	5
60	Potentially self-dopable poly(3-hexylthiophene) block copolymers/carbon nanotube nanocomposites for enhanced processibility and electrical properties. <i>Composites Science and Technology</i> , <b>2019</b> , 174, 149-157	8.6	4
59	Structural control of cellulose nanofibrous composite membrane with metal organic framework (ZIF-8) for highly selective removal of cationic dye. <i>Carbohydrate Polymers</i> , <b>2019</b> , 222, 115018	10.3	37
58	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. <i>Applied Catalysis B: Environmental</i> , <b>2019</b> , 245, 635-647	21.8	55

57	Organophosphorus hydrolase-poly-β-cyclodextrin as a stable self-decontaminating bio-catalytic material for sorption and degradation of organophosphate pesticide. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 365, 261-269	12.8	23
56	Synthesis of water soluble metalloporphyrin-cored amphiphilic star block copolymer photocatalysts for an environmental application. <i>Research on Chemical Intermediates</i> , <b>2018</b> , 44, 4663-4684	2.8	4
55	Highly enhanced electromechanical properties of PVDF-TrFE/SWCNT nanocomposites using an efficient polymer compatibilizer. <i>Composites Science and Technology</i> , <b>2018</b> , 157, 21-29	8.6	33
54	Star polymer-assembled thin film composite membranes with high separation performance and low fouling. <i>Journal of Membrane Science</i> , <b>2018</b> , 555, 369-378	9.6	27
53	Effects of methacrylate based amphiphilic block copolymer additives on ultra filtration PVDF membrane formation. <i>Separation and Purification Technology</i> , <b>2018</b> , 202, 34-44	8.3	22
52	Rational design of epoxy/ ZIF-8 nanocomposites for enhanced suppression of copper ion migration. <i>Polymer</i> , <b>2018</b> , 150, 159-168	3.9	12
51	Synthesis of amine-functionalized ZIF-8 with 3-amino-1,2,4-triazole by postsynthetic modification for efficient CO <sub>2</sub> -selective adsorbents and beyond. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 18912-18919	13	47
50	Recyclable palladium-graphene nanocomposite catalysts containing ionic polymers: efficient Suzuki coupling reactions. <i>RSC Advances</i> , <b>2017</b> , 7, 11684-11690	3.7	27
49	Molybdenum-Doped PdPt@Pt Core-Shell Octahedra Supported by Ionic Block Copolymer-Functionalized Graphene as a Highly Active and Durable Oxygen Reduction Electrocatalyst. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 1524-1535	9.5	42
48	Fine-sized Pt nanoparticles dispersed on PdPt bimetallic nanocrystals with non-covalently functionalized graphene toward synergistic effects on the oxygen reduction reaction. <i>Electrochimica Acta</i> , <b>2017</b> , 257, 412-422	6.7	11
47	Synthesis, characterization and photophysical behavior of heteroleptic ruthenium-complexed ladder-like structured polysilsesquioxanes. <i>Macromolecular Research</i> , <b>2017</b> , 25, 591-598	1.9	1
46	A facile synthetic route for highly durable mesoporous platinum thin film electrocatalysts based on graphene: morphological and support effects on the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 3129-3135	13	29
45	Controlled synthesis of multi-armed P3HT star polymers with gold nanoparticle core. <i>RSC Advances</i> , <b>2016</b> , 6, 49206-49213	3.7	8
44	Control of hard block segments of methacrylate-based triblock copolymers for enhanced electromechanical performance. <i>Polymer Chemistry</i> , <b>2016</b> , 7, 7391-7399	4.9	16
43	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. <i>Carbon</i> , <b>2016</b> , 105, 340-352	10.4	43
42	Hydrolysis kinetics of a sol-gel equilibrium yielding ladder-like polysilsesquioxanes. <i>Inorganic Chemistry Communication</i> , <b>2016</b> , 73, 7-11	3.1	13
41	Robust spin-on-glass poly(methyl)silsesquioxane-based low-k materials derived from a cyclic siloxane precursor. <i>RSC Advances</i> , <b>2015</b> , 5, 66511-66517	3.7	8
40	Rational Design of Multiamphiphilic Polymer Compatibilizers: Versatile Solubility and Hybridization of Noncovalently Functionalized CNT Nanocomposites. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 9841-50	9.5	32

39	Ionic block copolymer doped reduced graphene oxide supports with ultra-fine Pd nanoparticles: strategic realization of ultra-accelerated nanocatalysis. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 20471-20476 <sup>13</sup> 4 <sup>2</sup>		
38	Structural Control of Fully Condensed Polysilsesquioxanes: Ladderlike vs Cage Structured Polyphenylsilsesquioxanes. <i>Macromolecules</i> , <b>2015</b> , 48, 6063-6070	5.5	61
37	Interfacial control of PVDF-TrFE/SWCNT nanocomposites using P3HT-PMMA block copolymer for ultra-low percolation threshold. <i>Polymer</i> , <b>2015</b> , 77, 55-63	3.9	25
36	Tuning the interface between poly(vinylidene fluoride)/UV-curable polysilsesquioxane hybrid composites: Compatibility, thermal, mechanical, electrical, and surface properties. <i>Polymer</i> , <b>2015</b> , 77, 167-176	3.9	18
35	Preparation of highly emissive, thermally stable, UV-cured polysilsesquioxane/ZnO nanoparticle composites. <i>Journal of Applied Polymer Science</i> , <b>2015</b> , 132, n/a-n/a	2.9	4
34	Incompletely condensed POSS-based spin-on-glass networks for impeccable ultra low-k integration. <i>Journal of Materials Chemistry C</i> , <b>2015</b> , 3, 11605-11611	7.1	13
33	Preparation of high modulus thin films based on photocurable azido-functionalized ladder-like structured polysilsesquioxanes. <i>Macromolecular Research</i> , <b>2014</b> , 22, 1109-1114	1.9	5
32	Thermoresponsive amphiphilic star block copolymer photosensitizer: smart BTEX remover. <i>Polymer Chemistry</i> , <b>2013</b> , 4, 2400	4.9	20
31	Synthesis of a Photocurable Ladder-like Poly(phenyl-co-mercaptopropyl)silsesquioxane as Gate Dielectric Material. <i>Molecular Crystals and Liquid Crystals</i> , <b>2013</b> , 580, 88-94	0.5	3
30	Electroactive methacrylate-based triblock copolymer elastomer for actuator application. <i>Journal of Polymer Science Part A</i> , <b>2013</b> , 51, 1924-1932	2.5	15
29	Synthesis and structure characterization of ladder-like polymethylsilsesquioxane (PMSQ) by isolation of stereoisomer. <i>European Polymer Journal</i> , <b>2012</b> , 48, 1073-1081	5.2	22
28	Removal of Benzene Using the Characteristics of Block Copolymers for Encapsulation. <i>Water, Air, and Soil Pollution</i> , <b>2012</b> , 223, 609-616	2.6	3
27	Photocatalytic Degradation of Chlorophenol Compounds using Poly Aromatic Star Copolymer. <i>Water, Air, and Soil Pollution</i> , <b>2012</b> , 223, 1437-1441	2.6	6
26	Synthesis and characterization of organic/organic hybrid block copolymers containing a fully condensed ladder-like polyphenylsilsesquioxane. <i>Journal of Polymer Science Part A</i> , <b>2012</b> , 50, 4563-4570 <sup>2.5</sup> 21		
25	Highly purified cyclic olefin polymer by ROMP and In situ hydrogenation with ruthenium supported catalyst. <i>Macromolecular Research</i> , <b>2012</b> , 20, 777-779	1.9	7
24	Structural analysis of high molecular weight PMSQs and their related properties for interlayer dielectric (ILD) application. <i>Macromolecular Research</i> , <b>2012</b> , 20, 1131-1136	1.9	7
23	Tunable polymer actuators via a simple and versatile blending approach. <i>Sensors and Actuators B: Chemical</i> , <b>2012</b> , 174, 547-554	8.5	13
22	Synthesis and Characterization of Azido-Substituted Ladder-like Polysilsesquioxanes and their Click Chemistry. <i>Molecular Crystals and Liquid Crystals</i> , <b>2012</b> , 566, 126-134	0.5	

21	Synthesis of Ladder-Like Polysilsesquioxane with Well-Defined Graft Polymers. <i>Molecular Crystals and Liquid Crystals</i> , <b>2011</b> , 539, 174/[514]-183/[523]	0.5	2
20	Synthesis and characterization of ladder-like structured polysilsesquioxane with carbazole group. <i>Macromolecular Research</i> , <b>2011</b> , 19, 261-265	1.9	19
19	Synthesis of amphiphilic star block copolymer with photosensitive core by ATRP. <i>Macromolecular Research</i> , <b>2011</b> , 19, 461-467	1.9	9
18	Synthesis of multiarmed poly(3-hexyl thiophene) star polymer with microgel core by GRIM and ATRP methods. <i>Journal of Polymer Science Part A</i> , <b>2011</b> , 49, 4221-4226	2.5	13
17	Synthesis and characterization of UV-curable ladder-like polysilsesquioxane. <i>Journal of Polymer Science Part A</i> , <b>2011</b> , 49, 5012-5018	2.5	75
16	Amphiphilic Block Copolymer for adsorption of Organic Contaminants. <i>Advances in Chemical Engineering and Science</i> , <b>2011</b> , 01, 77-82	0.4	6
15	High photo- and electroluminescence efficiencies of ladder-like structured polysilsesquioxane with carbazole groups. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 9852		50
14	Synthesis and Characterization of UV Crosslinkable and Highly Sulfonated Block Copolymer by Living Radical Polymerization. <i>Molecular Crystals and Liquid Crystals</i> , <b>2010</b> , 520, 256/[532]-261/[537]	0.5	1
13	Morphology Control of Highly Sulfonated Block Copolymers by a Simple Thermal Process. <i>Macromolecular Chemistry and Physics</i> , <b>2010</b> , 211, 613-617	2.6	11
12	Morphology effect of sulfonated triblock copolymers for water retention and proton conductivity at high temperature. <i>Macromolecular Research</i> , <b>2009</b> , 17, 455-457	1.9	2
11	Synthesis and characterization of sulfonated block copolymers by atom transfer radical polymerization. <i>Journal of Polymer Science Part A</i> , <b>2008</b> , 46, 5991-5998	2.5	19
10	Amphiphilic diblock star polymer catalysts via atom transfer radical polymerization. <i>Journal of Polymer Science Part A</i> , <b>2006</b> , 44, 4939-4951	2.5	45
9	Synthesis of star-shaped copolymers with methyl methacrylate and n-butyl methacrylate by metal-catalyzed living radical polymerization: Block and random copolymer arms and microgel cores. <i>Journal of Polymer Science Part A</i> , <b>2002</b> , 40, 633-641	2.5	51
8	Star poly(methyl methacrylate) with end-functionalized arm chains by ruthenium-catalyzed living radical polymerization. <i>Journal of Polymer Science Part A</i> , <b>2002</b> , 40, 1972-1982	2.5	45
7	Synthesis of end-functionalized poly(methyl methacrylate) by ruthenium-catalyzed living radical polymerization with functionalized initiators. <i>Journal of Polymer Science Part A</i> , <b>2002</b> , 40, 1937-1944	2.5	42
6	Iron-catalyzed living radical polymerization of acrylates: Iodide-based initiating systems and block and random copolymerizations. <i>Journal of Polymer Science Part A</i> , <b>2002</b> , 40, 2033-2043	2.5	39
5	Controlled radical polymerization of 2-hydroxyethyl methacrylate with a hydrophilic ruthenium complex and the synthesis of amphiphilic random and block copolymers with methyl methacrylate. <i>Journal of Polymer Science Part A</i> , <b>2002</b> , 40, 2055-2065	2.5	20
4	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. <i>Journal of Polymer Science Part A</i> , <b>2002</b> , 40, 2245-2255	2.5	41

3	Core-Functionalized Star Polymers by Transition Metal-Catalyzed Living Radical Polymerization. 2. Selective Interaction with Protic Guests via Core Functionalities <sup>1</sup> . <i>Macromolecules</i> , <b>2002</b> , 35, 1493-1498	5.5	82
2	Core-Functionalized Star Polymers by Transition Metal-Catalyzed Living Radical Polymerization. 1. Synthesis and Characterization of Star Polymers with PMMA Arms and Amide Cores <sup>1</sup> . <i>Macromolecules</i> , <b>2001</b> , 34, 7629-7635	5.5	96
1	Star-Shaped Polymers by Metal-Catalyzed Living Radical Polymerization. 1. Design of Ru(II)-Based Systems and Divinyl Linking Agents. <i>Macromolecules</i> , <b>2001</b> , 34, 215-221	5.5	195