Hong Chul Moon

List of Publications by Year
in descending order

84 papers	3,158 citations	147801 31 h-index	168389 53 g-index
87 all docs	87 docs citations	87 times ranked	2558 citing authors

#	Article	IF	Citations
1	Solution Processable, Electrochromic Ion Gels for Sub-1 V, Flexible Displays on Plastic. Chemistry of Materials, 2015, 27, 1420-1425.	6.7	219
2	Solution-Processable Electrochemiluminescent Ion Gels for Flexible, Low-Voltage, Emissive Displays on Plastic. Journal of the American Chemical Society, 2014, 136, 3705-3712.	13.7	204
3	Multicolored, Low-Power, Flexible Electrochromic Devices Based on Ion Gels. ACS Applied Materials & Interfaces, 2016, 8, 6252-6260.	8.0	202
4	Ionoskins: Nonvolatile, Highly Transparent, Ultrastretchable Ionic Sensory Platforms for Wearable Electronics. Advanced Functional Materials, 2020, 30, 1907290.	14.9	146
5	Voltage-Tunable Multicolor, Sub-1.5 V, Flexible Electrochromic Devices Based on Ion Gels. ACS Applied Materials & Interfaces, 2017, 9, 7658-7665.	8.0	138
6	Reliable, High-Performance Electrochromic Supercapacitors Based on Metal-Doped Nickel Oxide. ACS Applied Materials & Interfaces, 2020, 12, 51978-51986.	8.0	99
7	Dual-Function Electrochromic Supercapacitors Displaying Real-Time Capacity in Color. ACS Applied Materials & Interfaces, 2018, 10, 43993-43999.	8.0	82
8	Extremely fast electrochromic supercapacitors based on mesoporous WO3 prepared by an evaporation-induced self-assembly. NPG Asia Materials, 2020, 12, .	7.9	76
9	Mechanically Robust, Highly Ionic Conductive Gels Based on Random Copolymers for Bending Durable Electrochemical Devices. Advanced Functional Materials, 2018, 28, 1706948.	14.9	71
10	3D Printed, Customizable, and Multifunctional Smart Electronic Eyeglasses for Wearable Healthcare Systems and Humanâ€“Machine Interfaces. ACS Applied Materials & Interfaces, 2020, 12, 21424-21432.	8.0	68
11	Low-voltage, simple WO₃-based electrochromic devices by directly incorporating an anodic species into the electrolyte. Journal of Materials Chemistry C, 2016, 4, 10887-10892.	5.5	64
12	Facile Synthesis of Well-Defined Coilâ^'Rodâ^'Coil Block Copolymer Composed of Regioregular Poly(3-hexylthiophene) via Anionic Coupling Reaction. Macromolecules, 2010, 43, 1747-1752.	4.8	58
13	Electrostatic-Force-Assisted Dispensing Printing of Electrochromic Gels for Low-Voltage Displays. ACS Applied Materials & Interfaces, 2017, 9, 18994-19000.	8.0	57
14	Ultra-Low Power Electrochromic Heat Shutters Through Tailoring Diffusion-Controlled Behaviors. ACS Applied Materials & Interfaces, 2020, 12, 30635-30642.	8.0	55
15	Non-volatile, Li-doped ion gel electrolytes for flexible WO3-based electrochromic devices. Materials and Design, 2019, 162, 45-51.	7.0	53
16	DC-Driven, Sub-2 V Solid-State Electrochemiluminescent Devices by Incorporating Redox Coreactants into Emissive Ion Gels. Chemistry of Materials, 2014, 26, 5358-5364.	6.7	52
17	Self-Assembly of Poly(3-dodecylthiophene)-<i>block</i>-poly(methyl methacrylate) Copolymers Driven by Competition between Microphase Separation and Crystallization. Macromolecules, 2012, 45, 5201-5207.	4.8	51
18	User-Customized, Multicolor, Transparent Electrochemical Displays Based on Oxidatively Tuned Electrochromic Ion Gels. ACS Applied Materials & Interfaces, 2019, 11, 45959-45968.	8.0	51

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19	Semitransparent Energyâ€Storing Functional Photovoltaics Monolithically Integrated with Electrochromic Supercapacitors. Advanced Functional Materials, 2020, 30, 1909601.	14.9	51
20	Functional Ion Gels: Versatile Electrolyte Platforms for Electrochemical Applications. Chemistry of Materials, 2021, 33, 2683-2705.	6.7	51
21	Facile Synthetic Route for Well-Defined Poly(3-hexylthiophene)-block-poly(methyl methacrylate) Copolymer by Anionic Coupling Reaction. Macromolecules, 2011, 44, 1894-1899.	4.8	49
22	Electrochemiluminescent displays based on ion gels: correlation between device performance and choice of electrolyte. Journal of Materials Chemistry C, 2016, 4, 8448-8453.	5.5	48
23	Porous Ion Gel: A Versatile Ionotronic Sensory Platform for High-Performance, Wearable Ionoskins with Electrical and Optical Dual Output. ACS Nano, 2021, 15, 15132-15141.	14.6	48
24	Novel viologen derivatives for electrochromic ion gels showing a green-colored state with improved stability. Organic Electronics, 2017, 51, 490-495.	2.6	47
25	Unveiling the diffusion-controlled operation mechanism of all-in-one type electrochromic supercapacitors: Overcoming slow dynamic response with ternary gel electrolytes. Energy Storage Materials, 2021, 43, 20-29.	18.0	47
26	A facile random copolymer strategy to achieve highly conductive polymer gel electrolytes for electrochemical applications. Journal of Materials Chemistry C, 2019, 7, 161-169.	5.5	42
27	Highly stable ion gel-based electrochromic devices: Effects of molecular structure and concentration of electrochromic chromophores. Organic Electronics, 2018, 56, 178-185.	2.6	41
28	Effects of counter ions on electrochromic behaviors of asymmetrically substituted viologens. Solar Energy Materials and Solar Cells, 2019, 197, 25-31.	6.2	40
29	Vertical Orientation of Nanodomains on Versatile Substrates through Selfâ€Neutralization Induced by Starâ€Shaped Block Copolymers. Advanced Functional Materials, 2015, 25, 5414-5419.	14.9	37
30	Star-Shaped Block Copolymers: Effective Polymer Gelators of High-Performance Gel Electrolytes for Electrochemical Devices. ACS Applied Materials & Interfaces, 2019, 11, 4399-4407.	8.0	34
31	Effect of ion migration in electro-generated chemiluminescence depending on the luminophore types and operating conditions. Chemical Science, 2018, 9, 2480-2488.	7.4	33
32	Phase Behavior of Star-Shaped Polystyrene-<i>block</i>-poly(methyl methacrylate) Copolymers. Macromolecules, 2014, 47, 5295-5302.	4.8	32
33	Cone-jet printing of aligned silver nanowire/poly(ethylene oxide) composite electrodes for organic thin-film transistors. Organic Electronics, 2019, 69, 190-199.	2.6	32
34	Effect of the Degree of Hydrogen Bonding on Asymmetric Lamellar Microdomains in Binary Block Copolymer Blends. Macromolecules, 2015, 48, 6347-6352.	4.8	31
35	Air-stable inverted structure of hybrid solar cells using a cesium-doped ZnO electron transport layer prepared by a solâ€"gel process. Journal of Materials Chemistry A, 2013, 1, 11802.	10.3	30
36	Asymmetric molecular modification of viologens for highly stable electrochromic devices. RSC Advances, 2020, 10, 394-401.	3.6	30

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37	Rational molecular design of electrochromic conjugated polymers: Toward high-performance systems with ultrahigh coloration efficiency. Chemical Engineering Journal, 2022, 433, 133808.	12.7	30
38	Ion-cluster-mediated ultrafast self-healable ionoconductors for reconfigurable electronics. Nature Communications, 2022, 13, .	12.8	30
39	Multicolor, dual-image, printed electrochromic displays based on tandem configuration. Chemical Engineering Journal, 2022, 429, 132319.	12.7	28
40	Phase Behavior of Binary Blend Consisting of Asymmetric Polystyrene-<i>block</i>-poly(2-vinylpyridine) Copolymer and Asymmetric Deuterated Polystyrene-<i>block</i>-poly(4-hydroxystyrene) Copolymer. Macromolecules, 2015, 48, 1262-1266.	4.8	27
41	Voltage-Tunable Dual Image of Electrostatic Force-Assisted Dispensing Printed, Tungsten Trioxide-Based Electrochromic Devices with a Symmetric Configuration. ACS Applied Materials & Interfaces, 2020, 12, 4022-4030.	8.0	27
42	Tailoring Diffusion Dynamics in Energy Storage Ionic Conductors for Highâ€Performance, Multiâ€Function, Singleâ€Layer Electrochromic Supercapacitors. Advanced Functional Materials, 2022, 32, .	14.9	26
43	Improvement of brightness, color purity, and operational stability of electrochemiluminescence devices with diphenylanthracene derivatives. Journal of Materials Chemistry C, 2017, 5, 12513-12519.	5.5	25
44	Facile synthesis for wellâ€defined A₂B miktoarm star copolymer of poly(3â€hexylthiophene) and poly(methyl methacrylate) by the combination of anionic polymerization and click reaction. Journal of Polymer Science Part A, 2013, 51, 2225-2232.	2.3	24
45	Synthesis and Characterization of [Poly(3-dodecylthiophene)]₂Poly(methyl methacrylate) Miktoarm Star Copolymer. Macromolecules, 2015, 48, 3523-3530.	4.8	24
46	Optimized low-temperature fabrication of WO₃ films for electrochromic devices. Journal Physics D: Applied Physics, 2017, 50, 465105.	2.8	24
47	Non-lithographic direct patterning of carbon nanomaterial electrodes via electrohydrodynamic-printed wettability patterns by polymer brush for fabrication of organic field-effect transistor. Applied Surface Science, 2020, 515, 145989.	6.1	24
48	Reduction of Line Edge Roughness of Polystyrene-<i>block</i>-Poly(methyl methacrylate) Copolymer Nanopatterns By Introducing Hydrogen Bonding at the Junction Point of Two Block Chains. ACS Applied Materials & Interfaces, 2017, 9, 31245-31251.	8.0	23
49	Non-volatile, phase-transition smart gels visually indicating <i>in situ</i> thermal status for sensing applications. Nanoscale, 2019, 11, 16733-16742.	5.6	21
50	Phase Behavior of Polystyrene-block-Poly(n-butyl-ran-n-hexyl) Methacrylate Copolymers. Macromolecules, 2008, 41, 6793-6799.	4.8	20
51	Spray-coated transparent hybrid electrodes for high-performance electrochromic devices on plastic. Organic Electronics, 2018, 62, 151-156.	2.6	20
52	Phase segregation of poly(3-dodecylthiophene)-block-poly(methyl methacrylate) copolymers. Polymer, 2013, 54, 5437-5442.	3.8	19
53	Exfoliation of organoclay nanocomposites based on polystyrene-block-polyisoprene-block-poly(2-vinylpyridine) copolymer: Solution blending versus melt blending. Polymer, 2010, 51, 936-952.	3.8	18
54	Various Coating Methodologies of WO3 According to the Purpose for Electrochromic Devices. Nanomaterials, 2020, 10, 821.	4.1	18

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55	Balancing the Concentrations of Redox Species to Improve Electrochemiluminescence by Tailoring the Symmetry of the AC Voltage. ChemElectroChem, 2018, 5, 2836-2841.	3.4	17
56	End-on Chain Orientation of Poly(3-alkylthiophene)s on a Substrate by Microphase Separation of Lamellar Forming Amphiphilic Diblock Copolymer. Macromolecules, 2019, 52, 6734-6740.	4.8	16
57	Tetrathiafulvalene: effective organic anodic materials for WO₃-based electrochromic devices. RSC Advances, 2019, 9, 19450-19456.	3.6	15
58	Novel triphenylamine containing poly-viologen for voltage-tunable multi-color electrochromic device. Dyes and Pigments, 2021, 190, 109321.	3.7	15
59	Effect of Molecular Weight on Competitive Self-Assembly of Poly(3-dodecylthiophene)-block-poly(methyl methacrylate) Copolymers. Macromolecules, 2016, 49, 3647-3653.	4.8	14
60	Microphase Separation of P3HT-Containing Miktoarm Star Copolymers. Macromolecules, 2016, 49, 616-623.	4.8	13
61	Improvement of power conversion efficiency of P3HT:CdSe hybrid solar cells by enhanced interconnection of CdSe nanorods via decomposable selenourea. Journal of Materials Chemistry A, 2013, 1, 2401.	10.3	12
62	Tunable electrochromic behavior of biphenyl poly(viologen)-based ion gels in all-in-one devices. Organic Electronics, 2022, 100, 106395.	2.6	12
63	Tuning the Phase Behavior of Polystyrene-<i>block</i>-poly(<i>n</i>-alkyl methacrylate) Copolymers by Introducing Random Copolymer for Methacrylate Block. Macromolecules, 2009, 42, 5406-5410.	4.8	11
64	Impact of chain flexibility of copolymer gelators on performance of ion gel electrolytes for functional electrochemical devices. Journal of Industrial and Engineering Chemistry, 2020, 90, 341-350.	5.8	11
65	Effect of neutral solvent on the phase behavior of polystyrene-block-poly(n-butyl methacrylate) copolymers. Macromolecular Research, 2007, 15, 656-661.	2.4	10
66	Isomeric effects of poly-viologens on electrochromic performance and applications in low-power electrochemical devices. Solar Energy Materials and Solar Cells, 2022, 240, 111734.	6.2	10
67	Performance improvement of yellow emitting electrochemiluminescence devices: Effects of frequency control and coreactant pathway. Organic Electronics, 2019, 65, 394-400.	2.6	9
68	Vertically Oriented Nanostructures of Poly(3-dodecylthiophene)-Containing Rodâ€“Coil Block Copolymers. Macromolecules, 2018, 51, 4956-4965.	4.8	8
69	Block<i>versus</i>random: effective molecular configuration of copolymer gelators to obtain high-performance gel electrolytes for functional electrochemical devices. Journal of Materials Chemistry C, 2020, 8, 17045-17053.	5.5	8
70	Fabrication of Grid-Type Transparent Conducting Electrodes Based on Controlled Mechanical Fracture. Macromolecular Research, 2018, 26, 157-163.	2.4	7
71	Mechanically robust and thermally stable electrochemical devices based on star-shaped random copolymer gel-electrolytes. Journal of Industrial and Engineering Chemistry, 2020, 88, 233-240.	5.8	7
72	Correlation between ion gel characteristics and performance of ionic pressure sensors. Journal of Materials Chemistry C, 2021, 9, 5445-5451.	5.5	7

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73	Isomeric Effects on the Phase Behavior of Polystyrene-block-poly(pentyl methacrylate) Copolymers. Macromolecules, 2012, 45, 3639-3643.	4.8	6
74	Pressure Effect of Various Inert Gases on the phase Behavior of Polystyrene-block-Poly(n-pentyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 70	4.8	6
75	Tuned phase behavior of weakly interacting polystyrene-block-poly(n-pentyl methacrylate) by selective solvent. Polymer, 2014, 55, 951-957.	3.8	6
76	Polymeric Ion Conductors Based on Sonoâ€Polymerized Zwitterionic Polymers for Electrochromic Supercapacitors with Improved Shelfâ€Life Stability. Macromolecular Rapid Communications, 2021, 42, e2100468.	3.9	6
77	Thermal stability of ester linkage in the presence of 1,2,3â€Triazole moiety generated by click reaction. Journal of Polymer Science Part A, 2017, 55, 427-436.	2.3	5
78	DNA Optoelectronics: Versatile Systems for On-Demand Functional Electrochemical Applications. ACS Nano, 2022, 16, 241-250.	14.6	5
79	In situ TEM observation of phase transition of the nanoscopic patterns on baroplastic block copolymer films during nanoindentation. Nanoscale, 2013, 5, 4351.	5.6	4
80	Flexible conducting electrodes based on an embedded double-layer structure of gold ribbons and silver nanowires. RSC Advances, 2016, 6, 50158-50165.	3.6	4
81	Advanced Side-Impermeability Characteristics of Fluorinated Organic-Inorganic Nanohybrid Materials for Thin Film Encapsulation. Macromolecular Research, 2021, 29, 313-320.	2.4	3
82	Binary Co-Gelator Strategy: Toward Highly Deformable Ionic Conductors for Wearable Ionoskins. ACS Applied Materials & Interfaces, 2022, 14, 32533-32540.	8.0	3
83	Enhanced Vertical Hole Mobility through End-on Chain Orientation of Poly(3-hexylthiophene)-based Diblock Copolymers by Microphase Separation. Macromolecules, 2022, 55, 6160-6166.	4.8	3
84	Screen printing of graphene-based nanocomposite inks for flexible organic integrated circuits. Organic Electronics, 2022, 108, 106603.	2.6	3