

# U Hyeok Choi

## List of Publications by Year in descending order

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56  
papers

2,015  
citations

257101

24  
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docs citations

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times ranked

2155  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dielectric and Viscoelastic Responses of Imidazolium-Based Ionomers with Different Counterions and Side Chain Lengths. <i>Macromolecules</i> , 2014, 47, 777-790.	2.2	179
2	Ionic Conduction and Dielectric Response of Poly(imidazolium acrylate) Ionomers. <i>Macromolecules</i> , 2012, 45, 3974-3985.	2.2	151
3	One-volt-driven superfast polymer actuators based on single-ion conductors. <i>Nature Communications</i> , 2016, 7, 13576.	5.8	130
4	Synthesis and Lithium Ion Conduction of Polysiloxane Single-Ion Conductors Containing Novel Weak-Binding Borates. <i>Chemistry of Materials</i> , 2012, 24, 2316-2323.	3.2	129
5	Polymerized Ionic Liquids with Enhanced Static Dielectric Constants. <i>Macromolecules</i> , 2013, 46, 1175-1186.	2.2	126
6	Ion Conduction in Imidazolium Acrylate Ionic Liquids and their Polymers. <i>Chemistry of Materials</i> , 2010, 22, 5814-5822.	3.2	124
7	Imidazolium Polyesters: Structure-Property Relationships in Thermal Behavior, Ionic Conductivity, and Morphology. <i>Advanced Functional Materials</i> , 2011, 21, 708-717.	7.8	94
8	Multifunctional Epoxy-Based Solid Polymer Electrolytes for Solid-State Supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 35108-35117.	4.0	79
9	Molecular Volume Effects on the Dynamics of Polymerized Ionic Liquids and their Monomers. <i>Electrochimica Acta</i> , 2015, 175, 55-61.	2.6	76
10	Segmental Dynamics and Dielectric Constant of Polysiloxane Polar Copolymers as Plasticizers for Polymer Electrolytes. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 3215-3225.	4.0	73
11	High Ion Conducting Nanohybrid Solid Polymer Electrolytes <i>via</i> Single-Ion Conducting Mesoporous Organosilica in Poly(ethylene oxide). <i>Chemistry of Materials</i> , 2017, 29, 4401-4410.	3.2	67
12	Influence of Solvating Plasticizer on Ion Conduction of Polysiloxane Single-Ion Conductors. <i>Macromolecules</i> , 2014, 47, 3145-3153.	2.2	63
13	Ionic liquid-based molecular design for transparent, flexible, and fire-retardant triboelectric nanogenerator (TENG) for wearable energy solutions. <i>Nano Energy</i> , 2021, 84, 105925.	8.2	56
14	1,2-Bis[N-(N-alkylimidazolium)]ethane salts: a new class of organic ionic plastic crystals. <i>Journal of Materials Chemistry</i> , 2011, 21, 12280.	6.7	54
15	High Ion Content Siloxane Phosphonium Ionomers with Very Low $T_g$ . <i>Macromolecules</i> , 2014, 47, 4428-4437.	2.2	48
16	Dynamics of Precise Ethylene Ionomers Containing Ionic Liquid Functionality. <i>Macromolecules</i> , 2015, 48, 410-420.	2.2	42
17	Tuning anhydrous proton conduction in single-ion polymers by crystalline ion channels. <i>Nature Communications</i> , 2018, 9, 5029.	5.8	40
18	Influence of $Al_2O_3$ Nanowires on Ion Transport in Nanocomposite Solid Polymer Electrolytes. <i>Macromolecules</i> , 2018, 51, 10194-10201.	2.2	33

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19	The Role of Solvating 12-Crown-4 Plasticizer on Dielectric Constant and Ion Conduction of Poly(ethylene oxide) Single-Ion Conductors. <i>Macromolecules</i> , 2017, 50, 5582-5591.	2.2	32
20	Ion-cluster-mediated ultrafast self-healable ionoconductors for reconfigurable electronics. <i>Nature Communications</i> , 2022, 13, .	5.8	30
21	Tuning Morphology and Properties of Epoxy-Based Solid-State Polymer Electrolytes by Molecular Interaction for Flexible All-Solid-State Supercapacitors. <i>Chemistry of Materials</i> , 2020, 32, 3879-3892.	3.2	29
22	Highly Flexible and Stable Solid-State Supercapacitors Based on a Homogeneous Thin Ion Gel Polymer Electrolyte Using a Poly(dimethylsiloxane) Stamp. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 42221-42232.	4.0	27
23	Dielectric control of porous polydimethylsiloxane elastomers with Au nanoparticles for enhancing the output performance of triboelectric nanogenerators. <i>RSC Advances</i> , 2020, 10, 21309-21317.	1.7	27
24	Plasticizing Li single-ion conductors with low-volatility siloxane copolymers and oligomers containing ethylene oxide and cyclic carbonates. <i>Journal of Materials Chemistry A</i> , 2015, 3, 21269-21276.	5.2	24
25	Bis-imidazolium iodide organic ionic plastic crystals and their applications to solid state dye-sensitized solar cells. <i>Organic Electronics</i> , 2017, 48, 241-247.	1.4	23
26	Ion Conduction and Viscoelastic Response of Epoxy-Based Solid Polymer Electrolytes Containing Solvating Plastic Crystal Plasticizer. <i>Macromolecular Chemistry and Physics</i> , 2018, 219, 1700514.	1.1	23
27	Effects of pyridine and pyrrole moieties on supercapacitive properties of imine-rich nitrogen-doped graphene. <i>Carbon</i> , 2019, 152, 915-923.	5.4	22
28	Ion Conduction, Dielectric and Mechanical Properties of Epoxy-Based Solid Polymer Electrolytes Containing Succinonitrile. <i>Macromolecular Research</i> , 2018, 26, 459-465.	1.0	21
29	Characterization of a Soft Pressure Sensor on the Basis of Ionic Liquid Concentration and Thickness of the Piezoresistive Layer. <i>IEEE Sensors Journal</i> , 2019, 19, 6076-6084.	2.4	21
30	Effect of chain flexibility on cell adhesion: Semi-flexible model-based analysis of cell adhesion to hydrogels. <i>Scientific Reports</i> , 2019, 9, 2463.	1.6	19
31	Water-Assisted Increase of Ionic Conductivity of Lithium Poly(acrylic acid)-Based Aqueous Polymer Electrolyte. <i>ACS Applied Energy Materials</i> , 2020, 3, 10119-10130.	2.5	19
32	Role of Chain Polarity on Ion and Polymer Dynamics: Molecular Volume-Based Analysis of the Dielectric Constant for Polymerized Norbornene-Based Ionic Liquids. <i>Macromolecules</i> , 2020, 53, 10561-10573.	2.2	18
33	Multi-Foldable and Environmentally Stable All-Solid-State Supercapacitor Based on Hierarchical Nano-Canyon Structured Ionic-Gel Polymer Electrolyte. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	16
34	Ion Conduction in a Semicrystalline Polyviologen and Its Polyether Mixtures. <i>Macromolecular Chemistry and Physics</i> , 2015, 216, 344-349.	1.1	13
35	The Effect of Oligo(oxyethylene) Moieties on Ion Conduction and Dielectric Properties of Norbornene-Based Imidazolium T <sub>2</sub> N Ionic Liquid Monomers. <i>Macromolecules</i> , 2020, 53, 4990-5000.	2.2	11
36	Imidazolium-Based Ionic Liquids as Initiators in Ring Opening Polymerization: Ionic Conduction and Dielectric Response of End-Functional Polycaprolactones and Their Block Copolymers. <i>Macromolecular Chemistry and Physics</i> , 2016, 217, 1270-1281.	1.1	10

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37	Interesting phase behaviors and ion-conducting properties of dicationic <i>N,N'</i> -alkylimidazolium tetrafluoroborate salts. <i>RSC Advances</i> , 2019, 9, 3972-3978.	1.7	10
38	Effect of Poly(ethylene glycol) Crystallization on Ionic Conduction and Dielectric Response of Imidazolium-Based Copolyester Ionomers. <i>Macromolecules</i> , 2019, 52, 2314-2328.	2.2	10
39	Correlating morphology to thermal and electrical properties in imidazolium-poly(ethylene glycol) copolyesters. <i>Polymer</i> , 2018, 146, 420-428.	1.8	7
40	Ion Conducting ROMP Monomers Based on (Oxa)norbornenes with Pendant Imidazolium Salts Connected via Oligo(oxyethylene) Units and with Oligo(ethyleneoxy) Terminal Moieties. <i>Macromolecules</i> , 2019, 52, 1371-1388.	2.2	6
41	Ion-Dipole-Interaction-Driven Complexation of Polyethers with Polyviologen-Based Single-Ion Conductors. <i>Macromolecules</i> , 2019, 52, 4240-4250.	2.2	5
42	Studies of Ion Conductance in Polymers Derived from Norbornene Imidazolium Salts Containing Ethyleneoxy Moieties. <i>Macromolecules</i> , 2019, 52, 1389-1399.	2.2	5
43	Self-assembled block copolymer electrolyte membranes with silica network-derived nanochannels for all-solid-state supercapacitors. <i>Chemical Engineering Journal</i> , 2022, 429, 132273.	6.6	5
44	Synthesis and Characterization of Silica Aerogel-Polymer Hybrid Materials. <i>Molecular Crystals and Liquid Crystals</i> , 2019, 687, 97-104.	0.4	4
45	Precise Placement of Metallic Nanowires on a Substrate by Localized Electric Fields and Inter-Nanowire Electrostatic Interaction. <i>Nanomaterials</i> , 2017, 7, 335.	1.9	3
46	Organic Ionic Crystals: Solid-Phase Structure and Thermal Properties of Dicationic $\text{[N,N'-alkylpyridinium]}_2\text{[N}_2\text{F}_{11}]$ Hexafluorophosphate Salts. <i>Asian Journal of Organic Chemistry</i> , 2019, 8, 1718-1725.	1.3	3
47	The role of inorganic nanoparticle on ion conduction of epoxy-based solid polymer electrolytes for lithium-ion batteries. <i>Molecular Crystals and Liquid Crystals</i> , 2019, 687, 105-112.	0.4	2
48	Flexible and high ion conducting solid polymer electrolytes prepared via ring-opening polymerization. <i>Molecular Crystals and Liquid Crystals</i> , 2020, 705, 99-104.	0.4	2
49	Influence of intermolecular interactions on molecular geometry and physical quantities in electrolyte systems. <i>Molecular Physics</i> , 0, , 1-6.	0.8	1
50	The effect of lithium salt type on ionic conductivity of poly(vinylidene difluoride)-based solid polymer electrolytes. <i>Molecular Crystals and Liquid Crystals</i> , 2020, 705, 93-98.	0.4	1
51	Ion transport through layered hydrogels for low-frequency energy harvesting toward self-powered chemical systems. <i>Journal of Materials Chemistry A</i> , 2022, 10, 11881-11892.	5.2	1
52	The effect of inorganic nanoparticles on ion conduction in poly(lithium acrylate)-based composite polymer electrolytes for energy storage devices. <i>Molecular Crystals and Liquid Crystals</i> , 2022, 742, 103-110.	0.4	1
53	Manipulation and Investigation of Uniformly-Spaced Nanowire Array on a Substrate via Dielectrophoresis and Electrostatic Interaction. <i>Nanomaterials</i> , 2018, 8, 456.	1.9	0
54	Preparation of porous polyacrylonitrile membrane-based gel polymer electrolyte for solid-state supercapacitor. <i>Molecular Crystals and Liquid Crystals</i> , 0, , 1-7.	0.4	0

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55	Functionalized Silica Particle Based Single Ion Conducting Hybrid Electrolyte for Li-Ion Battery. ECS Meeting Abstracts, 2019, , .	0.0	0
56	Mutifunctional Epoxy-Based Solid Polymer Electrolytes for Energy Storage Systems. ECS Meeting Abstracts, 2019, , .	0.0	0