

Hee-Woo Rhee

List of Publications by Year in descending order

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79
papers

3,865
citations

87886

38
h-index

128286

60
g-index

80
all docs

80
docs citations

80
times ranked

4219
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly conducting polymer electrolyte-ionic liquid and porous carbon material for sandwich electric double layer capacitor. High Performance Polymers, 2021, 33, 469-475.	1.8	15
2	Industrial scale-up: Lab to commercial-scale manufacturing of POSS composites. , 2021, , 499-516.		1
3	Review of current progress in inorganic hole-transport materials for perovskite solar cells. Applied Materials Today, 2019, 14, 175-200.	4.3	158
4	A novel sPEEK nanocomposite membrane with well-controlled sPOSS aggregation in tunable nanochannels for fast proton conduction. Nanoscale, 2018, 10, 18217-18227.	5.6	17
5	Sulfonated poly(etheretherketone) based nanocomposite membranes containing POSS-SA for polymer electrolyte membrane fuel cells (PEMFC). Journal of Membrane Science, 2018, 566, 69-76.	8.2	23
6	Ionic liquid doped PEO-based solid polymer electrolytes for lithium-ion polymer batteries. International Journal of Hydrogen Energy, 2017, 42, 7212-7219.	7.1	150
7	Effect of Organic-Inorganic Hybrid Nanoparticles (POSS-PEG($n = 4$)) on Thermal, Mechanical, and Electrical Properties of PEO-Based Solid Polymer Electrolytes. Advances in Polymer Technology, 2017, 36, 145-151.	1.7	15
8	A Detailed Investigation into the Electrical Conductivity and Structural Properties of [Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 Polymer Electrolytes. Bulletin of the Korean Chemical Society, 2017, 38, 356-363.	1.9	12
9	Carbon nanotube using spray pyrolysis: Recent scenario. Journal of Alloys and Compounds, 2017, 691, 970-982.	5.5	39
10	Effect of POSS-PEG hybrid nanoparticles on cycling performance of polyether-LiDFOB based solid polymer electrolytes for all solid-state Li-ion battery applications. Journal of Industrial and Engineering Chemistry, 2017, 45, 68-77.	5.8	43
11	Effect of TiO ₂ nanoparticles on structural, thermal, mechanical and ionic conductivity studies of PEO 12 -LiTDI solid polymer electrolyte. Journal of Industrial and Engineering Chemistry, 2016, 37, 347-353.	5.8	100
12	Perspectives for solid biopolymer electrolytes in dye sensitized solar cell and battery application. Renewable and Sustainable Energy Reviews, 2016, 65, 1098-1117.	16.4	106
13	Catalyst screening for the melt polymerization of isosorbide-based polycarbonate. Journal of Industrial and Engineering Chemistry, 2016, 37, 42-46.	5.8	64
14	Efficient dye sensitized solar cell and supercapacitor using 1-ethyl 3-methyl imidazolium dicyanamide incorporated PVDF-HFP polymer matrix. Journal of Industrial and Engineering Chemistry, 2016, 33, 381-384.	5.8	21
15	The Effects of LiTDI Salt and POSS-PEG ($n = 4$) Hybrid Nanoparticles on Crystallinity and Ionic Conductivity of PEO Based Solid Polymer Electrolytes. Science of Advanced Materials, 2016, 8, 931-940.	0.7	45
16	Poly(ethylene oxide)-lithium difluoro(oxalato)borate new solid polymer electrolytes: ion-polymer interaction, structural, thermal, and ionic conductivity studies. Ionics, 2015, 21, 2771-2780.	2.4	62
17	New solid polymer electrolytes (PEO20-LiTDI-SN) for lithium batteries: structural, thermal and ionic conductivity studies. Journal of Materials Science: Materials in Electronics, 2015, 26, 8548-8554.	2.2	45
18	Solid gellan gum polymer electrolyte for energy application. International Journal of Hydrogen Energy, 2015, 40, 9365-9372.	7.1	48

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19	Nanocomposite solid polymer electrolytes based on poly(ethylene oxide)/POSS-PEG (n=13.3) hybrid nanoparticles for lithium ion batteries. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 31, 323-329.	5.8	84
20	Development of Highly Stable and Mass Transfer-Enhanced Cathode Catalysts: Support-Free Electrospun Intermetallic FePt Nanotubes for Polymer Electrolyte Membrane Fuel Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1402093.	19.5	70
21	A comprehensive study of chalcogenide quantum dot sensitized solar cells with a new solar cell exceeding 1 V output. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 52, 1083-1092.	16.4	27
22	Effect of Crystallization Conditions on Spherulite Size and Melt Spinning Performance of Polyester Industrial Yarn by Solid-State Polymerization. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 9150-9158.	3.7	3
23	Magnesium ion conducting solid polymer blend electrolyte based on biodegradable polymers and application in solid-state batteries. <i>Ionics</i> , 2015, 21, 125-132.	2.4	59
24	Detailed electrical measurements on sago starch biopolymer solid electrolyte. <i>Phase Transitions</i> , 2014, 87, 1237-1245.	1.3	34
25	Electrochemical synthesis of graphene oxide and its application as counter electrode in dye sensitized solar cell. <i>Journal of Renewable and Sustainable Energy</i> , 2014, 6, .	2.0	31
26	Synthesis, characterization and application of CdSe quantum dots. <i>Journal of Industrial and Engineering Chemistry</i> , 2014, 20, 4188-4193.	5.8	61
27	Preparation of newly synthesized forward osmosis membrane. <i>Desalination and Water Treatment</i> , 2013, 51, 5191-5195.	1.0	7
28	New polymer electrolyte for electrochemical application. <i>Journal of Industrial and Engineering Chemistry</i> , 2013, 19, 819-822.	5.8	42
29	Plasticizing Effect of K ⁺ Ions and Succinonitrile on Electrical Conductivity of [Poly(ethylene oxide)-Succinonitrile]/KI ₂ Redox-Couple Solid Polymer Electrolyte. <i>Journal of Physical Chemistry B</i> , 2013, 117, 7465-7471.	2.6	20
30	Effect of succinonitrile on electrical, structural, optical, and thermal properties of [poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3 159-164.	5.2	32
31	Preparation, characterization and application of Nano CdS doped with alum composite electrolyte. <i>Journal of Physics and Chemistry of Solids</i> , 2012, 73, 1159-1163.	4.0	19
32	Poly(ethylene oxide)-succinonitrile a polymeric matrix for fast-ion conducting redox-couple solid electrolytes. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 205106.	2.8	25
33	Highly Conductive Redox-Couple Solid Polymer Electrolyte System: Blend-KI ₂ for Dye-Sensitized Solar Cells. <i>Advances in OptoElectronics</i> , 2011, 2011, 1-5.	0.6	7
34	Plasticizer doped ionic liquid incorporated solid polymer electrolytes for photovoltaic application. <i>Current Applied Physics</i> , 2011, 11, 616-619.	2.4	61
35	Ozone Treatment on Nanoporous Ultralow Dielectric Materials to Optimize their Mechanical and Dielectrical Properties. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1335, 99.	0.1	0
36	Synthesis, characterization and application of biopolymer-ionic liquid composite membranes. <i>Synthetic Metals</i> , 2010, 160, 139-142.	3.9	95

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37	Ionic liquid doped poly(N-methyl 4-vinylpyridine iodide) solid polymer electrolyte for dye-sensitized solar cell. <i>Synthetic Metals</i> , 2010, 160, 950-954.	3.9	35
38	High Temperature Membrane Based on Poly(dimethyl siloxane) and Porous Poly(tetra-fluoroethylene) Film. <i>Molecular Crystals and Liquid Crystals</i> , 2009, 510, 70/[1204]-78/[1212].	0.9	0
39	Ionic liquid (1-methyl 3-propyl imidazolium iodide) with polymer electrolyte for DSSC application. <i>Polymer Engineering and Science</i> , 2009, 49, 862-865.	3.1	29
40	Quantum dot doped solid polymer electrolyte for device application. <i>Electrochemistry Communications</i> , 2009, 11, 1247-1250.	4.7	19
41	Phosphonic acid functionalized poly(dimethyl siloxane) membrane for high temperature proton exchange membrane fuel cells. <i>Current Applied Physics</i> , 2009, 9, e56-e59.	2.4	7
42	Development and characterization of ionic liquid doped solid polymer electrolyte membranes for better efficiency. <i>Synthetic Metals</i> , 2009, 159, 1538-1541.	3.9	42
43	Preparation, characterization and application of ionic liquid doped solid polymer electrolyte membranes. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 125101.	2.8	25
44	Electrical, optical and photoelectrochemical studies on a solid PEO-polymer electrolyte doped with low viscosity ionic liquid. <i>Electrochemistry Communications</i> , 2008, 10, 1769-1772.	4.7	57
45	Mesoporous nanocrystalline TiO ₂ electrode with ionic liquid-based solid polymer electrolyte for dye-sensitized solar cell application. <i>Synthetic Metals</i> , 2008, 158, 590-593.	3.9	41
46	Nanocrystalline Porous TiO ₂ Electrode with Ionic Liquid Impregnated Solid Polymer Electrolyte for Dye Sensitized Solar Cells. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 5271-5274.	0.9	19
47	Dye Sensitized Solar Cell Using Polymer Electrolytes Based on Poly(ethylene oxide) with an Ionic Liquid. <i>Macromolecular Symposia</i> , 2007, 249-250, 162-166.	0.7	31
48	Nanoporous Organosilicate Thin Films Prepared with Covalently Bonded Adamantylphenol Pore Generators. <i>Chemistry of Materials</i> , 2006, 18, 378-385.	6.7	20
49	Chemically Reactive Nanoparticle for Ultra-low Applications. <i>Molecular Crystals and Liquid Crystals</i> , 2006, 445, 167/[457]-175/[465].	0.9	0
50	Iron Corrosion Protection by Ultra-thin Conductive Films Based on Polypyrrole/Poly(methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tj 50 222 Tc	0.9	2
51	Polymer electrolyte with ionic liquid for DSSC application. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, R88-R90.	1.8	29
52	Nafion/ZrSPP composite membrane for high temperature operation of proton exchange membrane fuel cells. <i>Current Applied Physics</i> , 2006, 6, 612-615.	2.4	37
53	Effect of crystallization and annealing on polyacrylonitrile membranes for ultrafiltration. <i>Journal of Membrane Science</i> , 2005, 246, 67-76.	8.2	69
54	Exfoliation of layered silicate facilitated by ring-opening reaction of cyclic oligomers in PET-clay nanocomposites. <i>Polymer</i> , 2005, 46, 2201-2210.	3.8	50

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55	Organosilicate Spin-On Glasses. <i>Journal of the Electrochemical Society</i> , 2004, 151, F45.	2.9	23
56	Composite polymer electrolytes reinforced by non-woven fabrics. <i>Journal of Power Sources</i> , 2004, 125, 10-16.	7.8	53
57	Effect of molecular weight of polymeric additives on formation, permeation properties and hypochlorite treatment of asymmetric polyacrylonitrile membranes. <i>Journal of Membrane Science</i> , 2004, 243, 45-57.	8.2	248
58	Nafion/ZrSPP composite membrane for high temperature operation of PEMFCs. <i>Electrochimica Acta</i> , 2004, 50, 645-648.	5.2	53
59	Characterization of polymer-layered silicate nanocomposite membranes for direct methanol fuel cells. <i>Electrochimica Acta</i> , 2004, 50, 639-643.	5.2	95
60	The effect of mixed salts in gel-coated polymer electrolyte for advanced lithium battery. <i>Electrochimica Acta</i> , 2004, 50, 285-288.	5.2	18
61	Organosilicate Spin-on Glasses. <i>Journal of the Electrochemical Society</i> , 2004, 151, F37.	2.9	36
62	Synthesis and characterization of soluble polypyrrole doped with alkylbenzenesulfonic acids. <i>Synthetic Metals</i> , 2004, 141, 315-319.	3.9	142
63	Incorporation of Zirconium Hydrogen Phosphate into Porous Ionomer Membranes. <i>Electrochemical and Solid-State Letters</i> , 2004, 7, A127.	2.2	23
64	Electrochemical and physical properties of composite polymer electrolyte of poly(methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 Td (7.8	61
65	Chemically-modified Nafion®/poly(vinylidene fluoride) blend ionomers for proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2003, 117, 14-21.	7.8	101
66	Thermally Stable Gel Polymer Electrolytes. <i>Journal of the Electrochemical Society</i> , 2003, 150, A439.	2.9	41
67	Characterization of UV-cured gel polymer electrolytes for rechargeable lithium batteries. <i>Journal of Power Sources</i> , 2002, 110, 209-215.	7.8	85
68	Synthetic control of molecular weight and microstructure of processible poly(methylsilsesquioxane)s for low-dielectric thin film applications. <i>Polymer</i> , 2001, 42, 9085-9089.	3.8	68
69	Humidity sensor using epoxy resin containing quaternary ammonium salts. <i>Sensors and Actuators B: Chemical</i> , 2001, 73, 124-129.	7.8	82
70	Humidity sensor using cross-linked copolymers containing viologen moiety. <i>Sensors and Actuators B: Chemical</i> , 2001, 73, 185-191.	7.8	82
71	Synthesis of silicone-acrylic resins and their applications to superweatherable coatings. <i>Journal of Applied Polymer Science</i> , 2001, 81, 1614-1623.	2.6	76
72	Polysiloxaneimide membranes for removal of VOCs from water by pervaporation. <i>Journal of Applied Polymer Science</i> , 2000, 77, 2691-2702.	2.6	19

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73	Degradation effect of polymer hole transport layer on organic electroluminescence device performance. <i>Thin Solid Films</i> , 2000, 363, 271-274.	1.8	9
74	Application of impedance technique to OLED. <i>Thin Solid Films</i> , 2000, 363, 236-239.	1.8	12
75	Humidity sensitive properties of copolymers containing phosphonium salts. <i>Synthetic Metals</i> , 1999, 106, 177-182.	3.9	43
76	Low-Dielectric, Nanoporous Organosilicate Films Prepared via Inorganic/Organic Polymer Hybrid Templates. <i>Chemistry of Materials</i> , 1999, 11, 3080-3085.	6.7	214
77	Preparation and Properties of Electrically Conductive Polyaniline-Polystyrene Composites by in-situ Polymerization and Blending. <i>Polymer Journal</i> , 1997, 29, 404-409.	2.7	84
78	Ionic Conductivity and ⁷ Li NMR Study of Solid Polymer Electrolytes Based on Polyetherurethane Copolymer Networks. <i>Polymer Journal</i> , 1994, 26, 993-1001.	2.7	20
79	A study of polyindole perchlorate (PIP) prepared by electropolymerization. <i>Journal of Applied Polymer Science</i> , 1992, 46, 1695-1706.	2.6	24