Yongku Kang

List of Publications by Year
in descending order

112 papers	2,460 citations	159585 30 h-index	243625 44 g-index
113 all docs	113 docs citations	113 times ranked	3420 citing authors

#	Article	IF	Citations
1	Photocured PEO-based solid polymer electrolyte and its application to lithiumâ€“polymer batteries. Journal of Power Sources, 2001, 92, 255-259.	7.8	115
2	Two-Dimensional Phosphorene-Derived Protective Layers on a Lithium Metal Anode for Lithium-Oxygen Batteries. ACS Nano, 2018, 12, 4419-4430.	14.6	115
3	The protectivity of aluminum and its alloys with transition metals. Journal of Solid State Electrochemistry, 1997, 1, 17-35.	2.5	82
4	Electrochemical properties of polyaniline doped with poly(styrenesulfonic acid). Synthetic Metals, 1992, 52, 319-328.	3.9	77
5	Flexible binder-free graphene paper cathodes for high-performance Li-O2 batteries. Carbon, 2015, 93, 625-635.	10.3	74
6	Enhanced Ionic Conductivity of Semi-IPN Solid Polymer Electrolytes Based on Star-Shaped Oligo(ethyleneoxy)cyclotriphosphazenes. Macromolecules, 2012, 45, 7931-7938.	4.8	65
7	Solid polymer electrolytes based on cross-linked polysiloxane-g-oligo(ethylene oxide): ionic conductivity and electrochemical properties. Journal of Power Sources, 2003, 119-121, 448-453.	7.8	64
8	Electrodeposited 3D porous silicon/copper films with excellent stability and high rate performance for lithium-ion batteries. Journal of Materials Chemistry A, 2014, 2, 2478.	10.3	58
9	Semi-interpenetrating solid polymer electrolyte based on thiol-ene cross-linker for all-solid-state lithium batteries. Journal of Power Sources, 2016, 334, 154-161.	7.8	57
10	Hierarchical Ru- and RuO₂-foams as high performance electrocatalysts for rechargeable lithiumâ€“oxygen batteries. Journal of Materials Chemistry A, 2016, 4, 16356-16367.	10.3	56
11	Investigation on methanol permeability of Nafion modified by self-assembled clay-nanocomposite multilayers. Electrochimica Acta, 2004, 50, 659-662.	5.2	53
12	MnMoO₄ Electrocatalysts for Superior Longâ€Life and Highâ€Rate Lithiumâ€Oxygen Batteries. Advanced Energy Materials, 2017, 7, 1601741.	19.5	53
13	Preparation of Nafion/sulfonated poly(phenylsilsesquioxane) nanocomposite as high temperature proton exchange membranes. Journal of Membrane Science, 2008, 322, 466-474.	8.2	49
14	Hole-conducting mediator for stable Sb₂S₃-sensitized photoelectrochemical solar cells. Journal of Materials Chemistry, 2012, 22, 1107-1111.	6.7	49
15	A study of cross-linked PEO gel polymer electrolytes using bisphenol A ethoxylate diacrylate: ionic conductivity and mechanical properties. Journal of Power Sources, 2003, 119-121, 432-437.	7.8	48
16	A new polysiloxane based cross-linker for solid polymer electrolyte. Journal of Power Sources, 2005, 146, 391-396.	7.8	45
17	Electrochemical properties of semi-interpenetrating polymer network solid polymer electrolytes based on multi-armed oligo(ethyleneoxy) phosphate. Journal of Power Sources, 2013, 244, 170-176.	7.8	45
18	Improved cycle efficiency of lithium metal electrodes in Liâ€“O2 batteries by a two-dimensionally ordered nanoporous separator. Journal of Materials Chemistry A, 2014, 2, 9970.	10.3	45

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19	Freestanding sulfur-graphene oxide/carbon composite paper as a stable cathode for high performance lithium-sulfur batteries. Electrochimica Acta, 2019, 299, 27-33.	5.2	44
20	Ionic conductivity and electrochemical properties of cross-linked solid polymer electrolyte using star-shaped siloxane acrylate. Journal of Power Sources, 2007, 165, 92-96.	7.8	43
21	Highâ€Performance Lithiumâ€Oxygen Battery Electrolyte Derived from Optimum Combination of Solvent and Lithium Salt. Advanced Science, 2017, 4, 1700235.	11.2	43
22	Graphene paper with controlled pore structure for high-performance cathodes in Liâ€“O2 batteries. Carbon, 2016, 100, 265-272.	10.3	42
23	Polyelemental Nanoparticles as Catalysts for a Liâ€“O₂ Battery. ACS Nano, 2021, 15, 4235-4244.	14.6	38
24	Electrospun nanofibers with a coreâ€“shell structure of silicon nanoparticles and carbon nanotubes in carbon for use as lithium-ion battery anodes. Journal of Materials Chemistry A, 2014, 2, 15094-15101.	10.3	37
25	Superior Lithium Storage Performance using Sequentially Stacked MnO₂/Reduced Graphene Oxide Composite Electrodes. ChemSusChem, 2015, 8, 1484-1491.	6.8	33
26	Self-assembled monolayer of the aromatic thioacetate on the gold surface. Materials Science and Engineering C, 2004, 24, 43-46.	7.3	32
27	Carbon nanofiber@platinum by a coaxial electrospinning and their improved electrochemical performance as a Liâˆ’O2 battery cathode. Carbon, 2018, 130, 94-104.	10.3	32
28	Facile fabrication of highly flexible graphene paper for high-performance flexible lithium ion battery anode. RSC Advances, 2015, 5, 3299-3305.	3.6	31
29	Cycling performance of a lithium-ion polymer cell assembled by in-situ chemical cross-linking with fluorinated phosphorous-based cross-linking agent. Journal of Power Sources, 2010, 195, 6177-6181.	7.8	30
30	In situ real-time and quantitative investigation on the stability of non-aqueous lithium oxygen battery electrolytes. Journal of Materials Chemistry A, 2016, 4, 6332-6341.	10.3	30
31	Facile synthesis of palladium nanodendrites supported on graphene nanoplatelets: an efficient catalyst for low overpotentials in lithiumâ€“oxygen batteries. Journal of Materials Chemistry A, 2016, 4, 578-586.	10.3	29
32	An electrochemically grown three-dimensional porous Si@Ni inverse opal structure for high-performance Li ion battery anodes. Journal of Materials Chemistry A, 2014, 2, 6396-6401.	10.3	27
33	Poly(vinylpyridine-co-styrene) based in situ cross-linked gel polymer electrolyte for lithium-ion polymer batteries. Electrochimica Acta, 2011, 57, 46-51.	5.2	26
34	Doping of polyaniline by thermal acidâ€“base exchange reaction. Materials Science and Engineering C, 2004, 24, 39-41.	7.3	25
35	Lithium polymer batteries using the highly porous membrane filled with solvent-free polymer electrolyte. Electrochimica Acta, 2006, 52, 1567-1570.	5.2	25
36	Extraordinary dendrite-free Li deposition on highly uniform facet wrinkled Cu substrates in carbonate electrolytes. Nano Energy, 2021, 82, 105736.	16.0	24

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37	Effect of the cross-linking agent on cycling performances of lithium-ion polymer cells assembled by in situ chemical cross-linking with tris(2-(acryloyloxy)ethyl) phosphate. Journal of Power Sources, 2009, 189, 809-813.	7.8	23
38	Synthesis of porous carbons having surface functional groups and their application to direct-methanol fuel cells. Journal of Power Sources, 2006, 158, 1251-1255.	7.8	22
39	Direct ultraviolet-assisted conformal coating of nanometer-thick poly(tris(2-(acryloyloxy)ethyl)) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Sources, 2013, 244, 389-394.	7.8	22
40	Silicon nanoparticle and carbon nanotube loaded carbon nanofibers for use in lithium-ion battery anodes. Synthetic Metals, 2014, 198, 36-40.	3.9	22
41	Fiber electrode by one-pot wet-spinning of graphene and manganese oxide nanowires for wearable lithium-ion batteries. Journal of Applied Electrochemistry, 2017, 47, 865-875.	2.9	22
42	Understanding Reaction Pathways in High Dielectric Electrolytes Using Î²-Mo₂C as a Catalyst for Liâ€"CO₂ Batteries. ACS Applied Materials & Interfaces, 2020, 12, 32633-32641.	8.0	22
43	New liquid crystal-embedded PVdF-co-HFP-based polymer electrolytes for dye-sensitized solar cell applications. Macromolecular Research, 2009, 17, 963-968.	2.4	20
44	Enhanced ionic conductivity of intrinsic solid polymer electrolytes using multi-armed oligo(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	7.8	20
45	Study on cycling performances of lithium-ion polymer cells assembled by in situ chemical cross-linking with star-shaped siloxane acrylate. Journal of Power Sources, 2008, 178, 837-841.	7.8	18
46	The polymer electrolyte based on polysiloxane containing both alkyl cyanide and oligo ethylene oxide pendants. Electrochimica Acta, 2004, 50, 311-316.	5.2	17
47	Enhanced energy and O₂evolution efficiency using an in situ electrochemically N-doped carbon electrode in non-aqueous Liâ€"O₂batteries. Journal of Materials Chemistry A, 2015, 3, 18843-18846.	10.3	17
48	In-situ preparation and unique electrochemical behavior of pore-embedding CoO/Co3O4 intermixed composite for Li+ rechargeable battery electrodes. Journal of Power Sources, 2018, 378, 562-570.	7.8	17
49	Improved electrochemical performance of ordered mesoporous carbon by incorporating macropores for Liâ€'O2 battery cathode. Carbon, 2018, 133, 118-126.	10.3	17
50	Electrochemical characterization of blend polymer electrolytes based on poly(oligo[oxyethylene]oxyterephthaloyl) for rechargeable lithium metal polymer batteries. Journal of Power Sources, 2006, 163, 229-233.	7.8	16
51	Examination of graphene nanoplatelets as cathode materials for lithiumâ€"oxygen batteries by differential electrochemical mass spectrometry. Electrochemistry Communications, 2015, 57, 39-42.	4.7	16
52	Formation of toroidal Li₂O₂ in non-aqueous Liâ€"O₂ batteries with Mo₂CT_x MXene/CNT composite. RSC Advances, 2019, 9, 41120-41125.	3.6	16
53	Effect of poly(ethylene glycol) dimethyl ether plasticizer on ionic conductivity of cross-linked poly[siloxane-g-oligo(ethylene oxide)] solid polymer electrolytes. Macromolecular Research, 2004, 12, 431-436.	2.4	15
54	Lithium polymer cell assembled by in situ chemical cross-linking of ionic liquid electrolyte with phosphazene-based cross-linking agent. Electrochimica Acta, 2013, 89, 359-364.	5.2	15

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55	Facile Synthesis of Compositionâ€Controlled Grapheneâ€Supported PtPd Alloy Nanocatalysts and Their Applications in Methanol Electroâ€Oxidation and Lithiumâ€Oxygen Batteries. Chemistry - A European Journal, 2017, 23, 17136-17143.	3.3	15
56	Room-Temperature, Ambient-Pressure Chemical Synthesis of Amine-Functionalized Hierarchical Carbonâ€"Sulfur Composites for Lithiumâ€"Sulfur Battery Cathodes. ACS Applied Materials & Interfaces, 2018, 10, 4767-4775.	8.0	15
57	Nanoscale Wrinkled Cu as a Current Collector for High-Loading Graphite Anode in Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2021, 13, 2576-2583.	8.0	15
58	Ionic conductivity and electrochemical properties of cross-linked poly[siloxane-g-oligo(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	5.2	14
59	Effect of Highly Periodic Au Nanopatterns on Dendrite Suppression in Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2021, 13, 60978-60986.	8.0	14
60	Molecular wires and gold nanoparticles as molewares for the molecular scale electronics. Current Applied Physics, 2002, 2, 39-45.	2.4	13
61	Layer-by-layer assembly of poly(aniline-N-butylsulfonate)s and their electrochromic properties in an all solid state window. Materials Science and Engineering C, 2004, 24, 57-60.	7.3	13
62	Electrochemical properties of all solid state Li/S battery. Materials Research Bulletin, 2012, 47, 2827-2829.	5.2	12
63	Autoxidation in amide-based electrolyte and its suppression for enhanced oxygen efficiency and cycle performance in non-aqueous lithium oxygen battery. Journal of Power Sources, 2017, 347, 186-192.	7.8	12
64	Ionic conductivity and lithium ion transport characteristics of gel-type polymer electrolytes using lithium p-[methoxy oligo(ethyleneoxy)] benzenesulfonates. Electrochimica Acta, 2004, 50, 345-349.	5.2	11
65	High-rate performance of Ti³⁺self-doped TiO₂prepared by imidazole reduction for Li-ion batteries. Nanotechnology, 2016, 27, 435401.	2.6	11
66	Hydrous amorphous RuO₂ nanoparticles supported on reduced graphene oxide for non-aqueous Liâ€"O₂ batteries. RSC Advances, 2016, 6, 23467-23470.	3.6	11
67	In situ synthesis of amorphous RuO₂/AZO as a carbon-free cathode material for Liâ€"O₂ batteries. RSC Advances, 2015, 5, 24175-24177.	3.6	10
68	Macroporous carbon nanofiber decorated with platinum nanorods as free-standing cathodes for high-performance Liâ€"O2 batteries. Carbon, 2019, 154, 448-456.	10.3	10
69	Preparation and properties of polypyrrole/ poly(tetrahydrofuran) composites. Synthetic Metals, 1992, 47, 157-166.	3.9	9
70	Molecule-based single electron transistor. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 243-244.	2.7	9
71	In situ crosslinked ionic gel polymer electrolytes for dye sensitized solar cells. Macromolecular Research, 2008, 16, 424-428.	2.4	9
72	Tailored Porous ZnCo₂O₄ Nanofibrous Electrocatalysts for Lithiumâ€"Oxygen Batteries. Advanced Materials Interfaces, 2018, 5, 1701234.	3.7	9

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73	Development of free-standing phosphate/polymer composite electrolyte films for room temperature operating Li+ rechargeable solid-state battery. Solid State Ionics, 2020, 344, 115137.	2.7	9
74	Pt Nanoparticles-Macroporous Carbon Nanofiber Free-Standing Cathode for High-Performance Li-O₂ Batteries. Journal of the Electrochemical Society, 2020, 167, 020549.	2.9	9
75	Curing and optical properties of thin films prepared by vacuum deposition of acetylene containing triphenylamines. Optical Materials, 2003, 21, 337-341.	3.6	8
76	Effect of molecular weight on the mechanical properties of MSSQ films. Materials Chemistry and Physics, 2004, 84, 259-262.	4.0	8
77	In-situ electrochemical functionalization of carbon materials for high-performance Liâ€“O2 batteries. Journal of Energy Chemistry, 2020, 48, 7-13.	12.9	8
78	Ion-conducting hyperbranched PEG electrolytes derived from poly(glycidol). Macromolecular Research, 2009, 17, 141-143.	2.4	7
79	Stable Cycling of a 4 V Class Lithium Polymer Battery Enabled by In Situ Cross-Linked Ethylene Oxide/Propylene Oxide Copolymer Electrolytes with Controlled Molecular Structures. ACS Applied Materials & Interfaces, 2021, 13, 35664-35676.	8.0	7
80	Unique domain structure of Ï€-conjugated tolanethioacetate self-assembled monolayers on Au(111). Ultramicroscopy, 2007, 107, 1000-1003.	1.9	6
81	Preparation of Nafion/Poly(ether(amino sulfone)) acid-base blend polymer electrolyte membranes and their application to DMFC. Macromolecular Research, 2013, 21, 1314-1321.	2.4	6
82	In situ synthesis of amorphous titanium dioxide supported RuO₂as a carbon-free cathode for non-aqueous Liâ€“O₂batteries. RSC Advances, 2016, 6, 91779-91782.	3.6	6
83	Comparative electrochemical study for the polymorphic MnOx/rGO composites derived from well-stacked MnO2/GO templates as for Li-rechargeable battery electrodes. Electrochimica Acta, 2018, 290, 322-331.	5.2	6
84	Electrostatically Assembled Siliconâ€“Carbon Composites Employing Amine-Functionalized Carbon Intra-interconnections for Lithium-Ion Battery Anodes. ACS Applied Energy Materials, 2019, 2, 1868-1875.	5.1	6
85	Improvement on cycling efficiency of lithium by PEO-based surfactants in cross-linked gel polymer electrolyte. Journal of Power Sources, 2005, 146, 171-175.	7.8	5
86	Photopatterning of gold and copper surfaces by using self-assembled monolayers. Current Applied Physics, 2007, 7, 522-527.	2.4	5
87	Electrochemical performance of all-solid lithium ion batteries with a polyaniline film cathode. Journal of Energy Chemistry, 2016, 25, 93-100.	12.9	5
88	Fishing-net-shaped cobalt oxide microspheres for effective polysulfide reservoirs of rechargeable Liâ€“S battery cathodes. Materials Chemistry and Physics, 2020, 243, 122567.	4.0	5
89	PHOTOCHROMIC AND FLUORESCENCE STUDIES OF SPIROPYRAN INDOLINE DERIVATIVES IN THE PRESENCE OF ACIDS. Molecular Crystals and Liquid Crystals, 2003, 406, 169-179.	0.9	4
90	Porous polyimide films prepared by thermolysis of porogens with hyperbranched structure. Journal of Applied Polymer Science, 2004, 93, 1711-1718.	2.6	4

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91	Determination of Li+ Diffusion Coefficients in the LixV2O5 (x = 0 âˆ’ 1) Nanocrystals of Composite Film Cathodes. Analytical Sciences, 2013, 29, 1083-1088.	1.6	4
92	Synthesis and electrochemical properties of gel polymer electrolyte using poly(2-(dimethylamino)ethyl methacrylate-co-methyl methacrylate) for fabricating lithium ion polymer battery. Macromolecular Research, 2014, 22, 875-881.	2.4	4
93	Enhancement of electrochemical performance of tin-based anode in lithium ion batteries by polyimide containing amino benzoquinone. Electrochimica Acta, 2017, 235, 429-436.	5.2	4
94	Mesoporous amorphous binary Ruâ€“Ti oxides as bifunctional catalysts for non-aqueous Liâ€“O2 batteries. Nanotechnology, 2017, 28, 145401.	2.6	4
95	Stable cycling via absolute intercalation in graphite-based lithium-ion battery incorporated by solidified ether-based polymer electrolyte. Materials Advances, 2021, 2, 3898-3905.	5.4	4
96	Single-Electron Tunneling Behavior of Organic-Molecule-Based Electronic Device. Japanese Journal of Applied Physics, 2004, 43, 6503-6506.	1.5	3
97	Electrochemical properties of poly(4,4â€²-diaminodiphenyl sulfone) as a cathode material of lithium secondary batteries. Polymer Bulletin, 2013, 70, 3011-3018.	3.3	3
98	Simultaneous Enhancement of the Performance and Stability of MnO₂ Based Lithium Ion Battery Anodes by Compositing with Fluorine Terminated Functionalized Graphene Oxide. ChemistrySelect, 2018, 3, 3958-3964.	1.5	3
99	Rational design of electrochemically active polymorphic MnOx/rGO composites for Li+-rechargeable battery electrodes. Ceramics International, 2019, 45, 9522-9528.	4.8	3
100	Comparative electrochemical property of solvent-free ceramic/polymer hybrid electrolytes incorporating sol-gel prepared Li-phosphates, Li(Al,Ge)(PO4)3 and Li(Al,Ti)(PO4)3. Journal of Alloys and Compounds, 2020, 843, 155878.	5.5	3
101	Mechanism for Preserving Volatile Nitrogen Dioxide and Sustainable Redox Mediation in the Nonaqueous Lithiumâ€“Oxygen Battery. ACS Applied Materials & Interfaces, 2021, 13, 8159-8168.	8.0	3
102	Fabrication of Highly Monodisperse and Small-Grain Platinum Holeâ€“Cylinder Nanoparticles as a Cathode Catalyst for Liâ€“O₂ Batteries. ACS Applied Energy Materials, 2021, 4, 2514-2521.	5.1	3
103	Free-Standing, Robust, and Stable Li⁺ Conductive Li(Sr,Zr)₂(PO₄)₃/PEO Composite Electrolytes for Solid-State Batteries. ACS Applied Energy Materials, 2021, 4, 13974-13982.	5.1	3
104	PREPARATION OF MEROCYANINE SALTS BY TREATMENT OF ACIDS ON SPIROPYRANS AND INVESTIGATION ON THEIR PHOTOCHROMIC BEHAVIORS. Journal of Nonlinear Optical Physics and Materials, 2004, 13, 575-579.	1.8	2
105	Electronic Transport through Aromatic Thiol Monolayer Assembled in the Nano Via-Hole Electrode. Japanese Journal of Applied Physics, 2005, 44, 530-534.	1.5	2
106	Anion receptor based on cyclic siloxanes substituted with trifluoromethane-sulfonylamide for solid polymer electrolytes. Macromolecular Research, 2010, 18, 266-270.	2.4	2
107	One-step Microwave Synthesis of Hierarchical Structured LiFePO₄using Citric Acid. Bulletin of the Korean Chemical Society, 2014, 35, 2901-2905.	1.9	2
108	Multilayer thin films of poly(3-[2-(carboxymethoxy)ethyl]thiophene) and its luminescence properties. Synthetic Metals, 2001, 117, 257-259.	3.9	1

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109	Imaging on a vapor deposited film by photopolymerization of a rod-like molecule consisting of two diacetylenic groups. Macromolecular Research, 2002, 10, 204-208.	2.4	1
110	Organic Sensitizers Containing Julolidine Moiety for Dye-Sensitized Solar Cells. Journal of Nanoscience and Nanotechnology, 2008, 8, 4761-4766.	0.9	1
111	Proton Conductivity and Methanol Permeability of Sulfonated Polysulfone/PPSQ Composite Polymer Electrolyte Membrane. Journal of the Korean Electrochemical Society, 2004, 7, 89-93.	0.1	1
112	Electrical modification of a composite electrode for room temperature operable polyethylene oxide-based lithium polymer batteries. Materials Research Express, 2020, 7, 075504.	1.6	0