

Jijeesh R Nair

List of Publications by Year in descending order

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78
papers

4,337
citations

101543

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110387

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82
docs citations

82
times ranked

4914
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanistically Novel <scp>Frontalâ€Inspired</scp> In Situ Photopolymerization: An Efficient Electrode Electrolyte Interface Engineering Method for High Energy Lithium Metal Polymer Batteries. Energy and Environmental Materials, 2023, 6, .	12.8	1
2	Multisalt chemistry in ion transport and interface of lithium metal polymer batteries. Energy Storage Materials, 2022, 44, 263-277.	18.0	17
3	The role and the necessary features of electrolytes for microsupercapacitors. , 2022, , 47-116.		3
4	Does Cell Polarization Matter in Single-Ion Conducting Electrolytes?. ACS Applied Materials & Interfaces, 2022, 14, 5211-5222.	8.0	13
5	Waste to life: Low-cost, self-standing, 2D carbon fiber green Li-ion battery anode made from end-of-life cotton textile. Electrochimica Acta, 2021, 368, 137644.	5.2	22
6	<i>In situ</i> polymerization process: an essential design tool for lithium polymer batteries. Energy and Environmental Science, 2021, 14, 2708-2788.	30.8	140
7	Lithium deposition in single-ion conducting polymer electrolytes. Cell Reports Physical Science, 2021, 2, 100496.	5.6	10
8	Dioxolanone-Anchored Poly(allyl ether)-Based Cross-Linked Dual-Salt Polymer Electrolytes for High-Voltage Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2020, 12, 567-579.	8.0	31
9	A bilayer polymer electrolyte encompassing pyrrolidinium-based RTIL for binder-free silicon few-layer graphene nanocomposite anodes for Li-ion battery. Electrochemistry Communications, 2020, 118, 106807.	4.7	6
10	An In Situ Crossâ€Linked Nonaqueous Polymer Electrolyte for Zincâ€Metal Polymer Batteries and Hybrid Supercapacitors. Small, 2020, 16, e2002528.	10.0	24
11	Zinc-Ion Conducting Nonaqueous Polymer Electrolyte for Zinc-Metal Batteries through UV-Light Induced Cross-Linking Polymerization. ECS Meeting Abstracts, 2020, MA2020-02, 825-825.	0.0	0
12	Lithium Deposition in Single-Ion Conducting Polymer Electrolytes. ECS Meeting Abstracts, 2020, MA2020-02, 790-790.	0.0	0
13	Lithium Metal Polymer Electrolyte Batteries: Opportunities and Challenges. Electrochemical Society Interface, 2019, 28, 55-61.	0.4	142
14	Understanding the Effect of UV-Induced Cross-Linking on the Physicochemical Properties of Highly Performing PEO/LiTFSI-Based Polymer Electrolytes. Langmuir, 2019, 35, 8210-8219.	3.5	92
15	Solid Polymer Electrolytes for Lithium Metal Battery via Thermally Induced Cationic Ring-Opening Polymerization (CROP) with an Insight into the Reaction Mechanism. Chemistry of Materials, 2019, 31, 3118-3133.	6.7	51
16	UV-Cross-Linked Composite Polymer Electrolyte for High-Rate, Ambient Temperature Lithium Batteries. ACS Applied Energy Materials, 2019, 2, 1600-1607.	5.1	97
17	Room temperature ionic liquid (RTIL)-based electrolyte cocktails for safe, high working potential Li-based polymer batteries. Journal of Power Sources, 2019, 412, 398-407.	7.8	100
18	Solid Polymer Electrolytes Designed for Lithium Metal Battery By Lithium Salt Induced Cationic Ring-Opening Polymerization. ECS Meeting Abstracts, 2019, , .	0.0	0

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19	Spray-Dried Mesoporous Mixed Cu-Ni Oxide@Graphene Nanocomposite Microspheres for High Power and Durable Li-Ion Battery Anodes. <i>Advanced Energy Materials</i> , 2018, 8, 1802438.	19.5	70
20	Design of ionic liquid like monomers towards easy-accessible single-ion conducting polymer electrolytes. <i>European Polymer Journal</i> , 2018, 107, 218-228.	5.4	35
21	Metal organic framework laden poly(ethylene oxide) based composite electrolytes for all-solid-state Li-S and Li-metal polymer batteries. <i>Electrochimica Acta</i> , 2018, 285, 355-364.	5.2	118
22	Carrier mobility and scattering lifetime in electric double-layer gated few-layer graphene. <i>Applied Surface Science</i> , 2017, 395, 37-41.	6.1	16
23	Weak localization in electric-double-layer gated few-layer graphene. <i>2D Materials</i> , 2017, 4, 035006.	4.4	25
24	Single-ion triblock copolymer electrolytes based on poly(ethylene oxide) and methacrylic sulfonamide blocks for lithium metal batteries. <i>Journal of Power Sources</i> , 2017, 364, 191-199.	7.8	130
25	Light-cured polymer electrolytes for safe, low-cost and sustainable sodium-ion batteries. <i>Journal of Power Sources</i> , 2017, 365, 293-302.	7.8	99
26	Control of bulk superconductivity in a BCS superconductor by surface charge doping via electrochemical gating. <i>Physical Review B</i> , 2017, 95, .	3.2	28
27	Truly quasi-solid-state lithium cells utilizing carbonate free polymer electrolytes on engineered LiFePO ₄ . <i>Electrochimica Acta</i> , 2016, 199, 172-179.	5.2	27
28	Single-Ion Block Copoly(ionic liquid)s as Electrolytes for All-Solid State Lithium Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 10350-10359.	8.0	251
29	Superconducting Transition Temperature Modulation in NbN via EDL Gating. <i>Journal of Superconductivity and Novel Magnetism</i> , 2016, 29, 587-591.	1.8	18
30	Single-Ion Conducting Polymer Electrolytes for Lithium Metal Polymer Batteries that Operate at Ambient Temperature. <i>ACS Energy Letters</i> , 2016, 1, 678-682.	17.4	270
31	Scaling Atomic Partial Charges of Carbonate Solvents for Lithium Ion Solvation and Diffusion. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 5709-5718.	5.3	64
32	Super Soft All-Ethylene Oxide Polymer Electrolyte for Safe All-Solid Lithium Batteries. <i>Scientific Reports</i> , 2016, 6, 19892.	3.3	300
33	A simple route toward next-gen green energy storage concept by nanofibres-based self-supporting electrodes and a solid polymeric design. <i>Carbon</i> , 2016, 107, 811-822.	10.3	80
34	Nanocellulose-laden composite polymer electrolytes for high performing lithium-sulphur batteries. <i>Energy Storage Materials</i> , 2016, 3, 69-76.	18.0	102
35	Thermally cured semi-interpenetrating electrolyte networks (s-IPN) for safe and aging-resistant secondary lithium polymer batteries. <i>Journal of Power Sources</i> , 2016, 306, 258-267.	7.8	98
36	Photopolymer Electrolytes for Sustainable, Upscalable, Safe, and Ambient-Temperature Sodium-Ion Secondary Batteries. <i>ChemSusChem</i> , 2015, 8, 3668-3676.	6.8	85

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37	Nanomaterials for Renewable Energy Storage: Synthesis, Characterization, and Applications. Journal of Nanomaterials, 2015, 2015, 1-2.	2.7	2
38	Newly Elaborated Multipurpose Polymer Electrolyte Encompassing RTILs for Smart Energy-Efficient Devices. ACS Applied Materials & Interfaces, 2015, 7, 12961-12971.	8.0	74
39	Nanostructured photoelectrodes and polymeric nanointerfaces engineering: The critical transition from rigid to flexible dye-sensitized solar cells. , 2015, , .		0
40	Cellulose-based novel hybrid polymer electrolytes for green and efficient Na-ion batteries. Electrochimica Acta, 2015, 174, 185-190.	5.2	132
41	Temperature Dependence of Electric Transport in Few-layer Graphene under Large Charge Doping Induced by Electrochemical Gating. Scientific Reports, 2015, 5, 9554.	3.3	27
42	Remarkably stable high power Li-ion battery anodes based on vertically arranged multilayered-graphene. Electrochimica Acta, 2015, 182, 500-506.	5.2	13
43	UV-cured Al ₂ O ₃ -laden cellulose reinforced polymer electrolyte membranes for Li-based batteries. Electrochimica Acta, 2015, 153, 97-105.	5.2	26
44	Cathodes Based on Noncatalyzed Ordered Mesoporous Carbon for Li ⁺ Rechargeable Batteries. ChemElectroChem, 2014, 1, 1382-1387.	3.4	4
45	Structure-Performance Correlation of Nanocellulose-Based Polymer Electrolytes for Efficient Quasi-solid DSSCs. ChemElectroChem, 2014, 1, 1350-1358.	3.4	68
46	Flexible and high performing polymer electrolytes obtained by UV-induced polymer-cellulose grafting. RSC Advances, 2014, 4, 40873-40881.	3.6	14
47	Innovative high performing metal organic framework (MOF)-laden nanocomposite polymer electrolytes for all-solid-state lithium batteries. Journal of Materials Chemistry A, 2014, 2, 9948-9954.	10.3	183
48	Aprotic Li ⁺ O ₂ cells: Gas diffusion layer (GDL) as catalyst free cathode and tetraglyme/LiClO ₄ as electrolyte. Solid State Ionics, 2014, 262, 160-164.	2.7	20
49	Cellulose/acrylate membranes for flexible lithium batteries electrolytes: Balancing improved interfacial integrity and ionic conductivity. European Polymer Journal, 2014, 57, 22-29.	5.4	19
50	Nanoscale microfibrillated cellulose reinforced truly-solid polymer electrolytes for flexible, safe and sustainable lithium-based batteries. Cellulose, 2013, 20, 2439-2449.	4.9	27
51	Towards green, efficient and durable quasi-solid dye-sensitized solar cells integrated with a cellulose-based gel-polymer electrolyte optimized by a chemometric DoE approach. RSC Advances, 2013, 3, 15993.	3.6	82
52	Huge field-effect surface charge injection and conductance modulation in metallic thin films by electrochemical gating. Applied Surface Science, 2013, 269, 17-22.	6.1	18
53	High-rate V ₂ O ₅ -based Li-ion thin film polymer cell with outstanding long-term cyclability. Nano Energy, 2013, 2, 1279-1286.	16.0	27
54	Novel multiphase electrode/electrolyte composites for next generation of flexible polymeric Li-ion cells. Journal of Applied Electrochemistry, 2013, 43, 137-145.	2.9	16

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55	Cycling profile of innovative nanochitin-incorporated poly (ethylene oxide) based electrolytes for lithium batteries. <i>Journal of Power Sources</i> , 2013, 228, 294-299.	7.8	49
56	A UV-crosslinked polymer electrolyte membrane for quasi-solid dye-sensitized solar cells with excellent efficiency and durability. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 3706.	2.8	82
57	Organic free low temperature direct synthesis of hierarchical protonated layered titanates/anatase TiO ₂ hollow spheres and their task-specific applications. <i>Journal of Materials Chemistry A</i> , 2013, 1, 9122.	10.3	43
58	Cycling profile of MgAl ₂ O ₄ -incorporated composite electrolytes composed of PEO and LiPF ₆ for lithium polymer batteries. <i>Electrochimica Acta</i> , 2013, 90, 179-185.	5.2	95
59	Large Conductance Modulation of Gold Thin Films by Huge Charge Injection via Electrochemical Gating. <i>Physical Review Letters</i> , 2012, 108, 066807.	7.8	63
60	UV-Induced Radical Photo-Polymerization: A Smart Tool for Preparing Polymer Electrolyte Membranes for Energy Storage Devices. <i>Membranes</i> , 2012, 2, 687-704.	3.0	13
61	New electrolyte membranes for Li-based cells: Methacrylic polymers encompassing pyrrolidinium-based ionic liquid by single step photo-polymerisation. <i>Journal of Membrane Science</i> , 2012, 423-424, 459-467.	8.2	31
62	UV-Induced Radical Photo-Polymerization: A Smart Tool for Preparing Polymer Electrolyte Membranes for Energy Storage Devices. <i>Membranes</i> , 2012, 2, 307-324.	3.0	4
63	Ca ₃ (PO ₄) ₂ -incorporated poly(ethylene oxide)-based nanocomposite electrolytes for lithium batteries. Part II. Interfacial properties investigated by XPS and a.c. impedance studies. <i>Journal of Applied Polymer Science</i> , 2012, 124, 3255-3263.	2.6	8
64	Calcium phosphate incorporated poly(ethylene oxide)-based nanocomposite electrolytes for lithium batteries. I. Ionic conductivity and positron annihilation lifetime spectroscopy studies. <i>Journal of Applied Polymer Science</i> , 2012, 124, 3245-3254.	2.6	12
65	Microfibrillated cellulose as reinforcement for Li-ion battery polymer electrolytes with excellent mechanical stability. <i>Journal of Power Sources</i> , 2011, 196, 10280-10288.	7.8	109
66	Novel cellulose reinforcement for polymer electrolyte membranes with outstanding mechanical properties. <i>Electrochimica Acta</i> , 2011, 57, 104-111.	5.2	43
67	Facile functionalization by π -stacking of macroscopic substrates made of vertically aligned carbon nanotubes: Tracing reactive groups by electrochemiluminescence. <i>Electrochimica Acta</i> , 2011, 56, 9269-9276.	5.2	4
68	Methacrylic-based solid polymer electrolyte membranes for lithium-based batteries by a rapid UV-curing process. <i>Reactive and Functional Polymers</i> , 2011, 71, 409-416.	4.1	68
69	UV-cured polymer electrolytes encompassing hydrophobic room temperature ionic liquid for lithium batteries. <i>Journal of Power Sources</i> , 2010, 195, 1706-1713.	7.8	86
70	Novel self-directed dual surface metallisation via UV-curing technique for flexible polymeric capacitors. <i>Organic Electronics</i> , 2010, 11, 1802-1808.	2.6	13
71	UV-curable siloxane-acrylate gel-copolymer electrolytes for lithium-based battery applications. <i>Electrochimica Acta</i> , 2010, 55, 1460-1467.	5.2	70
72	Metallopolymer Capacitor in α -One Pot by Self-Directed UV-Assisted Process. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 3192-3200.	8.0	14

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73	An elegant and facile single-step UV-curing approach to surface nano-silvering of polymer composites. <i>Soft Matter</i> , 2010, 6, 4666.	2.7	21
74	Nanostructured Electrodes and Gel-Polymer Electrolyte for an Improved Li-ion Battery. <i>Fuel Cells</i> , 2009, 9, 273-276.	2.4	5
75	Highly ionic conducting methacrylic-based gel-polymer electrolytes by UV-curing technique. <i>Journal of Applied Electrochemistry</i> , 2009, 39, 2199-2207.	2.9	41
76	UV-cured polymer electrolyte membranes for Li-cells: Improved mechanical properties by a novel cellulose reinforcement. <i>Electrochemistry Communications</i> , 2009, 11, 1796-1798.	4.7	40
77	Development of gel-polymer electrolytes and nano-structured electrodes for Li-ion polymer batteries. <i>Journal of Applied Electrochemistry</i> , 2008, 38, 985-992.	2.9	13
78	UV-cured methacrylic membranes as novel gel-polymer electrolyte for Li-ion batteries. <i>Journal of Power Sources</i> , 2008, 178, 751-757.	7.8	85