# Jijeesh R Nair

List of Publications by Year
in descending order

| # | 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, . | 7.3 | 1 |
| 2 | Multisalt chemistry in ion transport and interface of lithium metal polymer batteries. Energy Storage Materials, 2022, 44, 263-277. | 9.5 | 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. | 4.0 | 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. | 2.6 | 22 |
| 6 | <i>In situ</i>polymerization process: an essential design tool for lithium polymer batteries. Energy and Environmental Science, 2021, 14, 2708-2788. | 15.6 | 140 |
| 7 | Lithium deposition in single-ion conducting polymer electrolytes. Cell Reports Physical Science, 2021, 2, 100496. | 2.8 | 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. | 4.0 | 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. | 2.3 | 6 |
| 10 | An In Situ Crossâ€Linked Nonaqueous Polymer Electrolyte for Zincâ€Metal Polymer Batteries and Hybrid Supercapacitors. Small, 2020, 16, e2002528. | 5.2 | 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. | 0.3 | 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. | 1.6 | 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. | 3.2 | 51 |
| 16 | UV-Cross-Linked Composite Polymer Electrolyte for High-Rate, Ambient Temperature Lithium Batteries. ACS Applied Energy Materials, 2019, 2, 1600-1607. | 2.5 | 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. | 4.0 | 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 | Sprayâ€Dried Mesoporous Mixed Cuâ€Ni Oxide@Graphene Nanocomposite Microspheres for High Power and Durable Liâ€Ion Battery Anodes. Advanced Energy Materials, 2018, 8, 1802438. | 10.2 | 70 |
| 20 | Design of ionic liquid like monomers towards easy-accessible single-ion conducting polymer electrolytes. European Polymer Journal, 2018, 107, 218-228. | 2.6 | 35 |
| 21 | Metal organic framework laden poly(ethylene oxide) based composite electrolytes for all-solid-state Li-S and Li-metal polymer batteries. Electrochimica Acta, 2018, 285, 355-364. | 2.6 | 118 |
| 22 | Carrier mobility and scattering lifetime in electric double-layer gated few-layer graphene. Applied Surface Science, 2017, 395, 37-41. | 3.1 | 16 |
| 23 | Weak localization in electric-double-layer gated few-layer graphene. 2D Materials, 2017, 4, 035006. | 2.0 | 25 |
| 24 | Single-ion triblock copolymer electrolytes based on poly(ethylene oxide) and methacrylic sulfonamide blocks for lithium metal batteries. Journal of Power Sources, 2017, 364, 191-199. | 4.0 | 130 |
| 25 | Light-cured polymer electrolytes for safe, low-cost and sustainable sodium-ion batteries. Journal of Power Sources, 2017, 365, 293-302. | 4.0 | 99 |
| 26 | Control of bulk superconductivity in a BCS superconductor by surface charge doping via electrochemical gating. Physical Review B, 2017, 95, . | 1.1 | 28 |
| 27 | Truly quasi-solid-state lithium cells utilizing carbonate free polymer electrolytes on engineered LiFePO4. Electrochimica Acta, 2016, 199, 172-179. | 2.6 | 27 |
| 28 | Single-Ion Block Copoly(ionic liquid)s as Electrolytes for All-Solid State Lithium Batteries. ACS Applied Materials & Interfaces, 2016, 8, 10350-10359. | 4.0 | 251 |
| 29 | Superconducting Transition Temperature Modulation in NbN via EDL Gating. Journal of Superconductivity and Novel Magnetism, 2016, 29, 587-591. | 0.8 | 18 |
| 30 | Single-Ion Conducting Polymer Electrolytes for Lithium Metal Polymer Batteries that Operate at Ambient Temperature. ACS Energy Letters, 2016, 1, 678-682. | 8.8 | 270 |
| 31 | Scaling Atomic Partial Charges of Carbonate Solvents for Lithium Ion Solvation and Diffusion. Journal of Chemical Theory and Computation, 2016, 12, 5709-5718. | 2.3 | 64 |
| 32 | Super Soft All-Ethylene Oxide Polymer Electrolyte for Safe All-Solid Lithium Batteries. Scientific Reports, 2016, 6, 19892. | 1.6 | 300 |
| 33 | A simple route toward next-gen green energy storage concept by nanofibres-based self-supporting electrodes and a solid polymeric design. Carbon, 2016, 107, 811-822. | 5.4 | 80 |
| 34 | Nanocellulose-laden composite polymer electrolytes for high performing lithiumâ€"sulphur batteries. Energy Storage Materials, 2016, 3, 69-76. | 9.5 | 102 |
| 35 | Thermally cured semi-interpenetrating electrolyte networks (s-IPN) for safe and aging-resistant secondary lithium polymer batteries. Journal of Power Sources, 2016, 306, 258-267. | 4.0 | 98 |
| 36 | Photopolymer Electrolytes for Sustainable, Upscalable, Safe, and Ambientâ€Temperature Sodiumâ€Ion Secondary Batteries. ChemSusChem, 2015, 8, 3668-3676. | 3.6 | 85 |

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|---|---|---|---|
| 37 | Nanomaterials for Renewable Energy Storage: Synthesis, Characterization, and Applications. Journal of Nanomaterials, 2015, 2015, 1-2. | 1.5 | 2 |
| 38 | Newly Elaborated Multipurpose Polymer Electrolyte Encompassing RTILs for Smart Energy-Efficient Devices. ACS Applied Materials & Interfaces, 2015, 7, 12961-12971. | 4.0 | 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. | 2.6 | 132 |
| 41 | Temperature Dependence of Electric Transport in Few-layer Graphene under Large Charge Doping Induced by Electrochemical Gating. Scientific Reports, 2015, 5, 9554. | 1.6 | 27 |
| 42 | Remarkably stable high power Li-ion battery anodes based on vertically arranged multilayered-graphene. Electrochimica Acta, 2015, 182, 500-506. | 2.6 | 13 |
| 43 | UV-cured Al2O3-laden cellulose reinforced polymer electrolyte membranes for Li-based batteries. Electrochimica Acta, 2015, 153, 97-105. | 2.6 | 26 |
| 44 | Cathodes Based on Noncatalyzed Ordered Mesoporous Carbon for Liâ€“O<sub>2</sub> Rechargeable Batteries. ChemElectroChem, 2014, 1, 1382-1387. | 1.7 | 4 |
| 45 | Structureâ€“Performance Correlation of Nanocelluloseâ€Based Polymer Electrolytes for Efficient Quasiâ€solid DSSCs. ChemElectroChem, 2014, 1, 1350-1358. | 1.7 | 68 |
| 46 | Flexible and high performing polymer electrolytes obtained by UV-induced polymerâ€“cellulose grafting. RSC Advances, 2014, 4, 40873-40881. | 1.7 | 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. | 5.2 | 183 |
| 48 | Aprotic Liâ€“O2 cells: Gas diffusion layer (GDL) as catalyst free cathode and tetraglyme/LiClO4 as electrolyte. Solid State Ionics, 2014, 262, 160-164. | 1.3 | 20 |
| 49 | Cellulose/acrylate membranes for flexible lithium batteries electrolytes: Balancing improved interfacial integrity and ionic conductivity. European Polymer Journal, 2014, 57, 22-29. | 2.6 | 19 |
| 50 | Nanoscale microfibrillated cellulose reinforced truly-solid polymer electrolytes for flexible, safe and sustainable lithium-based batteries. Cellulose, 2013, 20, 2439-2449. | 2.4 | 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. | 1.7 | 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. | 3.1 | 18 |
| 53 | High-rate V2O5-based Li-ion thin film polymer cell with outstanding long-term cyclability. Nano Energy, 2013, 2, 1279-1286. | 8.2 | 27 |
| 54 | Novel multiphase electrode/electrolyte composites for next generation of flexible polymeric Li-ion cells. Journal of Applied Electrochemistry, 2013, 43, 137-145. | 1.5 | 16 |

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|---|---|---|---|
| 55 | Cycling profile of innovative nanochitin-incorporated poly (ethylene oxide) based electrolytes for lithium batteries. Journal of Power Sources, 2013, 228, 294-299. | 4.0 | 49 |
| 56 | A UV-crosslinked polymer electrolyte membrane for quasi-solid dye-sensitized solar cells with excellent efficiency and durability. Physical Chemistry Chemical Physics, 2013, 15, 3706. | 1.3 | 82 |
| 57 | Organic free low temperature direct synthesis of hierarchical protonated layered titanates/anatase TiO2 hollow spheres and their task-specific applications. Journal of Materials Chemistry A, 2013, 1, 9122. | 5.2 | 43 |
| 58 | Cycling profile of MgAl2O4-incorporated composite electrolytes composed of PEO and LiPF6 for lithium polymer batteries. Electrochimica Acta, 2013, 90, 179-185. | 2.6 | 95 |
| 59 | Large Conductance Modulation of Gold Thin Films by Huge Charge Injection via Electrochemical Gating. Physical Review Letters, 2012, 108, 066807. | 2.9 | 63 |
| 60 | UV-Induced Radical Photo-Polymerization: A Smart Tool for Preparing Polymer Electrolyte Membranes for Energy Storage Devices. Membranes, 2012, 2, 687-704. | 1.4 | 13 |
| 61 | New electrolyte membranes for Li-based cells: Methacrylic polymers encompassing pyrrolidinium-based ionic liquid by single step photo-polymerisation. Journal of Membrane Science, 2012, 423-424, 459-467. | 4.1 | 31 |
| 62 | UV-Induced Radical Photo-Polymerization: A Smart Tool for Preparing Polymer Electrolyte Membranes for Energy Storage Devices. Membranes, 2012, 2, 307-324. | 1.4 | 4 |
| 63 | Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>â€incorporated poly(ethylene oxide)â€based nanocomposite electrolytes for lithium batteries. Part II. Interfacial properties investigated by XPS and a.c. impedance studies. Journal of Applied Polymer Science, 2012, 124, 3255-3263. | 1.3 | 8 |
| 64 | Calcium phosphate incorporated poly(ethylene oxide)â€based nanocomposite electrolytes for lithium batteries. I. Ionic conductivity and positron annihilation lifetime spectroscopy studies. Journal of Applied Polymer Science, 2012, 124, 3245-3254. | 1.3 | 12 |
| 65 | Microfibrillated cellulose as reinforcement for Li-ion battery polymer electrolytes with excellent mechanical stability. Journal of Power Sources, 2011, 196, 10280-10288. | 4.0 | 109 |
| 66 | Novel cellulose reinforcement for polymer electrolyte membranes with outstanding mechanical properties. Electrochimica Acta, 2011, 57, 104-111. | 2.6 | 43 |
| 67 | Facile functionalization by Ï€-stacking of macroscopic substrates made of vertically aligned carbon nanotubes: Tracing reactive groups by electrochemiluminescence. Electrochimica Acta, 2011, 56, 9269-9276. | 2.6 | 4 |
| 68 | Methacrylic-based solid polymer electrolyte membranes for lithium-based batteries by a rapid UV-curing process. Reactive and Functional Polymers, 2011, 71, 409-416. | 2.0 | 68 |
| 69 | UV-cured polymer electrolytes encompassing hydrophobic room temperature ionic liquid for lithium batteries. Journal of Power Sources, 2010, 195, 1706-1713. | 4.0 | 86 |
| 70 | Novel self-directed dual surface metallisation via UV-curing technique for flexible polymeric capacitors. Organic Electronics, 2010, 11, 1802-1808. | 1.4 | 13 |
| 71 | UV-curable siloxane-acrylate gel-copolymer electrolytes for lithium-based battery applications. Electrochimica Acta, 2010, 55, 1460-1467. | 2.6 | 70 |
| 72 | Metallopolymer Capacitor in â€œOne Potâ€•by Self-Directed UV-Assisted Process. ACS Applied Materials & Interfaces, 2010, 2, 3192-3200. | 4.0 | 14 |

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|---|---|---|---|
| 73 | An elegant and facile single-step UV-curing approach to surface nano-silvering of polymer composites. Soft Matter, 2010, 6, 4666. | 1.2 | 21 |
| 74 | Nanostructured Electrodes and Gel-Polymer Electrolyte for an Improved Li-ion Battery. Fuel Cells, 2009, 9, 273-276. | 1.5 | 5 |
| 75 | Highly ionic conducting methacrylic-based gel-polymer electrolytes by UV-curing technique. Journal of Applied Electrochemistry, 2009, 39, 2199-2207. | 1.5 | 41 |
| 76 | UV-cured polymer electrolyte membranes for Li-cells: Improved mechanical properties by a novel cellulose reinforcement. Electrochemistry Communications, 2009, 11, 1796-1798. | 2.3 | 40 |
| 77 | Development of gel-polymer electrolytes and nano-structured electrodes for Li-ion polymer batteries. Journal of Applied Electrochemistry, 2008, 38, 985-992. | 1.5 | 13 |
| 78 | UV-cured methacrylic membranes as novel gelâ€“polymer electrolyte for Li-ion batteries. Journal of Power Sources, 2008, 178, 751-757. | 4.0 | 85 |