

Vanchiappan Aravindan

List of Publications by Year in descending order

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242
papers

15,084
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all docs

248
docs citations

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times ranked

13112
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Insertion-Type Electrodes for Nonaqueous Li-Ion Capacitors. <i>Chemical Reviews</i> , 2014, 114, 11619-11635. | 23.0 | 632 |
| 2 | Research Progress on Negative Electrodes for Practical Li-Ion Batteries: Beyond Carbonaceous Anodes. <i>Advanced Energy Materials</i> , 2015, 5, 1402225. | 10.2 | 415 |
| 3 | LiMnPO ₄ – A next generation cathode material for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2013, 1, 3518. | 5.2 | 383 |
| 4 | Recent Advancements in All-Vanadium Redox Flow Batteries. <i>Advanced Materials Interfaces</i> , 2016, 3, 1500309. | 1.9 | 351 |
| 5 | 3D micro-porous conducting carbon beehive by single step polymer carbonization for high performance supercapacitors: the magic of in situ porogen formation. <i>Energy and Environmental Science</i> , 2014, 7, 728-735. | 15.6 | 348 |
| 6 | Lithium-Ion Conducting Electrolyte Salts for Lithium Batteries. <i>Chemistry - A European Journal</i> , 2011, 17, 14326-14346. | 1.7 | 341 |
| 7 | Synthesis of CuO nanostructures from Cu-based metal organic framework (MOF-199) for application as anode for Li-ion batteries. <i>Nano Energy</i> , 2013, 2, 1158-1163. | 8.2 | 244 |
| 8 | Carbon coated nano-LiTi ₂ (PO ₄) ₃ electrodes for non-aqueous hybrid supercapacitors. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 5808. | 1.3 | 236 |
| 9 | Developments and Perspectives in 3d Transition-Metal-Based Electrocatalysts for Neutral and Near-Neutral Water Electrolysis. <i>Advanced Energy Materials</i> , 2020, 10, 1902666. | 10.2 | 226 |
| 10 | Hierarchical Ni ₂ MoS ₄ and Ni ₂ FeS ₄ Nanosheets with Ultrahigh Energy Density for Flexible All Solid-State Supercapacitors. <i>Advanced Functional Materials</i> , 2018, 28, 1803287. | 7.8 | 223 |
| 11 | Activated carbons derived from coconut shells as high energy density cathode material for Li-ion capacitors. <i>Scientific Reports</i> , 2013, 3, 3002. | 1.6 | 222 |
| 12 | Flexible Solid-State Asymmetric Supercapacitors Based on Nitrogen-Doped Graphene Encapsulated Ternary Metal-Nitrides with Ultralong Cycle Life. <i>Advanced Functional Materials</i> , 2018, 28, 1804663. | 7.8 | 212 |
| 13 | Hybrid supercapacitor with nano-TiP ₂ O ₇ as intercalation electrode. <i>Journal of Power Sources</i> , 2011, 196, 8850-8854. | 4.0 | 204 |
| 14 | High Aspect Ratio Electrospun CuO Nanofibers as Anode Material for Lithium-Ion Batteries with Superior Cycleability. <i>Journal of Physical Chemistry C</i> , 2012, 116, 18087-18092. | 1.5 | 202 |
| 15 | Burgeoning Prospects of Spent Lithium-Ion Batteries in Multifarious Applications. <i>Advanced Energy Materials</i> , 2018, 8, 1802303. | 10.2 | 186 |
| 16 | Electrospun TiO ₂ –Graphene Composite Nanofibers as a Highly Durable Insertion Anode for Lithium Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2012, 116, 14780-14788. | 1.5 | 181 |
| 17 | Electrospun NiO nanofibers as high performance anode material for Li-ion batteries. <i>Journal of Power Sources</i> , 2013, 227, 284-290. | 4.0 | 178 |
| 18 | High power lithium-ion hybrid electrochemical capacitors using spinel LiCrTiO ₄ as insertion electrode. <i>Journal of Materials Chemistry</i> , 2012, 22, 16026. | 6.7 | 167 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | An Urgent Call to Spent LIB Recycling: Whys and Wherefores for Graphite Recovery. <i>Advanced Energy Materials</i> , 2020, 10, 2002238. | 10.2 | 167 |
| 20 | MOF-derived crumpled-sheet-assembled perforated carbon cuboids as highly effective cathode active materials for ultra-high energy density Li-ion hybrid electrochemical capacitors (Li-HECs). <i>Nanoscale</i> , 2014, 6, 4387. | 2.8 | 159 |
| 21 | Constructing high energy density non-aqueous Li-ion capacitors using monoclinic TiO ₂ -B nanorods as insertion host. <i>Journal of Materials Chemistry A</i> , 2013, 1, 6145. | 5.2 | 154 |
| 22 | Morphology, structure and electrochemical properties of single phase electrospun vanadium pentoxide nanofibers for lithium ion batteries. <i>Journal of Power Sources</i> , 2011, 196, 6465-6472. | 4.0 | 152 |
| 23 | All ternary metal selenide nanostructures for high energy flexible charge storage devices. <i>Nano Energy</i> , 2019, 65, 103999. | 8.2 | 152 |
| 24 | Unveiling TiNb ₂ O ₇ as an Insertion Anode for Lithium Ion Capacitors with High Energy and Power Density. <i>ChemSusChem</i> , 2014, 7, 1858-1863. | 3.6 | 147 |
| 25 | TiO ₂ polymorphs in rocking-chair™ Li-ion batteries. <i>Materials Today</i> , 2015, 18, 345-351. | 8.3 | 143 |
| 26 | High energy asymmetric supercapacitor with 1D@2D structured NiCo ₂ O ₄ @Co ₃ O ₄ and jackfruit derived high surface area porous carbon. <i>Journal of Power Sources</i> , 2016, 306, 248-257. | 4.0 | 140 |
| 27 | Boosting the Energy Density of Flexible Solid-State Supercapacitors via Both Ternary NiV ₂ Se ₄ and NiFe ₂ Se ₄ Nanosheet Arrays. <i>Chemistry of Materials</i> , 2019, 31, 4490-4504. | 3.2 | 138 |
| 28 | Superior lithium storage properties of ±-Fe ₂ O ₃ nano-assembled spindles. <i>Nano Energy</i> , 2013, 2, 890-896. | 8.2 | 133 |
| 29 | Two-Dimensional Mesoporous Cobalt Sulfide Nanosheets as a Superior Anode for a Li-Ion Battery and a Bifunctional Electrocatalyst for the Li-O ₂ System. <i>Chemistry of Materials</i> , 2015, 27, 5726-5735. | 3.2 | 133 |
| 30 | Electrospun nanofibers: A prospective electro-active material for constructing high performance Li-ion batteries. <i>Chemical Communications</i> , 2015, 51, 2225-2234. | 2.2 | 131 |
| 31 | Research progress in Na-ion capacitors. <i>Journal of Materials Chemistry A</i> , 2016, 4, 7538-7548. | 5.2 | 131 |
| 32 | Construction of High Energy Density Supercapacitors from Pine Cone Derived High Surface Area Carbons. <i>ChemSusChem</i> , 2014, 7, 1435-1442. | 3.6 | 126 |
| 33 | Fabrication of High Energy Density Hybrid Supercapacitors Using Electrospun V ₂ O ₅ Nanofibers with a Self-Supported Carbon Nanotube Network. <i>ChemPlusChem</i> , 2012, 77, 570-575. | 1.3 | 125 |
| 34 | Exceptional Performance of TiNb ₂ O ₇ Anode in All One-Dimensional Architecture by Electrospinning. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 8660-8666. | 4.0 | 124 |
| 35 | Influence of carbon towards improved lithium storage properties of Li ₂ MnSiO ₄ cathodes. <i>Journal of Materials Chemistry</i> , 2011, 21, 2470. | 6.7 | 122 |
| 36 | Novel polymer electrolyte based on cob-web electrospun multi component polymer blend of polyacrylonitrile/poly(methyl methacrylate)/polystyrene for lithium ion batteries Preparation and electrochemical characterization. <i>Journal of Power Sources</i> , 2012, 202, 299-307. | 4.0 | 122 |

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|----|--|------|-----------|
| 37 | Best Practices for Mitigating Irreversible Capacity Loss of Negative Electrodes in Li-ion Batteries. <i>Advanced Energy Materials</i> , 2017, 7, 1602607. | 10.2 | 122 |
| 38 | A novel asymmetric hybrid supercapacitor based on Li ₂ FeSiO ₄ and activated carbon electrodes. <i>Journal of Alloys and Compounds</i> , 2010, 504, 224-227. | 2.8 | 119 |
| 39 | Electrochemical performance of carbon-coated lithium manganese silicate for asymmetric hybrid supercapacitors. <i>Journal of Power Sources</i> , 2010, 195, 3761-3764. | 4.0 | 115 |
| 40 | Carbon supported, Al doped-Li ₃ V ₂ (PO ₄) ₃ as a high rate cathode material for lithium-ion batteries. <i>Journal of Materials Chemistry</i> , 2012, 22, 6556. | 6.7 | 114 |
| 41 | Nanostructured spinel LiNi _{0.5} Mn _{1.5} O ₄ as new insertion anode for advanced Li-ion capacitors with high power capability. <i>Nano Energy</i> , 2015, 12, 69-75. | 8.2 | 114 |
| 42 | Cu-doped P ₂ -Na _{0.5} Ni _{0.33} Mn _{0.67} O ₂ encapsulated with MgO as a novel high voltage cathode with enhanced Na-storage properties. <i>Journal of Materials Chemistry A</i> , 2017, 5, 8408-8415. | 5.2 | 109 |
| 43 | Atomic layer deposited (ALD) SnO ₂ anodes with exceptional cycleability for Li-ion batteries. <i>Nano Energy</i> , 2013, 2, 720-725. | 8.2 | 107 |
| 44 | Recycling Strategies for Spent Li-Ion Battery Mixed Cathodes. <i>ACS Energy Letters</i> , 2018, 3, 2101-2103. | 8.8 | 103 |
| 45 | Fluorine-Doped Fe ₂ O ₃ as High Energy Density Electroactive Material for Hybrid Supercapacitor Applications. <i>Chemistry - an Asian Journal</i> , 2014, 9, 852-857. | 1.7 | 99 |
| 46 | Bio-mass derived mesoporous carbon as superior electrode in all vanadium redox flow battery with multicouple reactions. <i>Journal of Power Sources</i> , 2015, 274, 846-850. | 4.0 | 97 |
| 47 | Adipic acid assisted sol-gel synthesis of Li ₂ MnSiO ₄ nanoparticles with improved lithium storage properties. <i>Journal of Materials Chemistry</i> , 2010, 20, 7340. | 6.7 | 96 |
| 48 | Nonaqueous Lithium-ion Capacitors with High Energy Densities using Trigonal Reduced Graphene Oxide Nanosheets as Cathode-Active Material. <i>ChemSusChem</i> , 2013, 6, 2240-2244. | 3.6 | 96 |
| 49 | TiO ₂ -reduced graphene oxide nanocomposites by microwave-assisted forced hydrolysis as excellent insertion anode for Li-ion battery and capacitor. <i>Journal of Power Sources</i> , 2016, 327, 171-177. | 4.0 | 93 |
| 50 | Synthesis of porous LiMn ₂ O ₄ hollow nanofibers by electrospinning with extraordinary lithium storage properties. <i>Chemical Communications</i> , 2013, 49, 6677. | 2.2 | 90 |
| 51 | Li-ion vs. Na-ion capacitors: A performance evaluation with coconut shell derived mesoporous carbon and natural plant based hard carbon. <i>Chemical Engineering Journal</i> , 2017, 316, 506-513. | 6.6 | 90 |
| 52 | Synthesis of TiO ₂ hollow nanofibers by co-axial electrospinning and its superior lithium storage capability in full-cell assembly with olivine phosphate. <i>Nanoscale</i> , 2013, 5, 5973. | 2.8 | 87 |
| 53 | Oligomer-salt derived 3D, heavily nitrogen doped, porous carbon for Li-ion hybrid electrochemical capacitors application. <i>Carbon</i> , 2014, 80, 462-471. | 5.4 | 84 |
| 54 | Template-free synthesis of carbon hollow spheres and reduced graphene oxide from spent lithium-ion batteries towards efficient gas storage. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3244-3252. | 5.2 | 83 |

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|----|--|-----|-----------|
| 55 | Electrochemical performance of cobalt free, Li _{1.2} (Mn _{0.32} Ni _{0.32} Fe _{0.16})O ₂ cathodes for lithium batteries. <i>Electrochimica Acta</i> , 2012, 68, 246-253. | 2.6 | 82 |
| 56 | Biomass-Derived Electrode for Next Generation Lithium-Ion Capacitors. <i>ChemSusChem</i> , 2016, 9, 849-854. | 3.6 | 82 |
| 57 | Improved Elevated Temperature Performance of Al-Intercalated V ₂ O ₅ Electrospun Nanofibers for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 3270-3277. | 4.0 | 80 |
| 58 | A chemically bonded NaTi ₂ (PO ₄) ₃ /rGO microsphere composite as a high-rate insertion anode for sodium-ion capacitors. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17506-17516. | 5.2 | 80 |
| 59 | High-Energy Density Asymmetric Supercapacitor Based on Electrospun Vanadium Pentoxide and Polyaniline Nanofibers in Aqueous Electrolyte. <i>Journal of the Electrochemical Society</i> , 2012, 159, A1481-A1488. | 1.3 | 79 |
| 60 | Unveiling two-dimensional TiS ₂ as an insertion host for the construction of high energy Li-ion capacitors. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9177-9181. | 5.2 | 76 |
| 61 | Improving the energy density of Li-ion capacitors using polymer-derived porous carbons as cathode. <i>Electrochimica Acta</i> , 2014, 130, 766-770. | 2.6 | 74 |
| 62 | Highly reversible water splitting cell building from hierarchical 3D nickel manganese oxyphosphide nanosheets. <i>Nano Energy</i> , 2020, 69, 104432. | 8.2 | 74 |
| 63 | Building next-generation supercapacitors with battery type Ni(OH) ₂ . <i>Journal of Materials Chemistry A</i> , 2021, 9, 15542-15585. | 5.2 | 74 |
| 64 | From Waste Paper Basket to Solid State and Li-HEC Ultracapacitor Electrodes: A Value Added Journey for Shredded Office Paper. <i>Small</i> , 2014, 10, 4395-4402. | 5.2 | 73 |
| 65 | Carbon-coated Li ₃ V ₂ (PO ₄) ₃ as insertion type electrode for lithium-ion hybrid electrochemical capacitors: An evaluation of anode and cathodic performance. <i>Journal of Power Sources</i> , 2015, 281, 310-317. | 4.0 | 73 |
| 66 | Preparation of LiCoPO ₄ and LiFePO ₄ coated LiCoPO ₄ materials with improved battery performance. <i>Journal of Alloys and Compounds</i> , 2010, 497, 321-324. | 2.8 | 71 |
| 67 | Unveiling organic-inorganic hybrids as a cathode material for high performance lithium-ion capacitors. <i>Journal of Materials Chemistry A</i> , 2013, 1, 707-714. | 5.2 | 71 |
| 68 | Preparation and electrochemical characterization of LiFePO ₄ nanoparticles with high rate capability by a sol-gel method. <i>Journal of Alloys and Compounds</i> , 2010, 491, 668-672. | 2.8 | 70 |
| 69 | A novel strategy to construct high performance lithium-ion cells using one dimensional electrospun nanofibers, electrodes and separators. <i>Nanoscale</i> , 2013, 5, 10636. | 2.8 | 68 |
| 70 | Highly mesoporous carbon from Teak wood sawdust as prospective electrode for the construction of high energy Li-ion capacitors. <i>Electrochimica Acta</i> , 2017, 228, 131-138. | 2.6 | 66 |
| 71 | All carbon based high energy lithium-ion capacitors from biomass: The role of crystallinity. <i>Journal of Power Sources</i> , 2019, 414, 96-102. | 4.0 | 66 |
| 72 | Achieving high-energy dual carbon Li-ion capacitors with unique low- and high-temperature performance from spent Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 4950-4959. | 5.2 | 66 |

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|----|--|------|-----------|
| 73 | Synthesis and Enhanced Lithium Storage Properties of Electrospun $V_{2}O_{5}$ Nanofibers in Full-Cell Assembly with a Spinel $Li_{4}Ti_{5}O_{12}$ Anode. ACS Applied Materials & Interfaces, 2013, 5, 3475-3480. | 4.0 | 63 |
| 74 | Developments and Perspectives on Robust Nano- and Microstructured Binder-Free Electrodes for Bifunctional Water Electrolysis and Beyond. Advanced Energy Materials, 2022, 12, . | 10.2 | 63 |
| 75 | Effect of LiBOB Additive on the Electrochemical Performance of $LiCoPO_{4}$. Journal of the Electrochemical Society, 2012, 159, A1435-A1439. | 1.3 | 60 |
| 76 | Sol-Gel Synthesis of Aliovalent Vanadium-Doped $LiNi_{0.5}Mn_{1.5}O_{4}$ Cathodes with Excellent Performance at High Temperatures. ChemSusChem, 2014, 7, 829-834. | 3.6 | 60 |
| 77 | Silica-assisted bottom-up synthesis of graphene-like high surface area carbon for highly efficient ultracapacitor and Li-ion hybrid capacitor applications. Journal of Materials Chemistry A, 2016, 4, 5578-5591. | 5.2 | 60 |
| 78 | Should we recycle the graphite from spent lithium-ion batteries? The untold story of graphite with the importance of recycling. Journal of Energy Chemistry, 2022, 71, 351-369. | 7.1 | 59 |
| 79 | Formation of $NiCo_{2}O_{4}$ rods over $Co_{3}O_{4}$ nanosheets as efficient catalyst for $Li-O_{2}$ batteries and water splitting. Journal of Catalysis, 2017, 349, 175-182. | 3.1 | 58 |
| 80 | Microwave assisted green synthesis of MgO -carbon nanotube composites as electrode material for high power and energy density supercapacitors. Journal of Materials Chemistry A, 2013, 1, 4105. | 5.2 | 57 |
| 81 | Size controlled synthesis of $Li_{2}MnSiO_{4}$ nanoparticles: Effect of calcination temperature and carbon content for high performance lithium batteries. Journal of Colloid and Interface Science, 2011, 355, 472-477. | 5.0 | 55 |
| 82 | Biomass-Derived Carbon Materials as Prospective Electrodes for High-Energy Lithium- and Sodium-Ion Capacitors. Chemistry - an Asian Journal, 2019, 14, 936-951. | 1.7 | 55 |
| 83 | Chemical Lithiation Studies on Combustion Synthesized $V_{2}O_{5}$ Cathodes with Full Cell Application for Lithium Ion Batteries. Journal of the Electrochemical Society, 2013, 160, A1016-A1024. | 1.3 | 54 |
| 84 | Marine algae inspired pre-treated SnO_{2} nanorods bundle as negative electrode for Li-ion capacitor and battery: An approach beyond intercalation. Chemical Engineering Journal, 2017, 324, 26-34. | 6.6 | 53 |
| 85 | Exceptional performance of a high voltage spinel $LiNi_{0.5}Mn_{1.5}O_{4}$ cathode in all one dimensional architectures with an anatase TiO_{2} anode by electrospinning. Nanoscale, 2014, 6, 8926. | 2.8 | 52 |
| 86 | $Co_{3}O_{4}$ Nanosheets as Battery-Type Electrode for High-Energy Li-Ion Capacitors: A Sustained Li-Storage <i>via</i> Conversion Pathway. ACS Nano, 2020, 14, 10648-10654. | 7.3 | 52 |
| 87 | Tube-like carbon for Li-ion capacitors derived from the environmentally undesirable plant: Prosopis juliflora. Carbon, 2016, 98, 58-66. | 5.4 | 51 |
| 88 | Building Next-Generation Li-ion Capacitors with High Energy: An Approach beyond Intercalation. Journal of Physical Chemistry Letters, 2018, 9, 3946-3958. | 2.1 | 51 |
| 89 | Biomass-Derived Carbon: A Value-Added Journey Towards Constructing High-Energy Supercapacitors in an Asymmetric Fashion. ChemSusChem, 2019, 12, 4353-4382. | 3.6 | 51 |
| 90 | ZrO_{2} nanofiller incorporated PVC/PVDF blend-based composite polymer electrolytes (CPE) complexed with LiBOB. Journal of Membrane Science, 2007, 305, 146-151. | 4.1 | 50 |

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|-----|---|-----|-----------|
| 91 | Polyvinylidene fluoride-hexafluoropropylene (PVdF-HFP)-based composite polymer electrolyte containing LiPF ₃ (CF ₃ CF ₂) ₃ . Journal of Non-Crystalline Solids, 2008, 354, 3451-3457. | 1.5 | 50 |
| 92 | High-rate and elevated temperature performance of electrospun V ₂ O ₅ nanofibers carbon-coated by plasma enhanced chemical vapour deposition. Nano Energy, 2013, 2, 57-64. | 8.2 | 50 |
| 93 | Extraordinary long-term cycleability of TiO ₂ -B nanorods as anodes in full-cell assembly with electrospun PVdF-HFP membranes. Journal of Materials Chemistry A, 2013, 1, 308-316. | 5.2 | 50 |
| 94 | Synthesis of 2D/2D Structured Mesoporous Co ₃ O ₄ Nanosheet/N-Doped Reduced Graphene Oxide Composites as a Highly Stable Negative Electrode for Lithium Battery Applications. Chemistry - an Asian Journal, 2015, 10, 1776-1783. | 1.7 | 50 |
| 95 | LiFePO ₄ modified Li _{1.02} (Co _{0.9} Fe _{0.1}) _{0.98} PO ₄ cathodes with improved lithium storage properties. Journal of Materials Chemistry, 2011, 21, 6510. | 6.7 | 49 |
| 96 | A novel gel electrolyte with lithium difluoro(oxalato)borate salt and Sb ₂ O ₃ nanoparticles for lithium ion batteries. Solid State Sciences, 2007, 9, 1069-1073. | 1.5 | 48 |
| 97 | High energy Li-ion capacitor and battery using graphitic carbon spheres as an insertion host from cooking oil. Journal of Materials Chemistry A, 2018, 6, 3242-3248. | 5.2 | 48 |
| 98 | Electrochemical performance of NASICON type carbon coated LiTi ₂ (PO ₄) ₃ with a spinel LiMn ₂ O ₄ cathode. RSC Advances, 2012, 2, 7534. | 1.7 | 47 |
| 99 | Free-standing electrospun carbon nanofibres—a high performance anode material for lithium-ion batteries. Journal Physics D: Applied Physics, 2012, 45, 265302. | 1.3 | 47 |
| 100 | Two Dimensional TiS ₂ as a Promising Insertion Anode for Na-ion Battery. ChemistrySelect, 2018, 3, 524-528. | 0.7 | 47 |
| 101 | Electrochemical Lithium Insertion Behavior of Combustion Synthesized V ₂ O ₅ Cathodes for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2012, 159, A273-A280. | 1.3 | 46 |
| 102 | LiCrTiO ₄ : A High-Performance Insertion Anode for Lithium-ion Batteries. ChemPhysChem, 2012, 13, 3263-3266. | 1.0 | 46 |
| 103 | Macroporous carbon from human hair: A journey towards the fabrication of high energy Li-ion capacitors. Electrochimica Acta, 2015, 182, 474-481. | 2.6 | 46 |
| 104 | Morphology controlled lithium storage in Li ₃ VO ₄ anodes. Journal of Materials Chemistry A, 2018, 6, 456-463. | 5.2 | 46 |
| 105 | Characterization of SiO ₂ and Al ₂ O ₃ incorporated PVdF-HFP based composite polymer electrolytes with LiPF ₃ (CF ₃ CF ₂) ₃ . Journal of Applied Polymer Science, 2008, 108, 1314-1322. | 1.3 | 45 |
| 106 | Does carbon coating really improves the electrochemical performance of electrospun SnO ₂ anodes?. Electrochimica Acta, 2014, 121, 109-115. | 2.6 | 45 |
| 107 | Synthesis and improved electrochemical properties of Li ₂ MnSiO ₄ cathodes. Journal Physics D: Applied Physics, 2011, 44, 152001. | 1.3 | 43 |
| 108 | Ultrathin Polyimide Coating for a Spinel LiNi _{0.5} Mn _{1.5} O ₄ Cathode and Its Superior Lithium Storage Properties under Elevated Temperature Conditions. Journal of the Electrochemical Society, 2013, 160, A1003-A1008. | 1.3 | 42 |

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|-----|---|-----|-----------|
| 109 | From Electrodes to Electrodes: Building High-Performance Li-ion Capacitors and Batteries from Spent Lithium-ion Battery Carbonaceous Materials. <i>ChemElectroChem</i> , 2019, 6, 1407-1412. | 1.7 | 42 |
| 110 | Polyvinylidene fluoride-hexafluoropropylene based nanocomposite polymer electrolytes (NCPE) complexed with LiPF ₃ (CF ₃ CF ₂) ₃ . <i>European Polymer Journal</i> , 2007, 43, 5121-5127. | 2.6 | 41 |
| 111 | High performance lithium-ion cells using one dimensional electrospun TiO ₂ nanofibers with spinel cathode. <i>RSC Advances</i> , 2012, 2, 7983. | 1.7 | 41 |
| 112 | Carbon-Coated LiTi ₂ (PO ₄) ₃ : An Ideal Insertion Host for Lithium-ion and Sodium-ion Batteries. <i>Chemistry - an Asian Journal</i> , 2014, 9, 878-882. | 1.7 | 40 |
| 113 | γ-Co(OH) ₂ Nanosheets: A Superior Pseudocapacitive Electrode for High-Energy Supercapacitors. <i>Chemistry - an Asian Journal</i> , 2017, 12, 2127-2133. | 1.7 | 40 |
| 114 | Electrochemical Performance of γ-MnO ₂ Nanorods/Activated Carbon Hybrid Supercapacitor. <i>Nanoscience and Nanotechnology Letters</i> , 2012, 4, 724-728. | 0.4 | 40 |
| 115 | Solvent Co-intercalation: An Emerging Mechanism in Li-, Na-, and K-Ion Capacitors. <i>ACS Energy Letters</i> , 2021, 6, 4228-4244. | 8.8 | 40 |
| 116 | Carbon Coated NASICON Type Li ₃ V ₂ -xM _x (PO ₄) ₃ (M=Mn, Fe) Tj ETQg 0 0 0 rgBT /Overlo Society, 2013, 160, A87-A92. | 1.3 | 39 |
| 117 | Pre-lithiated Li _x Mn ₂ O ₄ : A new approach to mitigate the irreversible capacity loss in negative electrodes for Li-ion battery. <i>Electrochimica Acta</i> , 2016, 208, 225-230. | 2.6 | 39 |
| 118 | High energy Li-ion capacitors with conversion type Mn ₃ O ₄ particulates anchored to few layer graphene as the negative electrode. <i>Journal of Materials Chemistry A</i> , 2016, 4, 15134-15139. | 5.2 | 39 |
| 119 | Overlithiated Li _{1+x} Ni _{0.5} Mn _{1.5} O ₄ in all one dimensional architecture with conversion type γ-Fe ₂ O ₃ : A new approach to eliminate irreversible capacity loss. <i>Electrochimica Acta</i> , 2016, 215, 647-651. | 2.6 | 39 |
| 120 | Rusted iron wire waste into high performance anode (γ-Fe ₂ O ₃) for Li-ion batteries: an efficient waste management approach. <i>Green Chemistry</i> , 2016, 18, 1395-1404. | 4.6 | 39 |
| 121 | Surface enriched graphene hollow spheres towards building ultra-high power sodium-ion capacitor with long durability. <i>Energy Storage Materials</i> , 2020, 25, 702-713. | 9.5 | 39 |
| 122 | Lithium fluoroalkylphosphate based novel composite polymer electrolytes (NCPE) incorporated with nanosized SiO ₂ filler. <i>Materials Chemistry and Physics</i> , 2009, 115, 251-257. | 2.0 | 37 |
| 123 | Li ⁺ ion conduction in TiO ₂ filled polyvinylidene fluoride-co-hexafluoropropylene based novel nanocomposite polymer electrolyte membranes with LiDFOB. <i>Current Applied Physics</i> , 2009, 9, 1474-1479. | 1.1 | 36 |
| 124 | Li(Mn _{1/3} Ni _{1/3} Fe _{1/3})O ₂ -Polyaniline hybrids as cathode active material with ultra-fast charge-discharge capability for lithium batteries. <i>Journal of Power Sources</i> , 2013, 232, 240-245. | 4.0 | 36 |
| 125 | Interface charge density modulation of a lamellar-like spatially separated Ni ₉ S ₈ nanosheet/Nb ₂ O ₅ nanobelt heterostructure catalyst coupled with nitrogen and metal (M=Co, Fe, or Cu) atoms to accelerate acidic and alkaline hydrogen evolution reactions. <i>Chemical Engineering Journal</i> , 2022, 431, 134073. | 6.6 | 36 |
| 126 | Investigations on Na ⁺ ion conducting polyvinylidene fluoride-co-hexafluoropropylene/poly ethylmethacrylate blend polymer electrolytes. <i>Current Applied Physics</i> , 2009, 9, 1106-1111. | 1.1 | 35 |

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|-----|---|------|-----------|
| 127 | Focus on Spinel $\text{Li}_4\text{Ti}_5\text{O}_{12}$ as Insertion Type Anode for High-Performance Na-Ion Batteries. <i>Small</i> , 2019, 15, e1904484. | 5.2 | 35 |
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