Vanchiappan Aravindan

List of Publications by Year in Descending Order

237 papers	12,050 citations	63 h-index	100 g-index
247 ext. papers	13,514 ext. citations	8.5 avg, IF	7.03 L-index

#	Paper	IF	Citations
237	High-performance Li-ion capacitor via anion-intercalation process **2022**, 1, 20210005		
236	Next-generation Li-ion capacitor with high energy and high power by limiting alloying-intercalation process using SnO2@Graphite composite as battery type electrode. *Composites Part B: Engineering*, **2022**, 230, 109487	10	4
235	Interface charge density modulation of a lamellar-like spatially separated Ni9S8 nanosheet/Nb2O5 nanobelt heterostructure catalyst coupled with nitrogen and metal (M□Co, Fe, or Cu) atoms to accelerate acidic and alkaline hydrogen evolution reactions. *Chemical Engineering Journal*, **2022**, 431, 134073	14.7	7
234	Stabilizing the high voltage LiCoPO4 cathode via Fe-doping in the gram-scale synthesis. *Electrochimica Acta*, **2022**, 140367	6.7	2
233	Fabrication of Na-Ion Full-Cells using Carbon-Coated Na V (PO) O F Cathode with Conversion Type CuO Nanoparticles from Spent Li-Ion Batteries.. *Small Methods*, **2022**, e2200257	12.8	2
232	Recent Advancements in LiCoPO4 Cathodes Using Electrolyte Additives. *Current Opinion in Electrochemistry*, **2021**, 100868	7.2	2
231	Metal-Ion Capacitors with Anion Intercalation Process. *Advanced Energy and Sustainability Research*, **2021**, 2, 2000069	1.6	4
230	Fabrication of 4.7 V class □ocking-chair□type Li-ion cells with carbon-coated LiCoPO4 as cathode and graphite anode. *Materials Letters*, **2021**, 291, 129609	3.3	4
229	Interfacial Engineering in a Cathode Composite Based on Garnet-Type Solid-State Li-Ion Battery with High Voltage Cycling. *ChemElectroChem*, **2021**, 8, 570-576	4.3	4
228	Impact of carbonate-based electrolytes on the electrochemical activity of carbon-coated NaV(PO)F cathode in full-cell assembly with hard carbon anode. *Journal of Colloid and Interface Science*, **2021**, 582, 51-59	9.3	14
227	Li-ion Capacitor via Solvent-Co-Intercalation Process from Spent Li-ion Batteries. *Batteries and Supercaps*, **2021**, 4, 671-679	5.6	5
226	Building next-generation supercapacitors with battery type Ni(OH)2. *Journal of Materials Chemistry A*, **2021**, 9, 15542-15585	13	14
225	Binary NaCl□NaF and NaCl□iF Flux-Mediated Growth of Mixed-Valence (V3+/4+) NASICON-Type Na3V2(PO4)2F2.5O0.5 and Na2.4Li0.6V2(PO4)2F2.5O0.5 for Highly Reversible Na- and Li-Ion Storage. *ACS Applied Energy Materials*, **2021**, 4, 1387-1397	6.1	1
224	High energy Na-Ion capacitor employing graphitic carbon fibers from waste rubber with diglyme-based electrolyte. *Chemical Engineering Journal*, **2021**, 426, 130892	14.7	2
223	Dual-carbon Na-ion capacitors: progress and future prospects. *Journal of Materials Chemistry A*, **2021**, 9, 9431-9450	13	5
222	Supersaturated □water-in-salt□hybrid electrolyte towards building high voltage Na-ion capacitors with wide temperatures operation. *Journal of Power Sources*, **2020**, 472, 228558	8.9	13
221	Achieving high-energy dual carbon Li-ion capacitors with unique low- and high-temperature performance from spent Li-ion batteries. *Journal of Materials Chemistry A*, **2020**, 8, 4950-4959	13	33

220	Sandwich layered Li0.32Al0.68MnO2(OH)2 from spent Li-ion battery to build high-performance supercapacitor: Waste to energy storage approach. *Journal of Alloys and Compounds*, **2020**, 827, 154336	5.7	16
219	Regeneration of Polyolefin Separators from Spent Li-Ion Battery for Second Life. *Batteries and Supercaps*, **2020**, 3, 581-586	5.6	11
218	Deciphering the Structure-Property Relationship of Na-Mn-Co-Mg-O as a Novel High-Capacity Layered-Tunnel Hybrid Cathode and Its Application in Sodium-Ion Capacitors. *ACS Applied Materials & Interfaces*, **2020**, 12, 10268-10279	9.5	10
217	Exploring the usage of LiCrTiO4 as cathode towards constructing 1.4 V class Li-ion cells with graphite anode recovered from spent Li-Ion battery. *Chemical Engineering Journal*, **2020**, 397, 125472	14.7	19
216	Highly reversible water splitting cell building from hierarchical 3D nickel manganese oxyphosphide nanosheets. *Nano Energy*, **2020**, 69, 104432	17.1	44
215	Developments and Perspectives in 3d Transition-Metal-Based Electrocatalysts for Neutral and Near-Neutral Water Electrolysis. *Advanced Energy Materials*, **2020**, 10, 1902666	21.8	113
214	Atomic layer deposition of AlO on P2-NaMnCoO as interfacial layer for high power sodium-ion batteries. *Journal of Colloid and Interface Science*, **2020**, 564, 467-477	9.3	14
213	LiBO2-modified LiCoO2 as an efficient cathode with garnet framework Li6.75La3Zr1.75Nb0.25O12 electrolyte toward building all-solid-state lithium battery for high-temperature operation. *Electrochimica Acta*, **2020**, 359, 136955	6.7	5
212	Highly Perforated V O Cathode with Restricted Lithiation toward Building "Rocking-Chair" Type Cell with Graphite Anode Recovered from Spent Li-Ion Batteries. *Small*, **2020**, 16, e2002624	11	11
211	An Urgent Call to Spent LIB Recycling: Whys and Wherefores for Graphite Recovery. *Advanced Energy Materials*, **2020**, 10, 2002238	21.8	66
210	CoO Nanosheets as Battery-Type Electrode for High-Energy Li-Ion Capacitors: A Sustained Li-Storage Conversion Pathway. *ACS Nano*, **2020**, 14, 10648-10654	16.7	29
209	Highly Reversible Na-Intercalation into Graphite Recovered from Spent Li-Ion Batteries for High-Energy Na-Ion Capacitor. *ChemSusChem*, **2020**, 13, 5654-5663	8.3	12
208	Surface enriched graphene hollow spheres towards building ultra-high power sodium-ion capacitor with long durability. *Energy Storage Materials*, **2020**, 25, 702-713	19.4	24
207	Restricted lithiation into a layered V2O5 cathode towards building Rocking-chair type Li-ion batteries and beyond. *Journal of Materials Chemistry A*, **2020**, 8, 9483-9495	13	13
206	Stibium: A Promising Electrode toward Building High-Performance Na-Ion Full-Cells. *CheM*, **2019**, 5, 3096-3126	23.5	15
205	Biomass-Derived Carbon Materials as Prospective Electrodes for High-Energy Lithium- and Sodium-Ion Capacitors. *Chemistry - an Asian Journal*, **2019**, 14, 936-951	4.5	42
204	Template-free synthesis of carbon hollow spheres and reduced graphene oxide from spent lithium-ion batteries towards efficient gas storage. *Journal of Materials Chemistry A*, **2019**, 7, 3244-3252	13	53
203	Boosting the Energy Density of Flexible Solid-State Supercapacitors via Both Ternary NiV2Se4 and NiFe2Se4 Nanosheet Arrays. *Chemistry of Materials*, **2019**, 31, 4490-4504	9.6	87

202	All ternary metal selenide nanostructures for high energy flexible charge storage devices. *Nano Energy*, **2019**, 65, 103999	17.1	94
201	Electrochemically Generated Li V O as Insertion Host for High-Energy Li-Ion Capacitors. *Chemistry - an Asian Journal*, **2019**, 14, 4665-4672	4.5	9
200	Biomass-Derived Carbon: A Value-Added Journey Towards Constructing High-Energy Supercapacitors in an Asymmetric Fashion. *ChemSusChem*, **2019**, 12, 4353-4382	8.3	32
199	Transformation of Spent Li-Ion Battery in to High Energy Supercapacitors in Asymmetric Configuration. *ChemElectroChem*, **2019**, 6, 5283-5292	4.3	6
198	Efficient bifunctional catalytic activity of nanoscopic Pd-decorated La0.6Sr0.4CoO3- perovskite toward Li O2 battery, oxygen reduction, and oxygen evolution reactions. *Journal of Industrial and Engineering Chemistry*, **2019**, 80, 686-695	6.3	5
197	Focus on Spinel Li Ti O as Insertion Type Anode for High-Performance Na-Ion Batteries. *Small*, **2019**, 15, e1904484	11	18
196	From Electrodes to Electrodes: Building High-Performance Li-Ion Capacitors and Batteries from Spent Lithium-Ion Battery Carbonaceous Materials. *ChemElectroChem*, **2019**, 6, 1407-1412	4.3	25
195	All carbon based high energy lithium-ion capacitors from biomass: The role of crystallinity. *Journal of Power Sources*, **2019**, 414, 96-102	8.9	45
194	High power Na-ion capacitor with TiS2 as insertion host. *Scripta Materialia*, **2019**, 161, 54-57	5.6	14
193	Bulk metal-derived metal oxide nanoparticles on oxidized carbon surface. *Journal of Alloys and Compounds*, **2018**, 752, 198-205	5.7	1
192	Electrochemical Activity of Hematite Phase in Full-Cell Li-ion Assemblies. *Advanced Energy Materials* , **2018**, 8, 1702841	21.8	15
191	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	13	40
190	Two Dimensional TiS2 as a Promising Insertion Anode for Na-Ion Battery. *ChemistrySelect*, **2018**, 3, 524-528	2.8	34
189	Orderly meso-perforated spherical and apple-shaped 3D carbon microstructures for high-energy supercapacitors and high-capacity Li-ion battery anodes. *Journal of Materials Chemistry A*, **2018**, 6, 6422-6434	13	11
188	Elongated graphitic hollow nanofibers from vegetable oil as prospective insertion host for constructing advanced high energy Li-Ion capacitor and battery. *Carbon*, **2018**, 134, 9-14	10.4	24
187	Hierarchical Ni?Mo?S and Ni?Fe?S Nanosheets with Ultrahigh Energy Density for Flexible All Solid-State Supercapacitors. *Advanced Functional Materials*, **2018**, 28, 1803287	15.6	141
186	Recycling Strategies for Spent Li-Ion Battery Mixed Cathodes. *ACS Energy Letters*, **2018**, 3, 2101-2103	20.1	58
185	Unusual Li-Storage Behaviour of Two-Dimensional ReS2 Single Crystals. *Batteries and Supercaps*, **2018**, 1, 69-74	5.6	3

184	Morphology controlled lithium storage in Li3VO4 anodes. *Journal of Materials Chemistry A*, **2018**, 6, 456-463	19	32
183	Burgeoning Prospects of Spent Lithium-Ion Batteries in Multifarious Applications. *Advanced Energy Materials*, **2018**, 8, 1802303	21.8	100
182	Flexible Solid-State Asymmetric Supercapacitors Based on Nitrogen-Doped Graphene Encapsulated Ternary Metal-Nitrides with Ultralong Cycle Life. *Advanced Functional Materials*, **2018**, 28, 1804663	15.6	148
181	Electrochemical Route to Alleviate Irreversible Capacity Loss from Conversion Type Fe2O3 Anodes by LiVPO4F Prelithiation. *ACS Applied Energy Materials*, **2018**,	6.1	4
180	Exploring two dimensional Co0.33In2.67S2.29Se1.71 as alloy type negative electrode for Li-ion battery with olivine LiFePO4 cathode. *Materials Today Energy*, **2018**, 9, 19-26	7	1
179	Building Next-Generation Li-ion Capacitors with High Energy: An Approach beyond Intercalation. *Journal of Physical Chemistry Letters*, **2018**, 9, 3946-3958	6.4	37
178	Li-ion vs. Na-ion capacitors: A performance evaluation with coconut shell derived mesoporous carbon and natural plant based hard carbon. *Chemical Engineering Journal*, **2017**, 316, 506-513	14.7	64
177	Highly mesoporous carbon from Teak wood sawdust as prospective electrode for the construction of high energy Li-ion capacitors. *Electrochimica Acta*, **2017**, 228, 131-138	6.7	56
176	Nanostructured intermetallic FeSn2-carbonaceous composites as highly stable anode for Na-ion batteries. *Journal of Power Sources*, **2017**, 343, 296-302	8.9	27
175	Unveiling two-dimensional TiS2 as an insertion host for the construction of high energy Li-ion capacitors. *Journal of Materials Chemistry A*, **2017**, 5, 9177-9181	13	62
174	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	14.7	44
173	Best Practices for Mitigating Irreversible Capacity Loss of Negative Electrodes in Li-Ion Batteries. *Advanced Energy Materials*, **2017**, 7, 1602607	21.8	96
172	Exploring High-Energy Li-I(r)on Batteries and Capacitors with Conversion-Type Fe3O4-rGO as the Negative Electrode. *ChemElectroChem*, **2017**, 4, 2626-2633	4.3	8
171	Fabrication of High Energy Li-ion Capacitors from Orange Peel Derived Porous Carbon. *ChemistrySelect*, **2017**, 2, 5051-5058	1.8	15
170	Exploring the influence of iron substitution in lithium rich layered oxides Li2Ru1-xFexO3: triggering the anionic redox reaction. *Journal of Materials Chemistry A*, **2017**, 5, 14387-14396	13	13
169	Co(OH) Nanosheets: A Superior Pseudocapacitive Electrode for High-Energy Supercapacitors. *Chemistry - an Asian Journal*, **2017**, 12, 2127-2133	4.5	30
168	Highly Stable Intermetallic FeSn2-Graphite Composite Anode for Sodium-Ion Batteries. *ChemElectroChem*, **2017**, 4, 1932-1936	4.3	11
167	Solvothermal synthesis of Li3VO4: Morphology control and electrochemical performance as anode for lithium-ion batteries. *International Journal of Hydrogen Energy*, **2017**, 42, 22167-22174	6.7	12

166	Formation of NiCo2O4 rods over Co3O4 nanosheets as efficient catalyst for Li□O2 batteries and water splitting. *Journal of Catalysis*, **2017**, 349, 175-182	7.3	50
165	Cu-doped P2-Na0.5Ni0.33Mn0.67O2 encapsulated with MgO as a novel high voltage cathode with enhanced Na-storage properties. *Journal of Materials Chemistry A*, **2017**, 5, 8408-8415	13	82
164	Structural, Thermal, and Electrochemical Studies of Novel Li2CoxMn1□(SO4)2 Bimetallic Sulfates. *Journal of Physical Chemistry C*, **2017**, 121, 24971-24978	3.8	3
163	High energy Li-ion capacitors using two-dimensional TiSe0.6S1.4 as insertion host. *Journal of Materials Chemistry A*, **2017**, 5, 19819-19825	13	23
162	Tailored perovskite Li0.33La0.56TiO3 via an adipic acid-assisted solution process: A promising solid electrolyte for lithium batteries. *Journal of Alloys and Compounds*, **2017**, 729, 338-343	5.7	11
161	Ex situ XAS investigation of effect of binders on electrochemical performance of Li2Fe(SO4)2 cathode. *Journal of Materials Chemistry A*, **2017**, 5, 19963-19971	13	4
160	Exceptional catalytic activity of hollow structured La0.6Sr0.4CoO3□ perovskite spheres in aqueous media and aprotic Li□O2 batteries. *Journal of Materials Chemistry A*, **2017**, 5, 18029-18037	13	23
159	Practical Li-Ion Battery Assembly with One-Dimensional Active Materials. *Journal of Physical Chemistry Letters*, **2017**, 8, 4031-4037	6.4	15
158	A chemically bonded NaTi2(PO4)3/rGO microsphere composite as a high-rate insertion anode for sodium-ion capacitors. *Journal of Materials Chemistry A*, **2017**, 5, 17506-17516	13	64
157	Rusted iron wire waste into high performance anode (□Fe2O3) for Li-ion batteries: an efficient waste management approach. *Green Chemistry*, **2016**, 18, 1395-1404	10	32
156	Tailoring three dimensional □MnO2/RuO2 hybrid nanostructure as prospective bifunctional catalyst for Li□O2 batteries. *Electrochimica Acta*, **2016**, 212, 701-709	6.7	14
155	High energy Li-ion capacitors with conversion type Mn3O4 particulates anchored to few layer graphene as the negative electrode. *Journal of Materials Chemistry A*, **2016**, 4, 15134-15139	13	34
154	Overlithiated Li 1+x Ni 0.5 Mn 1.5 O 4 in all one dimensional architecture with conversion type □Fe 2 O 3 : A new approach to eliminate irreversible capacity loss. *Electrochimica Acta*, **2016**, 215, 647-651	6.7	27
153	LiVPO4F: A New Cathode for High-Energy Lithium Ion Capacitors. *ChemistrySelect*, **2016**, 1, 3316-3322	1.8	8
152	Red Mud and Li-Ion Batteries: A Magnetic Connection. *ChemSusChem*, **2016**, 9, 2193-200	8.3	10
151	A comparative evaluation of differently synthesized high surface area carbons for Li-ion hybrid electrochemical supercapacitor application: Pore size distribution holds the key. *Applied Materials Today*, **2016**, 2, 1-6	6.6	20
150	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	13	52
149	High energy asymmetric supercapacitor with 1D@2D structured NiCo2O4@Co3O4 and jackfruit derived high surface area porous carbon. *Journal of Power Sources*, **2016**, 306, 248-257	8.9	122

148	Tube-like carbon for Li-ion capacitors derived from the environmentally undesirable plant: Prosopis juliflora. *Carbon*, **2016**, 98, 58-66	10.4	41
147	Biomass-Derived Electrode for Next Generation Lithium-Ion Capacitors. *ChemSusChem*, **2016**, 9, 849-54	8.3	69
146	Exploring Anatase TiO2 Nanofibers as New Cathode for Constructing 1.6 V Class Rocking-Chair Type Li-Ion Cells. *Particle and Particle Systems Characterization*, **2016**, 33, 306-310	3.1	11
145	3D Interconnected Porous Graphene Sheets Loaded with Cobalt Oxide Nanoparticles for Lithium-Ion Battery Anodes. *Energy Technology*, **2016**, 4, 816-822	3.5	5
144	(0 0 1) faceted mesoporous anatase TiO2 microcubes as superior insertion anode in practical Li-ion configuration with LiMn2O4. *Energy Storage Materials*, **2016**, 3, 106-112	19.4	13
143	Graphene based nanocomposites for alloy (SnO2), and conversion (Fe3O4) type efficient anodes for Li-ion battery applications. *Composites Science and Technology*, **2016**, 130, 88-95	8.6	12
142	Confined ZrO2 encapsulation over high capacity integrated 0.5Li[Ni0.5Mn1.5]O4·0.5[Li2MnO3·Li(Mn0.5Ni0.5)O2] cathode with enhanced electrochemical performance. *Electrochimica Acta*, **2016**, 194, 454-460	6.7	10
141	Research progress in Na-ion capacitors. *Journal of Materials Chemistry A*, **2016**, 4, 7538-7548	13	121
140	Pre-lithiated LixMn2O4: A new approach to mitigate the irreversible capacity loss in negative electrodes for Li-ion battery. *Electrochimica Acta*, **2016**, 208, 225-230	6.7	25
139	Synthesis of SnS2 single crystals and its Li-storage performance with LiMn2O4 cathode. *Applied Materials Today*, **2016**, 5, 68-72	6.6	17
138	TiO2-reduced graphene oxide nanocomposites by microwave-assisted forced hydrolysis as excellent insertion anode for Li-ion battery and capacitor. *Journal of Power Sources*, **2016**, 327, 171-177	8.9	81
137	Recent Advancements in All-Vanadium Redox Flow Batteries. *Advanced Materials Interfaces*, **2016**, 3, 1500309	4.6	253
136	Electrochemical performance of hematite nanoparticles derived from spherical maghemite and elongated goethite particles. *Journal of Power Sources*, **2015**, 276, 291-298	8.9	24
135	TiO2 polymorphs in Rocking-chair Li-ion batteries. *Materials Today*, **2015**, 18, 345-351	21.8	109
134	Two-Dimensional Mesoporous Cobalt Sulfide Nanosheets as a Superior Anode for a Li-Ion Battery and a Bifunctional Electrocatalyst for the Li O2 System. *Chemistry of Materials*, **2015**, 27, 5726-5735	9.6	113
133	Research Progress on Negative Electrodes for Practical Li-Ion Batteries: Beyond Carbonaceous Anodes. *Advanced Energy Materials*, **2015**, 5, 1402225	21.8	361
132	Ultralong Durability of Porous FeO Nanofibers in Practical Li-Ion Configuration with LiMnO Cathode. *Advanced Science*, **2015**, 2, 1500050	13.6	29
131	Excellent performance of Fe3O4-perforated graphene composite as promising anode in practical Li-ion configuration with LiMn2O4. *Energy Storage Materials*, **2015**, 1, 152-157	19.4	20

130	Macroporous carbon from human hair: A journey towards the fabrication of high energy Li-ion capacitors. *Electrochimica Acta*, **2015**, 182, 474-481	6.7	37
129	Unveiling the Fabrication of Rocking-Chair Type 3.2 and 1.2 V Class Cells Using Spinel LiNi0.5Mn1.5O4 as Cathode with Li4Ti5O12. *Journal of Physical Chemistry C*, **2015**, 119, 24332-24336	3.8	10
128	Fabrication of New 2.4 V Lithium-Ion Cell with Carbon-Coated LiTi2(PO4)3 as the Cathode. *ChemElectroChem*, **2015**, 2, 231-235	4.3	27
127	Electrospun nanofibers: a prospective electro-active material for constructing high performance Li-ion batteries. *Chemical Communications*, **2015**, 51, 2225-34	5.8	123
126	Bio-mass derived mesoporous carbon as superior electrode in all vanadium redox flow battery with multicouple reactions. *Journal of Power Sources*, **2015**, 274, 846-850	8.9	78
125	Synthesis of 2D/2D Structured Mesoporous Co3O4 Nanosheet/N-Doped Reduced Graphene Oxide Composites as a Highly Stable Negative Electrode for Lithium Battery Applications. *Chemistry - an Asian Journal*, **2015**, 10, 1776-83	4.5	44
124	High surface area porous carbon for ultracapacitor application by pyrolysis of polystyrene containing pendant carboxylic acid groups prepared via click chemistry. *Materials Today Communications*, **2015**, 4, 166-175	2.5	11
123	Nanostructured spinel LiNi0.5Mn1.5O4 as new insertion anode for advanced Li-ion capacitors with high power capability. *Nano Energy*, **2015**, 12, 69-75	17.1	98
122	Importance of nanostructure for reversible Li-insertion into octahedral sites of LiNi0.5Mn1.5O4 and its application towards aqueous Li-ion chemistry. *Journal of Power Sources*, **2015**, 280, 240-245	8.9	14
121	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. *Journal of Power Sources*, **2015**, 281, 310-317	8.9	64
120	Cu Li2MnSiO4-polyaniline composite hybrids as high performance cathode for lithium batteries. *Journal of Alloys and Compounds*, **2015**, 630, 292-298	5.7	11
119	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, 829-34	8.3	52
118	Improving the energy density of Li-ion capacitors using polymer-derived porous carbons as cathode. *Electrochimica Acta*, **2014**, 130, 766-770	6.7	65
117	Construction of high-energy-density supercapacitors from pine-cone-derived high-surface-area carbons. *ChemSusChem*, **2014**, 7, 1435-42	8.3	105
116	Carbon-coated LiTi(2)(PO(4))(3) : an ideal insertion host for lithium-ion and sodium-ion batteries. *Chemistry - an Asian Journal*, **2014**, 9, 878-82	4.5	37
115	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). *Nanoscale*, **2014**, 6, 4387-94	7.7	144
114	Insertion-type electrodes for nonaqueous Li-ion capacitors. *Chemical Reviews*, **2014**, 114, 11619-35	68.1	533
113	Exceptional performance of a high voltage spinel LiNi0.5Mn1.5O4 cathode in all one dimensional architectures with an anatase TiO2 anode by electrospinning. *Nanoscale*, **2014**, 6, 8926-34	7.7	47

112	Electrospun TiO2 Nanofibers as Insertion Anode for Li-Ion Battery Applications. *Journal of Physical Chemistry C*, **2014**, 118, 16776-16781	3.8	26
111	Indanthrone derived disordered graphitic carbon as promising insertion anode for sodium ion battery with long cycle life. *Electrochimica Acta*, **2014**, 146, 218-223	6.7	19
110	Oligomer-salt derived 3D, heavily nitrogen doped, porous carbon for Li-ion hybrid electrochemical capacitors application. *Carbon*, **2014**, 80, 462-471	10.4	77
109	From waste paper basket to solid state and Li-HEC ultracapacitor electrodes: a value added journey for shredded office paper. *Small*, **2014**, 10, 4395-402	11	58
108	3D micro-porous conducting carbon beehive by single step polymer carbonization for high performance supercapacitors: the magic of in situ porogen formation. *Energy and Environmental Science*, **2014**, 7, 728-735	35.4	304
107	Exceptional performance of TiNb anode in all one-dimensional architecture by electrospinning. *ACS Applied Materials & Interfaces*, **2014**, 6, 8660-6	9.5	113
106	Unveiling TiNb2 O7 as an insertion anode for lithium ion capacitors with high energy and power density. *ChemSusChem*, **2014**, 7, 1858-63	8.3	131
105	Carbon-Coated Li3Nd3W2O12: A High Power and Low-Voltage Insertion Anode with Exceptional Cycleability for Li-Ion Batteries. *Advanced Energy Materials*, **2014**, 4, 1301715	21.8	30
104	Enhanced elevated temperature performance of LiFePO4 modified spinel LiNi0.5Mn1.5O4 cathode. *Journal of Alloys and Compounds*, **2014**, 612, 51-55	5.7	15
103	Understanding the exceptional elevated temperature performance of high voltage LiNi0.5Mn1.5O4 cathodes by LiFePO4 modification. *Electrochimica Acta*, **2014**, 137, 404-410	6.7	8
102	Self-Assembled Ultrathin Anatase TiO2 Nanosheets with Reactive (001) Facets for Highly Enhanced Reversible Li Storage. *ChemElectroChem*, **2014**, 1, 539-543	4.3	21
101	Fluorine-doped Fe(2)O(3) as high energy density electroactive material for hybrid supercapacitor applications. *Chemistry - an Asian Journal*, **2014**, 9, 852-7	4.5	85
100	Does carbon coating really improves the electrochemical performance of electrospun SnO2 anodes?. *Electrochimica Acta*, **2014**, 121, 109-115	6.7	38
99	Carbon coated LiTi2(PO4)3 as new insertion anode for aqueous Na-ion batteries. *Journal of Alloys and Compounds*, **2014**, 603, 48-51	5.7	21
98	Influence of dilution effect on the electrochemical performance of integrated 0.5Li(Mn1.5Ni0.5)O4. 0.5(Li2MnO3 i(Mn0.5Ni0.5)O2) cathodes. *Ceramics International*, **2014**, 40, 13033-13039	5.1	5
97	Synthesis and optimization of NASICON-type Li3V2(PO4)3 by adipic acid-mediated solid-state approach. *Journal of Applied Electrochemistry*, **2013**, 43, 583-593	2.6	7
96	Nonaqueous lithium-ion capacitors with high energy densities using trigol-reduced graphene oxide nanosheets as cathode-active material. *ChemSusChem*, **2013**, 6, 2240-4	8.3	87
95	Experimental investigations of SiO2 based ferrite magnetic tunnel junction. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2013**, 178, 937-941	3.1	3

94	Superior charge-transfer kinetics of NASICON-type Li3V2(PO4)3 cathodes by multivalent Al3+ and Cl substitutions. *Electrochimica Acta*, **2013**, 97, 210-215	6.7	28
93	Mesoscopic magnetic iron oxide spheres for high performance Li-ion battery anode: a new pulsed laser induced reactive micro-bubble synthesis process. *Journal of Materials Chemistry A*, **2013**, 1, 13932	13	16
92	Carbon Coated NASICON Type Li3V2-xMx(PO4)3(M=Mn, Fe and Al) Materials with Enhanced Cyclability for Li-Ion Batteries. *Journal of the Electrochemical Society*, **2013**, 160, A87-A92	3.9	36
91	Li(Mn1/3Ni1/3Fe1/3)O2 polyaniline hybrids as cathode active material with ultra-fast charge discharge capability for lithium batteries. *Journal of Power Sources*, **2013**, 232, 240-245	8.9	33
90	LiMnPO4 A next generation cathode material for lithium-ion batteries. *Journal of Materials Chemistry A*, **2013**, 1, 3518	13	342
89	Superior lithium storage properties of Fe2O3 nano-assembled spindles. *Nano Energy*, **2013**, 2, 890-896	17.1	117
88	Comparison among the performance of LiBOB, LiDFOB and LiFAP impregnated polyvinylidenefluoride-hexafluoropropylene nanocomposite membranes by phase inversion for lithium batteries. *Current Applied Physics*, **2013**, 13, 293-297	2.6	18
87	Electrospun NiO nanofibers as high performance anode material for Li-ion batteries. *Journal of Power Sources*, **2013**, 227, 284-290	8.9	164
86	High-rate and elevated temperature performance of electrospun V2O5 nanofibers carbon-coated by plasma enhanced chemical vapour deposition. *Nano Energy*, **2013**, 2, 57-64	17.1	46
85	Extraordinary long-term cycleability of TiO2-B nanorods as anodes in full-cell assembly with electrospun PVdF-HFP membranes. *Journal of Materials Chemistry A*, **2013**, 1, 308-316	13	47
84	Constructing high energy density non-aqueous Li-ion capacitors using monoclinic TiO2-B nanorods as insertion host. *Journal of Materials Chemistry A*, **2013**, 1, 6145	13	133
83	Synthesis of TiO2 hollow nanofibers by co-axial electrospinning and its superior lithium storage capability in full-cell assembly with olivine phosphate. *Nanoscale*, **2013**, 5, 5973-80	7.7	80
82	Atomic layer deposited (ALD) SnO2 anodes with exceptional cycleability for Li-ion batteries. *Nano Energy*, **2013**, 2, 720-725	17.1	88
81	Synthesis of porous LiMn2O4 hollow nanofibers by electrospinning with extraordinary lithium storage properties. *Chemical Communications*, **2013**, 49, 6677-9	5.8	83
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	13	43
79	Synthesis of CuO nanostructures from Cu-based metal organic framework (MOF-199) for application as anode for Li-ion batteries. *Nano Energy*, **2013**, 2, 1158-1163	17.1	217
78	Non-aqueous energy storage devices using graphene nanosheets synthesized by green route. *AIP Advances*, **2013**, 3, 042112	1.5	14
77	A novel strategy to construct high performance lithium-ion cells using one dimensional electrospun nanofibers, electrodes and separators. *Nanoscale*, **2013**, 5, 10636-45	7.7	65

76	Synthesis and enhanced lithium storage properties of electrospun V2O5 nanofibers in full-cell assembly with a spinel Li4Ti5O12 anode. *ACS Applied Materials & Interfaces*, **2013**, 5, 3475-80	9.5	59
75	Activated carbons derived from coconut shells as high energy density cathode material for Li-ion capacitors. *Scientific Reports*, **2013**, 3, 3002	4.9	195
74	Influence of synthesis technique on the structural and electrochemical properties of □obalt-free□ layered type Li1+x(Mn0.4Ni0.4Fe0.2)1□O2 (0. *Electrochimica Acta*, **2013**, 108, 749-756	6.7	18
73	Unveiling organic□norganic hybrids as a cathode material for high performance lithium-ion capacitors. *Journal of Materials Chemistry A*, **2013**, 1, 707-714	13	65
72	Chemical Lithiation Studies on Combustion Synthesized V2O5Cathodes with Full Cell Application for Lithium Ion Batteries. *Journal of the Electrochemical Society*, **2013**, 160, A1016-A1024	3.9	41
71	Palladium- and gold-nanoparticle-modified porous carbon as a high-power anode for lithium-ion batteries. *ChemPhysChem*, **2013**, 14, 3887-90	3.2	2
70	Ultrathin Polyimide Coating for a Spinel LiNi0.5Mn1.5O4Cathode and Its Superior Lithium Storage Properties under Elevated Temperature Conditions. *Journal of the Electrochemical Society*, **2013**, 160, A1003-A1008	3.9	39
69	Electrochemical performance of cobalt free, Li1.2(Mn0.32Ni0.32Fe0.16)O2 cathodes for lithium batteries. *Electrochimica Acta*, **2012**, 68, 246-253	6.7	71
68	Novel polymer electrolyte based on cob-web electrospun multi component polymer blend of polyacrylonitrile/poly(methyl methacrylate)/polystyrene for lithium ion batteries□reparation and electrochemical characterization. *Journal of Power Sources*, **2012**, 202, 299-307	8.9	103
67	Synthesis and characterization of novel LiFeBO3/C cathodes for lithium batteries. *Ionics*, **2012**, 18, 27-30	2.7	21
66	Realizing the Performance of LiCoPO4Cathodes by Fe Substitution with Off-Stoichiometry. *Journal of the Electrochemical Society*, **2012**, 159, A1013-A1018	3.9	30
65	High-Energy Density Asymmetric Supercapacitor Based on Electrospun Vanadium Pentoxide and Polyaniline Nanofibers in Aqueous Electrolyte. *Journal of the Electrochemical Society*, **2012**, 159, A1481-A1488	3.9	66
64	High Aspect Ratio Electrospun CuO Nanofibers as Anode Material for Lithium-Ion Batteries with Superior Cycleability. *Journal of Physical Chemistry C*, **2012**, 116, 18087-18092	3.8	175
63	Electrochemical Lithium Insertion Behavior of Combustion Synthesized V2O5Cathodes for Lithium-Ion Batteries. *Journal of the Electrochemical Society*, **2012**, 159, A273-A280	3.9	42
62	High power lithium-ion hybrid electrochemical capacitors using spinel LiCrTiO4 as insertion electrode. *Journal of Materials Chemistry*, **2012**, 22, 16026		152
61	Electrochemical performance of NASICON type carbon coated LiTi2(PO4)3 with a spinel LiMn2O4 cathode. *RSC Advances*, **2012**, 2, 7534	3.7	41
60	Carbon coated nano-LiTi2(PO4)3 electrodes for non-aqueous hybrid supercapacitors. *Physical Chemistry Chemical Physics*, **2012**, 14, 5808-14	3.6	213
59	Free-standing electrospun carbon nanofibres□ high performance anode material for lithium-ion batteries. *Journal Physics D: Applied Physics*, **2012**, 45, 265302	3	42

58	Synthesis and enhanced electrochemical performance of Li2CoPO4F cathodes under high current cycling. *Physical Chemistry Chemical Physics*, **2012**, 14, 11904-9	3.6	23
57	Electrospun TiO2/Graphene Composite Nanofibers as a Highly Durable Insertion Anode for Lithium Ion Batteries. *Journal of Physical Chemistry C*, **2012**, 116, 14780-14788	3.8	171
56	High performance lithium-ion cells using one dimensional electrospun TiO2 nanofibers with spinel cathode. *RSC Advances*, **2012**, 2, 7983	3.7	38
55	Effect of LiBOB Additive on the Electrochemical Performance of LiCoPO4. *Journal of the Electrochemical Society*, **2012**, 159, A1435-A1439	3.9	52
54	Improved elevated temperature performance of Al-intercalated V(2)O(5) electrospun nanofibers for lithium-ion batteries. *ACS Applied Materials & Interfaces*, **2012**, 4, 3270-7	9.5	73
53	Carbon supported, Al doped-Li3V2(PO4)3 as a high rate cathode material for lithium-ion batteries. *Journal of Materials Chemistry*, **2012**, 22, 6556		111
52	LiCrTiO(4): a high-performance insertion anode for lithium-ion batteries. *ChemPhysChem*, **2012**, 13, 3263-6	3.2	42
51	Fabrication of High Energy-Density Hybrid Supercapacitors Using Electrospun V2O5 Nanofibers with a Self-Supported Carbon Nanotube Network. *ChemPlusChem*, **2012**, 77, 570-575	2.8	115
50	Effect of aging on the ionic conductivity of polyvinylidenefluoride–hexafluoropropylene (PVdF–HFP) membrane impregnated with different lithium salts. *Indian Journal of Physics*, **2012**, 86, 341-344	1.4	9
49	Electrochemical Performance of α-MnO2 Nanorods/Activated Carbon Hybrid Supercapacitor. *Nanoscience and Nanotechnology Letters*, **2012**, 4, 724-728	0.8	40
48	LiFePO4 modified Li1.02(Co0.9Fe0.1)0.98PO4 cathodes with improved lithium storage properties. *Journal of Materials Chemistry*, **2011**, 21, 6510		47
47	Manipulation of adipic acid application on the electrochemical properties of LiFePO4 at high rate performance. *Journal of Alloys and Compounds*, **2011**, 509, 1279-1284	5.7	30
46	Improved performance of polyvinylidenefluoride–hexafluoropropylene based nanocomposite polymer membranes containing lithium bis(oxalato)borate by phase inversion for lithium batteries. *Solid State Sciences*, **2011**, 13, 1047-1051	3.4	19
45	Hybrid supercapacitor with nano-TiP2O7 as intercalation electrode. *Journal of Power Sources*, **2011**, 196, 8850-8854	8.9	185
44	Synthesis and improved electrochemical properties of Li2MnSiO4cathodes. *Journal Physics D: Applied Physics*, **2011**, 44, 152001	3	37
43	A novel approach to employ Li2MnSiO4 as anode active material for lithium batteries. *Ionics*, **2011**, 17, 3-6	2.7	10
42	Lithium-ion conducting electrolyte salts for lithium batteries. *Chemistry - A European Journal*, **2011**, 17, 14326-46	4.8	268
41	Superior Lithium Storage Properties of Carbon Coated Li2MnSiO4 Cathodes. *Electrochemical and Solid-State Letters*, **2011**, 14, A33		25

40	Influence of carbon towards improved lithium storage properties of Li2MnSiO4 cathodes. *Journal of Materials Chemistry*, **2011**, 21, 2470		112
39	Morphology, structure and electrochemical properties of single phase electrospun vanadium pentoxide nanofibers for lithium ion batteries. *Journal of Power Sources*, **2011**, 196, 6465-6472	8.9	140
38	Size controlled synthesis of Li2MnSiO4 nanoparticles: effect of calcination temperature and carbon content for high performance lithium batteries. *Journal of Colloid and Interface Science*, **2011**, 355, 472-7	9.3	49
37	Preparation and electrochemical characterization of LiFePO4 nanoparticles with high rate capability by a sol□el method. *Journal of Alloys and Compounds*, **2010**, 491, 668-672	5.7	67
36	The important role of adipic acid on the synthesis of nanocrystalline lithium iron phosphate with high rate performance. *Journal of Alloys and Compounds*, **2010**, 495, 181-184	5.7	22
35	Preparation of LiCoPO4 and LiFePO4 coated LiCoPO4 materials with improved battery performance. *Journal of Alloys and Compounds*, **2010**, 497, 321-324	5.7	70
34	A novel asymmetric hybrid supercapacitor based on Li2FeSiO4 and activated carbon electrodes. *Journal of Alloys and Compounds*, **2010**, 504, 224-227	5.7	110
33	Characterization of poly(vinylidenefluoride-co-hexafluoroprolylene) membranes containing nanoscopic AlO(OH)n filler with Li/LiFePO4 cell. *Journal of Renewable and Sustainable Energy*, **2010**, 2, 033105	2.5	7
32	Adipic acid assisted sol□el synthesis of Li2MnSiO4 nanoparticles with improved lithium storage properties. *Journal of Materials Chemistry*, **2010**, 20, 7340		90
31	Lithium ion transport in PVC/PEG 2000 blend polymer electrolytes complexed with LiX (X=ClO □ , BF □ , and CF3SO □). *Ionics*, **2010**, 16, 263-267	2.7	5
30	Electrochemical performance of carbon-coated lithium manganese silicate for asymmetric hybrid supercapacitors. *Journal of Power Sources*, **2010**, 195, 3761-3764	8.9	103
29	LiMnBO3/C: A Potential Cathode Material for Lithium Batteries. *Bulletin of the Korean Chemical Society*, **2010**, 31, 1506-1508	1.2	28
28	Lithium fluoroalkylphosphate based novel composite polymer electrolytes (NCPE) incorporated with nanosized SiO2 filler. *Materials Chemistry and Physics*, **2009**, 115, 251-257	4.4	33
27	Polyvinylidene fluoride-based novel polymer electrolytes for magnesium-rechargeable batteries with Mg(CF3SO3)2. *Journal of Applied Polymer Science*, **2009**, 112, 3024-3029	2.9	21
26	Ionic transport, thermal, XRD, and phase morphological studies on LiCF3SO3-based PVC□PVdF gel electrolytes. *Ionics*, **2009**, 15, 433-437	2.7	11
25	LiFAP-based PVdF□HFP microporous membranes by phase-inversion technique with Li/LiFePO4 cell. *Applied Physics A: Materials Science and Processing*, **2009**, 97, 811-819	2.6	12
24	Synthesis and characterization of LiBOB-based PVdF/PVC-TiO2 composite polymer electrolytes. *Polymer Engineering and Science*, **2009**, 49, 2109-2115	2.3	18
23	Investigations on Na+ ion conducting polyvinylidenefluoride-co-hexafluoropropylene/poly ethylmethacrylate blend polymer electrolytes. *Current Applied Physics*, **2009**, 9, 1106-1111	2.6	33

22	Li+ ion conduction in TiO2 filled polyvinylidenefluoride-co-hexafluoropropylene based novel nanocomposite polymer electrolyte membranes with LiDFOB. *Current Applied Physics*, **2009**, 9, 1474-1479	2.6	33
21	Copper-substituted, lithium rich iron phosphate as cathode material for lithium secondary batteries. *Journal of Alloys and Compounds*, **2009**, 488, 380-385	5.7	15
20	Polyvinylidenefluoride (PVdF) based novel polymer electrolytes complexed with Mg(ClO4)2. *EPJ Applied Physics*, **2009**, 45, 11101	1.1	3
19	Nanoparticulate AlO(OH)n filled polyvinylidenefluoride-co-hexafluoropropylene based microporous membranes for lithium ion batteries. *Journal of Renewable and Sustainable Energy*, **2009**, 1, 023108	2.5	13
18	Improved Cycle Performance of Sulfur-Doped LiFePO4Material at High Temperatures. *Bulletin of the Korean Chemical Society*, **2009**, 30, 2223-2226	1.2	19
17	Polyvinylidene fluoride–hexafluoropropylene (PVdF–HFP)-based composite polymer electrolyte containing LiPF3(CF3CF2)3. *Journal of Non-Crystalline Solids*, **2008**, 354, 3451-3457	3.9	39
16	Lithium difluoro(oxalate)borate-based novel nanocomposite polymer electrolytes for lithium ion batteries. *Polymer International*, **2008**, 57, 932-938	3.3	22
15	Characterization of SiO2 and Al2O3 incorporated PVdF-HFP based composite polymer electrolytes with LiPF3(CF3CF2)3. *Journal of Applied Polymer Science*, **2008**, 108, 1314-1322	2.9	33
14	Effects of TiO2and ZrO2nanofillers in LiBOB based PVdF/PVC composite polymer electrolytes (CPE). *Journal Physics D: Applied Physics*, **2007**, 40, 6754-6759	3	18
13	Polyvinylidenefluoride–hexafluoropropylene based nanocomposite polymer electrolytes (NCPE) complexed with LiPF3(CF3CF2)3. *European Polymer Journal*, **2007**, 43, 5121-5127	5.2	36
12	ZrO2 nanofiller incorporated PVC/PVdF blend-based composite polymer electrolytes (CPE) complexed with LiBOB. *Journal of Membrane Science*, **2007**, 305, 146-151	9.6	42
11	A novel gel electrolyte with lithium difluoro(oxalato)borate salt and Sb2O3 nanoparticles for lithium ion batteries. *Solid State Sciences*, **2007**, 9, 1069-1073	3.4	43
10	A study on LiBOB-based nanocomposite gel polymer electrolytes (NCGPE) for Lithium-ion batteries. *Ionics*, **2007**, 13, 277-280	2.7	23
9	A study on the blending effect of polyvinyledene fluoride in the ionic transport mechanism of plasticized polyvinyl chloride + lithium perchlorate gel polymer electrolytes. *Ionics*, **2007**, 13, 355-360	2.7	8
8	Recycling/Reuse of Current Collectors from Spent Lithium-Ion Batteries: Benefits and Issues. *Advanced Sustainable Systems*,2100432	5.9	7
7	Solvent Co-intercalation: An Emerging Mechanism in Li-, Na-, and K-Ion Capacitors. *ACS Energy Letters*,4228-4244	20.1	5
6	Modulating Anion Redox Activity of Li1.2Mn0.54Ni0.13Co0.13O2 through Strong Sr–O Bonds toward Achieving Stable Li-Ion Half-/Full-Cell Performance. *ACS Applied Energy Materials*,	6.1	2
5	Graphene from Spent Lithium-Ion Batteries. *Batteries and Supercaps*,	5.6	1

4	Pencil Scripted Ultrathin Graphene Nanostructure as Binder-Free Battery-Type Electrode for Li-Ion Micro-Capacitors with Excellent Performance. *Energy Technology*,2200205	3.5	1
3	Developments and Perspectives on Robust Nano- and Microstructured Binder-Free Electrodes for Bifunctional Water Electrolysis and Beyond. *Advanced Energy Materials*,2200409	21.8	12
2	Choice of Binder on Conversion Type CuO Nanoparticles toward Building High Energy Li-Ion Capacitors: An Approach Beyond Intercalation. *Advanced Materials Technologies*,2200423	6.8	1
1	Na-Ion Battery with Graphite Anode and Na 3 V 2 (PO 4) 3 Cathode via Solvent-Co-Intercalation Process. *Advanced Materials Technologies*,2200399	6.8	3