Yang-Kook Sun

List of Publications by Citations

673 papers	61,128 citations	121 h-index	218 g-index
723 ext. papers	69,516 ext. citations	11.2 avg, IF	8.44 L-index

#	Paper	IF	Citations
673	Sodium-ion batteries: present and future. *Chemical Society Reviews*, **2017**, 46, 3529-3614	58.5	2356
672	Challenges facing lithium batteries and electrical double-layer capacitors. *Angewandte Chemie - International Edition*, **2012**, 51, 9994-10024	16.4	2149
671	Lithium-ion batteries. A look into the future. *Energy and Environmental Science*, **2011**, 4, 3287	35.4	1906
670	Comparison of the structural and electrochemical properties of layered Li[NixCoyMnz]O2 (x = 1/3, 0.5, 0.6, 0.7, 0.8 and 0.85) cathode material for lithium-ion batteries. *Journal of Power Sources*, **2013**, 233, 121-130	8.9	1191
669	High-energy cathode material for long-life and safe lithium batteries. *Nature Materials*, **2009**, 8, 320-4	27	1155
668	An improved high-performance lithium-air battery. *Nature Chemistry*, **2012**, 4, 579-85	17.6	909
667	Aprotic and aqueous Li-O batteries. *Chemical Reviews*, **2014**, 114, 5611-40	68.1	841
666	Nanostructured high-energy cathode materials for advanced lithium batteries. *Nature Materials*, **2012**, 11, 942-7	27	781
665	Nickel-Rich and Lithium-Rich Layered Oxide Cathodes: Progress and Perspectives. *Advanced Energy Materials*, **2016**, 6, 1501010	21.8	742
664	Nickel-Rich Layered Cathode Materials for Automotive Lithium-Ion Batteries: Achievements and Perspectives. *ACS Energy Letters*, **2017**, 2, 196-223	20.1	726
663	Capacity Fading of Ni-Rich Li[NixCoyMn1]O2 (0.6 x 0.95) Cathodes for High-Energy-Density Lithium-Ion Batteries: Bulk or Surface Degradation?. *Chemistry of Materials*, **2018**, 30, 1155-1163	9.6	620
662	Comparative Study of LiNi0.5Mn1.5O4- and LiNi0.5Mn1.5O4 Cathodes Having Two Crystallographic Structures: Fd3 m and P4332. *Chemistry of Materials*, **2004**, 16, 906-914	9.6	603
661	The role of AlF3 coatings in improving electrochemical cycling of Li-enriched nickel-manganese oxide electrodes for Li-ion batteries. *Advanced Materials*, **2012**, 24, 1192-6	24	558
660	A lithium-oxygen battery based on lithium superoxide. *Nature*, **2016**, 529, 377-82	50.4	520
659	Role of surface coating on cathode materials for lithium-ion batteries. *Journal of Materials Chemistry*, **2010**, 20, 7606		477
658	The lithium/air battery: still an emerging system or a practical reality?. *Advanced Materials*, **2015**, 27, 784-800	24	471
657	Synthetic optimization of Li[Ni1/3Co1/3Mn1/3]O2 via co-precipitation. *Electrochimica Acta*, **2004**, 50, 939-948	6.7	461

656	Role of Alumina Coating on Li□Ni□Co□Mn□O Particles as Positive Electrode Material for Lithium-Ion Batteries. *Chemistry of Materials*, **2005**, 17, 3695-3704	9.6	440
655	Present and Future Perspective on Electrode Materials for Rechargeable Zinc-Ion Batteries. *ACS Energy Letters*, **2018**, 3, 2620-2640	20.1	439
654	Titanium-Based Anode Materials for Safe Lithium-Ion Batteries. *Advanced Functional Materials*, **2013**, 23, 959-969	15.6	400
653	Microscale spherical carbon-coated Li4Ti5O12 as ultra high power anode material for lithium batteries. *Energy and Environmental Science*, **2011**, 4, 1345	35.4	399
652	The Application of Metal Sulfides in Sodium Ion Batteries. *Advanced Energy Materials*, **2017**, 7, 1601329	21.8	395
651	Anatase titania nanorods as an intercalation anode material for rechargeable sodium batteries. *Nano Letters*, **2014**, 14, 416-22	11.5	376
650	Synthesis and characterization of Li[(Ni0.8Co0.1Mn0.1)0.8(Ni0.5Mn0.5)0.2]O2 with the microscale core-shell structure as the positive electrode material for lithium batteries. *Journal of the American Chemical Society*, **2005**, 127, 13411-8	16.4	363
649	Recent Progress in Rechargeable Potassium Batteries. *Advanced Functional Materials*, **2018**, 28, 1802938	15.6	362
648	A nanostructured cathode architecture for low charge overpotential in lithium-oxygen batteries. *Nature Communications*, **2013**, 4, 2383	17.4	355
647	Ruthenium-based electrocatalysts supported on reduced graphene oxide for lithium-air batteries. *ACS Nano*, **2013**, 7, 3532-9	16.7	348
646	Electrochemical Zinc Intercalation in Lithium Vanadium Oxide: A High-Capacity Zinc-Ion Battery Cathode. *Chemistry of Materials*, **2017**, 29, 1684-1694	9.6	342
645	NaVO□HO Barnesite Nanorod: An Open Door to Display a Stable and High Energy for Aqueous Rechargeable Zn-Ion Batteries as Cathodes. *Nano Letters*, **2018**, 18, 2402-2410	11.5	341
644	An advanced lithium ion battery based on high performance electrode materials. *Journal of the American Chemical Society*, **2011**, 133, 3139-43	16.4	340
643	Nanostructured anode material for high-power battery system in electric vehicles. *Advanced Materials*, **2010**, 22, 3052-7	24	338
642	Double carbon coating of LiFePO4 as high rate electrode for rechargeable lithium batteries. *Advanced Materials*, **2010**, 22, 4842-5	24	329
641	Mn(II) deposition on anodes and its effects on capacity fade in spinel lithium manganate-carbon systems. *Nature Communications*, **2013**, 4, 2437	17.4	315
640	A high-rate long-life Li4Ti5O12/Li[Ni0.45Co0.1Mn1.45]O4 lithium-ion battery. *Nature Communications*, **2011**, 2, 516	17.4	301
639	Reversible NaFePO4 electrode for sodium secondary batteries. *Electrochemistry Communications*, **2012**, 22, 149-152	5.1	294

638	An Advanced Lithium-Sulfur Battery. *Advanced Functional Materials*, **2013**, 23, 1076-1080	15.6	284
637	Lithium-Oxygen Batteries and Related Systems: Potential, Status, and Future. *Chemical Reviews*, **2020**, 120, 6626-6683	68.1	279
636	High-Performance Carbon-LiMnPO4 Nanocomposite Cathode for Lithium Batteries. *Advanced Functional Materials*, **2010**, 20, 3260-3265	15.6	277
635	Li(Ni1/3Co1/3Mn1/3)O2 as a suitable cathode for high power applications. *Journal of Power Sources* , **2003**, 123, 247-252	8.9	270
634	High-Energy, High-Rate, Lithiumâ Sulfur Batteries: Synergetic Effect of Hollow TiO2-Webbed Carbon Nanotubes and a Dual Functional Carbon-Paper Interlayer. *Advanced Energy Materials*, **2016**, 6, 1501480	21.8	267
633	Electrochemical behavior and passivation of current collectors in lithium-ion batteries. *Journal of Materials Chemistry*, **2011**, 21, 9891		254
632	Electrochemical performance of nano-sized ZnO-coated LiNi0.5Mn1.5O4 spinel as 5 V materials at elevated temperatures. *Electrochemistry Communications*, **2002**, 4, 344-348	5.1	244
631	Advanced Na[Ni0.25Fe0.5Mn0.25]O2/C-Fe3O4 sodium-ion batteries using EMS electrolyte for energy storage. *Nano Letters*, **2014**, 14, 1620-6	11.5	241
630	NaCrO2 cathode for high-rate sodium-ion batteries. *Energy and Environmental Science*, **2015**, 8, 2019-2026	35.4	239
629	Significant improvement of high voltage cycling behavior AlF3-coated LiCoO2 cathode. *Electrochemistry Communications*, **2006**, 8, 821-826	5.1	226
628	Pushing the limit of layered transition metal oxide cathodes for high-energy density rechargeable Li ion batteries. *Energy and Environmental Science*, **2018**, 11, 1271-1279	35.4	225
627	A Novel Cathode Material with a Concentration-Gradient for High-Energy and Safe Lithium-Ion Batteries. *Advanced Functional Materials*, **2010**, 20, 485-491	15.6	225
626	Evaluation of (CF3SO2)2Nâ (TFSI) Based Electrolyte Solutions for Mg Batteries. *Journal of the Electrochemical Society*, **2015**, 162, A7118-A7128	3.9	224
625	Synthesis and Electrochemical Properties of ZnO-Coated LiNi[sub 0.5]Mn[sub 1.5]O[sub 4] Spinel as 5 V Cathode Material for Lithium Secondary Batteries. *Electrochemical and Solid-State Letters*, **2002**, 5, A99		224
624	An effective method to reduce residual lithium compounds on Ni-rich Li[Ni0.6Co0.2Mn0.2]O2 active material using a phosphoric acid derived Li3PO4 nanolayer. *Nano Research*, **2015**, 8, 1464-1479	10	222
623	High-energy-density lithium-ion battery using a carbon-nanotubeâ Si composite anode and a compositionally graded Li[Ni0.85Co0.05Mn0.10]O2 cathode. *Energy and Environmental Science*, **2016**, 9, 2152-2158	35.4	221
622	Surface modification of LiNi0.5Mn1.5O4 by ZrP2O7 and ZrO2 for lithium-ion batteries. *Journal of Power Sources*, **2010**, 195, 2909-2913	8.9	219
621	Molten salt synthesis of LiNi0.5Mn1.5O4 spinel for 5 V class cathode material of Li-ion secondary battery. *Electrochimica Acta*, **2004**, 49, 219-227	6.7	213

620	Aqueous rechargeable Zn-ion batteries: an imperishable and high-energy Zn2V2O7 nanowire cathode through intercalation regulation. *Journal of Materials Chemistry A*, **2018**, 6, 3850-3856	13	212
619	Redox Mediators for Li-O Batteries: Status and Perspectives. *Advanced Materials*, **2018**, 30, 1704162	24	206
618	Effectively suppressing dissolution of manganese from spinel lithium manganate via a nanoscale surface-doping approach. *Nature Communications*, **2014**, 5, 5693	17.4	202
617	Synthesis and electrochemical properties of Li[Ni0.8Co0.1Mn0.1]O2 and Li[Ni0.8Co0.2]O2 via co-precipitation. *Journal of Power Sources*, **2006**, 159, 1328-1333	8.9	200
616	Black anatase titania enabling ultra high cycling rates for rechargeable lithium batteries. *Energy and Environmental Science*, **2013**, 6, 2609	35.4	198
615	Improvement of long-term cycling performance of Li[Ni0.8Co0.15Al0.05]O2 by AlF3 coating. *Journal of Power Sources*, **2013**, 234, 201-207	8.9	198
614	Structural Stability of LiNiO2 Cycled above 4.2 V. *ACS Energy Letters*, **2017**, 2, 1150-1155	20.1	197
613	Effect of Residual Lithium Compounds on Layer Ni-Rich Li[Ni0.7Mn0.3]O2. *Journal of the Electrochemical Society*, **2014**, 161, A920-A926	3.9	197
612	Facile synthesis and the exploration of the zinc storage mechanism of □MnO2 nanorods with exposed (101) planes as a novel cathode material for high performance eco-friendly zinc-ion batteries. *Journal of Materials Chemistry A*, **2017**, 5, 23299-23309	13	194
611	Improved Cycling Stability of Li[Ni0.90Co0.05Mn0.05]O2 Through Microstructure Modification by Boron Doping for Li-Ion Batteries. *Advanced Energy Materials*, **2018**, 8, 1801202	21.8	194
610	Bottom-up in situ formation of Fe3O4 nanocrystals in a porous carbon foam for lithium-ion battery anodes. *Journal of Materials Chemistry*, **2011**, 21, 17325		194
609	Layered Li(Ni0.5â□Mn0.5â□M2x?)O2 (M?=Co, Al, Ti; x=0, 0.025) cathode materials for Li-ion rechargeable batteries. *Journal of Power Sources*, **2002**, 112, 41-48	8.9	192
608	Nanostructured metal phosphide-based materials for electrochemical energy storage. *Journal of Materials Chemistry A*, **2016**, 4, 14915-14931	13	191
607	Liâ□O2 cells with LiBr as an electrolyte and a redox mediator. *Energy and Environmental Science*, **2016**, 9, 2334-2345	35.4	190
606	High electrochemical performances of microsphere C-TiOâ□anode for sodium-ion battery. *ACS Applied Materials & Interfaces*, **2014**, 6, 11295-301	9.5	187
605	Surface modification of cathode materials from nano- to microscale for rechargeable lithium-ion batteries. *Journal of Materials Chemistry*, **2010**, 20, 7074		187
604	Synthesis and structural characterization of layered Li[Ni1/3Co1/3Mn1/3]O2 cathode materials by ultrasonic spray pyrolysis method. *Electrochimica Acta*, **2004**, 49, 557-563	6.7	187
603	A Mo2C/Carbon Nanotube Composite Cathode for Lithium-Oxygen Batteries with High Energy Efficiency and Long Cycle Life. *ACS Nano*, **2015**, 9, 4129-37	16.7	181

602	Amorphous iron phosphate: potential host for various charge carrier ions. *NPG Asia Materials*, **2014**, 6, e138-e138	10.3	180
601	An advanced lithium-air battery exploiting an ionic liquid-based electrolyte. *Nano Letters*, **2014**, 14, 6572-7	11.5	178
600	Lithiumbatterien und elektrische Doppelschichtkondensatoren: aktuelle Herausforderungen. *Angewandte Chemie*, **2012**, 124, 10134-10166	3.6	176
599	Ni3(PO4)2-coated Li[Ni0.8Co0.15Al0.05]O2 lithium battery electrode with improved cycling performance at 55°C. *Journal of Power Sources*, **2011**, 196, 7742-7746	8.9	175
598	Significant Improvement of Electrochemical Performance of AlF[sub 3]-Coated Li[Ni[sub 0.8]Co[sub 0.1]Mn[sub 0.1]]O[sub 2] Cathode Materials. *Journal of the Electrochemical Society*, **2007**, 154, A1005	3.9	175
597	Synthesis of porous carbon supported palladium nanoparticle catalysts by atomic layer deposition: application for rechargeable lithium-O2 battery. *Nano Letters*, **2013**, 13, 4182-9	11.5	170
596	High capacity and excellent stability of lithium ion battery anode using interface-controlled binder-free multiwall carbon nanotubes grown on copper. *ACS Nano*, **2010**, 4, 3440-6	16.7	170
595	Understanding the behavior of Liâoxygen cells containing LiI. *Journal of Materials Chemistry A*, **2015**, 3, 8855-8864	13	169
594	On the Safety of the Li[sub 4]Ti[sub 5]O[sub 12]âLiMn[sub 2]O[sub 4] Lithium-Ion Battery System. *Journal of the Electrochemical Society*, **2007**, 154, A1083	3.9	168
593	A high energy and power density hybrid supercapacitor based on an advanced carbon-coated Li4Ti5O12 electrode. *Journal of Power Sources*, **2013**, 221, 266-271	8.9	165
592	Evidence for lithium superoxide-like species in the discharge product of a Li-O2 battery. *Physical Chemistry Chemical Physics*, **2013**, 15, 3764-71	3.6	164
591	Micrometer-sized, nanoporous, high-volumetric-capacity LiMnâeâPOâcathode material for rechargeable lithium-ion batteries. *Advanced Materials*, **2011**, 23, 5050-4	24	163
590	Effect of the size-selective silver clusters on lithium peroxide morphology in lithium-oxygen batteries. *Nature Communications*, **2014**, 5, 4895	17.4	162
589	Degradation Mechanism of Ni-Enriched NCA Cathode for Lithium Batteries: Are Microcracks Really Critical?. *ACS Energy Letters*, **2019**, 4, 1394-1400	20.1	161
588	Beyond Doping and Coating: Prospective Strategies for Stable High-Capacity Layered Ni-Rich Cathodes. *ACS Energy Letters*, **2020**, 5, 1136-1146	20.1	161
587	Radially aligned hierarchical columnar structure as a cathode material for high energy density sodium-ion batteries. *Nature Communications*, **2015**, 6, 6865	17.4	160
586	Electrochemical characterization of Li2MnO3âLi[Ni1/3Co1/3Mn1/3]O2âLiNiO2 cathode synthesized via co-precipitation for lithium secondary batteries. *Journal of Power Sources*, **2009**, 189, 571-575	8.9	160
585	Increased Stability Toward Oxygen Reduction Products for Lithium-Air Batteries with Oligoether-Functionalized Silane Electrolytes. *Journal of Physical Chemistry C*, **2011**, 115, 25535-25542	3.8	159

584	Nano/Microstructured Silicon-Graphite Composite Anode for High-Energy-Density Li-Ion Battery. *ACS Nano*, **2019**, 13, 2624-2633	16.7	159
583	Cobalt-free nickel rich layered oxide cathodes for lithium-ion batteries. *ACS Applied Materials & Interfaces*, **2013**, 5, 11434-40	9.5	158
582	Effect of calcination temperature on morphology, crystallinity and electrochemical properties of nano-crystalline metal oxides (Co3O4, CuO, and NiO) prepared via ultrasonic spray pyrolysis. *Journal of Power Sources*, **2007**, 173, 502-509	8.9	158
581	Structural and Electrochemical Properties of Layered Li[Ni[sub 1â2x]Co[sub x]Mn[sub x]]O[sub 2] (x=0.1â0.3) Positive Electrode Materials for Li-Ion Batteries. *Journal of the Electrochemical Society*, **2007**, 154, A971	3.9	152
580	High Capacity O3-Type Na[Li0.05(Ni0.25Fe0.25Mn0.5)0.95]O2 Cathode for Sodium Ion Batteries. *Chemistry of Materials*, **2014**, 26, 6165-6171	9.6	148
579	Improvement of electrochemical and thermal properties of Li[Ni0.8Co0.1Mn0.1]O2 positive electrode materials by multiple metal (Al, Mg) substitution. *Electrochimica Acta*, **2009**, 54, 3851-3856	6.7	147
578	A contribution to the progress of high energy batteries: A metal-free, lithium-ion, siliconâsulfur battery. *Journal of Power Sources*, **2012**, 202, 308-313	8.9	146
577	Nanostructured TiO2 and Its Application in Lithium-Ion Storage. *Advanced Functional Materials*, **2011**, 21, 3231-3241	15.6	146
576	AlF[sub 3]-Coating to Improve High Voltage Cycling Performance of Li[Ni[sub 1â3]Co[sub 1â3]Mn[sub 1â3]]O[sub 2] Cathode Materials for Lithium Secondary Batteries. *Journal of the Electrochemical Society*, **2007**, 154, A168	3.9	145
575	Degradation mechanisms in doped spinels of LiM0.05Mn1.95O4 (M=Li, B, Al, Co, and Ni) for Li secondary batteries. *Journal of Power Sources*, **2000**, 89, 7-14	8.9	144
574	Functionality of Oxide Coating for Li[Li0.05Ni0.4Co0.15Mn0.4]O2as Positive Electrode Materials for Lithium-Ion Secondary Batteries. *Journal of Physical Chemistry C*, **2007**, 111, 4061-4067	3.8	143
573	Na Storage Capability Investigation of a Carbon Nanotube-Encapsulated Fe1â S Composite. *ACS Energy Letters*, **2017**, 2, 364-372	20.1	141
572	A metal-free, lithium-ion oxygen battery: a step forward to safety in lithium-air batteries. *Nano Letters*, **2012**, 12, 5775-9	11.5	141
571	High-Energy Ni-Rich Li[NixCoyMn1â â]O2 Cathodes via Compositional Partitioning for Next-Generation Electric Vehicles. *Chemistry of Materials*, **2017**, 29, 10436-10445	9.6	140
570	Extracting maximum capacity from Ni-rich Li[Ni0.95Co0.025Mn0.025]O2 cathodes for high-energy-density lithium-ion batteries. *Journal of Materials Chemistry A*, **2018**, 6, 4126-4132	13	139
569	Electrochemical stability and conductivity enhancement of composite polymer electrolytes. *Solid State Ionics*, **2003**, 159, 111-119	3.3	139
568	Structural transformation and electrochemical study of layered MnO2 in rechargeable aqueous zinc-ion battery. *Electrochimica Acta*, **2018**, 276, 1-11	6.7	138
567	Capacity Fading of Ni-Rich NCA Cathodes: Effect of Microcracking Extent. *ACS Energy Letters*, **2019**, 4, 2995-3001	20.1	138

566	Development of microstrain in aged lithium transition metal oxides. *Nano Letters*, **2014**, 14, 4873-80	11.5	138
565	Preparation and characterization of nano-crystalline LiNi0.5Mn1.5O4 for 5 V cathode material by composite carbonate process. *Electrochemistry Communications*, **2002**, 4, 989-994	5.1	137
564	New Insights on Graphite Anode Stability in Rechargeable Batteries: Li Ion Coordination Structures Prevail over Solid Electrolyte Interphases. *ACS Energy Letters*, **2018**, 3, 335-340	20.1	134
563	K2V6O16□2.7H2O nanorod cathode: an advanced intercalation system for high energy aqueous rechargeable Zn-ion batteries. *Journal of Materials Chemistry A*, **2018**, 6, 15530-15539	13	132
562	Rechargeable lithium sulfide electrode for a polymer tin/sulfur lithium-ion battery. *Journal of Power Sources*, **2011**, 196, 343-348	8.9	132
561	Improvement of structural and electrochemical properties of AlF3-coated Li[Ni1/3Co1/3Mn1/3]O2 cathode materials on high voltage region. *Journal of Power Sources*, **2008**, 178, 826-831	8.9	132
560	Recent research trends in Liâ□ batteries. *Journal of Materials Chemistry A*, **2018**, 6, 11582-11605	13	130
559	Physical and electrochemical properties of spherical Li1+x(Ni1/3Co1/3Mn1/3)1â□O2 cathode materials. *Journal of Power Sources*, **2008**, 177, 177-183	8.9	130
558	Improvement of High-Voltage Cycling Behavior of Surface-Modified Li[Ni[sub 1â□]Co[sub 1â□]Mn[sub 1â□]]O[sub 2] Cathodes by Fluorine Substitution for Li-Ion Batteries. *Journal of the Electrochemical Society*, **2005**, 152, A1707	3.9	129
557	Manganese and Vanadium Oxide Cathodes for Aqueous Rechargeable Zinc-Ion Batteries: A Focused View on Performance, Mechanism, and Developments. *ACS Energy Letters*, **2020**, 5, 2376-2400	20.1	128
556	Transition metal carbide-based materials: synthesis and applications in electrochemical energy storage. *Journal of Materials Chemistry A*, **2016**, 4, 10379-10393	13	128
555	Alternative materials for sodium ionâ□ulphur batteries. *Journal of Materials Chemistry A*, **2013**, 1, 5256	13	127
554	Study on the Catalytic Activity of Noble Metal Nanoparticles on Reduced Graphene Oxide for Oxygen Evolution Reactions in Lithium-Air Batteries. *Nano Letters*, **2015**, 15, 4261-8	11.5	123
553	Development of P3-K0.69CrO2 as an ultra-high-performance cathode material for K-ion batteries. *Energy and Environmental Science*, **2018**, 11, 2821-2827	35.4	121
552	Recent advances in the Si-based nanocomposite materials as high capacity anode materials for lithium ion batteries. *Materials Today*, **2014**, 17, 285-297	21.8	121
551	Improvement of Electrochemical Performances of Li[Ni[sub 0.8]Co[sub 0.1]Mn[sub 0.1]]O[sub 2] Cathode Materials by Fluorine Substitution. *Journal of the Electrochemical Society*, **2007**, 154, A649	3.9	121
550	Rational design of silicon-based composites for high-energy storage devices. *Journal of Materials Chemistry A*, **2016**, 4, 5366-5384	13	118
549	Quaternary Layered Ni-Rich NCMA Cathode for Lithium-Ion Batteries. *ACS Energy Letters*, **2019**, 4, 576-582	20.1	117

548	A High-Energy Li-Ion Battery Using a Silicon-Based Anode and a Nano-Structured Layered Composite Cathode. *Advanced Functional Materials*, **2014**, 24, 3036-3042	15.6	116
547	Superior Li/Na-storage capability of a carbon-free hierarchical CoSx hollow nanostructure. *Nano Energy*, **2017**, 32, 320-328	17.1	115
546	Extending the Battery Life Using an Al-Doped Li[Ni0.76Co0.09Mn0.15]O2 Cathode with Concentration Gradients for Lithium Ion Batteries. *ACS Energy Letters*, **2017**, 2, 1848-1854	20.1	115
545	Designing a High-Performance Lithiumâ€Sulfur Batteries Based on Layered Double Hydroxidesâ€Carbon Nanotubes Composite Cathode and a Dual-Functional Grapheneâ€Polypropyleneâ€Al2O3 Separator. *Advanced Functional Materials*, **2018**, 28, 1704294	15.6	115
544	Microstructure-Controlled Ni-Rich Cathode Material by Microscale Compositional Partition for Next-Generation Electric Vehicles. *Advanced Energy Materials*, **2019**, 9, 1803902	21.8	114
543	A novel concentration-gradient Li[Ni0.83Co0.07Mn0.10]O2 cathode material for high-energy lithium-ion batteries. *Journal of Materials Chemistry*, **2011**, 21, 10108		113
542	Ultrafast sodium storage in anatase TiO2 nanoparticles embedded on carbon nanotubes. *Nano Energy*, **2015**, 16, 218-226	17.1	112
541	Cathode Material with Nanorod Structureâ€An Application for Advanced High-Energy and Safe Lithium Batteries. *Chemistry of Materials*, **2013**, 25, 2109-2115	9.6	112
540	LixNi0.25Mn0.75Oy (0.5 â‰¤ x â‰¤ 2, 2 â‰¤ y â‰¤ 2.75) compounds for high-energy lithium-ion batteries. *Journal of Materials Chemistry*, **2009**, 19, 4510		112
539	Surface structural change of ZnO-coated LiNi0.5Mn1.5O4 spinel as 5 V cathode materials at elevated temperatures. *Electrochimica Acta*, **2003**, 48, 503-506	6.7	112
538	Catalytic Behavior of Lithium Nitrate in Li-O2 Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 16590-600	9.5	111
537	Micron-sized, carbon-coated Li4Ti5O12 as high power anode material for advanced lithium batteries. *Journal of Power Sources*, **2011**, 196, 7763-7766	8.9	111
536	The effect of Al(OH)3 coating on the Li[Li0.2Ni0.2Mn0.6]O2 cathode material for lithium secondary battery. *Electrochimica Acta*, **2005**, 50, 4784-4791	6.7	111
535	Heuristic solution for achieving long-term cycle stability for Ni-rich layered cathodes at full depth of discharge. *Nature Energy*, **2020**, 5, 860-869	62.3	109
534	Aqueous Magnesium Zinc Hybrid Battery: An Advanced High-Voltage and High-Energy MgMn2O4 Cathode. *ACS Energy Letters*, **2018**, 3, 1998-2004	20.1	108
533	Self-Passivation of a LiNiO2 Cathode for a Lithium-Ion Battery through Zr Doping. *ACS Energy Letters*, **2018**, 3, 1634-1639	20.1	108
532	A lithium-ion sulfur battery based on a carbon-coated lithium-sulfide cathode and an electrodeposited silicon-based anode. *ACS Applied Materials & Interfaces*, **2014**, 6, 10924-8	9.5	108
531	Self-Rearrangement of Silicon Nanoparticles Embedded in Micro-Carbon Sphere Framework for High-Energy and Long-Life Lithium-Ion Batteries. *Nano Letters*, **2017**, 17, 5600-5606	11.5	108

530	Mesoporous Anatase TiO2 with High Surface Area and Controllable Pore Size by Fâ□ion Doping: Applications for High-Power Li-Ion Battery Anode. *Journal of Physical Chemistry C*, **2009**, 113, 21258-21263	3.8	108
529	Comparative study of different crystallographic structure of LiNi0.5Mn1.5O4â□□cathodes with wide operation voltage (2.0â□5.0V). *Electrochimica Acta*, **2007**, 52, 7226-7230	6.7	108
528	High capacity Li[Li0.2Ni0.2Mn0.6]O2 cathode materials via a carbonate co-precipitation method. *Journal of Power Sources*, **2006**, 162, 1346-1350	8.9	108
527	Electrochemical and Ex Situ X-Ray Study of Li(Li[sub 0.2]Ni[sub 0.2]Mn[sub 0.6])O[sub 2] Cathode Material for Li Secondary Batteries. *Electrochemical and Solid-State Letters*, **2003**, 6, A183		108
526	Achieving high mass loading of Na3V2(PO4)3@carbon on carbon cloth by constructing three-dimensional network between carbon fibers for ultralong cycle-life and ultrahigh rate sodium-ion batteries. *Nano Energy*, **2018**, 45, 136-147	17.1	106
525	High-Capacity Concentration Gradient Li[Ni0.865Co0.120Al0.015]O2 Cathode for Lithium-Ion Batteries. *Advanced Energy Materials*, **2018**, 8, 1703612	21.8	106
524	Mechanistic Role of Li+ Dissociation Level in Aprotic Li-Oâ□Battery. *ACS Applied Materials & Interfaces*, **2016**, 8, 5300-7	9.5	106
523	Advanced Concentration Gradient Cathode Material with Two-Slope for High-Energy and Safe Lithium Batteries. *Advanced Functional Materials*, **2015**, 25, 4673-4680	15.6	104
522	Surface-stabilized amorphous germanium nanoparticles for lithium-storage material. *Journal of Physical Chemistry B*, **2005**, 109, 20719-23	3.4	104
521	Phase Transitions in Li[sub 1â□]Ni[sub 0.5]Mn[sub 1.5]O[sub 4] during Cycling at 5 V. *Electrochemical and Solid-State Letters*, **2004**, 7, A216		104
520	Suppressing detrimental phase transitions via tungsten doping of LiNiO2 cathode for next-generation lithium-ion batteries. *Journal of Materials Chemistry A*, **2019**, 7, 18580-18588	13	103
519	Synthesis of Spherical Nano- to Microscale Coreâ□Shell Particles Li[(Ni0.8Co0.1Mn0.1)1-x(Ni0.5Mn0.5)x]O2and Their Applications to Lithium Batteries. *Chemistry of Materials*, **2006**, 18, 5159-5163	9.6	103
518	Effect of Ti Substitution for Mn on the Structure of LiNi[sub 0.5]Mn[sub 1.5â□]Ti[sub x]O[sub 4] and Their Electrochemical Properties as Lithium Insertion Material. *Journal of the Electrochemical Society*, **2004**, 151, A1911	3.9	103
517	Highly Cyclable Lithium-Sulfur Batteries with a Dual-Type Sulfur Cathode and a Lithiated Si/SiOx Nanosphere Anode. *Nano Letters*, **2015**, 15, 2863-8	11.5	102
516	Compositionally Graded Cathode Material with Long-Term Cycling Stability for Electric Vehicles Application. *Advanced Energy Materials*, **2016**, 6, 1601417	21.8	102
515	Carbon-coated Li 4 Ti 5 O 12 nanowires showing high rate capability as an anode material for rechargeable sodium batteries. *Nano Energy*, **2015**, 12, 725-734	17.1	102
514	A transmission electron microscopy study of the electrochemical process of lithium-oxygen cells. *Nano Letters*, **2012**, 12, 4333-5	11.5	102
513	The Effect of ZnO Coating on Electrochemical Cycling Behavior of Spinel LiMn[sub 2]O[sub 4] Cathode Materials at Elevated Temperature. *Journal of the Electrochemical Society*, **2003**, 150, A970	3.9	102

512	Formation and Inhibition of Metallic Lithium Microstructures in Lithium Batteries Driven by Chemical Crossover. *ACS Nano*, **2017**, 11, 5853-5863	16.7	101
511	Comparison between Na-Ion and Li-Ion Cells: Understanding the Critical Role of the Cathodes Stability and the Anodes Pretreatment on the Cells Behavior. *ACS Applied Materials & Interfaces*, **2016**, 8, 1867-75	9.5	99
510	Improved electrochemical properties of BiOF-coated 5V spinel Li[Ni0.5Mn1.5]O4 for rechargeable lithium batteries. *Journal of Power Sources*, **2010**, 195, 2023-2028	8.9	99
509	Effect of AlF3 coating amount on high voltage cycling performance of LiCoO2. *Electrochimica Acta*, **2007**, 53, 1013-1019	6.7	99
508	High-Energy Density Coreâ€Shell Structured Li[Ni0.95Co0.025Mn0.025]O2 Cathode for Lithium-Ion Batteries. *Chemistry of Materials*, **2017**, 29, 5048-5052	9.6	98
507	Reviewâ€High-Capacity Li[Ni1-xCox/2Mnx/2]O2(x= 0.1, 0.05, 0) Cathodes for Next-Generation Li-Ion Battery. *Journal of the Electrochemical Society*, **2015**, 162, A2483-A2489	3.9	97
506	Cation Ordering of Zr-Doped LiNiO2 Cathode for Lithium-Ion Batteries. *Chemistry of Materials*, **2018** , 30, 1808-1814	9.6	97
505	Electrochemical and thermal characterization of AlF3-coated Li[Ni0.8Co0.15Al0.05]O2 cathode in lithium-ion cells. *Journal of Power Sources*, **2008**, 179, 347-350	8.9	97
504	XAS Investigation of Inhomogeneous Metal-Oxygen Bond Covalency in Bulk and Surface for Charge Compensation in Li-Ion Battery Cathode Li[Ni[sub 1â€]Co[sub 1â€]Mn[sub 1â€]]O[sub 2] Material. *Journal of the Electrochemical Society*, **2005**, 152, A1320	3.9	96
503	Hollandite-type Al-doped VO1.52(OH)0.77 as a zinc ion insertion host material. *Journal of Materials Chemistry A*, **2017**, 5, 8367-8375	13	95
502	A New P2-Type Layered Oxide Cathode with Extremely High Energy Density for Sodium-Ion Batteries. *Advanced Energy Materials*, **2019**, 9, 1803346	21.8	95
501	Comparative Study of Ni-Rich Layered Cathodes for Rechargeable Lithium Batteries: Li[Ni0.85Co0.11Al0.04]O2 and Li[Ni0.84Co0.06Mn0.09Al0.01]O2 with Two-Step Full Concentration Gradients. *ACS Energy Letters*, **2016**, 1, 283-289	20.1	94
500	High-Performance Lithium-Sulfur Batteries with a Self-Assembled Multiwall Carbon Nanotube Interlayer and a Robust Electrode-Electrolyte Interface. *ACS Applied Materials & Interfaces*, **2016**, 8, 983-7	9.5	94
499	Double-structured LiMn(0.85)Fe(0.15)PO4 coordinated with LiFePO4 for rechargeable lithium batteries. *Angewandte Chemie - International Edition*, **2012**, 51, 1853-6	16.4	94
498	Effect of AlF3 Coating on Thermal Behavior of Chemically Delithiated Li0.35[Ni1/3Co1/3Mn1/3]O2. *Journal of Physical Chemistry C*, **2010**, 114, 4710-4718	3.8	93
497	Improvement of electrochemical properties of LiNi0.5Mn1.5O4 spinel material by fluorine substitution. *Journal of Power Sources*, **2006**, 157, 464-470	8.9	93
496	Composition-Tailored Synthesis of Gradient Transition Metal Precursor Particles for Lithium-Ion Battery Cathode Materials. *Chemistry of Materials*, **2011**, 23, 1954-1963	9.6	92
495	Electrolyte Engineering Enables High Stability and Capacity Alloying Anodes for Sodium and Potassium Ion Batteries. *ACS Energy Letters*, **2020**, 5, 766-776	20.1	91

494	High-voltage performance of concentration-gradient Li[Ni0.67Co0.15Mn0.18]O2 cathode material for lithium-ion batteries. *Electrochimica Acta*, **2010**, 55, 8621-8627	6.7	91
493	New Insight on the Role of Electrolyte Additives in Rechargeable Lithium Ion Batteries. *ACS Energy Letters*, **2019**, 4, 2613-2622	20.1	90
492	Structural and electrochemical characterization of lithium excess and Al-doped nickel oxides synthesized by the solâgel method. *Electrochimica Acta*, **2001**, 46, 1215-1222	6.7	90
491	Sodium-Ion Batteries: Building Effective Layered Cathode Materials with Long-Term Cycling by Modifying the Surface via Sodium Phosphate. *Advanced Functional Materials*, **2018**, 28, 1705968	15.6	89
490	Synthesis and electrochemical behavior of Li[Li0.1Ni0.35â/2CoxMn0.55â/2]O2 cathode materials. *Solid State Ionics*, **2003**, 164, 43-49	3.3	89
489	A method of increasing the energy density of layered Ni-rich Li[Ni1âxCoxMnx]O2 cathodes (x = 0.05, 0.1, 0.2). *Journal of Materials Chemistry A*, **2019**, 7, 2694-2701	13	88
488	Composite gel polymer electrolytes containing core-shell structured SiO2(Li+) particles for lithium-ion polymer batteries. *Electrochemistry Communications*, **2012**, 17, 18-21	5.1	88
487	Synthesis of Nanostructured Li[Ni1/3Co1/3Mn1/3]O2 via a Modified Carbonate Process. *Chemistry of Materials*, **2005**, 17, 6-8	9.6	88
486	Novel core-shell-structured Li[(Ni0.8Co0.2)0.8(Ni0.5Mn0.5)0.2]O2 via coprecipitation as positive electrode material for lithium secondary batteries. *Journal of Physical Chemistry B*, **2006**, 110, 6810-5	3.4	88
485	Overcoming Jahn-Teller Distortion for Spinel Mn Phase. *Electrochemical and Solid-State Letters*, **1999**, 3, 7		88
484	Nano/Microstructured Silicon-Carbon Hybrid Composite Particles Fabricated with Corn Starch Biowaste as Anode Materials for Li-Ion Batteries. *Nano Letters*, **2020**, 20, 625-635	11.5	88
483	Nanostructured cathode materials for rechargeable lithium batteries. *Journal of Power Sources*, **2015**, 283, 219-236	8.9	87
482	Mesoporous TiO2 nano networks: Anode for high power lithium battery applications. *Electrochemistry Communications*, **2009**, 11, 756-759	5.1	87
481	Synthesis of spherical Li[Ni(1/3â)Co(1/3â)Mn(1/3â)Mgz]O2 as positive electrode material for lithium-ion battery. *Electrochimica Acta*, **2006**, 51, 2447-2453	6.7	87
480	Synthesis and Electrochemical Properties of Li[Ni[sub 1/3]Co[sub 1/3]Mn[sub (1/3â)]Mg[sub x]]O[sub 2â]F[sub y] via Coprecipitation. *Electrochemical and Solid-State Letters*, **2004**, 7, A477		87
479	Synthetic Control of Kinetic Reaction Pathway and Cationic Ordering in High-Ni Layered Oxide Cathodes. *Advanced Materials*, **2017**, 29, 1606715	24	86
478	Enhanced electrochemical performance of carbonâLiMn1âFexPO4 nanocomposite cathode for lithium-ion batteries. *Journal of Power Sources*, **2011**, 196, 6924-6928	8.9	86
477	AlF3-coated LiCoO2 and Li[Ni1/3Co1/3Mn1/3]O2 blend composite cathode for lithium ion batteries. *Journal of Power Sources*, **2011**, 196, 6974-6977	8.9	85

476	Synthesis of spinel LiMn2O4 cathode material prepared by an adipic acid-assisted sol?gel method for lithium secondary batteries. *Solid State Ionics*, **1998**, 109, 285-294	3.3	85
475	The dominant role of Mn2+ additive on the electrochemical reaction in ZnMn2O4 cathode for aqueous zinc-ion batteries. *Energy Storage Materials*, **2020**, 28, 407-417	19.4	84
474	Mechanism of capacity fade of MCMB/Li1.1[Ni1/3Mn1/3Co1/3]0.9O2cell at elevated temperature and additives to improve its cycle life. *Journal of Materials Chemistry*, **2011**, 21, 17754		83
473	Structural and electrochemical properties of layered Li6Ni0.5Mn0.591?xCoxO2 positive materials synthesized by ultrasonic spray pyrolysis method. *Solid State Ionics*, **2004**, 171, 167-172	3.3	83
472	Freestanding Bilayer Carbonâ Sulfur Cathode with Function of Entrapping Polysulfide for High Performance Liâ Batteries. *Advanced Functional Materials*, **2016**, 26, 1225-1232	15.6	83
471	A comprehensive study of the role of transition metals in O3-type layered Na[NixCoyMnz]O2 (x = 1/3, 0.5, 0.6, and 0.8) cathodes for sodium-ion batteries. *Journal of Materials Chemistry A*, **2016**, 4, 17952-17959	13	83
470	Toward High-Safety Potassiumâ Sulfur Batteries Using a Potassium Polysulfide Catholyte and Metal-Free Anode. *ACS Energy Letters*, **2018**, 3, 540-541	20.1	82
469	Synthesis of ultrafine LiCoO2 powders by the sol-gel method. *Journal of Materials Science*, **1996**, 31, 3617-3621	4.3	82
468	Customizing a Liâ metal battery that survives practical operating conditions for electric vehicle applications. *Energy and Environmental Science*, **2019**, 12, 2174-2184	35.4	81
467	An advanced sodium-ion rechargeable battery based on a tin-carbon anode and a layered oxide framework cathode. *Physical Chemistry Chemical Physics*, **2013**, 15, 3827-33	3.6	81
466	Hydrothermal synthesis of layered Li[Ni1/3Co1/3Mn1/3]O2 as positive electrode material for lithium secondary battery. *Electrochimica Acta*, **2005**, 50, 4800-4806	6.7	81
465	An Advanced Separator for Liâ O2 Batteries: Maximizing the Effect of Redox Mediators. *Advanced Energy Materials*, **2017**, 7, 1602417	21.8	80
464	Degradation Mechanism of Highly Ni-Rich Li[NiCoMn]O Cathodes with > 0.9. *ACS Applied Materials & Interfaces*, **2019**, 11, 30936-30942	9.5	80
463	Improvement of high voltage cycling performance and thermal stability of lithiumâ on cells by use of a thiophene additive. *Electrochemistry Communications*, **2009**, 11, 1900-1903	5.1	80
462	Synthesis and electrochemical properties of Li[Li(1â x)/3NixMn(2â)/3]O2 as cathode materials for lithium secondary batteries. *Journal of Power Sources*, **2002**, 112, 634-638	8.9	80
461	Ni-Rich Layered Cathode Materials with Electrochemo-Mechanically Compliant Microstructures for All-Solid-State Li Batteries. *Advanced Energy Materials*, **2020**, 10, 1903360	21.8	80
460	Electrochemical Properties of Sulfurized-Polyacrylonitrile Cathode for Lithium-Sulfur Batteries: Effect of Polyacrylic Acid Binder and Fluoroethylene Carbonate Additive. *Journal of Physical Chemistry Letters*, **2017**, 8, 5331-5337	6.4	79
459	Synthesis and improved electrochemical performance of Al (OH)3-coated Li[Ni1/3Mn1/3Co1/3]O2 cathode materials at elevated temperature. *Electrochimica Acta*, **2005**, 50, 4168-4173	6.7	78

458	Recent Progress and Perspective of Advanced High-Energy Co-Less Ni-Rich Cathodes for Li-Ion Batteries: Yesterday, Today, and Tomorrow. *Advanced Energy Materials*, **2020**, 10, 2002027	21.8	78
457	K0.54[Co0.5Mn0.5]O2: New cathode with high power capability for potassium-ion batteries. *Nano Energy*, **2019**, 61, 284-294	17.1	77
456	A highly stabilized Ni-rich NCA cathode for high-energy lithium-ion batteries. *Materials Today*, **2020**, 36, 73-82	21.8	77
455	Electrochemical behavior of current collectors for lithium batteries in non-aqueous alkyl carbonate solution and surface analysis by ToF-SIMS. *Electrochimica Acta*, **2009**, 55, 288-297	6.7	77
454	Development of LiNi[sub 0.5]Mn[sub 1.5]O[sub 4]/Li[sub 4]Ti[sub 5]O[sub 12] System with Long Cycle Life. *Journal of the Electrochemical Society*, **2009**, 156, A1047	3.9	77
453	Blended polymer electrolytes based on poly(lithium 4-styrene sulfonate) for the rechargeable lithium polymer batteries. *Electrochimica Acta*, **2004**, 50, 375-378	6.7	77
452	Resolving the degradation pathways of the O3-type layered oxide cathode surface through the nano-scale aluminum oxide coating for high-energy density sodium-ion batteries. *Journal of Materials Chemistry A*, **2017**, 5, 23671-23680	13	76
451	Synthesis and electrochemical properties of lithium nickel oxysulfide (LiNiSyO2â) material for lithium secondary batteries. *Electrochimica Acta*, **2002**, 47, 1721-1726	6.7	76
450	Compositionally and structurally redesigned high-energy Ni-rich layered cathode for next-generation lithium batteries. *Materials Today*, **2019**, 23, 26-36	21.8	76
449	Nanostructured Lithium Nickel Manganese Oxides for Lithium-Ion Batteries. *Journal of the Electrochemical Society*, **2010**, 157, A447	3.9	75
448	Nanoporous Structured LiFePO[sub 4] with Spherical Microscale Particles Having High Volumetric Capacity for Lithium Batteries. *Electrochemical and Solid-State Letters*, **2009**, 12, A181		75
447	A high-capacity Li[Ni0.8Co0.06Mn0.14]O2 positive electrode with a dual concentration gradient for next-generation lithium-ion batteries. *Journal of Materials Chemistry A*, **2015**, 3, 22183-22190	13	74
446	Compatibility of lithium salts with solvent of the non-aqueous electrolyte in Li-O2 batteries. *Physical Chemistry Chemical Physics*, **2013**, 15, 5572-81	3.6	74
445	Synthesis of Li[(Ni0.5Mn0.5)1-xLix]O2 by Emulsion Drying Method and Impact of Excess Li on Structural and Electrochemical Properties. *Chemistry of Materials*, **2006**, 18, 1658-1666	9.6	73
444	Optimized Concentration of Redox Mediator and Surface Protection of Li Metal for Maintenance of High Energy Efficiency in Liâ02 Batteries. *Advanced Energy Materials*, **2018**, 8, 1702258	21.8	71
443	Cycling characteristics of lithium metal batteries assembled with a surface modified lithium electrode. *Journal of Power Sources*, **2013**, 244, 363-368	8.9	71
442	Synthesis and Characterization of a New Spinel, Li[sub 1.02]Al[sub 0.25]Mn[sub 1.75]O[sub 3.97]S[sub 0.03], Operating at Potentials Between 4.3 and 2.4 V. *Journal of the Electrochemical Society*, **2000**, 147, 2116	3.9	71
441	Interactions of Dimethoxy Ethane with Li2O2 Clusters and Likely Decomposition Mechanisms for Liâ02 Batteries. *Journal of Physical Chemistry C*, **2013**, 117, 8041-8049	3.8	70

440	Synthesis and electrochemical characterization of spinel Li[Li(1â)/3CrxTi(5â2x)/3]O4 anode materials. *Journal of Power Sources*, **2004**, 125, 242-245	8.9	70
439	Synthesis and characterization of spinel LiMn2âNixO4 for lithium/polymer battery applications. *Journal of Power Sources*, **1999**, 79, 231-237	8.9	70
438	Cathode Materials for Future Electric Vehicles and Energy Storage Systems. *ACS Energy Letters*, **2017**, 2, 703-708	20.1	69
437	Fe2O3 Submicron Spheres with Hollow and Macroporous Structures as High-Performance Anode Materials for Lithium Ion Batteries. *Journal of Physical Chemistry C*, **2014**, 118, 2897-2907	3.8	69
436	Dual functioned BiOF-coated Li[Li0.1Al0.05Mn1.85]O4 for lithium batteries. *Journal of Materials Chemistry*, **2009**, 19, 1995		69
435	Diverting Exploration of Silicon Anode into Practical Way: A Review Focused on Silicon-Graphite Composite for Lithium Ion Batteries. *Energy Storage Materials*, **2021**, 35, 550-576	19.4	69
434	Co-precipitation synthesis of micro-sized spherical LiMn0.5Fe0.5PO4 cathode material for lithium batteries. *Journal of Materials Chemistry*, **2011**, 21, 19368		68
433	Li[Ni0.9Co0.09W0.01]O2: A New Type of Layered Oxide Cathode with High Cycling Stability. *Advanced Energy Materials*, **2019**, 9, 1902698	21.8	66
432	High Temperature Performance of Surface-Treated Li[sub 1.1](Ni[sub 0.15]Co[sub 0.1]Mn[sub 0.55])O[sub 1.95] Layered Oxide. *Journal of the Electrochemical Society*, **2010**, 157, A1035	3.9	66
431	Synthesis of Spinel LiMn2O4 by the Solâel Method for a Cathode-Active Material in Lithium Secondary Batteries. *Industrial & Engineering Chemistry Research*, **1997**, 36, 4839-4846	3.9	65
430	Synthesis and electrochemical properties of layered Li[Li0.15Ni(0.275â/2)AlxMn(0.575â/2)]O2 materials prepared by solâel method. *Journal of Power Sources*, **2003**, 119-121, 161-165	8.9	65
429	Synthesis and structural characterization of layered Li[Ni1/3+xCo1/3Mn1/3â2xMox]O2 cathode materials by ultrasonic spray pyrolysis. *Journal of Power Sources*, **2005**, 146, 622-625	8.9	65
428	Novel Cathode Materials for Na-Ion Batteries Composed of Spoke-Like Nanorods of Na[Ni0.61Co0.12Mn0.27]O2 Assembled in Spherical Secondary Particles. *Advanced Functional Materials*, **2016**, 26, 8083-8093	15.6	65
427	Progress in lithium-sulfur batteries: the effective role of a polysulfide-added electrolyte as buffer to prevent cathode dissolution. *ChemSusChem*, **2013**, 6, 2245-8	8.3	64
426	Nanostructured lithium sulfide materials for lithium-sulfur batteries. *Journal of Power Sources*, **2016**, 323, 174-188	8.9	64
425	Superior lithium/potassium storage capability of nitrogen-rich porous carbon nanosheets derived from petroleum coke. *Journal of Materials Chemistry A*, **2018**, 6, 12551-12558	13	64
424	High performance potassiumâsulfur batteries based on a sulfurized polyacrylonitrile cathode and polyacrylic acid binder. *Journal of Materials Chemistry A*, **2018**, 6, 14587-14593	13	63
423	Surfactant-assisted synthesis of Fe2O3 nanoparticles and F-doped carbon modification toward an improved Fe3O4@CFx/LiNi0.5Mn1.5O4 battery. *ACS Applied Materials & Interfaces*, **2014**, 6, 15499-509	9.5	63

422	Characteristics of Li2S8-tetraglyme catholyte in a semi-liquid lithiumâsulfur battery. *Journal of Power Sources*, **2014**, 265, 14-19	8.9	63
421	Highly reversible conversion-capacity of MnOx-loaded ordered mesoporous carbon nanorods for lithium-ion battery anodes. *Journal of Materials Chemistry*, **2012**, 22, 17870		63
420	Enhanced electrochemical performance of silicon-based anode material by using current collector with modified surface morphology. *Electrochimica Acta*, **2008**, 53, 4500-4504	6.7	63
419	Spherical core-shell Li[(Li0.05Mn0.95)0.8(Ni0.25Mn0.75)0.2]2O4 spinels as high performance cathodes for lithium batteries. *Energy and Environmental Science*, **2011**, 4, 935	35.4	62
418	Synthesis and electrochemical studies of spinel Li1.03Mn2O4 cathode materials prepared by a sol-gel method for lithium secondary batteries. *Solid State Ionics*, **1997**, 100, 115-125	3.3	62
417	Effect of sulfur and nickel doping on morphology and electrochemical performance of LiNi0.5Mn1.5O4â Sx spinel material in 3-V region. *Journal of Power Sources*, **2006**, 161, 19-26	8.9	62
416	An Alternative Approach to Enhance the Performance of High Sulfur-Loading Electrodes for Liâ Batteries. *ACS Energy Letters*, **2016**, 1, 136-141	20.1	62
415	Molecular-Scale Interfacial Model for Predicting Electrode Performance in Rechargeable Batteries. *ACS Energy Letters*, **2019**, 4, 1584-1593	20.1	61
414	Ultrathin alumina-coated carbon nanotubes as an anode for high capacity Li-ion batteries. *Journal of Materials Chemistry*, **2011**, 21, 13621		61
413	A sustainable iron-based sodium ion battery of porous carbonâe3O4/Na2FeP2O7 with high performance. *RSC Advances*, **2015**, 5, 8793-8800	3.7	60
412	Tungsten doping for stabilization of Li[Ni0.90Co0.05Mn0.05]O2 cathode for Li-ion battery at high voltage. *Journal of Power Sources*, **2019**, 442, 227242	8.9	60
411	The binder effect on an oxide-based anode in lithium and sodium-ion battery applications: the fastest way to ultrahigh performance. *Chemical Communications*, **2014**, 50, 13307-10	5.8	60
410	Role of AlF[sub 3] Coating on LiCoO[sub 2] Particles during Cycling to Cutoff Voltage above 4.5 V. *Journal of the Electrochemical Society*, **2009**, 156, A1005	3.9	60
409	Cobalt-Free High-Capacity Ni-Rich Layered Li[Ni0.9Mn0.1]O2 Cathode. *Advanced Energy Materials*, **2020**, 10, 1903179	21.8	60
408	High-Performance Cells Containing Lithium Metal Anodes, LiNiCoMnO (NCM 622) Cathodes, and Fluoroethylene Carbonate-Based Electrolyte Solution with Practical Loading. *ACS Applied Materials & Interfaces*, **2018**, 10, 19773-19782	9.5	60
407	Ordered mesoporous carbon electrodes for Li-O2 batteries. *ACS Applied Materials & Interfaces*, **2013**, 5, 13426-31	9.5	59
406	Nanoparticle TiN-coated type 310S stainless steel as bipolar plates for polymer electrolyte membrane fuel cell. *Electrochemistry Communications*, **2008**, 10, 480-484	5.1	59
405	Hollow Fe3O4 microspheres as anode materials for lithium-ion batteries. *Electrochimica Acta*, **2012**, 75, 123-130	6.7	58

404	Electrochemical performance of layered Li[Li0.15Ni0.275â□MgxMn0.575]O2 cathode materials for lithium secondary batteries. *Journal of Materials Chemistry*, **2003**, 13, 319-322		58
403	Gel-coated membranes for lithium-ion polymer batteries. *Solid State Ionics*, **2000**, 138, 41-49	3.3	58
402	New Class of Ni-Rich Cathode Materials Li[NixCoyB1â□â□]O2 for Next Lithium Batteries. *Advanced Energy Materials*, **2020**, 10, 2000495	21.8	57
401	Bioinspired Surface Layer for the Cathode Material of High-Energy-Density Sodium-Ion Batteries. *Advanced Energy Materials*, **2018**, 8, 1702942	21.8	57
400	Synthesis of Li[Li1.19Ni0.16Co0.08Mn0.57]O2 cathode materials with a high volumetric capacity for Li-ion batteries. *Journal of Power Sources*, **2012**, 203, 115-120	8.9	57
399	Particle size effect of Li[Ni0.5Mn0.5]O2 prepared by co-precipitation. *Electrochimica Acta*, **2008**, 53, 6033-6037	6.7	57
398	Degradation mechanism of spinel LiAl0.2Mn1.8O4 cathode materials on high temperature cycling. *Journal of Materials Chemistry*, **2001**, 11, 2519-2522		57
397	Microstructural Degradation of Ni-Rich Li[Ni Co Mn]O Cathodes During Accelerated Calendar Aging. *Small*, **2018**, 14, e1803179	11	57
396	Adiponitrile (C6H8N2): A New Bi-Functional Additive for High-Performance Li-Metal Batteries. *Advanced Functional Materials*, **2019**, 29, 1902496	15.6	56
395	Minimizing the Electrolyte Volume in Liâ□ Batteries: A Step Forward to High Gravimetric Energy Density. *Advanced Energy Materials*, **2018**, 8, 1801560	21.8	56
394	Recent progress of advanced binders for Li-S batteries. *Journal of Power Sources*, **2018**, 396, 19-32	8.9	56
393	Nanoconfinement of low-conductivity products in rechargeable sodiumâ□ir batteries. *Nano Energy*, **2015**, 12, 123-130	17.1	56
392	Fine control of titania deposition to prepare C@TiO2 composites and TiO2 hollow particles for photocatalysis and lithium-ion battery applications. *Journal of Materials Chemistry*, **2012**, 22, 22135		56
391	Anatase TiO2 spheres with high surface area and mesoporous structure via a hydrothermal process for dye-sensitized solar cells. *Electrochimica Acta*, **2010**, 55, 4637-4641	6.7	56
390	Electrochemical characterization of gel polymer electrolytes prepared with porous membranes. *Journal of Power Sources*, **2001**, 102, 41-45	8.9	56
389	Simultaneous MgO coating and Mg doping of Na[Ni0.5Mn0.5]O2 cathode: facile and customizable approach to high-voltage sodium-ion batteries. *Journal of Materials Chemistry A*, **2018**, 6, 16854-16862	13	55
388	Effect of fluorine on Li[Ni1/3Co1/3Mn1/3]O2â□Fz as lithium intercalation material. *Journal of Power Sources*, **2005**, 146, 602-605	8.9	55
387	Low-Temperature Synthesis of LixMn0.67Ni0.33O2 (0.2 . *Advanced Materials*, **2005**, 17, 2834-2837	24	55

386	Improved electrochemical performance of boron-doped carbon-coated lithium titanate as an anode material for sodium-ion batteries. *Journal of Materials Chemistry A*, **2017**, 5, 2802-2810	13	54
385	Encapsulation of metal oxide nanocrystals into porous carbon with ultrahigh performances in lithium-ion battery. *ACS Applied Materials & Interfaces*, **2013**, 5, 2133-6	9.5	54
384	Optimized Bicompartment Two Solution Cells for Effective and Stable Operation of Liâ□O2 Batteries. *Advanced Energy Materials*, **2017**, 7, 1701232	21.8	54
383	Improvement of electrochemical properties of Li1.1Al0.05Mn1.85O4 achieved by an AlF3 coating. *Journal of Power Sources*, **2011**, 196, 1353-1357	8.9	54
382	Co-Free Layered Cathode Materials for High Energy Density Lithium-Ion Batteries. *ACS Energy Letters*, **2020**, 5, 1814-1824	20.1	53
381	Toward the Sustainable Lithium Metal Batteries with a New Electrolyte Solvation Chemistry. *Advanced Energy Materials*, **2020**, 10, 2000567	21.8	53
380	Improvement of Electrochemical Performance of Li[Ni0.8Co0.15Al0.05]O2Cathode Materials by AlF3coating at Various Temperatures. *Industrial & Engineering Chemistry Research*, **2008**, 47, 3876-3882	3.9	53
379	Electrochemical performance of Li[LixNi(1â□x)/2Mn(1+x)/2]O2 cathode materials synthesized by a solâ□el method. *Journal of Power Sources*, **2003**, 119-121, 166-170	8.9	53
378	Role of Li-Ion Depletion on Electrode Surface: Underlying Mechanism for Electrodeposition Behavior of Lithium Metal Anode. *Advanced Energy Materials*, **2020**, 10, 2002390	21.8	53
377	Capacity Fading Mechanisms in Ni-Rich Single-Crystal NCM Cathodes. *ACS Energy Letters*, **2021**, 6, 2726-2734	20.1	53
376	An Empirical Model for the Design of Batteries with High Energy Density. *ACS Energy Letters*, **2020**, 5, 807-816	20.1	52
375	Influence of temperature on lithium-oxygen battery behavior. *Nano Letters*, **2013**, 13, 2971-5	11.5	52
374	Polyvinylpyrrolidone-assisted synthesis of microscale C-LiFePO4 with high tap density as positive electrode materials for lithium batteries. *Electrochimica Acta*, **2010**, 55, 1193-1199	6.7	52
373	Reviewâ□A Comparative Evaluation of Redox Mediators for Li-O2Batteries: A Critical Review. *Journal of the Electrochemical Society*, **2018**, 165, A2274-A2293	3.9	51
372	Sodium salt effect on hydrothermal carbonization of biomass: a catalyst for carbon-based nanostructured materials for lithium-ion battery applications. *Green Chemistry*, **2013**, 15, 2722	10	51
371	In Situ Formation of a Cathodeâ□Electrolyte Interface with Enhanced Stability by Titanium Substitution for High Voltage Spinel Lithium-Ion Batteries. *Advanced Materials Interfaces*, **2015**, 2, 1500109	4.6	51
370	Synthesis of full concentration gradient cathode studied by high energy X-ray diffraction. *Nano Energy*, **2016**, 19, 522-531	17.1	50
369	Progress in High-Capacity Core-Shell Cathode Materials for Rechargeable Lithium Batteries. *Journal of Physical Chemistry Letters*, **2014**, 5, 671-9	6.4	50

368	Sodium-ion battery based on an electrochemically converted NaFePO4 cathode and nanostructured tin-carbon anode. *ChemPhysChem*, **2014**, 15, 2152-5	3.2	50
367	Olivine LiCoPO4â□arbon composite showing high rechargeable capacity. *Journal of Materials Chemistry*, **2012**, 22, 14932		50
366	Life prediction and reliability assessment of lithium secondary batteries. *Journal of Power Sources*, **2007**, 174, 954-958	8.9	50
365	Investigation of anode-supported SOFC with cobalt-containing cathode and GDC interlayer. *Solid State Ionics*, **2008**, 179, 1535-1539	3.3	50
364	Synthesis and electrochemical characteristics of LiCrxNi0.5â□Mn1.5O4 spinel as 5 V cathode materials for lithium secondary batteries. *Journal of Power Sources*, **2002**, 109, 427-430	8.9	50
363	Effects of synthesis condition on LiNi1/2Mn3/2O4 cathode material for prepared by ultrasonic spray pyrolysis method. *Solid State Ionics*, **2005**, 176, 481-486	3.3	50
362	Variation of Electronic Conductivity within Secondary Particles Revealing a Capacity-Fading Mechanism of Layered Ni-Rich Cathode. *ACS Energy Letters*, **2018**, 3, 3002-3007	20.1	50
361	Deactivation of redox mediators in lithium-oxygen batteries by singlet oxygen. *Nature Communications*, **2019**, 10, 1380	17.4	49
360	Alluaudite Na2Co2Fe(PO4)3 as an electroactive material for sodium ion batteries. *Dalton Transactions*, **2015**, 44, 7881-6	4.3	49
359	Stabilization of Lithium-Metal Batteries Based on the in Situ Formation of a Stable Solid Electrolyte Interphase Layer. *ACS Applied Materials & Interfaces*, **2018**, 10, 17985-17993	9.5	49
358	Effects of Co doping on Li[Ni0.5CoxMn1.5â□]O4 spinel materials for 5 V lithium secondary batteries via Co-precipitation. *Journal of Power Sources*, **2009**, 189, 752-756	8.9	49
357	Electrochemical characterization of Tiâ□Si and Tiâ□Siâ□Al alloy anodes for Li-ion batteries produced by mechanical ball milling. *Journal of Alloys and Compounds*, **2009**, 472, 461-465	5.7	49
356	Promising All-Solid-State Batteries for Future Electric Vehicles. *ACS Energy Letters*, **2020**, 5, 3221-3223	20.1	49
355	Model-Based Design of Graphite-Compatible Electrolytes in Potassium-Ion Batteries. *ACS Energy Letters*, **2020**, 5, 2651-2661	20.1	49
354	Reducing cobalt from lithium-ion batteries for the electric vehicle era. *Energy and Environmental Science*, **2021**, 14, 844-852	35.4	49
353	A dendrite- and oxygen-proof protective layer for lithium metal in lithiumâ□xygen batteries. *Journal of Materials Chemistry A*, **2019**, 7, 3857-3862	13	48
352	Effect of an organic additive on the cycling performance and thermal stability of lithium-ion cells assembled with carbon anode and LiNi1/3Co1/3Mn1/3O2 cathode. *Journal of Power Sources*, **2011**, 196, 6997-7001	8.9	48
351	Hydrothermal synthesis of nano-sized anatase TiO2 powders for lithium secondary anode materials. *Journal of Power Sources*, **2006**, 161, 1314-1318	8.9	48

350	Electrolyte-Mediated Stabilization of High-Capacity Micro-Sized Antimony Anodes for Potassium-Ion Batteries. *Advanced Materials*, **2021**, 33, e2005993	24	48
349	Microstructure Evolution of Concentration Gradient Li[Ni0.75Co0.10Mn0.15]O2 Cathode for Lithium-Ion Batteries. *Advanced Functional Materials*, **2018**, 28, 1802090	15.6	47
348	Interphase Evolution of a Lithium-Ion/Oxygen Battery. *ACS Applied Materials & Interfaces*, **2015**, 7, 22638-43	9.5	46
347	3-dimensional carbon nanotube for Li-ion battery anode. *Journal of Power Sources*, **2012**, 219, 364-370	8.9	46
346	Effect of carbon coating on thermal stability of natural graphite spheres used as anode materials in lithium-ion batteries. *Journal of Power Sources*, **2009**, 190, 553-557	8.9	46
345	Synthesis and electrochemical performances of core-shell structured Li[(Ni1/3Co1/3Mn1/3)0.8(Ni1/2Mn1/2)0.2]O2 cathode material for lithium ion batteries. *Journal of Power Sources*, **2010**, 195, 6043-6048	8.9	46
344	Improved Co-substituted, LiNi0.5â□Co2xMn1.5â□O4 lithium ion battery cathode materials. *Journal of Power Sources*, **2012**, 220, 354-359	8.9	45
343	The roles and electrochemical characterizations of activated carbon in zinc air battery cathodes. *Electrochimica Acta*, **2006**, 52, 1592-1595	6.7	45
342	Electrochemical Performance of a Layered-Spinel Integrated Li[Ni1/3Mn2/3]O2 as a High Capacity Cathode Material for Li-Ion Batteries. *Chemistry of Materials*, **2015**, 27, 2600-2611	9.6	44
341	A 4 V Class Potassium Metal Battery with Extremely Low Overpotential. *ACS Nano*, **2019**, 13, 9306-9314	16.7	44
340	Iron trifluoride synthesized via evaporation method and its application to rechargeable lithium batteries. *Journal of Power Sources*, **2013**, 223, 1-8	8.9	44
339	The effects of calcination temperature on the electrochemical performance of LiMnPO4 prepared by ultrasonic spray pyrolysis. *Journal of Alloys and Compounds*, **2010**, 506, 372-376	5.7	44
338	Co-precipitation synthesis of spherical Li1.05M0.05Mn1.9O4 (M = Ni, Mg, Al) spinel and its application for lithium secondary battery cathode. *Electrochimica Acta*, **2007**, 52, 5201-5206	6.7	44
337	Li2OâB2O3âP2O5 solid electrolyte for thin film batteries. *Journal of Power Sources*, **2006**, 163, 223-228	8.9	44
336	Isothermal calorimetry investigation of Li1+xMn2â□AlzO4 spinel. *Electrochimica Acta*, **2007**, 52, 5837-5842	6.7	43
335	Synthesis and electrochemical characterization of orthorhombic LiMnO2 material. *Electrochimica Acta*, **2003**, 48, 1031-1039	6.7	43
334	Synthesis and characterization of LiNiO2 cathode material prepared by an adiphic acid-assisted sol??gel method for lithium secondary batteries. *Solid State Ionics*, **1999**, 118, 159-168	3.3	43
333	Low-temperature preparation of ultrafine LiCoO2 powders by the solâ□el method. *Journal of Materials Science*, **1997**, 32, 3177-3182	4.3	42

332	Improved Electrochemical Cycling Behavior of ZnO-Coated Li[sub 1.05]Al[sub 0.1]Mn[sub 1.85]O[sub 3.95]F[sub 0.05] Spinel at 55°C. *Journal of the Electrochemical Society*, **2006**, 153, A1290	3.9	42
331	In Situ Studies of Li[sub x]Mn[sub 2]O[sub 4] and Li[sub x]Al[sub 0.17]Mn[sub 1.83]O[sub 3.97]S[sub 0.03] Cathode by IMC. *Journal of the Electrochemical Society*, **2005**, 152, A421	3.9	42
330	Structural Characterization of Li[Li[sub 0.1]Ni[sub 0.35]Mn[sub 0.55]]O[sub 2] Cathode Material for Lithium Secondary Batteries. *Journal of the Electrochemical Society*, **2003**, 150, A538	3.9	42
329	A Long-Life Lithium Ion Battery with Enhanced Electrode/Electrolyte Interface by Using an Ionic Liquid Solution. *Chemistry - A European Journal*, **2016**, 22, 6808-14	4.8	42
328	Engineering Sodium-Ion Solvation Structure to Stabilize Sodium Anodes: Universal Strategy for Fast-Charging and Safer Sodium-Ion Batteries. *Nano Letters*, **2020**, 20, 3247-3254	11.5	41
327	Unique coreâshell structured SiO2(Li+) nanoparticles for high-performance composite polymer electrolytes. *Journal of Materials Chemistry A*, **2013**, 1, 395-401	13	41
326	Unraveling the New Role of an Ethylene Carbonate Solvation Shell in Rechargeable Metal Ion Batteries. *ACS Energy Letters*, **2021**, 6, 69-78	20.1	41
325	Ironâcobalt bimetal decorated carbon nanotubes as cost-effective cathode catalysts for Liâ02 batteries. *Journal of Materials Chemistry A*, **2016**, 4, 7020-7026	13	40
324	Improved lithium-ion battery performance of LiNi0.5Mn1.5â□TixO4 high voltage spinel in full-cells paired with graphite and Li4Ti5O12 negative electrodes. *Journal of Power Sources*, **2014**, 262, 62-71	8.9	40
323	Solid state synthesis of LiFePO4 studied by in situ high energy X-ray diffraction. *Journal of Materials Chemistry*, **2011**, 21, 5604		40
322	Improvement of the Electrochemical Properties of Li[Ni[sub 0.5]Mn[sub 0.5]]O[sub 2] by AlF[sub 3] Coating. *Journal of the Electrochemical Society*, **2008**, 155, A705	3.9	40
321	The effects of Na doping on performance of layered Li1.1â□Nax[Ni0.2Co0.3Mn0.4]O2 materials for lithium secondary batteries. *Materials Chemistry and Physics*, **2006**, 95, 218-221	4.4	40
320	Synthesis and electrochemical characterization of a new Se-doped spinel material for lithium secondary batteries **2001**, 31, 1149-1153		40
319	Synthesis and electrochemical characteristics of spinel phase LiMn2O4-based cathode materials for lithium polymer batteries. *Journal of Materials Chemistry*, **1998**, 8, 2399-2404		40
318	Effect of titanium addition as nickel oxide formation inhibitor in nickel-rich cathode material for lithium-ion batteries. *Journal of Power Sources*, **2015**, 299, 425-433	8.9	39
317	Multiwalled Carbon Nanotubes Anode in Lithium-Ion Battery with LiCoO2, Li[Ni1/3Co1/3Mn1/3]O2, and LiFe1/4Mn1/2Co1/4PO4 Cathodes. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 3225-3232	8.3	39
316	Nickel oxalate dihydrate nanorods attached to reduced graphene oxide sheets as a high-capacity anode for rechargeable lithium batteries. *NPG Asia Materials*, **2016**, 8, e270-e270	10.3	39
315	Assembling metal oxide nanocrystals into dense, hollow, porous nanoparticles for lithium-ion and lithium-oxygen battery application. *Nanoscale*, **2013**, 5, 10390-6	7.7	39

314	Structural and electrochemical study of LiâAlâMnâOâF spinel material for lithium secondary batteries. *Journal of Power Sources*, **2005**, 146, 237-240	8.9	39
313	Graphene Decorated by Indium Sulfide Nanoparticles as High-Performance Anode for Sodium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 23723-23730	9.5	38
312	Pyrosynthesis of Na V (PO) @C Cathodes for Safe and Low-Cost Aqueous Hybrid Batteries. *ChemSusChem*, **2018**, 11, 2239-2247	8.3	38
311	High-Energy Layered Oxide Cathodes with Thin Shells for Improved Surface Stability. *Chemistry of Materials*, **2014**, 26, 5973-5979	9.6	38
310	Role of the Lithium Salt in the Performance of LithiumâOxygen Batteries: A Comparative Study. *ChemElectroChem*, **2014**, 1, 47-50	4.3	38
309	Lithiation of an Iron Oxide-Based Anode for Stable, High-Capacity Lithium-Ion Batteries of Porous CarbonâFe3O4/Li[Ni0.59Co0.16Mn0.25]O2. *Energy Technology*, **2014**, 2, 778-785	3.5	38
308	Carbon-Free TiO2 Microspheres as Anode Materials for Sodium Ion Batteries. *ACS Energy Letters*, **2019**, 4, 494-501	20.1	38
307	Self-assembled hollow mesoporous Co3O4 hybrid architectures: a facile synthesis and application in Li-ion batteries. *Journal of Materials Chemistry A*, **2013**, 1, 13164	13	37
306	LiNi[sub 0.5]Mn[sub 1.5]O[sub 4] Showing Reversible Phase Transition on 3 V Region. *Electrochemical and Solid-State Letters*, **2005**, 8, A163		37
305	Additives Engineered Nonflammable Electrolyte for Safer Potassium Ion Batteries. *Advanced Functional Materials*, **2020**, 30, 2001934	15.6	37
304	Effect of nickel and iron on structural and electrochemical properties of O3 type layer cathode materials for sodium-ion batteries. *Journal of Power Sources*, **2016**, 324, 106-112	8.9	37
303	Vanadium dioxide âReduced graphene oxide composite as cathode materials for rechargeable Li and Na batteries. *Journal of Power Sources*, **2016**, 326, 522-532	8.9	37
302	Potassium vanadate as a new cathode material for potassium-ion batteries. *Journal of Power Sources*, **2019**, 432, 24-29	8.9	36
301	Optimization of Layered Cathode Material with Full Concentration Gradient for Lithium-Ion Batteries. *Journal of Physical Chemistry C*, **2014**, 118, 175-182	3.8	36
300	Formation of a Continuous Solid-Solution Particle and its Application to Rechargeable Lithium Batteries. *Advanced Functional Materials*, **2013**, 23, 1028-1036	15.6	36
299	Advanced cathode materials for lithium-ion batteries. *MRS Bulletin*, **2011**, 36, 498-505	3.2	36
298	Improvement of High Voltage Cycling Performances of Li[Ni[sub 1/3]Co[sub 1/3]Mn[sub 1/3]]O[sub 2] at 55°C by a (NH[sub 4])[sub 3]AlF[sub 6] Coating. *Electrochemical and Solid-State Letters*, **2009**, 12, A163		36
297	Structural Changes (Degradation) of Oxysulfide LiAl[sub 0.24]Mn[sub 1.76]O[sub 3.98]S[sub 0.02] Spinel on High-Temperature Cycling. *Journal of the Electrochemical Society*, **2001**, 148, A994	3.9	36

296	Facile migration of potassium ions in a ternary P3-type K0.5[Mn0.8Fe0.1Ni0.1]O2 cathode in rechargeable potassium batteries. *Energy Storage Materials*, **2020**, 25, 714-723	19.4	36
295	Novel strategy to improve the Li-storage performance of micro silicon anodes. *Journal of Power Sources*, **2017**, 348, 302-310	8.9	35
294	Micro-Intertexture Carbon-Free Iron Sulfides as Advanced High Tap Density Anodes for Rechargeable Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 39416-39424	9.5	35
293	A lithium ion battery using nanostructured Snâ□ anode, LiFePO4 cathode and polyethylene oxide-based electrolyte. *Solid State Ionics*, **2011**, 202, 36-39	3.3	35
292	Rapidly solidified Tiâ□i alloys/carbon composites as anode for Li-ion batteries. *Electrochimica Acta*, **2006**, 52, 1523-1526	6.7	35
291	Stable, high voltage Li0.85Ni0.46Cu0.1Mn1.49O4 spinel cathode in a lithium-ion battery using a conversion-type CuO anode. *ACS Applied Materials & Interfaces*, **2014**, 6, 5206-11	9.5	34
290	Microwave Synthesis of Spherical Li[Ni0.4Co0.2Mn0.4]O2Powders as a Positive Electrode Material for Lithium Batteries. *Chemistry of Materials*, **2007**, 19, 2727-2729	9.6	34
289	Effect of Fluorine on the Electrochemical Properties of Layered Li[Ni[sub 0.43]Co[sub 0.22]Mn[sub 0.35]]O[sub 2] Cathode Materials via a Carbonate Process. *Electrochemical and Solid-State Letters*, **2005**, 8, A559		34
288	Microsphere Na[NiCoMn]O Cathode Material for High-Performance Sodium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 44534-44541	9.5	34
287	Cu3Si-doped porous-silicon particles prepared by simplified chemical vapor deposition method as anode material for high-rate and long-cycle lithium-ion batteries. *Journal of Alloys and Compounds*, **2017**, 701, 425-432	5.7	33
286	A new P2-type layered oxide cathode with superior full-cell performances for K-ion batteries. *Journal of Materials Chemistry A*, **2019**, 7, 21362-21370	13	33
285	High-performance Ti-doped O3-type Na[Tix(Ni0.6Co0.2Mn0.2)1-x]O2 cathodes for practical sodium-ion batteries. *Journal of Power Sources*, **2019**, 422, 1-8	8.9	33
284	Green Strategy to Single Crystalline Anatase TiO2 Nanosheets with Dominant (001) Facets and Its Lithiation Study toward Sustainable Cobalt-Free Lithium Ion Full Battery. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 3086-3095	8.3	33
283	Controversial Topics on Lithium Superoxide in Liâ□2 Batteries. *ACS Energy Letters*, **2017**, 2, 2756-2760	20.1	33
282	Comparative study of Li[Ni1/3Co1/3Mn1/3]O2 cathode material synthesized via different synthetic routes for asymmetric electrochemical capacitor applications. *Materials Chemistry and Physics*, **2008**, 110, 222-227	4.4	33
281	Improvement of cycling performance of Li1.1Mn1.9O4 at 60□C by NiO addition for Li-ion secondary batteries. *Electrochimica Acta*, **2006**, 51, 5912-5919	6.7	33
280	Microstrain Alleviation in High-Energy Ni-Rich NCMA Cathode for Long Battery Life. *ACS Energy Letters*, **2021**, 6, 216-223	20.1	33
279	Interfacial Model Deciphering High-Voltage Electrolytes for High Energy Density, High Safety, and Fast-Charging Lithium-Ion Batteries. *Advanced Materials*, **2021**, 33, e2102964	24	33

278	Unveiling the sodium intercalation properties in Na1.86?0.14Fe3(PO4)3. *Journal of Power Sources*, **2016**, 324, 657-664	8.9	32
277	Synthesis of Fe3O4/C composite microspheres for a high performance lithium-ion battery anode. *Journal of Power Sources*, **2013**, 244, 177-182	8.9	32
276	Remarkably Improved Electrochemical Performance of Li- and Mn-Rich Cathodes upon Substitution of Mn with Ni. *ACS Applied Materials & Interfaces*, **2017**, 9, 4309-4319	9.5	32
275	Electrochemical performance of Li4/3Ti5/3O4/Li1+x(Ni1/3Co1/3Mn1/3)1â□O2 cell for high power applications. *Journal of Power Sources*, **2007**, 167, 212-216	8.9	32
274	Electrochemical cyclability of oxysulfide spinel Li1.03Al0.2Mn1.8O3.96S0.04 material for lithium secondary batteries. *Electrochemistry Communications*, **2000**, 2, 6-9	5.1	32
273	Model-Based Design of Stable Electrolytes for Potassium Ion Batteries. *ACS Energy Letters*, **2020**, 5, 3124-3131	23.1	32
272	Cation ordered Ni-rich layered cathode for ultra-long battery life. *Energy and Environmental Science*, **2021**, 14, 1573-1583	35.4	32
271	In Situ Oriented Mn Deficient ZnMnO@C Nanoarchitecture for Durable Rechargeable Aqueous Zinc-Ion Batteries. *Advanced Science*, **2021**, 8, 2002636	13.6	32
270	Understanding on the structural and electrochemical performance of orthorhombic sodium manganese oxides. *Journal of Materials Chemistry A*, **2019**, 7, 202-211	13	31
269	Comparison of nanorod-structured Li[Ni0.54 Co0.16 Mn0.30]O2 with conventional cathode materials for Li-ion batteries. *ChemSusChem*, **2014**, 7, 245-52	8.3	31
268	Structural, Electrochemical, and Thermal Aspects of Li[(Ni[sub 0.5]Mn[sub 0.5])[sub 1â□]Co[sub x]]O[sub 2] (0â□â□0.2) for High-Voltage Application of Lithium-Ion Secondary Batteries. *Journal of the Electrochemical Society*, **2008**, 155, A374	3.9	31
267	Optimization of microwave synthesis of Li[Ni0.4Co0.2Mn0.4]O2 as a positive electrode material for lithium batteries. *Electrochimica Acta*, **2008**, 53, 3065-3074	6.7	31
266	Physical and Electrochemical Properties of Li [Ni0.4Cox Mn0.6 â□x] O2 (x = 0.1 â□0.4) Electrode Materials Synthesized via Coprecipitation. *Journal of the Electrochemical Society*, **2007**, 154, A937	3.9	31
265	Synthesis of nano-crystalline LiFeO2 material with advanced battery performance. *Electrochemistry Communications*, **2002**, 4, 727-731	5.1	31
264	Synthesis of Li[Ni0.475Co0.05Mn0.475]O2 cathode materials via a carbonate process. *Solid State Ionics*, **2005**, 176, 2577-2581	3.3	31
263	New Insights Related to Rechargeable Lithium Batteries: Li Metal Anodes, Ni Rich LiNixCoyMnzO2 Cathodes and Beyond Them. *Journal of the Electrochemical Society*, **2019**, 166, A5265-A5274	3.9	31
262	Large-Scale Li?O2 Pouch Type Cells for Practical Evaluation and Applications. *Advanced Functional Materials*, **2017**, 27, 1605500	15.6	30
261	Tunnel-type □FeOOH cathode material for high rate sodium storage via a new conversion reaction. *Nano Energy*, **2017**, 41, 687-696	17.1	30

260	Fluorine-doped porous carbon-decorated Fe3O4-FeF2 composite versus LiNi0.5Mn1.5O4 towards a full battery with robust capability. *Electrochimica Acta*, **2015**, 169, 291-299	6.7	30
259	Monodispersed hollow carbon/Fe3O4 composite microspheres for high performance anode materials in lithium-ion batteries. *Journal of Power Sources*, **2013**, 244, 538-543	8.9	30
258	2,4-Dimethoxy-2,4-dimethylpentan-3-one: An Aprotic Solvent Designed for Stability in Li-O Cells. *Journal of the American Chemical Society*, **2017**, 139, 11690-11693	16.4	30
257	Feasibility of Full (Li-Ion)-O Cells Comprised of Hard Carbon Anodes. *ACS Applied Materials & Interfaces*, **2017**, 9, 4352-4361	9.5	30
256	Effect of protecting metal oxide (Co3O4) layer on electrochemical properties of spinel Li1.1Mn1.9O4 as a cathode material for lithium battery applications. *Journal of Power Sources*, **2009** , 189, 494-498	8.9	30
255	High-Voltage Performance of Li[Ni[sub 0.55]Co[sub 0.15]Mn[sub 0.30]]O[sub 2] Positive Electrode Material for Rechargeable Li-Ion Batteries. *Journal of the Electrochemical Society*, **2011**, 158, A180	3.9	30
254	The Effect of Morphological Properties on the Electrochemical Behavior of High Tap Density CâLiFePO[sub 4] Prepared via Coprecipitation. *Journal of the Electrochemical Society*, **2008**, 155, A414	3.9	30
253	Microscale Core-Shell Structured Li[(Ni[sub 0.8]Co[sub 0.1]Mn[sub 0.1])[sub 0.8](Ni[sub 0.5]Mn[sub 0.5])[sub 0.2]]O[sub 2] as Positive Electrode Material for Lithium Batteries. *Electrochemical and Solid-State Letters*, **2006**, 9, A171		30
252	A tetraethylene glycol dimethylether-lithium bis(oxalate)borate (TEGDME-LiBOB) electrolyte for advanced lithium ion batteries. *Electrochemistry Communications*, **2012**, 14, 43-46	5.1	29
251	Rattle type Fe2O3 submicron spheres with a thin carbon layer for lithium-ion battery anodes. *Journal of Materials Chemistry A*, **2013**, 1, 10107	13	29
250	Effect of 1-butyl-1-methylpyrrolidinium hexafluorophosphate as a flame-retarding additive on the cycling performance and thermal properties of lithium-ion batteries. *Electrochimica Acta*, **2011**, 56, 10179-10184	6.7	29
249	Synthesis of LiNiO2 powders by a solâgel method. *Journal of Materials Science Letters*, **1997**, 16, 30-32		29
248	Synthesis and electrochemical properties of 5V spinel LiNi0.5Mn1.5O4 cathode materials prepared by ultrasonic spray pyrolysis method. *Electrochimica Acta*, **2004**, 50, 439-434	6.7	29
247	Preparation of high purity 110 K phase in the Bi(Pb)-Sr-Ca-Cu-O superconductor using the modified citrate process. *Physica C: Superconductivity and Its Applications*, **1993**, 212, 37-42	1.3	29
246	High-Energy W-Doped Li[Ni0.95Co0.04Al0.01]O2 Cathodes for Next-Generation Electric Vehicles. *Energy Storage Materials*, **2020**, 33, 399-407	19.4	29
245	A carbon-free ruthenium oxide/mesoporous titanium dioxide electrode for lithium-oxygen batteries. *Journal of Power Sources*, **2015**, 295, 299-304	8.9	28
244	Mutual Conservation of Redox Mediator and Singlet Oxygen Quencher in Lithiumâoxygen Batteries. *ACS Catalysis*, **2019**, 9, 9914-9922	13.1	28
243	Electrochemical Properties of Polyaniline-Coated Li-Rich Nickel Manganese Oxide and Role of Polyaniline Coating Layer. *Journal of the Electrochemical Society*, **2014**, 161, A142-A148	3.9	28

242	Improved electrochemical performances of LiM0.05Co0.95O1.95F0.05 (M=Mg, Al, Zr) at high voltage. *Electrochimica Acta*, **2012**, 68, 153-157	6.7	28
241	Synthesis and Electrochemical Reaction of Tin Oxalate-Reduced Graphene Oxide Composite Anode for Rechargeable Lithium Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 25941-25951	9.5	28
240	Study of the Most Relevant Aspects Related to Hard Carbons as Anode Materials for Na-ion Batteries, Compared with Li-ion Systems. *Israel Journal of Chemistry*, **2015**, 55, 1260-1274	3.4	28
239	Improved capacity and stability of integrated Li and Mn rich layered-spinel Li1.17Ni0.25Mn1.08O3 cathodes for Li-ion batteries. *Journal of Materials Chemistry A*, **2015**, 3, 14598-14608	13	28
238	Effect of crystallinity on the electrochemical behaviour of spinel Li1.03Mn2O4 cathode materials. *Solid State Ionics*, **1998**, 112, 237-243	3.3	28
237	Electrochemical Properties of Lithium-Rich Li[sub 1+x](Mn[sub 1â3]Ni[sub 1â3]Co[sub 1â3])[sub 1â]O[sub 2] at High Potential. *Journal of the Electrochemical Society*, **2006**, 153, A1818	3.9	28
236	Mo[sup 6+]-Doped Li[Ni[sub (0.5+x)]Mn[sub (1.5â2x)]Mo[sub x]]O[sub 4] Spinel Materials for 5 V Lithium Secondary Batteries Prepared by Ultrasonic Spray Pyrolysis. *Electrochemical and Solid-State Letters*, **2004**, 7, A451		28
235	Effect of fluorine on the electrochemical properties of layered Li(Ni0.5Mn0.5)O2 cathode materials. *Journal of Power Sources*, **2005**, 146, 650-653	8.9	28
234	Synthesis and electro-optical properties of electroluminescent polymers containing carbazole unit. *European Polymer Journal*, **2000**, 36, 957-963	5.2	28
233	Transition metal-doped Ni-rich layered cathode materials for durable Li-ion batteries. *Nature Communications*, **2021**, 12, 6552	17.4	28
232	Highly lithium-ion conductive battery separators from thermally rearranged polybenzoxazole. *Chemical Communications*, **2015**, 51, 2068-71	5.8	27
231	Improved rate capability of lithium-ion batteries with Ag nanoparticles deposited onto silicon/carbon composite microspheres as an anode material. *Solid State Ionics*, **2013**, 237, 28-33	3.3	27
230	Nickel-Layer Protected, Carbon-Coated Sulfur Electrode for Lithium Battery. *Journal of the Electrochemical Society*, **2012**, 159, A390-A395	3.9	27
229	Synthesis of LiCo0.5Ni>0.5O2powders by a solâgel method. *Journal of Materials Chemistry*, **1997**, 7, 1481-1485		27
228	Synthesis and electrochemical properties of Li[Ni0.45Co0.1Mn0.45â]Zrx]O2 (x=0, 0.02) via co-precipitation method. *Journal of Power Sources*, **2007**, 174, 565-568	8.9	27
227	Relationship between glass network structure and conductivity of Li2OâB2O3âP2O5 solid electrolyte. *Electrochimica Acta*, **2006**, 52, 1576-1581	6.7	27
226	Synthesis and structural changes of LixFeyOz material prepared by a solid-state method. *Journal of Power Sources*, **2004**, 134, 88-94	8.9	27
225	Controlling the Wettability between Freestanding Electrode and Electrolyte for High Energy Density Lithium-Sulfur Batteries. *Journal of the Electrochemical Society*, **2018**, 165, A5006-A5013	3.9	27

224	ReviewâUnderstanding and Mitigating Some of the Key Factors that Limit Non-Aqueous Lithium-Air Battery Performance. *Journal of the Electrochemical Society*, **2015**, 162, A2439-A2446	3.9	26
223	Revealing the Reaction Mechanism of NaâO2 Batteries using Environmental Transmission Electron Microscopy. *ACS Energy Letters*, **2018**, 3, 393-399	20.1	26
222	Direction for Development of Next-Generation Lithium-Ion Batteries. *ACS Energy Letters*, **2017**, 2, 2694-2695	20.1	26
221	Improved Performances of Li[Ni0.65Co0.08Mn0.27]O2Cathode Material with Full Concentration Gradient for Li-Ion Batteries. *Journal of the Electrochemical Society*, **2015**, 162, A3059-A3063	3.9	26
220	Effect of Mn Content in Surface on the Electrochemical Properties of Core-Shell Structured Cathode Materials. *Journal of the Electrochemical Society*, **2011**, 159, A1-A5	3.9	26
219	Cycling performance of lithium metal polymer cells assembled with ionic liquid and poly(3-methyl thiophene)/carbon nanotube composite cathode. *Journal of Power Sources*, **2008**, 180, 591-596	8.9	26
218	Structural change and capacity loss mechanism in orthorhombic Li/LiFeO2 system during cycling. *Electrochemistry Communications*, **2003**, 5, 549-554	5.1	26
217	Cycling behaviour of LiCoO2 cathode materials prepared by PAA-assisted solâgel method for rechargeable lithium batteries. *Journal of Power Sources*, **1999**, 83, 223-226	8.9	26
216	Silver nanowires as catalytic cathodes for stabilizing lithium-oxygen batteries. *Journal of Power Sources*, **2016**, 311, 49-56	8.9	25
215	Passivation behavior of Type 304 stainless steel in a non-aqueous alkyl carbonate solution containing LiPF6 salt. *Electrochimica Acta*, **2009**, 54, 5804-5812	6.7	25
214	Polymer Electrolytes Based on Acrylonitrile-Methyl Methacrylate-Styrene Terpolymers for Rechargeable Lithium-Polymer Batteries. *Journal of the Electrochemical Society*, **1998**, 145, 1958-1963	3.9	25
213	Effects of Metal Ions on the Structural and Thermal Stabilities of Li[Ni[sub 1â□â□]Co[sub x]Mn[sub y]]O[sub 2] (x+yâ□0.5) Studied by In Situ High Temperature XRD. *Journal of the Electrochemical Society*, **2008**, 155, A952	3.9	25
212	Ultrasonic spray pyrolysis of nano crystalline spinel LiMn2O4 showing good cycling performance in the 3V range. *Electrochimica Acta*, **2006**, 51, 4089-4095	6.7	25
211	Overcoming Jahnâ□teller distortion of oxysulfide spinel materials for lithium secondary batteries. *Journal of Materials Chemistry*, **1999**, 9, 3147-3150		25
210	Effect of Mn in LiVMn(PO) as High Capacity Cathodes for Lithium Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 40307-40316	9.5	24
209	Trimethylsilyl azide (C3H9N3Si): a highly efficient additive for tailoring fluoroethylene carbonate (FEC) based electrolytes for Li-metal batteries. *Journal of Materials Chemistry A*, **2019**, 7, 13441-13448	13	24
208	Quaternary Transition Metal Oxide Layered Framework: O3-Type Na[Ni0.32Fe0.13Co0.15Mn0.40]O2 Cathode Material for High-Performance Sodium-Ion Batteries. *Journal of Physical Chemistry C*, **2018**, 122, 13500-13507	3.8	24
207	Low-Polarization Lithium-Oxygen Battery Using [DEME][TFSI] Ionic Liquid Electrolyte. *ChemSusChem*, **2018**, 11, 229-236	8.3	24

206	Synthesis of silicon/carbon, multi-core/shell microspheres using solution polymerization for a high performance Li ion battery. *Electrochimica Acta*, **2011**, 58, 578-582	6.7	24
205	Co-synthesis of nano-sized LSMâYSZ composites with enhanced electrochemical property. *Journal of Solid State Electrochemistry*, **2007**, 11, 1385-1390	2.6	24
204	High-Performance LiNiO2 Cathodes with Practical Loading Cycled with Li metal Anodes in Fluoroethylene Carbonate-Based Electrolyte Solution. *ACS Applied Energy Materials*, **2018**, 1, 2600-2607	6.1	24
203	A Scaled-Up Lithium (Ion)-Sulfur Battery: Newly Faced Problems and Solutions. *Advanced Materials Technologies*, **2016**, 1, 1600052	6.8	23
202	Low Temperature Electrochemical Properties of Li[NixCoyMn1-x-y]O2Cathode Materials for Lithium-Ion Batteries. *Journal of the Electrochemical Society*, **2014**, 161, A1514-A1520	3.9	23
201	Walnut-like ZnO@Zn2TiO4 multicore-shell submicron spheres with a thin carbon layer: Fine synthesis, facile structural control and solar light photocatalytic application. *Acta Materialia*, **2017**, 122, 287-297	8.4	23
200	A novel layered Li [Li0.12NizMg0.32â Mn0.56]O2 cathode material for lithium-ion batteries. *Electrochimica Acta*, **2004**, 49, 4425-4432	6.7	23
199	Antimony Selenide Nanorods Decorated on Reduced Graphene Oxide with Excellent Electrochemical Properties for Li-Ion Batteries. *Journal of the Electrochemical Society*, **2017**, 164, A2922-A2929	3.9	22
198	Improvement of Electrochemical Properties of Lithiumâ Oxygen Batteries Using a Silver Electrode. *Journal of Physical Chemistry C*, **2015**, 119, 15036-15040	3.8	22
197	Effect of outer layer thickness on full concentration gradient layered cathode material for lithium-ion batteries. *Journal of Power Sources*, **2015**, 273, 663-669	8.9	22
196	Ni3V2O8 nanoparticles as an excellent anode material for high-energy lithium-ion batteries. *Journal of Electroanalytical Chemistry*, **2018**, 810, 34-40	4.1	22
195	Understanding problems of lithiated anodes in lithium oxygen full-cells. *Journal of Materials Chemistry A*, **2016**, 4, 10467-10471	13	22
194	Magnetism in lithium-oxygen discharge product. *ChemSusChem*, **2013**, 6, 1196-202	8.3	22
193	Electrochemical behavior of Al in a non-aqueous alkyl carbonate solution containing LiBOB salt. *Journal of Power Sources*, **2010**, 195, 8297-8301	8.9	22
192	Electrochemical stability of coreâ hell structure electrode for high voltage cycling as positive electrode for lithium ion batteries. *Journal of Power Sources*, **2007**, 174, 658-662	8.9	22
191	Understanding the Capacity Fading Mechanisms of O3-Type Na[Ni0.5Mn0.5]O2 Cathode for Sodium-Ion Batteries. *Advanced Energy Materials*, **2020**, 10, 2001609	21.8	22
190	High-power lithium polysulfide-carbon battery. *Carbon*, **2016**, 96, 125-130	10.4	21
189	Effect of carbon-sulphur bond in a sulphur/dehydrogenated polyacrylonitrile/reduced graphene oxide composite cathode for lithium-sulphur batteries. *Journal of Power Sources*, **2017**, 355, 140-146	8.9	21

188	Epicyanohydrin as an Interface Stabilizer Agent for Cathodes of Li-Ion Batteries. *Journal of the Electrochemical Society*, **2016**, 163, A171-A177	3.9	21
187	Sodium oxygen batteries: one step further with catalysis by ruthenium nanoparticles. *Journal of Materials Chemistry A*, **2017**, 5, 20678-20686	13	21
186	Carbon-coated anatase titania as a high rate anode for lithium batteries. *Journal of Power Sources*, **2015**, 281, 362-369	8.9	21
185	High dispersion of TiO2 nanocrystals within porous carbon improves lithium storage capacity and can be applied batteries to LiNi0.5Mn1.5O4. *Journal of Materials Chemistry A*, **2014**, 2, 18938-18945	13	21
184	Improving the electrochemical performance of LiMn0.85Fe0.15PO4â□□iFePO4 coreâ□□hell materials based on an investigation of carbon source effect. *Journal of Power Sources*, **2013**, 244, 663-667	8.9	21
183	Effect of Manganese Content on the Electrochemical and Thermal Stabilities of Li[Ni[sub 0.58]Co[sub 0.28â□]Mn[sub 0.14+x]]O[sub 2] Cathode Materials for Lithium-Ion Batteries. *Journal of the Electrochemical Society*, **2010**, 157, A1335	3.9	21
182	Effects of manganese and cobalt on the electrochemical and thermal properties of layered Li[Ni0.52Co0.16+xMn0.32â□]O2 cathode materials. *Journal of Power Sources*, **2011**, 196, 6710-6715	8.9	21
181	Nanosized TiNâ□□BR hybrid coating of stainless steel as bipolar plates for polymer electrolyte membrane fuel cells. *Electrochimica Acta*, **2008**, 54, 574-581	6.7	21
180	Improvement of electrochemical properties of Li[Ni0.4Co0.2Mn(0.4â□)Mgx]O2â□Fy cathode materials at high voltage region. *Electrochimica Acta*, **2006**, 52, 1477-1482	6.7	21
179	Synthesis of Li[Ni1/3Co1/3Mn1/3]O2â□Fzvia Coprecipitation. *Chemistry Letters*, **2004**, 33, 1388-1389	1.7	21
178	Improved electrochemical performance of Li-doped natural graphite anode for lithium secondary batteries. *Journal of Power Sources*, **2005**, 139, 230-234	8.9	21
177	Structural degradation mechanism of oxysulfide spinel LiAl 0.24Mn1.76O3.98S0.02 cathode materials on high temperature cycling. *Electrochemistry Communications*, **2001**, 3, 199-202	5.1	21
176	Microstructure Engineered Ni-Rich Layered Cathode for Electric Vehicle Batteries. *Advanced Energy Materials*, **2021**, 11, 2100884	21.8	21
175	Optimized Ni-Rich NCMA Cathode for Electric Vehicle Batteries. *Advanced Energy Materials*, **2021**, 11, 2003767	21.8	21
174	Dandelion-shaped manganese sulfide in ether-based electrolyte for enhanced performance sodium-ion batteries. *Communications Chemistry*, **2018**, 1,	6.3	21
173	Investigation of the carbon electrode changes during lithium oxygen cell operation in a tetraglyme-based electrolyte. *Electrochemistry Communications*, **2013**, 34, 250-253	5.1	20
172	Preparation of Ultrafine YBa2Cu3O7-x Superconductor Powders by the Poly(vinyl alcohol)-Assisted Solâ□□el Method. *Industrial & Engineering Chemistry Research*, **1996**, 35, 4296-4300	3.9	20
171	Synergistic Integration of Soluble Catalysts with Carbon-Free Electrodes for Liâ□□2 Batteries. *ACS Catalysis*, **2017**, 7, 8192-8199	13.1	19

170	Multidimensional Na4VMn0.9Cu0.1(PO4)3/C cotton-candy cathode materials for high energy Na-ion batteries. *Journal of Materials Chemistry A*, **2020**, 8, 12055-12068	13	19
169	Electrochemical performance of a thermally rearranged polybenzoxazole nanocomposite membrane as a separator for lithium-ion batteries at elevated temperature. *Journal of Power Sources*, **2016**, 305, 259-266	8.9	19
168	Structural Transformation of Li[Ni[sub 0.5â][Co[sub 2x]Mn[sub 0.5â]]O[sub 2] (2xâ0.1) Charged in High-Voltage Range (4.5 V). *Journal of the Electrochemical Society*, **2007**, 154, A520	3.9	19
167	Synthesis and electrochemical behavior of layered Li(Ni0.5â)Co2xMn0.5â)O2 (x = 0 and 0.025) materials prepared by solid-state reaction method. *Materials Research Bulletin*, **2004**, 39, 819-825	5.1	19
166	The effects of Ni and Li doping on the performance of lithium manganese oxide material for lithium secondary batteries. *Electrochimica Acta*, **2002**, 47, 2937-2942	6.7	19
165	Oxidation Stability of Organic Redox Mediators as Mobile Catalysts in Lithiumâ€“Oxygen Batteries. *ACS Energy Letters*, **2020**, 5, 2122-2129	20.1	18
164	High-energy O3-Na1â2xCax[Ni0.5Mn0.5]O2 cathodes for long-life sodium-ion batteries. *Journal of Materials Chemistry A*, **2020**, 8, 13776-13786	13	18
163	Highly wrinkled carbon tubes as an advanced anode for K-ion full batteries. *Journal of Materials Chemistry A*, **2019**, 7, 20675-20682	13	18
162	Migration of Mn cations in delithiated lithium manganese oxides. *Physical Chemistry Chemical Physics*, **2014**, 16, 20697-702	3.6	18
161	Nanostructured TiO2 microspheres for dye-sensitized solar cells employing a solid state polymer electrolyte. *Electrochimica Acta*, **2013**, 89, 848-853	6.7	18
160	Electrochemical evaluation of La1 â x Ca x CoO3 cathode material for zinc air batteries application. *Journal of Electroceramics*, **2009**, 23, 382-386	1.5	18
159	Fe-Fe3O4Composite Electrode for Lithium Secondary Batteries. *Journal of the Electrochemical Society*, **2012**, 159, A325-A329	3.9	18
158	Synthesis and characterization of spherical morphology [Ni0.4Co0.2Mn0.4]3O4 materials for lithium secondary batteries. *Journal of Power Sources*, **2006**, 160, 558-562	8.9	18
157	Electrochemical properties and structural characterization of layered Li[Ni0.5Mn0.5]O2 cathode materials. *Electrochimica Acta*, **2003**, 48, 2589-2592	6.7	18
156	Effects of Molybdenum Doping on the Layered Li[Ni0.5+xMn0.5â2xMox]O2Cathode Materials for Lithium Secondary Batteries. *Chemistry Letters*, **2004**, 33, 2-3	1.7	18
155	Nano-compacted Li2S/Graphene Composite Cathode for High-Energy Lithiumâ€“Sulfur Batteries. *ACS Energy Letters*, **2019**, 4, 2787-2795	20.1	17
154	A new perspective of the ruthenium ion: a bifunctional soluble catalyst for high efficiency Liâ€“O2 batteries. *Journal of Materials Chemistry A*, **2017**, 5, 15512-15516	13	17
153	A zero fading sodium ion battery: High compatibility microspherical patronite in ether-based electrolyte. *Energy Storage Materials*, **2019**, 19, 270-280	19.4	17

152	Rational Design of Low Cost and High Energy Lithium Batteries through Tailored Fluorine-free Electrolyte and Nanostructured S/C Composite. *ChemSusChem*, **2018**, 11, 2981-2986	8.3	16
151	Layered KMnO□0.15HO as a Cathode Material for Potassium-Ion Intercalation. *ACS Applied Materials & Interfaces*, **2019**, 11, 43312-43319	9.5	16
150	Differentiating allotropic LiCoO2/Li2Co2O4: A structural and electrochemical study. *Journal of Power Sources*, **2014**, 271, 97-103	8.9	16
149	Development of high power lithium-ion batteries: Layer Li[Ni0.4Co0.2Mn0.4]O2 and spinel Li[Li0.1Al0.05Mn1.85]O4. *Journal of Power Sources*, **2011**, 196, 7039-7043	8.9	16
148	Electrodeposition of nano-structured nickelâ21% tungsten alloy and evaluation of oxygen reduction reaction in a 1% sodium hydroxide solution. *Electrochimica Acta*, **2004**, 49, 4411-4416	6.7	16
147	The effects of oxygen flow rate and anion doping on the performance of the LiNio2 electrode for lithium secondary batteries. *Korean Journal of Chemical Engineering*, **2002**, 19, 791-796	2.8	16
146	Synthesis and electrochemical properties of layered LiNi1/2Mn1/2O2prepared by coprecipitation. *Journal of Applied Electrochemistry*, **2005**, 35, 151-156	2.6	16
145	Structural Characterization of Mn-Based Materials Using □MnOOH Source. *Electrochemical and Solid-State Letters*, **2002**, 5, A1		16
144	Synthesis and electrochemical characterization of oxysulfide spinel LiAl0.15Mn1.85O3.97S0.03 cathode materials for rechargeable batteries. *Electrochimica Acta*, **2000**, 46, 541-546	6.7	16
143	Monoclinic-Orthorhombic Na1.1Li2.0V2(PO4)3/C Composite Cathode for Na+/Li+ Hybrid-Ion Batteries. *Chemistry of Materials*, **2017**, 29, 6642-6652	9.6	15
142	High-Capacity Layered-Spinel Cathodes for Li-Ion Batteries. *ChemSusChem*, **2016**, 9, 2404-13	8.3	15
141	Nanorod and nanoparticle shells in concentration gradient core-shell lithium oxides for rechargeable lithium batteries. *ChemSusChem*, **2014**, 7, 3295-303	8.3	15
140	High Electrochemical Li Intercalation in Titanate Nanotubes. *Journal of Physical Chemistry C*, **2009**, 113, 14034-14039	3.8	15
139	Combustion synthesized LiMnSnO4 cathode for lithium batteries. *Electrochemistry Communications*, **2008**, 10, 455-460	5.1	15
138	Synthesis and Electrochemical Performance of Nickel-Rich Layered-Structure LiNi0.65Co0.08Mn0.27O2Cathode Materials Comprising Particles with Ni and Mn Full Concentration Gradients. *Journal of the Electrochemical Society*, **2016**, 163, A1348-A1358	3.9	15
137	Effect of Lithium in Transition Metal Layers of Ni-Rich Cathode Materials on Electrochemical Properties. *Journal of the Electrochemical Society*, **2015**, 162, A2313-A2318	3.9	14
136	Clarification of Solvent Effects on Discharge Products in Li-O Batteries through a Titration Method. *ACS Applied Materials & Interfaces*, **2018**, 10, 526-533	9.5	14
135	Carbothermal synthesis of molybdenum(IV) oxide as a high rate anode for rechargeable lithium batteries. *Journal of Power Sources*, **2015**, 280, 1-4	8.9	14

134	Double-Structured LiMn0.85Fe0.15PO4 Coordinated with LiFePO4 for Rechargeable Lithium Batteries. *Angewandte Chemie*, **2012**, 124, 1889-1892	3.6	14
133	Synthesis and electrochemical properties of spherical spinel Li1.05M0.05Mn1.9O4 (M=Mg and Al) as a cathode material for lithium-ion batteries by co-precipitation method. *Journal of Power Sources* , **2007**, 174, 726-729	8.9	14
132	Synthesis and electrochemical characterization of Li1.02Mg0.1Mn1.9O3.99S0.01 using solâgel method. *Journal of Power Sources*, **2001**, 92, 244-249	8.9	14
131	Porous Polyacrylonitrile Membrane for Lithium-Ion Cells. *Electrochemical and Solid-State Letters*, **2002**, 5, A63		14
130	Long-Lasting Solid Electrolyte Interphase for Stable Li-Metal Batteries. *ACS Energy Letters*, **2021**, 6, 2153-2161	22.6	14
129	Verification for trihalide ions as redox mediators in Li-O2 batteries. *Energy Storage Materials*, **2019**, 19, 148-153	19.4	14
128	Enhanced cycling stability of Sn-doped Li[Ni0.90Co0.05Mn0.05]O2 via optimization of particle shape and orientation. *Chemical Engineering Journal*, **2021**, 405, 126887	14.7	14
127	All-Solid-State Lithium Batteries: Li+-Conducting Ionomer Binder for Dry-Processed Composite Cathodes. *ACS Energy Letters*, **2022**, 7, 1092-1100	20.1	14
126	A new synthetic method of titanium oxyfluoride and its application as an anode material for rechargeable lithium batteries. *Journal of Power Sources*, **2015**, 288, 376-383	8.9	13
125	Neutron diffraction studies of the Na-ion battery electrode materials NaCoCr2(PO4)3, NaNiCr2(PO4)3, and Na2Ni2Cr(PO4)3. *Journal of Solid State Chemistry*, **2016**, 238, 103-108	3.3	13
124	In Situ XAFS Study of the Effect of Dopants in Li[sub 1+x]Ni[sub (1â x)â]Mn[sub (3+x)â]O[sub 4] (0â â1â), a Li-Ion Battery Cathode Material. *Journal of the Electrochemical Society*, **2008**, 155, A845	3.9	13
123	Synthesis and electrochemical properties of sulfur doped-LixMnO2â Sy materials for lithium secondary batteries. *Electrochemistry Communications*, **2003**, 5, 124-128	5.1	13
122	Ultrafine-grained Ni-rich layered cathode for advanced Li-ion batteries. *Energy and Environmental Science*, **2021**, 14, 6616-6626	35.4	13
121	Quasi-compensatory effect in emerging anode-free lithium batteries. *EScience*, **2021**, 1, 3-3		13
120	Controllable and stable organometallic redox mediators for lithium oxygen batteries. *Materials Horizons*, **2020**, 7, 214-222	14.4	13
119	Self-assembled nickel-cobalt oxide microspheres from rods with enhanced electrochemical performance for sodium ion battery. *Electrochimica Acta*, **2017**, 258, 220-227	6.7	12
118	Perpendicularly aligned TiC-coated carbon cloth cathode for high-performance Li-O2 batteries. *Chemical Engineering Journal*, **2020**, 399, 125699	14.7	12
117	Cycling behavior of selenium-doped LiMn2O4 spinel cathode material at 3 V for lithium secondary batteries. *Journal of Power Sources*, **2002**, 109, 234-238	8.9	12

116	Ionic conductivities of solid polymer electrolyte/salt systems for lithium secondary battery. *Polymer* , **2005**, 46, 3111-3118	3.9	12
115	Synthesis and characterization of side chain liquid crystalline polymer with a polythiophene backbone. *European Polymer Journal*, **1999**, 35, 89-94	5.2	12
114	High-performance Ni-rich Li[Ni0.9â□Co0.1Alx]O2 cathodes via multi-stage microstructural tailoring from hydroxide precursor to the lithiated oxide. *Energy and Environmental Science*, **2021**, 14, 5084-5095	35.4	12
113	High surface area, mesoporous carbon for low-polarization, catalyst-free lithium oxygen battery. *Solid State Ionics*, **2015**, 278, 133-137	3.3	11
112	Synthesis and electrochemical properties of Ni doped titanate nanotubes for lithium ion storage. *Applied Surface Science*, **2008**, 254, 7718-7722	6.7	11
111	The Effects of Lithium and Oxygen Contents Inducing Capacity Loss of the LiMn2O4 Obtained at High Synthetic Temperature **2002**, 9, 209-214		11
110	Tungsten Oxide/Zirconia as a Functional Polysulfide Mediator for High-Performance Lithiumâ□Sulfur Batteries. *ACS Energy Letters*, **2020**, 5, 3168-3175	20.1	11
109	Electrolyte Chemistry in 3D Metal Oxide Nanorod Arrays Deciphers Lithium Dendrite-Free Plating/Stripping Behaviors for High-Performance Lithium Batteries. *Journal of Physical Chemistry Letters*, **2021**, 12, 4857-4866	6.4	11
108	Cationic and transition metal co-substitution strategy of O3-type NaCrO2 cathode for high-energy sodium-ion batteries. *Energy Storage Materials*, **2021**, 41, 183-195	19.4	11
107	Multi-Doped (Ga,B) Li[Ni0.885Co0.100Al0.015]O2 Cathode. *Journal of the Electrochemical Society*, **2020**, 167, 100557	3.9	10
106	Density Functional Theory Investigation of Mixed Transition Metals in Olivine and Tavorite Cathode Materials for Li-Ion Batteries. *ACS Applied Materials & Interfaces*, **2020**, 12, 16376-16386	9.5	10
105	Limited effects of a redox mediator in lithiumâ□xygen batteries: indecomposable by-products. *Journal of Materials Chemistry A*, **2020**, 8, 5622-5628	13	10
104	A physical pulverization strategy for preparing a highly active composite of CoOx and crushed graphite for lithium-oxygen batteries. *ChemPhysChem*, **2014**, 15, 2070-6	3.2	10
103	Synthesis and cycling behavior of LiMn2O4 cathode materials prepared by glycine-assisted sol-gel method for lithium secondary batteries. *Korean Journal of Chemical Engineering*, **1998**, 15, 64-70	2.8	10
102	Synthesis and Electrochemical Properties of ZnO-Coated LiNi[sub 0.5]Mn[sub 1.5]O[sub 4] Spinel as 5 V Cathode Material for Lithium Secondary Batteries [Electrochemical and Solid-State Letters, 5, A99 (2002)]. *Journal of the Electrochemical Society*, **2003**, 150, L11	3.9	10
101	Preparation of Layered Li[Ni1/2Mn1/2]O2by Ultrasonic Spray Pyrolysis Method. *Chemistry Letters*, **2003**, 32, 446-447	1.7	10
100	Microstructure and cycling behavior of LiAl0.1Mn1.9O4 cathode for lithium secondary batteries at 3 V. *Journal of Power Sources*, **2002**, 108, 97-105	8.9	10
99	A new type of orthorhombic LiFeO2 with advanced battery performance and its structural change during cycling. *Journal of Power Sources*, **2003**, 119-121, 285-289	8.9	10

98	Hydrothermal Synthesis of Layered Li[Ni0.5Mn0.5]O2as Lithium Intercalation Material. *Chemistry Letters*, **2004**, 33, 818-819	1.7	10
97	Synthesis and electrochemical characteristics of oxysulfide spinel material for lithium secondary batteries. *Electrochemistry Communications*, **1999**, 1, 597-599	5.1	10
96	Quasi-solid-state zinc-ion battery based on □MnO2 cathode with husk-like morphology. *Electrochimica Acta*, **2020**, 345, 136189	6.7	9
95	Thermal properties of fully delithiated olivines. *Journal of Power Sources*, **2014**, 256, 479-484	8.9	9
94	Preparation of Mn-substituted LiFeO2: A solid solution of LiFeO2 and LixMnO2. *Electrochemistry Communications*, **2003**, 5, 359-364	5.1	9
93	Cycling behavior of oxysulfide spinel LiCr0.19Mn1.81O3.98S0.02 cathode material which shows no capacity loss in the 3-V region. *Journal of Power Sources*, **2001**, 94, 132-136	8.9	9
92	Preparation of Nano-Crystalline LiFe0.97Co0.03O1.95Cl0.05by Solid-State Method. *Chemistry Letters*, **2002**, 31, 642-643	1.7	9
91	High-Energy Cathodes via Precision Microstructure Tailoring for Next-Generation Electric Vehicles. *ACS Energy Letters*,4195-4202	20.1	9
90	Na2.3Cu1.1Mn2O7â□nanoflakes as enhanced cathode materials for high-energy sodium-ion batteries achieved by a rapid pyrosynthesis approach. *Journal of Materials Chemistry A*, **2020**, 8, 770-778	13	9
89	Multiscale Understanding of Covalently Fixed Sulfur-Polyacrylonitrile Composite as Advanced Cathode for Metal-Sulfur Batteries. *Advanced Science*, **2021**, 8, e2101123	13.6	9
88	State-of-the-art anodes of potassium-ion batteries: synthesis, chemistry, and applications. *Chemical Science*, **2021**, 12, 7623-7655	9.4	9
87	Hierarchical O3/P2 heterostructured cathode materials for advanced sodium-ion batteries. *Energy Storage Materials*, **2022**, 47, 515-525	19.4	9
86	Synthesis and electrochemical properties of nanorod-shaped LiMn1.5Ni0.5O4 cathode materials for lithium-ion batteries. *Materials Chemistry and Physics*, **2012**, 132, 223-227	4.4	8
85	Electrochemical Properties of Solâ□el Prepared Li2Zrx Ti1â□ (PO4)3 Electrodes for Lithium Secondary Batteries. *Journal of the Electrochemical Society*, **2011**, 158, A396	3.9	8
84	Spinel lithium manganese oxide synthesized under a pressurized oxygen atmosphere. *Electrochimica Acta*, **2010**, 55, 8397-8401	6.7	8
83	Effect of mixed solvent electrolytes on cycling performance of rechargeable Li/LiNi0.5Co0.5O2 cells with gel polymer electrolytes. *Solid State Ionics*, **1998**, 111, 243-252	3.3	8
82	Comparison of Structural Changes in Fully Delithiated Li[sub x][Ni[sub 1â□]Co[sub 1â□]Mn[sub 1â□]]O[sub 2] and Li[sub x][Ni[sub 0.33]Co[sub 0.33]Mn[sub 0.30]Mg[sub 0.04]]O[sub 1.96]F[sub 0.04] Cathodes (x=0) upon Thermal Annealing. *Journal of the Electrochemical Society*, **2007**, 154, A561	3.9	8
81	Closely Coupled Binary Metal Sulfide Nanosheets Shielded Molybdenum Sulfide Nanorod Hierarchical Structure via Eco-Benign Surface Exfoliation Strategy towards Efficient Lithium and Sodium-ion Batteries. *Energy Storage Materials*, **2021**, 38, 344-353	19.4	8

80	Gifts from Nature: Bio-Inspired Materials for Rechargeable Secondary Batteries. *Advanced Materials* , **2021**, 33, e2006019	24	8
79	A 4 V Li-Ion Battery using All-Spinel-Based Electrodes. *ChemSusChem*, **2018**, 11, 2165-2170	8.3	7
78	Fabrication of flower-like tin/carbon composite microspheres as long-lasting anode materials for lithium ion batteries. *Materials Chemistry and Physics*, **2017**, 185, 6-13	4.4	7
77	High-performance electrode materials for lithium-ion batteries for electric vehicles **2015**, 191-241		7
76	Preparation and Electrochemical Evaluation of La1-xSrxMnO3 Cathode Material for Zinc Air Secondary Batteries Application. *Solid State Phenomena*, **2007**, 124-126, 1055-1058	0.4	7
75	Effect of oxygen flow rate on the structural and electrochemical properties of lithium nickel oxides synthesized by the solâgel method. *Journal of Applied Electrochemistry*, **2002**, 32, 1229-1233	2.6	7
74	Structural and electrochemical characteristics of nano-structured Li0.53Na0.03MnO2 manganese oxide prepared by the solâgel method. *Journal of Materials Chemistry*, **2002**, 12, 3827-3831		7
73	Critical Role of Functional Groups Containing N, S, and O on Graphene Surface for Stable and Fast Charging Li-S Batteries. *Small*, **2021**, 17, e2007242	11	7
72	ICAC 2018: The First International Conference Focused on NCM & NCA Cathode Materials for Lithium Ion Batteries. *ACS Energy Letters*, **2018**, 3, 2757-2760	20.1	7
71	Highly monodisperse magnetite/carbon composite microspheres with a mesoporous structure as high-performance lithium-ion battery anodes. *RSC Advances*, **2015**, 5, 42990-42996	3.7	6
70	Electrochemical behaviour of Heusler alloy Co2MnSi for secondary lithium batteries. *Journal of Power Sources*, **2009**, 188, 281-285	8.9	6
69	Water activities of polymeric membrane/water systems in fuel cells. *Journal of Power Sources*, **2006**, 157, 733-738	8.9	6
68	Electrochemical properties of layered Li[Ni1/2Mn1/2]O2 cathode material synthesised by ultrasonic spray pyrolysis. *Journal of Applied Electrochemistry*, **2003**, 33, 1169-1173	2.6	6
67	Electrochemical Properties for Solid Polymer Electrolyte/Salt Systems in Lithium Secondary Batteries. *Journal of the Electrochemical Society*, **2005**, 152, A864	3.9	6
66	Catalytic behavior of YBa2Cu3O7-x in the partial oxidation of ethanol to acetaldehyde. *Catalysis Letters*, **1993**, 17, 263-272	2.8	6
65	High-Energy Ni-Rich Cathode Materials for Long-Range and Long-Life Electric Vehicles. *Advanced Energy Materials*,2200615	21.8	6
64	Triple Hierarchical Porous Carbon Spheres as Effective Cathodes for Liâ□2 Batteries. *Journal of the Electrochemical Society*, **2019**, 166, A455-A463	3.9	5
63	Recycling lithium batteries **2015**, 503-516		5

62	Shedding Light on the Oxygen Reduction Reaction Mechanism in Ether-Based Electrolyte Solutions: A Study Using Operando UV-Vis Spectroscopy. *ACS Applied Materials & Interfaces*, **2018**, 10, 10860-10869	9.5	5
61	Batteries: The Role of AlF3 Coatings in Improving Electrochemical Cycling of Li-Enriched Nickel-Manganese Oxide Electrodes for Li-Ion Batteries (Adv. Mater. 9/2012). *Advanced Materials*, **2012**, 24, 1276-1276	24	5
60	PVA assisted growth of hydrophobic honeycomb network of CdS thin films. *Journal of Alloys and Compounds*, **2010**, 503, 422-425	5.7	5
59	Pitch Carbon-coated Lithium Sulfide Electrode for Advanced, Lithium-metal Free-sulfur Batteries. *Green*, **2011**, 1,		5
58	Synthesis and electrochemical properties of Li[Ni0.4Co0.2Mn(0.4â)Mgx]O2âFy via a carbonate co-precipitation. *Current Applied Physics*, **2006**, 6, e12-e16	2.6	5
57	Effect of Li-Doping on Electrochemical Performance of Natural Graphite Anode for Lithium Secondary Batteries. *Journal of the Electrochemical Society*, **2004**, 151, A1728	3.9	5
56	Phase behaviors of polymer blend(PEOâPPO) electrolyte/LiCF3SO3 systems in lithium battery. *Journal of Applied Polymer Science*, **2005**, 98, 2314-2319	2.9	5
55	Novel Polymer Electrolytes for Rechargeable Lithium-Ion Polymer Batteries. *Electrochemical and Solid-State Letters*, **1999**, 2, 256		5
54	A single layer of Fe3O4@TiO2 submicron spheres as a high-performance electrode for lithium-ion microbatteries. *Sustainable Energy and Fuels*, **2019**, 3, 2675-2687	5.8	4
53	Highly conductive and transparent thin films fabricated with predominantly semiconducting single-walled carbon nanotubes. *Carbon*, **2010**, 48, 2646-2649	10.4	4
52	Polymerâpolymer miscibility: generalized double lattice model. *Polymer*, **2004**, 45, 8067-8074	3.9	4
51	Thermodynamic properties of direct methanol polymer electrolyte fuel cell. *Journal of Power Sources*, **2005**, 145, 598-603	8.9	4
50	Synthesis and electrochemical characterization of LiMn2O4 cathode materials for lithium polymer batteries. *Korean Journal of Chemical Engineering*, **1999**, 16, 449-455	2.8	4
49	Catalytic behavior of YBa2Cu3O7-x in the partial oxidation of methanol to formaldehyde. *Korean Journal of Chemical Engineering*, **1995**, 12, 36-38	2.8	4
48	Synthesis of Li2Mn3O7and Application to Hybrid Capacitor. *Journal of Electrochemical Science and Technology*, **2010**, 1, 97-101	3.2	4
47	Advances in Solid-State Batteries, a Virtual Issue. *ACS Energy Letters*, **2021**, 6, 2356-2358	20.1	4
46	WO Nanowire/Carbon Nanotube Interlayer as a Chemical Adsorption Mediator for High-Performance Lithium-Sulfur Batteries. *Molecules*, **2021**, 26,	4.8	4
45	Achieving High-Performance Li-S Batteries via Polysulfide Adjoining Interface Engineering. *ACS Applied Materials & Interfaces*, **2021**, 13, 39435-39445	9.5	4

44	Stable Solid Electrolyte Interphase for Long-Life Potassium Metal Batteries. *ACS Energy Letters*, **2022**, 7, 401-409	20.1	4
43	Investigation of K-ion storage performances in a bismuth sulfide-carbon nanotube composite anode.. *RSC Advances*, **2020**, 10, 6536-6539	3.7	3
42	Development of Novel Cathode with Large Lithium Storage Mechanism Based on Pyrophosphate-Based Conversion Reaction for Rechargeable Lithium Batteries. *Small Methods*, **2020**, 4, 1900847	12.8	3
41	Coreâ5hell Structure Cathode Materials for Rechargeable Lithium Batteries **2013**, 89-105		3
40	Simple fabrication and electrochemical performance of porous and double-shelled macroporous CuO nanomaterials with a thin carbon layer. *RSC Advances*, **2014**, 4, 60573-60580	3.7	3
39	Synthesis of Li4Mn5O12and its application to the non-aqueous hybrid capacitor. *Physica Scripta*, **2010**, T139, 014053	2.6	3
38	Electrochemical properties of the oxysulfide lial0.18mn1.82o3.97s0.03 cathode materials at elevated temperature. *Korean Journal of Chemical Engineering*, **2002**, 19, 718-721	2.8	3
37	Cycling behavior of the oxysulfide LiAl0.18Mn1.82O3.97S0.03 cathode materials at elevated temperature. *Materials Letters*, **2002**, 56, 418-423	3.3	3
36	Synthesis of Defective-Structure Li4Mn5O12by Combustion Method and Its Application to Hybrid Capacitor. *Journal of the Korean Electrochemical Society*, **2010**, 13, 103-109		3
35	Investigation of superior sodium storage and reversible Na2S conversion reactions in a porous NiS2@C composite using in operando X-ray diffraction. *Journal of Materials Chemistry A*, **2020**, 8, 24401-24407	12	3
34	Lithium-Substituted Tunnel/Spinel Heterostructured Cathode Material for High-Performance Sodium-Ion Batteries. *Advanced Functional Materials*, **2021**, 31, 2008569	15.6	3
33	Lithium-oxygen batteries: The reaction mechanism revealed. *Nature Nanotechnology*, **2017**, 12, 503-504	28.7	2
32	Lithium-Sulfur Batteries: An Advanced Lithium-Sulfur Battery (Adv. Funct. Mater. 8/2013). *Advanced Functional Materials*, **2013**, 23, 1092-1092	15.6	2
31	Thermally Annealed Co[sub 2]MnAl Thin-Film Electrode for Lithium Secondary Batteries. *Journal of the Electrochemical Society*, **2010**, 157, A636	3.9	2
30	Synthesis of high purity 110 K phase in the Bi(Pb)-Sr-Ca-Cu-O superconductor by the sol-gel method. *Korean Journal of Chemical Engineering*, **1997**, 14, 59-63	2.8	2
29	Phase behaviors of solid polymer electrolytes/salt system in lithium secondary battery by group-contribution method: The pressure effect. *Polymer*, **2006**, 47, 211-217	3.9	2
28	Synthesis of Orthorhombic LiMnO2Material and Its Optimization. *Chemistry Letters*, **2001**, 30, 882-883	1.7	2
27	Synthesis and Electrochemical Properties of ZnO-Coated LiNi[sub 0.5]Mn[sub 1.5]O[sub 4] Spinel as 5 V Cathode Material for Lithium Secondary Batteries [Electrochemical and Solid-State Letters, 5, A99 (2002)]. *Electrochemical and Solid-State Letters*, **2002**, 5, L1		2

26	Enhanced Cycling Stability of O3-Type Na[Ni0.5Mn0.5]O2 Cathode through Sn Addition for Sodium-Ion Batteries. *Journal of Physical Chemistry C*, **2021**, 125, 6593-6600	3.8	2
25	Microstructural Degradation: Microstructural Degradation of Ni-Rich Li[NixCoyMn1âxây]O2 Cathodes During Accelerated Calendar Aging (Small 45/2018). *Small*, **2018**, 14, 1870207	11	2
24	Ambilaterality of Redox Mediators towards 1O2 in Li-O2 Batteries: Trap and Quencher. *Advanced Functional Materials*, **2021**, 31, 2102442	15.6	2
23	Uniformly distributed reaction by 3D host-lithium composite anode for high rate capability and reversibility of Li-O2 batteries. *Chemical Engineering Journal*, **2022**, 427, 130914	14.7	2
22	Lithium-Ion Batteries: Compositionally Graded Cathode Material with Long-Term Cycling Stability for Electric Vehicles Application (Adv. Energy Mater. 22/2016). *Advanced Energy Materials*, **2016**, 6,	21.8	1
21	Lithium-Oxygen Batteries: Optimized Bicompartment Two Solution Cells for Effective and Stable Operation of Liâ□2 Batteries (Adv. Energy Mater. 21/2017). *Advanced Energy Materials*, **2017**, 7,	21.8	1
20	Vaporâ□quid equilibria for polymer solutions through a group-contribution method: Chain-length dependence. *Journal of Applied Polymer Science*, **2008**, 110, 2634-2640	2.9	1
19	Peculiar Cycle Behavior of LiAl0.1Mn1.9O4Material in the 3 V Region. *Chemistry Letters*, **2001**, 30, 498-499	1.7	1
18	Synthesis and Electrochemical Characteristics of Li[sub 0.7][Ni[sub 1/6]Mn[sub 5/6]]O[sub 2] Cathode Materials. *Journal of the Electrochemical Society*, **2002**, 149, A1250	3.9	1
17	Effect of Mo-doped LiFePO4Positive Electrode Material for Lithium Batteries. *Journal of Electrochemical Science and Technology*, **2012**, 3, 172-177	3.2	1
16	One-Pot Synthesis of Alkyl-Terminated Silicon Nanoparticles by Solution Reduction. *Korean Chemical Engineering Research*, **2011**, 49, 577-581		1
15	Ultra-stable cycling of multi-doped (Zr,B) Li[Ni0.885Co0.100Al0.015]O2 cathode. *Journal of Power Sources*, **2021**, 513, 230548	8.9	1
14	Energy Spotlight. *ACS Energy Letters*, **2019**, 4, 2763-2769	20.1	0
13	Anticipated Progress in the Near- to Mid-Term Future of LIBs **2020**, 1-32		
12	Li4Ti5O12 for High-Power, Long-Life, and Safe Lithium-Ion Batteries **2013**, 277-290		
11	3 Dimensional Carbon Nanostructures for Li-ion Battery Anode. *Materials Research Society Symposia Proceedings*, **2013**, 1505, 1		
10	Overcharge Behavior of Metal Oxide-Coated Cathode Materials **2009**, 1-33		
9	High specific capacity and excellent stability of interface-controlled MWCNT based anodes in lithium ion battery. *Materials Research Society Symposia Proceedings*, **2011**, 1313, 139201		

8	Structural characterization of titanate nanotubes for lithium storage. *Journal of Nanoscience and Nanotechnology*, **2008**, 8, 5022-5	1.3
7	Consideration of long and middle range interaction on the calculation of activities for binary polymer solutions. *Macromolecular Research*, **2008**, 16, 320-328	1.9
6	Ag Deposition on Si-C Composite Anodes for Lithium Ion Batteries. *Solid State Phenomena*, **2007**, 124-126, 1035-1038	0.4
5	Synthesis and electrochemical performance of layered Li[Li(1â2x)/3Ni x Mn(2â)/3]O2 cathode materials for lithium secondary batteries. *Journal of Applied Electrochemistry*, **2002**, 32, 1053-1056	2.6
4	A New Type of Ni-Rich Cathode for High-Energy Lithium-Ion Batteries. *ECS Meeting Abstracts*, **2020**, MA2020-02, 72-72	0
3	Microstructure-Tailored Ni-Rich NCA Cathode for Next Electric Vehicles. *ECS Meeting Abstracts*, **2020**, MA2020-02, 70-70	0
2	3D Multiwall Carbon Nanotubes (MWCNTs) for Li-Ion Battery Anode35-41	
1	Sodium-Ion Batteries: Understanding the Capacity Fading Mechanisms of O3-Type Na[Ni0.5Mn0.5]O2 Cathode for Sodium-Ion Batteries (Adv. Energy Mater. 37/2020). *Advanced Energy Materials*, **2020**, 10, 2070156	21.8