# Yang-Kook Sun

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 693 papers | 78,537 citations | 279 140 h-index | 779 248 g-index |
| 724 all docs | 724 docs citations | 724 times ranked | 30099 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Sodium-ion batteries: present and future. Chemical Society Reviews, 2017, 46, 3529-3614. | 18.7 | 3,436 |
| 2 | Challenges Facing Lithium Batteries and Electrical Doubleâ€Layer Capacitors. Angewandte Chemie - International Edition, 2012, 51, 9994-10024. | 7.2 | 2,407 |
| 3 | Lithium-ion batteries. A look into the future. Energy and Environmental Science, 2011, 4, 3287. | 15.6 | 2,246 |
| 4 | Comparison of the structural and electrochemical properties of layered Li[NixCoyMnz]O2 (xÂ=Â1/3, 0.5,) Tj ETQq0 0 0 rgBT /Overlock 1 121-130. | 4.0 | 1,694 |
| 5 | High-energy cathode material for long-life and safe lithium batteries. Nature Materials, 2009, 8, 320-324. | 13.3 | 1,323 |
| 6 | Capacity Fading of Ni-Rich Li[Ni<sub><i>x</i></sub>Co<sub><i>y</i></sub>Mn<sub>1â€“<i>x</i>â€“<i>y</i></sub>]O<sub>2</sub> (0.6) Tj ETQq0 0 0 rgBT /Ov Degradation?. Chemistry of Materials, 2018, 30, 1155-1163. | 3.2 | 1,060 |
| 7 | Nickel-Rich Layered Cathode Materials for Automotive Lithium-Ion Batteries: Achievements and Perspectives. ACS Energy Letters, 2017, 2, 196-223. | 8.8 | 1,033 |
| 8 | An improved high-performance lithiumâ€“air battery. Nature Chemistry, 2012, 4, 579-585. | 6.6 | 996 |
| 9 | Aprotic and Aqueous Liâ€“O<sub>2</sub> Batteries. Chemical Reviews, 2014, 114, 5611-5640. | 23.0 | 975 |
| 10 | Nickelâ€Rich and Lithiumâ€Rich Layered Oxide Cathodes: Progress and Perspectives. Advanced Energy Materials, 2016, 6, 1501010. | 10.2 | 946 |
| 11 | Nanostructured high-energy cathode materials for advanced lithium batteries. Nature Materials, 2012, 11, 942-947. | 13.3 | 921 |
| 12 | Comparative Study of LiNi0.5Mn1.5O4-Î´ and LiNi0.5Mn1.5O4 Cathodes Having Two Crystallographic Structures:â€‰ Fd3Ì„m and P4332. Chemistry of Materials, 2004, 16, 906-914. | 3.2 | 687 |
| 13 | Present and Future Perspective on Electrode Materials for Rechargeable Zinc-Ion Batteries. ACS Energy Letters, 2018, 3, 2620-2640. | 8.8 | 676 |
| 14 | A lithiumâ€“oxygen battery based on lithium superoxide. Nature, 2016, 529, 377-382. | 13.7 | 633 |
| 15 | The Role of AlF<sub>3</sub> Coatings in Improving Electrochemical Cycling of Liâ€Enriched Nickelâ€Manganese Oxide Electrodes for Liâ€Ion Batteries. Advanced Materials, 2012, 24, 1192-1196. | 11.1 | 629 |
| 16 | Lithiumâ€“Oxygen Batteries and Related Systems: Potential, Status, and Future. Chemical Reviews, 2020, 120, 6626-6683. | 23.0 | 593 |
| 17 | Role of surface coating on cathode materials for lithium-ion batteries. Journal of Materials Chemistry, 2010, 20, 7606. | 6.7 | 569 |
| 18 | The Lithium/Air Battery: Still an Emerging System or a Practical Reality?. Advanced Materials, 2015, 27, 784-800. | 11.1 | 543 |

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|---|---|---|---|
| 19 | Synthetic optimization of Li[Ni1/3Co1/3Mn1/3]O2 via co-precipitation. Electrochimica Acta, 2004, 50, 939-948. | 2.6 | 535 |
| 20 | Recent Progress in Rechargeable Potassium Batteries. Advanced Functional Materials, 2018, 28, 1802938. | 7.8 | 518 |
| 21 | The Application of Metal Sulfides in Sodium Ion Batteries. Advanced Energy Materials, 2017, 7, 1601329. | 10.2 | 496 |
| 22 | Role of Alumina Coating on Liâ^'Niâ^'Coâ^'Mnâ^'O Particles as Positive Electrode Material for Lithium-Ion Batteries. Chemistry of Materials, 2005, 17, 3695-3704. | 3.2 | 493 |
| 23 | Electrochemical Zinc Intercalation in Lithium Vanadium Oxide: A High-Capacity Zinc-Ion Battery Cathode. Chemistry of Materials, 2017, 29, 1684-1694. | 3.2 | 479 |
| 24 | Na<sub>2</sub>V<sub>6</sub>O<sub>16</sub>Â·3H<sub>2</sub>O 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. | 4.5 | 461 |
| 25 | Titaniumâ€Based Anode Materials for Safe Lithiumâ€Ion Batteries. Advanced Functional Materials, 2013, 23, 959-969. | 7.8 | 456 |
| 26 | Microscale spherical carbon-coated Li4Ti5O12 as ultra high power anode material for lithium batteries. Energy and Environmental Science, 2011, 4, 1345. | 15.6 | 433 |
| 27 | Anatase Titania Nanorods as an Intercalation Anode Material for Rechargeable Sodium Batteries. Nano Letters, 2014, 14, 416-422. | 4.5 | 422 |
| 28 | Synthesis and Characterization of Li[(Ni0.8Co0.1Mn0.1)0.8(Ni0.5Mn0.5)0.2]O2with the Microscale Coreâ^'Shell Structure as the Positive Electrode Material for Lithium Batteries. Journal of the American Chemical Society, 2005, 127, 13411-13418. | 6.6 | 417 |
| 29 | Mn(II) deposition on anodes and its effects on capacity fade in spinel lithium manganateâ€"carbon systems. Nature Communications, 2013, 4, 2437. | 5.8 | 409 |
| 30 | An Advanced Lithium Ion Battery Based on High Performance Electrode Materials. Journal of the American Chemical Society, 2011, 133, 3139-3143. | 6.6 | 382 |
| 31 | A nanostructured cathode architecture for low charge overpotential in lithium-oxygen batteries. Nature Communications, 2013, 4, 2383. | 5.8 | 379 |
| 32 | Ruthenium-Based Electrocatalysts Supported on Reduced Graphene Oxide for Lithium-Air Batteries. ACS Nano, 2013, 7, 3532-3539. | 7.3 | 369 |
| 33 | Double Carbon Coating of LiFePO<sub>4</sub> as High Rate Electrode for Rechargeable Lithium Batteries. Advanced Materials, 2010, 22, 4842-4845. | 11.1 | 361 |
| 34 | Nanostructured Anode Material for Highâ€Power Battery System in Electric Vehicles. Advanced Materials, 2010, 22, 3052-3057. | 11.1 | 359 |
| 35 | Reversible NaFePO4 electrode for sodium secondary batteries. Electrochemistry Communications, 2012, 22, 149-152. | 2.3 | 350 |
| 36 | Improved Cycling Stability of Li[Ni<sub>0.90</sub>Co<sub>0.05</sub>Mn<sub>0.05</sub>]O<sub>2</sub> Through Microstructure Modification by Boron Doping for Liâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1801202. | 10.2 | 336 |

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|---|---|---|---|
| 37 | A high-rate long-life Li4Ti5O12/Li[Ni0.45Co0.1Mn1.45]O4 lithium-ion battery. Nature Communications, 2011, 2, 516. | 5.8 | 327 |
| 38 | 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. | 15.6 | 322 |
| 39 | Electrochemical behavior and passivation of current collectors in lithium-ion batteries. Journal of Materials Chemistry, 2011, 21, 9891. | 6.7 | 320 |
| 40 | Li(Ni1/3Co1/3Mn1/3)O2 as a suitable cathode for high power applications. Journal of Power Sources, 2003, 123, 247-252. | 4.0 | 314 |
| 41 | Beyond Doping and Coating: Prospective Strategies for Stable High-Capacity Layered Ni-Rich Cathodes. ACS Energy Letters, 2020, 5, 1136-1146. | 8.8 | 313 |
| 42 | An Advanced Lithiumâ€Sulfur Battery. Advanced Functional Materials, 2013, 23, 1076-1080. | 7.8 | 310 |
| 43 | Highâ€Energy, Highâ€Rate, Lithiumâ€“Sulfur Batteries: Synergetic Effect of Hollow TiO<sub>2</sub>â€Webbed Carbon Nanotubes and a Dual Functional Carbonâ€Paper Interlayer. Advanced Energy Materials, 2016, 6, 1501480. | 10.2 | 308 |
| 44 | NaCrO<sub>2</sub> cathode for high-rate sodium-ion batteries. Energy and Environmental Science, 2015, 8, 2019-2026. | 15.6 | 307 |
| 45 | 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. | 5.8 | 304 |
| 46 | 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. | 8.8 | 303 |
| 47 | Evaluation of (CF<sub>3</sub>SO<sub>2</sub>)<sub>2</sub>N<sup>âˆ’</sup>(TFSI) Based Electrolyte Solutions for Mg Batteries. Journal of the Electrochemical Society, 2015, 162, A7118-A7128. | 1.3 | 301 |
| 48 | Highâ€Performance Carbonâ€LiMnPO<sub>4</sub> Nanocomposite Cathode for Lithium Batteries. Advanced Functional Materials, 2010, 20, 3260-3265. | 7.8 | 298 |
| 49 | Facile synthesis and the exploration of the zinc storage mechanism of Î²-MnO<sub>2</sub> 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. | 5.2 | 297 |
| 50 | Capacity Fading of Ni-Rich NCA Cathodes: Effect of Microcracking Extent. ACS Energy Letters, 2019, 4, 2995-3001. | 8.8 | 297 |
| 51 | Aqueous rechargeable Zn-ion batteries: an imperishable and high-energy Zn<sub>2</sub>V<sub>2</sub>O<sub>7</sub> nanowire cathode through intercalation regulation. Journal of Materials Chemistry A, 2018, 6, 3850-3856. | 5.2 | 293 |
| 52 | Structural Stability of LiNiO<sub>2</sub> Cycled above 4.2 V. ACS Energy Letters, 2017, 2, 1150-1155. | 8.8 | 292 |
| 53 | Degradation Mechanism of Ni-Enriched NCA Cathode for Lithium Batteries: Are Microcracks Really Critical?. ACS Energy Letters, 2019, 4, 1394-1400. | 8.8 | 290 |
| 54 | Advanced Na[Ni<sub>0.25</sub>Fe<sub>0.5</sub>Mn<sub>0.25</sub>]O<sub>2</sub>/Câ€“Fe<sub>3</sub>O<sub>4</sub> Sodium-Ion Batteries Using EMS Electrolyte for Energy Storage. Nano Letters, 2014, 14, 1620-1626. | 4.5 | 283 |

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|---|---|---|---|
| 55 | Heuristic solution for achieving long-term cycle stability for Ni-rich layered cathodes at full depth of discharge. Nature Energy, 2020, 5, 860-869. | 19.8 | 278 |
| 56 | High-energy-density lithium-ion battery using a carbon-nanotubeâ€“Si composite anode and a compositionally graded Li[Ni<sub>0.85</sub>Co<sub>0.05</sub>Mn<sub>0.10</sub>]O<sub>2</sub> cathode. Energy and Environmental Science, 2016, 9, 2152-2158. | 15.6 | 269 |
| 57 | Effect of Residual Lithium Compounds on Layer Ni-Rich Li[Ni<sub>0.7</sub>Mn<sub>0.3</sub>]O<sub>2</sub>. Journal of the Electrochemical Society, 2014, 161, A920-A926. | 1.3 | 267 |
| 58 | Capacity Fading Mechanisms in Ni-Rich Single-Crystal NCM Cathodes. ACS Energy Letters, 2021, 6, 2726-2734. | 8.8 | 258 |
| 59 | Redox Mediators for Liâ€“O<sub>2</sub> Batteries: Status and Perspectives. Advanced Materials, 2018, 30, 1704162. | 11.1 | 258 |
| 60 | Electrochemical performance of nano-sized ZnO-coated LiNi0.5Mn1.5O4 spinel as 5 V materials at elevated temperatures. Electrochemistry Communications, 2002, 4, 344-348. | 2.3 | 257 |
| 61 | Effectively suppressing dissolution of manganese from spinel lithium manganate via a nanoscale surface-doping approach. Nature Communications, 2014, 5, 5693. | 5.8 | 255 |
| 62 | A Novel Cathode Material with a Concentrationâ€Gradient for Highâ€Energy and Safe Lithiumâ€Ion Batteries. Advanced Functional Materials, 2010, 20, 485-491. | 7.8 | 252 |
| 63 | 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. | 9.5 | 248 |
| 64 | Significant improvement of high voltage cycling behavior AlF3-coated LiCoO2 cathode. Electrochemistry Communications, 2006, 8, 821-826. | 2.3 | 245 |
| 65 | Nanostructured metal phosphide-based materials for electrochemical energy storage. Journal of Materials Chemistry A, 2016, 4, 14915-14931. | 5.2 | 240 |
| 66 | 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. | 2.2 | 237 |
| 67 | Improvement of long-term cycling performance of Li[Ni0.8Co0.15Al0.05]O2 by AlF3 coating. Journal of Power Sources, 2013, 234, 201-207. | 4.0 | 237 |
| 68 | Cobalt-Free Nickel Rich Layered Oxide Cathodes for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2013, 5, 11434-11440. | 4.0 | 236 |
| 69 | Surface modification of LiNi0.5Mn1.5O4 by ZrP2O7 and ZrO2 for lithium-ion batteries. Journal of Power Sources, 2010, 195, 2909-2913. | 4.0 | 235 |
| 70 | 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. | 2.6 | 231 |
| 71 | Liâ€“O<sub>2</sub> cells with LiBr as an electrolyte and a redox mediator. Energy and Environmental Science, 2016, 9, 2334-2345. | 15.6 | 229 |
| 72 | 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. | 4.0 | 228 |

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|---|---|---|---|
| 73 | Black anatase titania enabling ultra high cycling rates for rechargeable lithium batteries. Energy and Environmental Science, 2013, 6, 2609. | 15.6 | 221 |
| 74 | Recent Progress and Perspective of Advanced Highâ€Energy Coâ€Less Niâ€Rich Cathodes for Liâ€Ion Batteries: Yesterday, Today, and Tomorrow. Advanced Energy Materials, 2020, 10, 2002027. | 10.2 | 221 |
| 75 | Structural transformation and electrochemical study of layered MnO2 in rechargeable aqueous zinc-ion battery. Electrochimica Acta, 2018, 276, 1-11. | 2.6 | 220 |
| 76 | Nano/Microstructured Siliconâ€“Graphite Composite Anode for High-Energy-Density Li-Ion Battery. ACS Nano, 2019, 13, 2624-2633. | 7.3 | 219 |
| 77 | 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. | 8.8 | 217 |
| 78 | Quaternary Layered Ni-Rich NCMA Cathode for Lithium-Ion Batteries. ACS Energy Letters, 2019, 4, 576-582. | 8.8 | 217 |
| 79 | Surface modification of cathode materials from nano- to microscale for rechargeable lithium-ion batteries. Journal of Materials Chemistry, 2010, 20, 7074. | 6.7 | 214 |
| 80 | Layered Li(Ni0.5â^'xMn0.5â^'xM2xâ€²)O2 (Mâ€²=Co, Al, Ti; x=0, 0.025) cathode materials for Li-ion rechargeable batteries. Journal of Power Sources, 2002, 112, 41-48. | 4.0 | 213 |
| 81 | Amorphous iron phosphate: potential host for various charge carrier ions. NPG Asia Materials, 2014, 6, e138-e138. | 3.8 | 213 |
| 82 | High Electrochemical Performances of Microsphere C-TiO<sub>2</sub> Anode for Sodium-Ion Battery. ACS Applied Materials & Interfaces, 2014, 6, 11295-11301. | 4.0 | 213 |
| 83 | 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. | 2.6 | 210 |
| 84 | Radially aligned hierarchical columnar structure as a cathode material for high energy density sodium-ion batteries. Nature Communications, 2015, 6, 6865. | 5.8 | 210 |
| 85 | A Mo<sub>2</sub>C/Carbon Nanotube Composite Cathode for Lithiumâ€“Oxygen Batteries with High Energy Efficiency and Long Cycle Life. ACS Nano, 2015, 9, 4129-4137. | 7.3 | 207 |
| 86 | 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. | 6.7 | 205 |
| 87 | Ni3(PO4)2-coated Li[Ni0.8Co0.15Al0.05]O2 lithium battery electrode with improved cycling performance at 55 Â°C. Journal of Power Sources, 2011, 196, 7742-7746. | 4.0 | 204 |
| 88 | K<sub>2</sub>V<sub>6</sub>O<sub>16</sub>Â·2.7H<sub>2</sub>O nanorod cathode: an advanced intercalation system for high energy aqueous rechargeable Zn-ion batteries. Journal of Materials Chemistry A, 2018, 6, 15530-15539. | 5.2 | 201 |
| 89 | An Advanced Lithiumâ€“Air Battery Exploiting an Ionic Liquid-Based Electrolyte. Nano Letters, 2014, 14, 6572-6577. | 4.5 | 200 |
| 90 | 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. | 1.3 | 199 |

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|---|---|---|---|
| 91 | Extracting maximum capacity from Ni-rich Li[Ni<sub>0.95</sub>Co<sub>0.025</sub>Mn<sub>0.025</sub>]O<sub>2</sub>cathodes for high-energy-density lithium-ion batteries. Journal of Materials Chemistry A, 2018, 6, 4126-4132. | 5.2 | 199 |
| 92 | Recent research trends in Liâ€“S batteries. Journal of Materials Chemistry A, 2018, 6, 11582-11605. | 5.2 | 199 |
| 93 | 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. | 4.0 | 189 |
| 94 | High-Energy Ni-Rich Li[Ni<sub><i>x</i></sub>Co<sub><i>y</i></sub>Mn<sub>1<i>â€“xâ€“y</i></sub>]O<sub>2</sub> Cathodes via Compositional Partitioning for Next-Generation Electric Vehicles. Chemistry of Materials, 2017, 29, 10436-10445. | 3.2 | 189 |
| 95 | Evidence for lithium superoxide-like species in the discharge product of a Liâ€“O2 battery. Physical Chemistry Chemical Physics, 2013, 15, 3764. | 1.3 | 188 |
| 96 | Understanding the behavior of Liâ€“oxygen cells containing LiI. Journal of Materials Chemistry A, 2015, 3, 8855-8864. | 5.2 | 187 |
| 97 | Effect of the size-selective silver clusters on lithium peroxide morphology in lithiumâ€“oxygen batteries. Nature Communications, 2014, 5, 4895. | 5.8 | 186 |
| 98 | 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, 3440-3446. | 7.3 | 184 |
| 99 | Synthesis of Porous Carbon Supported Palladium Nanoparticle Catalysts by Atomic Layer Deposition: Application for Rechargeable Lithiumâ€“O<sub>2</sub> Battery. Nano Letters, 2013, 13, 4182-4189. | 4.5 | 184 |
| 100 | Transition metal carbide-based materials: synthesis and applications in electrochemical energy storage. Journal of Materials Chemistry A, 2016, 4, 10379-10393. | 5.2 | 184 |
| 101 | A high energy and power density hybrid supercapacitor based on an advanced carbon-coated Li4Ti5O12 electrode. Journal of Power Sources, 2013, 221, 266-271. | 4.0 | 183 |
| 102 | Micrometerâ€Sized, Nanoporous, Highâ€Volumetricâ€Capacity LiMn<sub>0.85</sub>Fe<sub>0.15</sub>PO<sub>4</sub> Cathode Material for Rechargeable Lithiumâ€Ion Batteries. Advanced Materials, 2011, 23, 5050-5054. | 11.1 | 180 |
| 103 | Electrochemical characterization of Li2MnO3â€“Li[Ni1/3Co1/3Mn1/3]O2â€“LiNiO2 cathode synthesized via co-precipitation for lithium secondary batteries. Journal of Power Sources, 2009, 189, 571-575. | 4.0 | 178 |
| 104 | On the Safety of the Li[sub 4]Ti[sub 5]O[sub 12]âˆ•LiMn[sub 2]O[sub 4] Lithium-Ion Battery System. Journal of the Electrochemical Society, 2007, 154, A1083. | 1.3 | 177 |
| 105 | Structural and Electrochemical Properties of Layered Li[Ni[sub 1âˆ’2x]Co[sub x]Mn[sub x]]O[sub 2] (x=0.1â€“0.3) Positive Electrode Materials for Li-Ion Batteries. Journal of the Electrochemical Society, 2007, 154, A971. | 1.3 | 177 |
| 106 | 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. | 2.6 | 177 |
| 107 | Na Storage Capability Investigation of a Carbon Nanotube-Encapsulated Fe<sub>1â€“<i>x</i></sub>S Composite. ACS Energy Letters, 2017, 2, 364-372. | 8.8 | 176 |
| 108 | High Capacity O3-Type Na[Li<sub>0.05</sub>(Ni<sub>0.25</sub>Fe<sub>0.25</sub>Mn<sub>0.5</sub>)<sub>0.95</sub>]O<sub>2</sub> Cathode for Sodium Ion Batteries. Chemistry of Materials, 2014, 26, 6165-6171. | 3.2 | 175 |

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|---|---|---|---|
| 109 | Suppressing detrimental phase transitions <i>via</i> tungsten doping of LiNiO<sub>2</sub> cathode for next-generation lithium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 18580-18588. | 5.2 | 175 |
| 110 | Microstructureâ€Controlled Niâ€Rich Cathode Material by Microscale Compositional Partition for Nextâ€Generation Electric Vehicles. Advanced Energy Materials, 2019, 9, 1803902. | 10.2 | 175 |
| 111 | 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. | 9.5 | 175 |
| 112 | Reducing cobalt from lithium-ion batteries for the electric vehicle era. Energy and Environmental Science, 2021, 14, 844-852. | 15.6 | 174 |
| 113 | Development of Microstrain in Aged Lithium Transition Metal Oxides. Nano Letters, 2014, 14, 4873-4880. | 4.5 | 171 |
| 114 | Transition metal-doped Ni-rich layered cathode materials for durable Li-ion batteries. Nature Communications, 2021, 12, 6552. | 5.8 | 167 |
| 115 | Increased Stability Toward Oxygen Reduction Products for Lithium-Air Batteries with Oligoether-Functionalized Silane Electrolytes. Journal of Physical Chemistry C, 2011, 115, 25535-25542. | 1.5 | 166 |
| 116 | Nano/Microstructured Siliconâ€"Carbon Hybrid Composite Particles Fabricated with Corn Starch Biowaste as Anode Materials for Li-Ion Batteries. Nano Letters, 2020, 20, 625-635. | 4.5 | 164 |
| 117 | Electrochemical stability and conductivity enhancement of composite polymer electrolytes. Solid State Ionics, 2003, 159, 111-119. | 1.3 | 163 |
| 118 | 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. | 1.5 | 163 |
| 119 | A highly stabilized Ni-rich NCA cathode for high-energy lithium-ion batteries. Materials Today, 2020, 36, 73-82. | 8.3 | 163 |
| 120 | Extending the Battery Life Using an Al-Doped Li[Ni<sub>0.76</sub>Co<sub>0.09</sub>Mn<sub>0.15</sub>]O<sub>2</sub> Cathode with Concentration Gradients for Lithium Ion Batteries. ACS Energy Letters, 2017, 2, 1848-1854. | 8.8 | 162 |
| 121 | Self-Passivation of a LiNiO<sub>2</sub> Cathode for a Lithium-Ion Battery through Zr Doping. ACS Energy Letters, 2018, 3, 1634-1639. | 8.8 | 161 |
| 122 | Cation Ordering of Zr-Doped LiNiO<sub>2</sub> Cathode for Lithium-Ion Batteries. Chemistry of Materials, 2018, 30, 1808-1814. | 3.2 | 160 |
| 123 | New Insight on the Role of Electrolyte Additives in Rechargeable Lithium Ion Batteries. ACS Energy Letters, 2019, 4, 2613-2622. | 8.8 | 160 |
| 124 | Aqueous Magnesium Zinc Hybrid Battery: An Advanced High-Voltage and High-Energy MgMn<sub>2</sub>O<sub>4</sub> Cathode. ACS Energy Letters, 2018, 3, 1998-2004. | 8.8 | 159 |
| 125 | AlF[sub 3]-Coating to Improve High Voltage Cycling Performance of Li[Ni[sub 1â^•3]Co[sub 1â^•3]Mn[sub 1â^•3]]O[sub 2] Cathode Materials for Lithium Secondary Batteries. Journal of the Electrochemical Society, 2007, 154, A168. | 1.3 | 158 |
| 126 | Development of P3-K<sub>0.69</sub>CrO<sub>2</sub> as an ultra-high-performance cathode material for K-ion batteries. Energy and Environmental Science, 2018, 11, 2821-2827. | 15.6 | 157 |

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|---|---|---|---|
| 127 | 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. | 4.0 | 155 |
| 128 | A contribution to the progress of high energy batteries: A metal-free, lithium-ion, siliconâ€“sulfur battery. Journal of Power Sources, 2012, 202, 308-313. | 4.0 | 155 |
| 129 | Formation and Inhibition of Metallic Lithium Microstructures in Lithium Batteries Driven by Chemical Crossover. ACS Nano, 2017, 11, 5853-5863. | 7.3 | 155 |
| 130 | Nanostructured TiO<sub>2</sub> and Its Application in Lithiumâ€Ion Storage. Advanced Functional Materials, 2011, 21, 3231-3241. | 7.8 | 154 |
| 131 | Rational design of silicon-based composites for high-energy storage devices. Journal of Materials Chemistry A, 2016, 4, 5366-5384. | 5.2 | 154 |
| 132 | Highâ€Capacity Concentration Gradient Li[Ni<sub>0.865</sub>Co<sub>0.120</sub>Al<sub>0.015</sub>]O<sub>2</sub> Cathode for Lithiumâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1703612. | 10.2 | 154 |
| 133 | Superior Li/Na-storage capability of a carbon-free hierarchical CoSx hollow nanostructure. Nano Energy, 2017, 32, 320-328. | 8.2 | 152 |
| 134 | Degradation Mechanism of Highly Ni-Rich Li[Ni<sub><i>x</i></sub>Co<sub><i>y</i></sub>Mn<sub>1â€“<i>x</i>â€“<i>y</i></sub>]O<sub>2</sub> Cathodes with <i>x</i> > 0.9. ACS Applied Materials & Interfaces, 2019, 11, 30936-30942. | 4.0 | 152 |
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