Curated Research Articles

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- *[ASAP] Fe-Doped MnO2 Catalysts for Li–O2 Batteries: Mechanistic Insights into Durability Enhancement via Operando XAFS* — score: 1.000
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c03033
- *[ASAP] Revealing the Hidden Electrochemical Pathway for Cathode Electrolyte Interface Formation in Lithium–Sulfur Batteries with Carbonate-Based Electrolytes* — score: 1.000
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c02970
- *[ASAP] Redox Chemistry and Degradation Pathways in Near-Neutral Zn–Air Batteries: Insights and Open Questions* — score: 0.800
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c02788
- *[ASAP] Composite Internal Reflection Element Design for Advanced Electrochemical Attenuated Total Reflection Surface-Enhanced Infrared Absorption Spectroscopy Investigations* — score: 0.800
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c03235
- *[ASAP] Structural Rearrangements of a Cobalt-Free Lithium-Rich Layered Oxide Cathode during Formation* — score: 0.700
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c03511
- *[ASAP] Machine-Learning-Guided Insights into Solid-Electrolyte Interphase Conductivity: Are Amorphous Lithium Fluorophosphates the Key?* — score: 0.600
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c03526
- *[ASAP] Fluorinated Halide Solid Electrolytes for High-Voltage All-Solid-State Sodium-Ion Batteries Enabling Reversible Oxygen Redox* — score: 0.600
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c03248
- *[ASAP] Organic–Inorganic Nanoarchitectonics of Binder-Free Hybrid Protective Layer for Suppression of Dendrite Formation and Side Reactions with Stabilizing Zn Anodes* — score: 0.400
  Energy & Fuels
  DOI: 10.1021/acs.energyfuels.5c05783
- *[ASAP] Sodium Storage Mechanism and Performance Optimization of Hard Carbon Anodes for Sodium-Ion Batteries: A Review and Perspectives* — score: 0.400
  Energy & Fuels
  DOI: 10.1021/acs.energyfuels.5c04212
- *[ASAP] The Halogen Bond Chemistry in Zn–I Redox Flow Batteries* — score: 0.400
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c03547
- *[ASAP] Molecular Electrocatalyst with Local Dipole Enhances Iodine Redox Kinetics for High-Areal-Capacity Zn–I2 Batteries* — score: 0.400
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c03344
- *[ASAP] In-Situ Construction of a NaF/NaxPOy Heterostructured Interface to Suppress NaF Dissolution in Layered Sodium Cathodes* — score: 0.400
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c03395
- *[ASAP] Ion-Distribution Modulated Solvent-Cage Electrolyte with Gradient SEI for High-Performance Li-Metal Batteries* — score: 0.400
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c03741

- *[ASAP] A Comparative Study of Prussian Blue Analogues as Cathode Materials for Monovalent Lithium/Sodium/Potassium Ion Batteries by First-Principles Calculations* — score: 0.400
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c03241
- *Phase boundary engineering in micro-sized Sn/SnSb anode enabling superior sodium storage: Synergistic stress relief and fast ion transport* — score: 0.400
  Publication date: February 2026
  Source: Nano Energy, Volume 148
  Author(s): Yuhong Liang, Chengcheng He, Zhengyang Zhao, Longqing Zhang, Rui Sun, Qian Ning, Huibing He, Yang Ren, Jing Xu, Qiang Zhang, Yajie Song, Xucai Yin
- *Regulating interfacial transport regime from diffusion-limited to migration enhanced for stable zinc anodes* — score: 0.400
  Publication date: February 2026
  Source: Nano Energy, Volume 148
  Author(s): Xuemei He, Chao Li, Lei Jiang, Heng Zhang, Youcun Bai, Xin Tan, Qiaoji Zheng, Yu Huo, Sean C. Smith, Dunmin Lin, Hui Ying Yang
- *The synergistic regulation of interface and bulk for high-entropy PVDF-based electrolytes endows ultra-long cycling of solid-state lithium metal batteries* — score: 0.400
  Publication date: January 2026
  Source: Nano Energy, Volume 147
  Author(s): Kaibo Fan, Jie Chen, Biao Wang, Kao Cao, Chenyang Zhang, Jun Chen, Yong Zhao, Jiren Yuan, Zhengguang Hu, Li Wang
- *Atomic-level modulated selenides lattice for ultra-stable rechargeable aluminum-ion batteries* — score: 0.400
  Publication date: January 2026
  Source: Nano Energy, Volume 147
  Author(s): Chunhao Sun, Yongde Long, Pengcheng liu, Gang Zhou, Hongruo Ma, Kai Du, Mingshan Han, Ruiwen Shao, Yuxiang Hu, Kun Zheng
- *Sulfonated ether-free polybenzimidazole membrane with fast and selective ion transport enabling ultra-high cycle stability in vanadium redox flow batteries* — score: 0.400
  Publication date: January 2026
  Source: Nano Energy, Volume 147
  Author(s): Hui Yan, Wei Wei, Xin Li, Qi-an Zhang, Ying Li, Ao Tang
- *Depolarization Effect of (NH4)4EDTA on High-Cu-Content Anode Interface Enables Highly Reversible Zinc-metal Batteries* — score: 0.400
  Publication date: Available online 23 December 2025
  Source: Nano Energy
  Author(s): Liangyuan Chen, Jianfeng Liu, Chenxi Xia, Jitao Shang, Zhaofu Zhang, Xiaolin Liu, Du Wang, Yan Zhao
- *[ASAP] Aluminum Doping Enhances Structural Integrity and Electrochemical Performance in NASICON-Type Cathodes for Sodium-Ion Batteries* — score: 0.300
  Energy & Fuels
  DOI: 10.1021/acs.energyfuels.5c03311
- *[ASAP] Deciphering Sodium Storage in Hard Carbon Anodes: A Review on the Interplay of Microstructure, Interfacial Engineering, and Electrochemical Performance* — score: 0.300
  Energy & Fuels
  DOI: 10.1021/acs.energyfuels.5c04452
- *[ASAP] Reconciling the Stability-Activity Dilemma on Perovskite Oxide Electrode Surfaces with Oxygen-Deficient ZrOx Nanocoatings* — score: 0.300
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c03514
- *[ASAP] Challenges and Perspectives of Interfacial Issues in Solid-State Li/Na–Organic Batteries* — score: 0.300
  ACS Energy Letters

DOI: 10.1021/acsenergylett.5c03168

- *[ASAP] Structural Aspects, Ionic Conductivity, and Electrochemical Properties of New Bromine-Substituted Alkali-Based Crystalline Phases MTa(Nb)X6–yBry (M = Li, Na, K; X = Cl, F)* — score: 0.300
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c02904
- *[ASAP] Interlayer-Tailored Alkyl-MXenes for Selective Electrochemical Lithium-Ion Extraction* — score: 0.300
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c03009
- *[ASAP] Thermodynamically Guided Design of High-Entropy Organic Electrolytes* — score: 0.300
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c03151
- *[ASAP] Suppressed Proton Insertion Enhances Zinc-Ion Storage Kinetics and Stability in Hydrated Vanadate* — score: 0.300
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c03338
- *[ASAP] Phase-Reconstructable MoS2 Heterostructures for High-Performance Sodium-Ion Batteries* — score: 0.300
  ACS Energy Letters
  DOI: 10.1021/acsenergylett.5c03845
- *[ASAP] Interfacial Stabilization of Ni-Rich Li[Ni0.90Co0.05Mn0.05]O2 Cathode through Synergetic Borate and Carbonate Additives* — score: 0.300
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c03098
- *[ASAP] Dual Enhancement of Ionic Conductivity and Dendrite Suppression in PVdF–HFP Solid Electrolytes via Hexagonal Boron Nitride Integration* — score: 0.300
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c02912
- *[ASAP] Infrared Drying-Induced PVDF Crystallinity Control for Enhanced Lithium Cobalt Oxide Cathodes* — score: 0.300
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c03488
- *[ASAP] Fluorine Defect Modulation in Na2FePO4F1–x as the Cathode Material for Sodium-Ion Batteries* — score: 0.300
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c03231
- *[ASAP] Multicycle Precursor Infiltration-Thermal Decomposition Achieves High In-Pore Li2S Loading in Mesoporous Carbon for High-Performance Lithium Sulfide Batteries* — score: 0.300
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c03271
- *[ASAP] WSe2 Crystal Facet Engineering Boosting Rapid Conversion and Deposition of Lithium Polysulfides* — score: 0.300
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c03461
- *[ASAP] Chromatographic and Spectroscopic Study of the Interaction between Polysulfides and Copper Sulfides* — score: 0.300
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c03163
- *[ASAP] Design and Stabilization Principles of O2-Type Li-Rich Mn-Based Layered Oxide Cathodes* — score: 0.300
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c03209
- *[ASAP] Anatomy of Local Structural Disorder of Ni(II) Species in MgCl2–KCl Molten Salts* — score:

0.300
ACS Applied Energy Materials
DOI: 10.1021/acsaem.5c02944

- *[ASAP] Enabling Na+/Vacancy Disordering and Superior Redox Kinetics of P2-Type Layered Cathode by Tuning Cationic Ratio* — score: 0.300
  ACS Applied Energy Materials
  DOI: 10.1021/acsaem.5c02880
- *The double-edged role of O2- in preparing superior electrochemical performance NCM layered cathode through molten salt synthesis process* — score: 0.300
  Publication date: February 2026
  Source: Nano Energy, Volume 148
  Author(s): Dong Wang, Hongmei Cao, Jiao Wang, Junhao Liu, Xuzhong Gong, Tao Qi, Zhi Wang
- *Advancing high-safety and low-cost all-solid-state batteries with polyanion cathodes: Challenges and recent progress* — score: 0.300
  Publication date: February 2026
  Source: Nano Energy, Volume 148
  Author(s): Ali Yaghtin, Atiyeh Nekahi, Jeremy I.G. Dawkins, Xia Li, Karim Zaghib, Sixu Deng
- *Development of deformable aqueous Li-ion batteries enabled by water-in-salt-based hydrogel electrolytes* — score: 0.300
  Publication date: February 2026
  Source: Nano Energy, Volume 148
  Author(s): Ziting Tian, Peisheng He, Anju Toor
- *Anion-anchoring enabling fast Li+ transport within wide temperature* — score: 0.300
  Publication date: January 2026
  Source: Nano Energy, Volume 147
  Author(s): Yao Guo, Yigen Huang, Haoran Hu, Yiming Chen, Xinyin Cai, Yue Gao, Zulipiya Shadike, Junliang Zhang
- *Trap-anchor-catalysis design in boosting halogen chemistry for high-performance aqueous zinc-iodine batteries* — score: 0.300
  Publication date: January 2026
  Source: Nano Energy, Volume 147
  Author(s): Shuai Wang, Jing Han, Yana Xiao, Xinlong Liu, Shenzhen Deng, Tiandi Chen, Cuiqin Fang, Bingang Xu
- *Lithium superionic solid electrolyte: Phosphorus-free sulfide glass of LiSbGe(4-x)/4S4-xClx* — score: 0.300
  Publication date: January 2026
  Source: Nano Energy, Volume 147
  Author(s): Yuna Kim, Woojung Lee, Jiyun Han, Yeong Mu Seo, Dokyung Kim, Young Joo Lee, Byung Gon Kim, Munseok S. Chae, Sung Jin Kim, In Young Kim
- *Multi-phase characterization of pitch-carbon coated nano-silicon anodes for lithium-ion batteries* — score: 0.300
  Publication date: January 2026
  Source: Nano Energy, Volume 147
  Author(s): Kae E. Fink, Peter J. Weddle, Jack R. Palmer, Christof Zweifel, Glenn Teeter, Ankit Verma, Shane Frisco, Sang-Don Han, Maxwell C. Schulze, G. Michael Carroll, Andrew M. Colclasure, Nathan R. Neale, Bertrand J. Tremolet de Villers
- *Calendar aging of sulfide all-solid-state batteries* — score: 0.300
  Publication date: January 2026
  Source: Nano Energy, Volume 147
  Author(s): Yujing Wu, Ziqi Zhang, Dengxu Wu, Fuqiang Xu, Mu Zhou, Hong Li, Liquan Chen, Fan Wu
- *[ASAP] Hydrothermal Carbonization-Assisted Synthesis of Starch-Derived N/P-Doped Hollow Hard Carbon Microspheres for Sodium-Ion Batteries* — score: 0.200
  Energy & Fuels

DOI: 10.1021/acs.energyfuels.5c05110

- *[ASAP] Beyond-Equilibrium Redox-Mediated Reverse Water–Gas Shift with La1–xSrxCryMn1–yO3–Perovskite Oxides* — score: 0.200
  Energy & Fuels
  DOI: 10.1021/acs.energyfuels.5c05523
- *[ASAP] Ionic Liquid Electrolyte Composed of Triethylsulfonium and Lithium Cations with a Bis(fluorosulfonyl)imide Anion for LTO– and Graphite–NMC Batteries* — score: 0.200
  Energy & Fuels
  DOI: 10.1021/acs.energyfuels.5c04232