

Downloadable (with restrictions)! Air Conditioning is one of the largest uses of energy used in building operations. The combination of photovoltaic power generation and building air-conditioning is one of the important ways to realize building energy savings and emission reduction. In this context, this study uses two software, Design Builder and TRNSYS, to build ...

select article Corrigendum to "Multifunctional Ni-doped CoSe₂ nanoparticles decorated bilayer carbon structures for polysulfide conversion and dendrite-free lithium toward high-performance Li-S full cell" [Energy Storage Materials Volume 62 (2023) 102925]

Therefore, employing energy storage stations is a promising option to improve the peak shaving capability of the system and promote the consumption of renewable energy in renewable energy power bases (REBs). Currently, battery storage is the most commonly used solution for energy storage. It offers advantages such as high efficiency, flexible ...

The aquifer (i.e., reservoir) lost 4.1% of total energy due to heating transfer to caprock and other layers. The energy recovery rate of the whole HT-ATES system shows a seesaw increase because of the alternative of the heating store and production; in the end, over 90% of stored total energy could be recovered.

This is the first energy storage project in China that combines compressed air and lithium-ion battery technology. The project is located in Dongguan Village, Maying Town, with a total ...

A novel Al₂O₃@Na_{0.67}Zn_{0.1}Mn_{0.9}O₂ cathode is designed by combining both lattice modification and surficial stabilization strategies. Specifically, the Zn²⁺ substitution completely suppresses phase transformations of Na_{0.67}MnO₂ electrode and the uniform Al₂O₃ nano-layer protects the electrode from corrosion of acidic species, forms homogeneous and ...

Current studies of cathodes for potassium batteries (PBs) mainly focus on the intercalation-type materials. The conversion-type materials that possess much higher theoretical capacities are rarely discussed in previous literatures. In this work, carbon fluoride (CF_x) is reported as a high capacity conversion-type cathode for PBs for the first time.

The material delivers a remarkable discharge capacity of >250 mAh g⁻¹ with mid-voltage of 2.6 V at 20 mA g⁻¹. Moreover, a highly reversible capacity of around 95 mAh ...

select article Advances and perspectives of ZIFs-based materials for electrochemical energy storage: Design of synthesis and crystal structure, evolution of mechanisms and electrochemical performance. ... Ke Zhou, Yining Li, Shiyao Zheng, Maojie Zhang, ...

Ke Zhou Breast mass detection is a challenging task in mammogram, since mass is usually embedded and surrounded by various normal tissues with similar density. Recently, deep learning has achieved ...

KE ZHOU. Xiamen University. Verified email at stu.xmu .cn. Lithium battery. Articles Cited by Public access. Title. Sort. Sort by citations Sort by year Sort by title. Cited by. ... Advanced Energy Materials 9 (26), 1900834, 2019. 120: 2019: The system can't perform the ...

The Journal of Energy Storage focusses on all aspects of energy storage, in particular systems integration, electric grid integration, modelling and analysis, novel energy storage ...

Calcium looping is a potential thermochemical energy storage technology applied in a high-temperature working window. However, CaCO_3/CaO materials are prone to encounter severe sintering, exhibiting poor thermal energy storage/release stability. To improve the thermochemical energy storage stability, different amounts (5, 15, and 30 wt %) of a Zr ...

Zinc-air batteries deliver great potential as emerging energy storage systems but suffer from sluggish kinetics of the cathode oxygen redox reactions that render unsatisfactory cycling lifespan. The exploration on bifunctional electrocatalysts for oxygen reduction and evolution constitutes a key solution, where rational design strategies to ...

Hongjun Yue, Huixin Chen, Chen Zhao, Zhiming Zheng, Ke Zhou, Qiaobao Zhang, Guiming Zhong, Can-Zhong Lu, Yong Yang, Reversible potassium storage in ultrafine CFx: A superior cathode material for potassium batteries and its mechanism, Journal of Energy Chemistry 53 (2021) 347-353? 2.

(10) Ke Zhou? ... including electric vehicles and home energy storage systems. Through this technology, we will be able to make a significant contribution to reducing environmental impact, improving energy efficiency, and realizing a sustainable society. ...

Integrative Energy Storage Solutions: MXenes offer a platform for integrated energy storage solutions that extend beyond conventional batteries to catalysis, sensors, and electronics. As researchers focus on MXene-based supercapacitors, hybrid systems, and beyond, there is a remarkable opportunity to create versatile devices with high power and ...

DOI: 10.1016/j.electacta.2023.143302 Corpus ID: 263716820; Energy storage characteristics and mechanism of organic-conjugated polyanthraquinoneimide for metal-free dual-ion batteries

@article{Yue2020ReversiblePS, title={Reversible potassium storage in ultrafine CF : A superior cathode material for potassium batteries and its mechanism}, author={Hongjun Yue and Huixin Chen and Chen-xiao Zhao and Zhiming Zheng and Ke Zhou and Qiaobao Zhang and Guiming Zhong and Canzhong Lu and Yong Yang}, journal={Journal of Energy Chemistry} ...

The Journal of Energy Storage focusses on all aspects of energy storage, in particular systems integration, electric grid integration, modelling and analysis, novel energy storage technologies, sizing and management strategies, business models for operation of storage systems and energy storage developments worldwide.

PVTIME - China Power International Development Limited (HK.02380) disclosed on 1st February 2023 that Kezhou Energy, a wholly owned indirect subsidiary of China Power Intl., has signed ...

DOI: 10.1016/j.jcis.2015.11.068 Corpus ID: 19041869; Bi-functional Mo-doped WO₃ nanowire array electrochromism-plus electrochemical energy storage. @article{Zhou2016BifunctionalMW, title={Bi-functional Mo-doped WO₃ nanowire array electrochromism-plus electrochemical energy storage.}, author={D Zhou and Fan Shi and Dong Xie and D. H. Wang and Xin-hui Xia and X. ...

Advanced Energy Materials is your prime applied energy journal for research providing solutions to today's global energy challenges. ... Ke Zhou. State Key Laboratory for Physical Chemistry of Solid Surface, Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, 361005 China ...

Notably, Alberta's storage energy capacity increases by 474 GWh (+157%) and accounts for the vast majority of the WECC's 491 GWh increase in storage energy capacity (from 1.94 to 2.43 TWh).

He is an awardee of the 2022 Office of Naval Research (ONR) Young Investigator Award and the 2022 National Science Foundation (NSF) Faculty Early Career Development Program (Career) Award. His areas of interest include energy storage, energy conversion, advanced manufacturing, and electronic materials and devices. Postdoctoral Associate

Coupled and decoupled hierarchical carbon nanomaterials toward high-energy-density quasi-solid-state Na-Ion hybrid energy storage devices. Yiju Li, Yong Yang, Jinhui Zhou, Shuangyan Lin, ... Shaojun Guo. Pages 530-538 View PDF. Article preview.

MITEI's three-year Future of Energy Storage study explored the role that energy storage can play in fighting climate change and in the global adoption of clean energy grids. Replacing fossil fuel-based power generation with power generation from wind and solar resources is a key strategy for decarbonizing electricity. Storage enables electricity systems to remain in... Read more

Given the pillar role of renewable energy in the low-carbon energy transition and the balancing role of energy storage, many supporting policies have been promulgated worldwide to promote their development.

High recoverable energy density ($W_{rec} \sim 2.1 \text{ J/cm}^3$) was obtained in $(0.7 - x)\text{BiFeO}_3 - 0.3\text{BaTiO}_3 - x\text{Bi}(\text{Zn}_{2/3}\text{Nb}_{1/3})\text{O}_3 + 0.1 \text{ wt } \% \text{ Mn}_2\text{O}_3$ (BF-BT-xBZN, $x = 0.05$) lead-free ceramics at $< 200 \text{ kV/cm}$. Fast discharge speeds ($< 0.5 \text{ ms}$), low leakage ($\sim 10^{-7} \text{ A/cm}^2$), and small temperature

variation in Wrec (~25% from 23 to 150 °C) confirmed the potential for these ...

Dramatic cost declines in solar and wind technologies, and now energy storage, open the door to a reconceptualization of the roles of research and deployment of electricity ...

500. Ke Zhou, Yining Li, Shiyao Zhen, Maojie Zhang, Chunyang Zhang, Corsin Battaglia, Haodong Liu, Kuan Wang, Pengfei Yan, Jianjun Liu, Yong Yang; Tailoring the Redox-active Transition Metal Content to Enhance Cycling Stability in Cation-disordered Rock-salt Oxides; Energy Storage Materials, 2021, 43, 275-283. [_pdf](#)

Dielectric polymers are widely used in electrostatic energy storage but suffer from low energy density and efficiency at elevated temperatures. Here, the authors show that all-organic ...

Battery electricity storage is a key technology in the world's transition to a sustainable energy system. Battery systems can support a wide range of services needed for the transition, from providing frequency response, reserve capacity, black-start capability and other grid services, to storing power in electric vehicles, upgrading mini-grids and supporting "self-consumption" of ...

select article Corrigendum to "Natural "relief" for lithium dendrites: Tailoring protein configurations for long-life lithium metal anodes" [Energy Storage Materials, 42 (2021) 22-33, 10.1016/j.ensm.2021.07.010]

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