

Semantic Scholar extracted view of "Electric/thermal hybrid energy storage planning for park-level integrated energy systems with second-life battery utilization" by Guo Mingxuan et al. ... Zhiyu Huang Zhilong Xie +5 authors Xiaosong Hu. Engineering, Environmental Science. Energy Conversion and Management. 2019; 115. PDF.

Downloadable (with restrictions)! Batteries are presently pervasive in portable electronics, electrified vehicles, and renewable energy storage. These indispensable engineering applications are all safety-critical and energy efficiency-demanding such that batteries must be meticulously monitored and manipulated, where effectively estimating the internal battery states is a key ...

Renewable and Sustainable Energy Reviews, p. 110480, 2020, DOI: 10.1016/j.rser.2020.110480 ... University of Maryland, College Park, MD, 20742, USA. Abstract: Lithium-ion batteries are promising energy storage devices for electric vehicles and renewable energy systems. However, due to complex electrochemical processes, potential safety issues ...

Xiaosong Zhang; Barocaloric refrigeration technology, one of the caloric-effect refrigeration technologies, is drawing more and more attention. ... Liquid air energy storage (LAES), as a grid ...

A Review of Second-Life Lithium-Ion Batteries for Stationary Energy Storage Applications. Xiaosong Hu 1, Xincheng Deng 1, Feng Wang 1, Zhongwei Deng 1, Xianke Lin 2, Remus Teodorescu 3 and Michael G. Pecht 4 ... 4 Center for Advanced Life Cycle Engineering, University of Maryland, College Park, MD, 20742, USA.

Physics-based electrochemical models provide insight into the battery internal states and have shown great potential in battery design optimization and automotive and aerospace applications. However, the complexity of the electrochemical model makes it difficult to obtain parameter values accurately. In this study, a novel non-destructive parameter identification method is proposed ...

A compact liquid air energy storage using pressurized cold recovery with ... Chen Wang¹, Xiaosong Zhang^{1*}, Lu Xue², Xiaohui She^{3*} 1 School of Energy & Environment, Southeast University, Nanjing 210096, China . 2 Xinglu air separation Ltd., Suzhou 215131, China . 2 School of Chemical Engineering, University of Birmingham, Birmingham B15 2TT, UK .

As a core technology to manage decentralized systems, blockchain is gaining much popularity to deploy such applications as smart grid and healthcare systems. However, its utilization in resource-constrained mobile devices is limited due to high demands of resources and poor scalability with frequent-intensive transactions. Edge computing can be integrated to ...

Particularly, photothermal energy storage systems that store excess solar energy generated during the day for nighttime utilization are widely adopted. Stearic acid (SA) has garnered significant attention as a recommended PCM due to its favorable properties [5], [6], such as cost-effectiveness, high thermal storage density, non-toxicity, and ...

Phase change materials (PCMs) have garnered significant attention as a prospective solution for photothermal energy storage, attributed to their notable energy density. Nonetheless, the constrained thermal conductivity of PCMs leads to delayed heat storage from the photothermal conversion surface, causing a build-up of heat at the surface and significant heat dissipation ...

nanomaterials Communication A Novel TiZrHfMoNb High-Entropy Alloy for Solar Thermal Energy Storage Huahai Shen 1,+, Jianwei Zhang 2,+, Jutao Hu 2, Jinchao Zhang 1,*, Yiwu Mao 1, Haiyan Xiao 2,*, Xiaosong Zhou 1 and Xiaotao Zu 2 1 Institute of Nuclear Physics and Chemistry, China Academy of Engineering Physics, Mianyang 621900, China; huahaishen@caep.cn (H.S.); ...

Electrochemical energy storage devices have the advantages of short response time, high energy density, low maintenance cost and high flexibility, so they are considered an important development ...

Downloadable (with restrictions)! Author(s): Hu, Xiaosong & Feng, Fei & Liu, Kailong & Zhang, Lei & Xie, Jiale & Liu, Bo. 2019 Abstract: Batteries are presently pervasive in portable electronics, electrified vehicles, and renewable energy storage. These indispensable engineering applications are all safety-critical and energy efficiency-demanding such that batteries must be meticulously ...

@article{Dai2024HighdirectionalTC, title={High-directional thermally conductive stearic acid/expanded graphite - Graphene films for efficient photothermal energy storage}, author={Zhao-Ran Dai and Guiling Zhang and Yufei Xiao and Yulong Ding and Yongliang Li and Xiaohui She and Xiaosong Zhang and Dongliang Zhao}, journal={Chemical Engineering ...

Energy management systems in buildings (EMSs-in-Bs) play key roles in energy saving and management to which an efficient energy management system in buildings (EMS-in-Bs) design contributes.

DOI: 10.1016/J.RSER.2019.109334 Corpus ID: 202090657; State estimation for advanced battery management: Key challenges and future trends @article{Hu2019StateEF, title={State estimation for advanced battery management: Key challenges and future trends}, author={Xiaosong Hu and Fei Feng and Kailong Liu and Lei Zhang and Jiale Xie and Bo Liu}, journal={Renewable and ...

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