Chen jitao energy storage

Along with the great success of traditional lithium-ion batteries, the increasing energy demand has been promoting the rapid development of novel battery systems for even large energy density and high power density, and good safety. Typically, novel types of rechargeable batteries based on redox reactions of 2020 Frontier and Perspective articles

The doping of Nd resulted in reduced dissipation factor and improved energy storage performance, leading to an ultrahigh W rec of 4.2 J/cm 3 and efficiency of 78% at 460 kV/cm. Manal et al. [24] doped Dy 3+ in an NBT matrix, following which the coercive field decreased significantly, the resistivity increased, and the system showed good energy ...

Introducing interlayer water between reduced graphene oxide (rGO) nanoplatelets can help align these nanoplatelets ().Ti 3 C 2 T x MXene is a 2D material with metallic conductivity, hydrophilicity, and strong mechanical properties (18-27) has been widely used to reinforce composites and prepare free-standing graphene-Ti 3 C 2 T x sheets (26, ...

Low cost, safety, and environmental benignity make rechargeable aqueous Zn/MnO2 batteries promising candidates for large-scale energy storage. However, the synthesis of MnO2 with excellent electrochemical performance is limited to the traditional hydrothermal method, which is difficult to scale up for mass production. Herein, a ball-milling approach is ...

Aqueous energy-storage systems have attracted wide attention due to their advantages such as high security, low cost, and environmental friendliness. However, the specific chemical properties of water induce the problems of narrow electrochemical stability window, low stability of ...

Wind turbine and PVG are common distributed generators, they have an excellent energy-saving and emission-reduction value (Al-Shamma"a, 2014); however, there are instabilities and intermittencies in the wind-PV microgrid system, and this affects the reliability of the system (Mesbahi et al., 2017).HESS in a wind-PV microgrid needs to be configured, so ...

DOI: 10.1016/j.joule.2020.03.011 Corpus ID: 218808392; A Stirred Self-Stratified Battery for Large-Scale Energy Storage @article{Meng2020ASS, title={A Stirred Self-Stratified Battery for Large-Scale Energy Storage}, author={Jintao Meng and Qi Tang and Liangyi Zhou and Chang Zhao and Ming Chen and Yiding Shen and Jun Zhou and Guang Feng and ...

Xu Linghong+, Li Guibin, Guan Jianxin, Wang Lulu, Chen Jitao*, Zheng Junrong*; Garnet-doped composite polymer electrolyte with high ionic conductivity for dendrite-free lithium batteries; Journal of Energy Storage; 2019, 24: 100767.

DOI: 10.1016/j.ensm.2019.12.035 Corpus ID: 211527337; Metallo-N-Heterocycles - A new family of hydrogen storage material. @article{Tan2020MetalloNHeterocyclesA, title={Metallo-N-Heterocycles - A new family of hydrogen storage material.}, author={Khai Chen Tan and Yang Yu and Ruting Chen and Teng He and Zijun Jing and Qijun Pei and Jintao Wang and Yong Shen ...

Aqueous energy-storage systems have attracted wide attention due to their advantages such as high security, low cost, and environmental friendliness. ... He and Weijian Wang and Wenjun Deng and Xinlei Ma and Yushu Wang and Wei Rao and Yuqiao Chai and Hui Ma and Rui Li and Jitao Chen and Yapei Wang and Mianqi Xue}, journal={Advanced Materials ...

Storing hydrogen efficiently in condensed materials is a key technical challenge. Tremendous efforts have been given to inorganic hydrides containing B-H, Al-H and/or N-H bonds, while organic compounds with a great variety and rich chemistry in manipulating C-H and unsaturated bonds, however, are undervalued mainly because of their unfavorable thermodynamics and ...

Kang Li, Si Chen, Song Chen, Xinxin Shu, Jintao Zhang. On the Functionalization of chemically derived graphene for high-performance supercapacitors Ed: Jintao Zhang, RSC publisher, 2018, Chapter 9. ... Redox reactions of halogens for reversible electrochemical energy storage. Dalton Trans., 2020,49,9929-9934. 75. Song Chen, Kang Li, Kwan San ...

DOI: 10.1016/j.ensm.2021.09.007 Corpus ID: 244583317; In-built ultraconformal interphases enable high-safety practical lithium batteries @article{Wu2021InbuiltUI, title={In-built ultraconformal interphases enable high-safety practical lithium batteries}, author={Yu Wu and Xuning Feng and Xiang Liu and Xuefeng Wang and Dongsheng Ren and Li Wang and Min ...

Khai Chen Tan and Yang Yu conducted the experiment and wrote the manuscript. Ruting Chen and Anan Wu calculated the dehydrogenation thermodynamics of metallated organics. ... industrial wastes to synthesize polyethylene glycol/silica-hydroxyl form-stable phase change materials for thermal energy storage applications. Solar Energy Materials ...

Aqueous energy-storage systems have attracted wide attention due to their advantages such as high security, low cost, and environmental friendliness. However, the specific chemical properties of water induce the problems of narrow electrochemical stability window, low stability of water-electrode interface reactions, and dissolution of electrode materials and intermediate products.

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