

lithium-ion batteries (LIBs) attract increasing interest due to their combined superiorities of miniaturization, adaptability, and weavability, compared with conventional bulky and planar...

Sci Bull (Beijing). 2024 Sep 26:S2095-9273 (24)00708-4. doi: 10.1016/j.scib.2024.09.037. Online ahead of print. 1 State Key Laboratory of Molecular Engineering of Polymers, Department of Macromolecular Science, Institute of Fiber Materials and Devices, and Laboratory of Advanced Materials, Fudan University, Shanghai 200438, China.

Nanostructured lithium intercalated compound has been demonstrated to be the most promising approach to improve the powder density of lithium ion batteries because of it providing a...

Rechargeable lithium-ion batteries (LIBs) with zero emissions, now dominate the energy storage and conversion devices market, which not only reduce our reliance on conventional energy...

The resulting fiber battery showed high energy density of 62 Wh kg⁻¹. Flexible and lightweight fiber lithium-ion batteries (FLIBs) that well meet the requirements of portable and wearable electronics have recently spurred extensive research interests.[1] Thus far, most efforts have been devoted to improving electrochemical performances of ...

Gel polymer electrolytes (GPEs) are considered as a promising solution to replace organic ...

Lithium-Ion Batteries Very Important Paper DOI: 10.1002/anie.201402388 Elastic and Wearable Wire-Shaped Lithium-Ion Battery with High Electrochemical Performance** Jing Ren, Ye Zhang, Wenyu Bai, Xuli Chen, Zhitao Zhang, Xin Fang, Wei Weng, Yonggang Wang,* and Huisheng Peng* Abstract: A stretchable wire-shaped lithium-ion battery is

flexible energy storage devices such as lithium ion battery (LIB) have attracted intense interests. Though great efforts have been devoted to developing suitable flexible electrodes, [24-26] the inferior electrochemical performances still impede its progress toward a large-scale production. Generally, flexible LIBs rely

multilayer construction of the stretchable battery appear in Figure 1 a,b. The battery consists of an arched anode, a gel electrolyte, and an arched cathode, which is finally packaged by an elastic polymer. The extension of the waves of the electrodes crucially leads to the stretchability of the battery (Figure 1 a). As

Abstract: Lithium-ion battery (LIB) is a dominating power source in the market owing to its high energy density, good cycling stability and environmental benignity.

Abstract: Fiber lithium-ion batteries represent a promising power strategy for the rising wearable electronics. However, most fiber current collectors are solid with

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Gel polymer electrolytes (GPEs) are considered as a promising solution to replace organic liquid electrolytes for safer lithium (Li) batteries due to their high ionic...

Review Metal hydrides for lithium-ion battery application: A review Qiaohuan Cheng a, Dalin Sun a, b, Xuebin Yu a, b, * a Department of Materials Science, Fudan University, Shanghai, 200433, China b Shanghai Innovation Institute for Materials, Shanghai, 200444, China article info Article history: Received 28 April 2018 Received in revised form

composite structures may have great potential in low-cost and flexible batteries. KEYWORDS: zinc oxide, expanded graphite, atomic layer deposition, anode, binder-free, lithium ion battery 1. INTRODUCTION Lithium ion batteries (LIBs) have been widely applied to portable electronic devices since the 1970s owing to their high

Abstract: Lithium-ion battery (LIB) is a dominating power source in the market owing to its high ...

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