



Innovations in Paper-based Flexible Batteries

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Message from the Guest Editor

According to a recent forecast, the thin and flexible battery market will reach \$460 million by 2026. In order to meet the industry demand, major innovations are needed in flexible battery technologies. In recent years, Li-ion batteries have been leading the usage in portable devices despite their longevity and some safety issues. One of the primary reasons is that the Li-ion batteries have higher energy density in terms of the weight and the size of a Li-ion battery compared to others. Yet a battery in a portable electronic device constitutes a significant portion of the total device weight and restrict them to certain applications. These reasons, as well the pursuit for more light-weight and cost-effective battery technologies have been the source of encouragement for the investigation of flexible batteries. Different varieties of light-weight and flexible battery technologies, such as plastic-based, polymer-based, and paper-based battery are being developed. Due to safety, as well as flexible reasons, paper-based batteries, one of the newest, has been considered the most promising technology and will be the focus of this Special Issue.





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