

Critical insight: Challenges and requirements of fibre electrodes for wearable electrochemical energy storage

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ABSTRACT

This perspective seeks to provide some critical insights on the challenges facing the development and adoption of fibre (yarn)-based energy storage electrodes in possible future applications of smart textiles. Attention has been given to five major points, viz. the property requirements, the associated characterization techniques, the metrics of quantifying performance, the associated materials and the goals of innovation. Beyond these points, concise conclusions consisting of recommendations have been drawn in each section. The work is intended to guide and stimulate researchers towards an effective and efficient roadmap to obtain the right and best product on the new prospective and exciting market.

KEYWORDS: electrochemical energy storage, fibre

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