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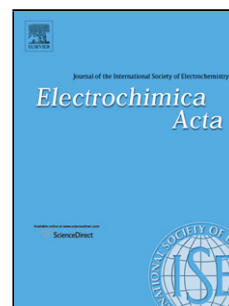
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# One-step electrochemically expanded graphite foil for flexible all-solid supercapacitor with high rate performance

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**Abstracts:** Flexible solid-state supercapacitors (SSCs) as a candidate for energy storage source, have been attracting intensive attention. Graphene-based materials for SSCs have been widely studied. However, most reported preparation methods for graphene-based materials are energy-consuming, time-consuming and environmentally hazardous, what's more, the assembling of SSCs need additives, such as current collectors, flexible substrates. So, it is necessary to develop simpler and greener attempts to achieve high-performance, cost-effective, substrates/additives-free and flexible electrodes for SSC devices. Herein, we reported a green and facile one-step process of electrochemical oxidation and expansion in salt solution to activate graphite foil (GF) for fabricating expanded graphite foil (EGF). The EGF electrode with unique structure and high

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