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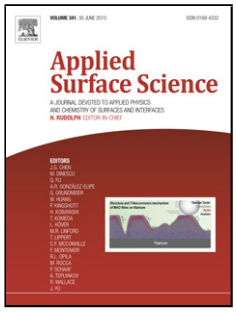

Title: HF/H_2O_2 treated graphite felt as the positive electrode for vanadium redox flow battery

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HF/H_2O_2 treated graphite felt as the positive electrode for vanadium redox flow battery

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Highlights as follows:

- 1 Graphite felt was modified by HF/H_2O_2 treatment as excellent positive electrode for vanadium redox flow battery for the first time.
- 2 Graphite felt was etched by HF treatment, and abundant oxygen-containing functional groups was introduced by H_2O_2 treatment
- 3 The mass transfer and electrode process of active species on the surface of graphite felt was accelerated by surface etching and introduction of functional groups.
- 4 The cell using GF-HF/H_2O_2 demonstrated higher discharge capacity and energy efficiency.

Abstract: In order to improve the electrochemical performance of the positive graphite felt electrode in vanadium flow redox battery, a novel method is developed to