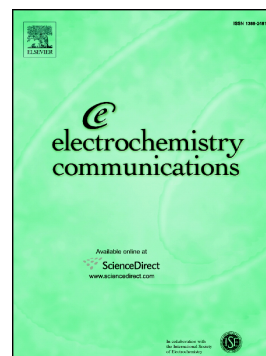


## Accepted Manuscript

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PII: S1388-2481(17)30310-7  
DOI: doi:[10.1016/j.elecom.2017.11.009](https://doi.org/10.1016/j.elecom.2017.11.009)  
Reference: ELECOM 6078  
To appear in: *Electrochemistry Communications*  
Received date: 10 October 2017  
Revised date: 8 November 2017  
Accepted date: 9 November 2017

Please cite this article as: Jin Zhao, Jixing Yang, Pengfei Sun, Yunhua Xu , Sodium sulfonate groups substituted anthraquinone as an organic cathode for potassium batteries. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. *Elecom*(2017), doi:[10.1016/j.elecom.2017.11.009](https://doi.org/10.1016/j.elecom.2017.11.009)

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# Sodium Sulfonate Groups Substituted Anthraquinone as an Organic Cathode for Potassium Batteries

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## Abstract

Sodium sulfonate groups substituted anthraquinone was successfully tested as an organic positive electrode material in potassium batteries. As an organic cathode material, enhanced electrochemical performance was demonstrated for anthraquinone-1,5-disulfonic acid sodium salt, notably a good cycling stability and a capacity retention of 78 mAh g<sup>-1</sup> after 100 cycles. The findings offer an effective way to develop high performance organic electrode materials for potassium batteries.

**Keywords:** anthraquinone; sodium sulfonate group; solubility; organic cathode; potassium-ion battery

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