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Enhanced electrochemical performance of dual-conductive layers coated Ni-rich  $\text{LiNi}_{0.6}\text{Co}_{0.2}\text{Mn}_{0.2}\text{O}_2$  cathode for Li-ion batteries at high cut-off voltage

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PII: S0013-4686(18)31868-1

DOI: [10.1016/j.electacta.2018.08.091](https://doi.org/10.1016/j.electacta.2018.08.091)

Reference: EA 32577

To appear in: *Electrochimica Acta*

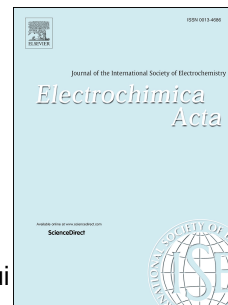
Received Date: 11 June 2018

Revised Date: 2 August 2018

Accepted Date: 17 August 2018

Please cite this article as: Q. Ran, H. Zhao, Y. Hu, Q. Shen, W. Liu, J. Liu, X. Shu, M. Zhang, S. Liu, M. Tan, H. Li, X. Liu, Enhanced electrochemical performance of dual-conductive layers coated Ni-rich  $\text{LiNi}_{0.6}\text{Co}_{0.2}\text{Mn}_{0.2}\text{O}_2$  cathode for Li-ion batteries at high cut-off voltage, *Electrochimica Acta* (2018), doi: 10.1016/j.electacta.2018.08.091.

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**Enhanced electrochemical performance of dual-conductive layers coated Ni-rich  $\text{LiNi}_{0.6}\text{Co}_{0.2}\text{Mn}_{0.2}\text{O}_2$  cathode for Li-ion batteries at high cut-off voltage**

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**Abstract:** The surface coating of dual-conductive layers is implemented to optimize the electrochemical performance of  $\text{LiNi}_{0.6}\text{Co}_{0.2}\text{Mn}_{0.2}\text{O}_2$  (NCM) under high cut-off voltage (4.5 V) by the integrated use of sol-gel method and in-situ chemical polymerization. The X-ray powder diffraction (XRD) and Rietveld refinements results indicate that the dual-conductive layers hardly affect the crystal structure of NCM. Field emission scanning electron microscopy (FESEM), Energy dispersive spectroscopy (EDS), X-ray photoelectron spectroscopy (XPS), selected area electron diffraction (SAED), and field emission

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