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Correction: The use of a single-crystal nickel-rich layered NCM cathode for excellent cycle performance of lithium-ion batteries

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Correction for 'The use of a single-crystal nickel-rich layered NCM cathode for excellent cycle performance of lithium-ion batteries' by Qiankun Guo *et al.*, *New J. Chem.*, 2021, **45**, 3652–3659; DOI: 10.1039/d0nj05914e.

The authors regret the following errors in the original manuscript.

- (1) The original manuscript contained errors in Fig. 5b and 6a. Corrected versions of Fig. 5 and 6 are shown below.
- (2) The corresponding text in the "Abstract" section has been corrected as follows.

Under the test conditions of 25 °C and 2.75–4.30 V, the first discharge specific capacity of a button cell at 0.1C (1C = 210 mA g^{−1}) reaches 209.7 mA h g^{−1}, the coulomb efficiency is 91.19%, and the capacity retention is 99.56% after 100 cycles at a rate of 0.2C.

- (3) The corresponding text in the "Results and discussion" section has been corrected as follows.

Next, CR2032 button cells were used for cycle testing, and the specific discharge capacity of the SC-NCM cathode decays to 199.81 mA h g^{−1} after 100 cycles at 0.2C rate, and the capacity retention is 99.56%, which is better than that of the N-NCM cathode (187.78 mA h g^{−1} and 89.86%, respectively) (Fig. 5b).

These mistakes do not change the general scientific conclusion of the paper.

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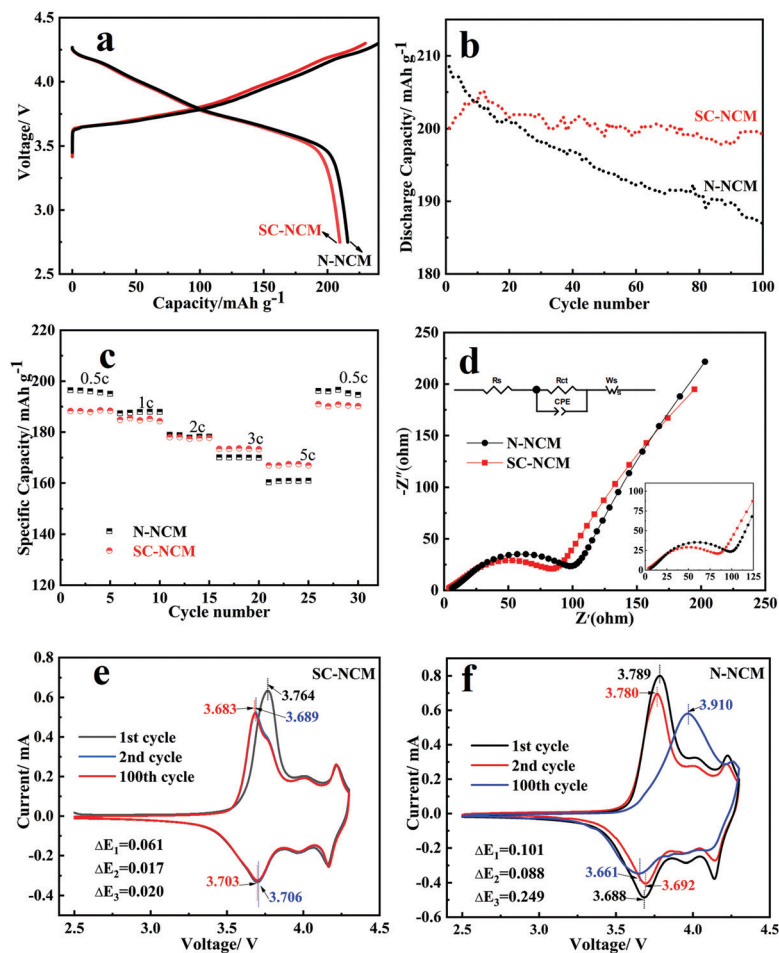


Fig. 5 Electrochemical performance of N-NCM and SC-NCM electrodes. (a) Initial charge/discharge curves at 0.1C; (b) cycling performance at 0.2C; (c) rate capability for at 25 °C; (d) Nyquist plots with a simple equivalent circuit (e and f) CV curves at a scan rate of 0.1 mV s⁻¹.

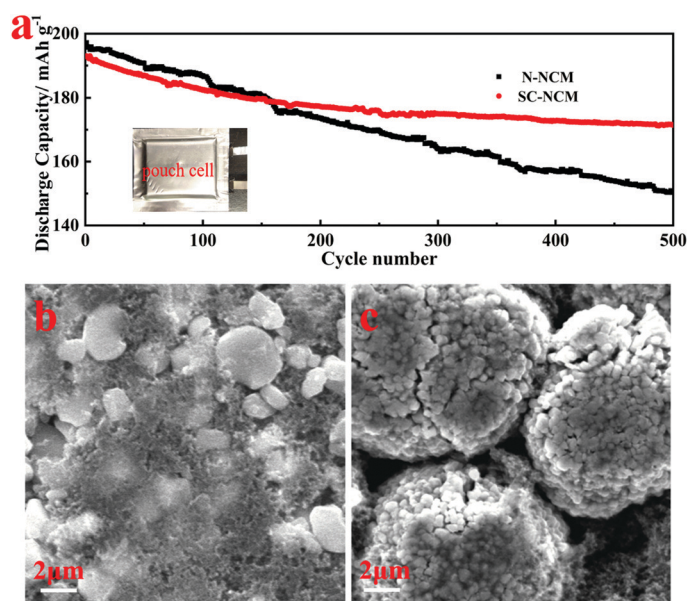


Fig. 6 (a) Cycling performances of N-NCM and SC-NCM electrodes in pouch-type full-cells. SEM images of SC-NCM and (c) N-NCM after 500 cycles.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

