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## Supplementary materials

## Potassium phosphate monobasic induced decoration from surface into bulk lattice for Ni-rich cathode materials with enhanced cell performance.

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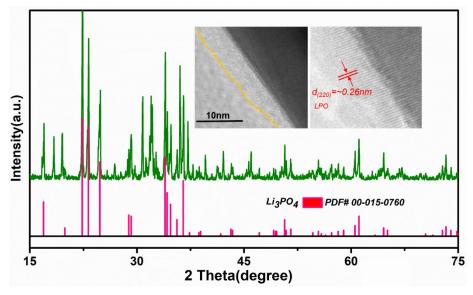


Figure S1. The XRD patterns of additional experimental product; and HRTEM image of coating layer.

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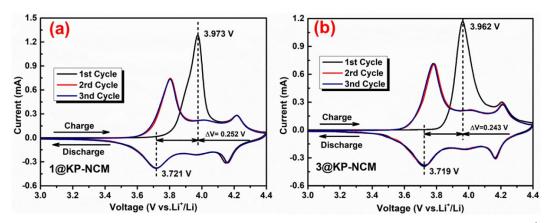


Figure S2. The CV curves of 1@KP-NCM (a) and 3@KP-NCM (b) tested between 3.0 and 4.4V at 0.1 mV s<sup>-1</sup>.