

Supporting Information

Accurate Measurement of the Internal Temperature of 280 Ah Lithium–Ion Batteries by Means of Pre–Buried Thermocouples

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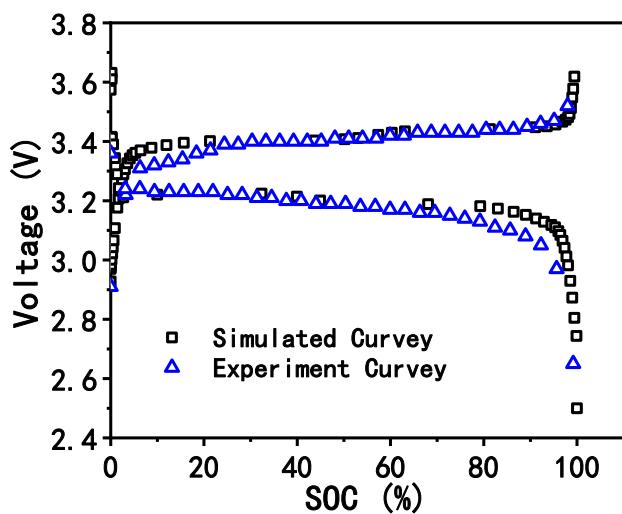


Figure S1. The charge and discharge curves of the simulated model and the real 280 Ah battery.

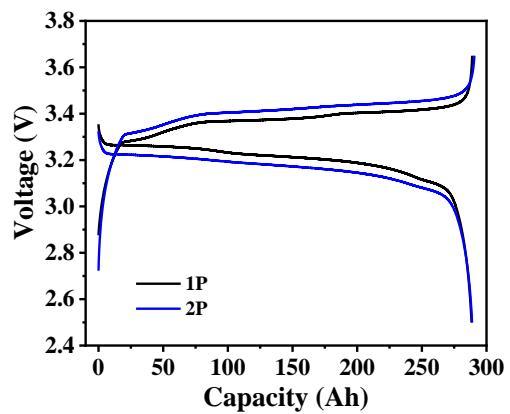


Figure S2. The charge and discharge curves of the LFP battery under 1P and 2P.

Table S1 The elements of the finite element method

Elements	Value
Separator thickness	1.4*E ⁻⁵ m
Positive electrode thickness	7*E ⁻⁵ m
Negative electrode thickness	5.4*E ⁻⁵ m
Positive current collector thickness	1.3*E ⁻⁵ m
Negative current collector thickness	6*E ⁻⁶ m
Cell width	0.165 m
Cell height	0.188 m
Tab height	0.028 m
Tab width	0.045 m
Cell thickness	1.475*E ⁻⁴ m
Reference exchange current density positive electrode	0.7 A/m ²
Reference exchange current density negative electrode	0.96 A/m ²
Positive electrode particle radius	2*E ⁻⁶ m
Negative electrode particle radius	5*E ⁻⁶ m
Maximum host capacity, positive electrode	28151 mol/m ³
Electrolyte thermal conductivity	0.38 W/(m*K)
Positive active material thermal conductivity	1 W/(m*K)
Negative active material thermal conductivity	151 W/(m*K)