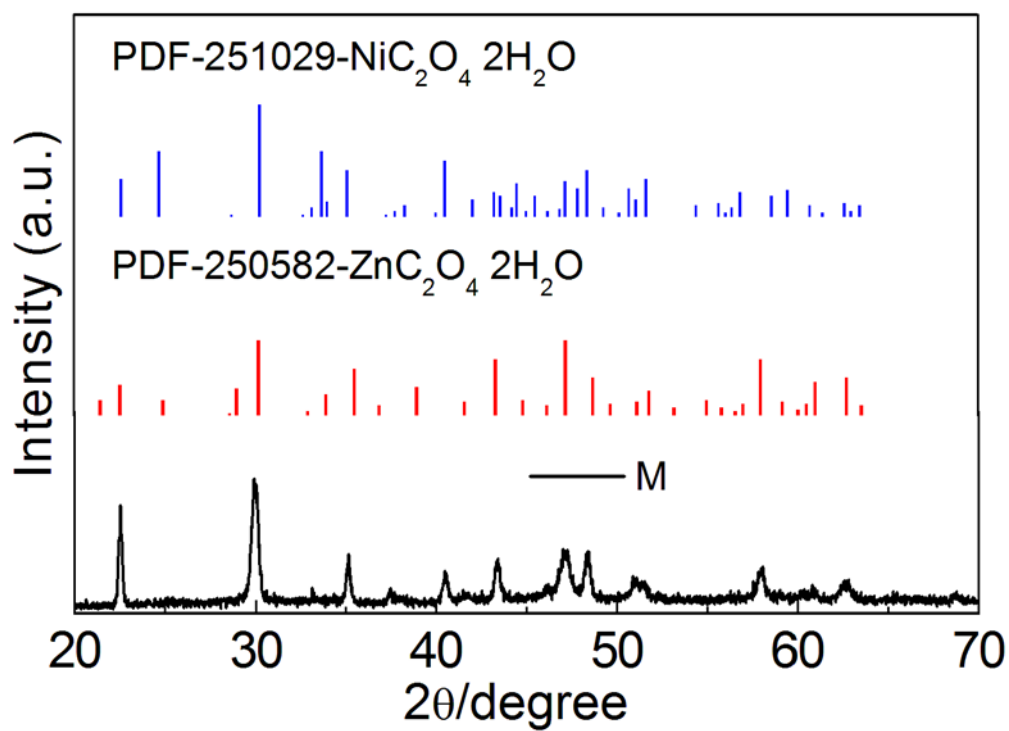
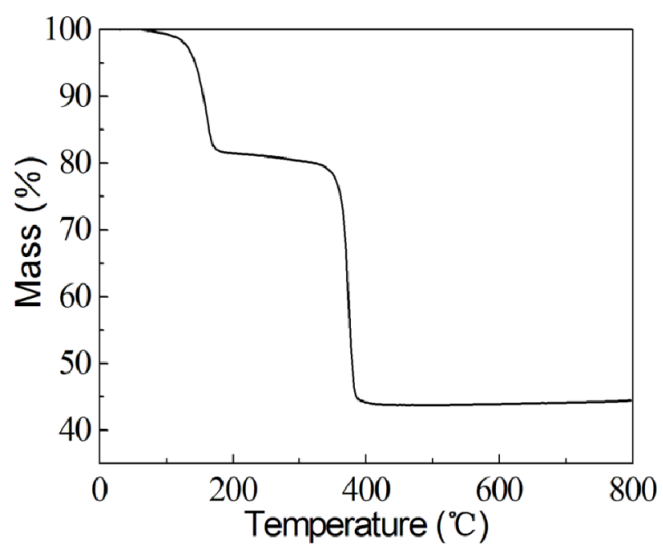


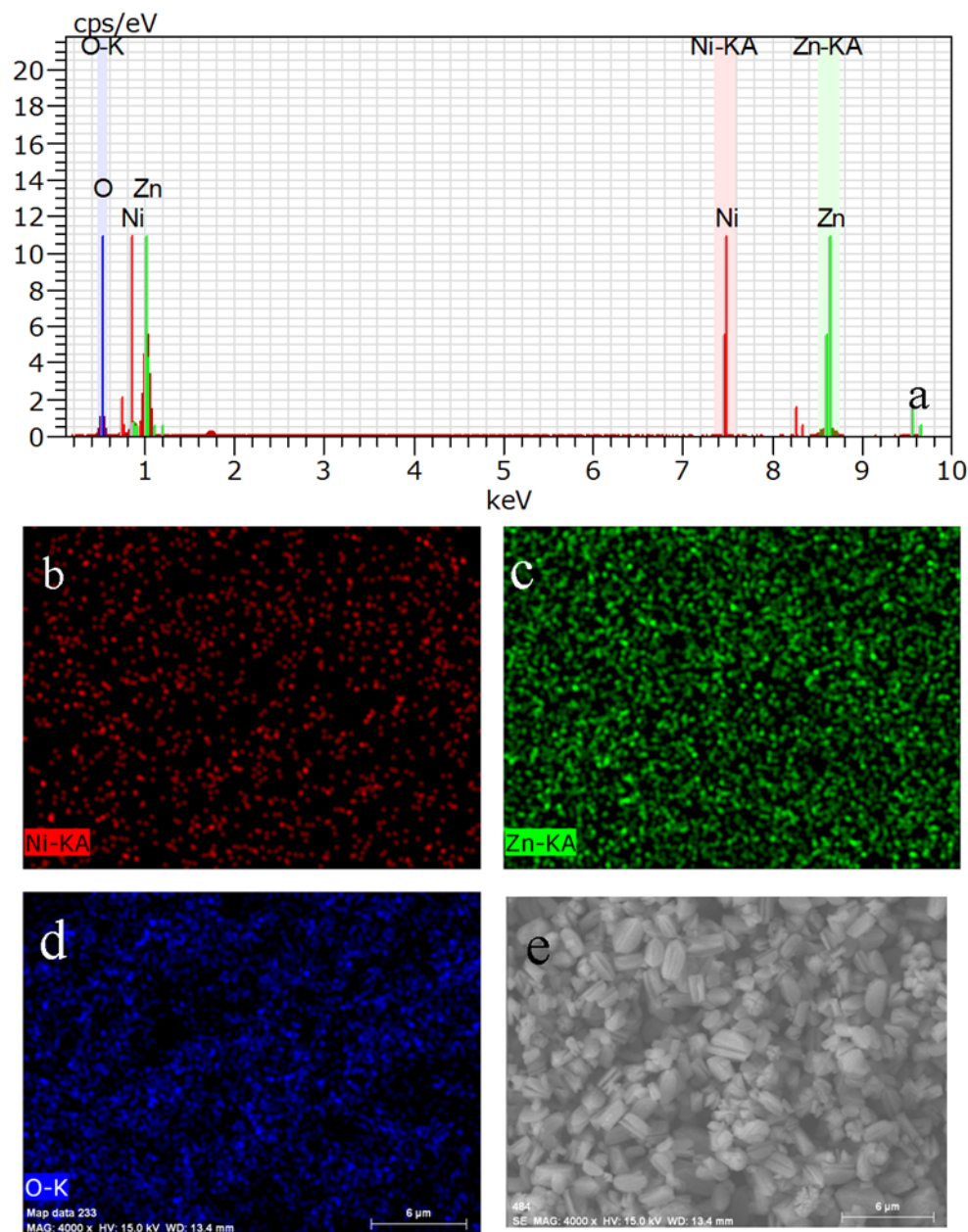
Electronic Supplementary Information (ESI)



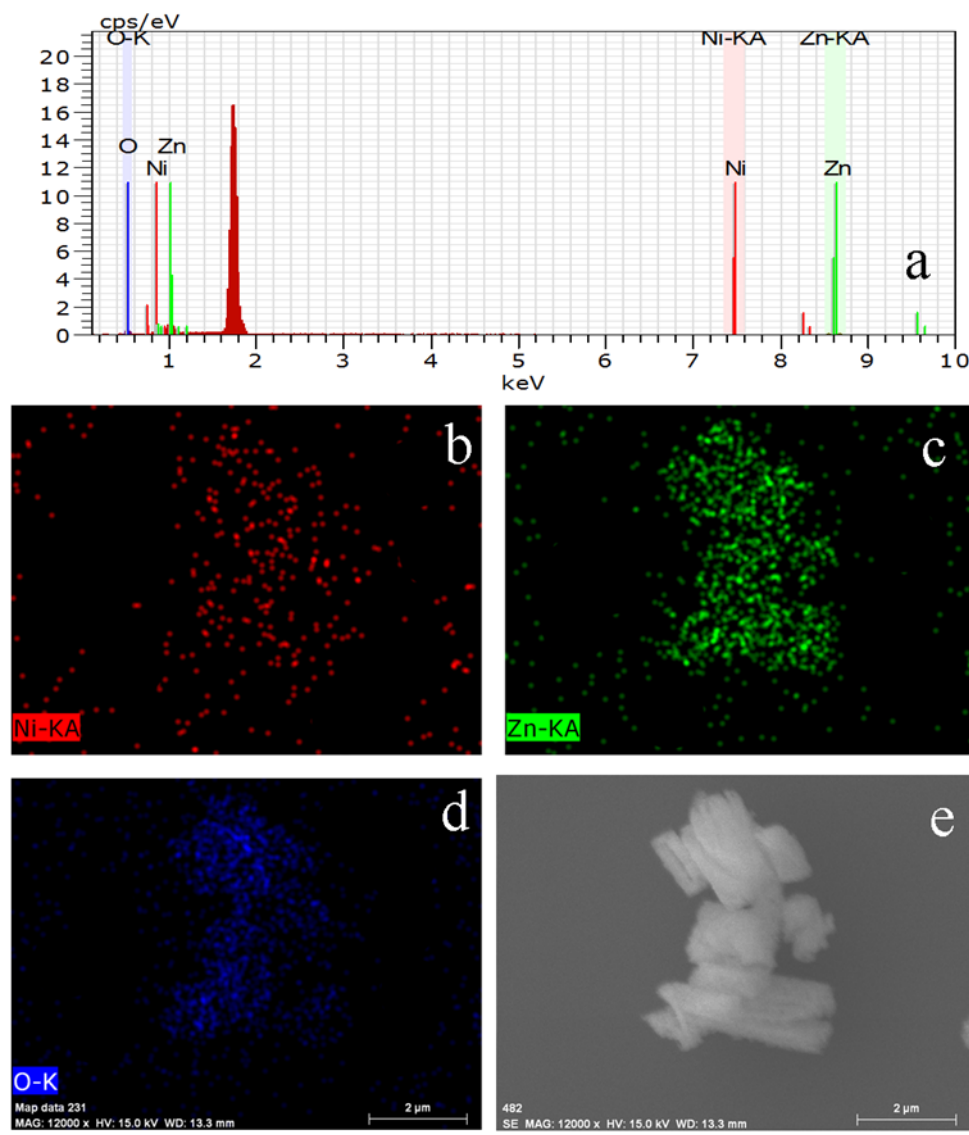
ESI Fig. 1 XRD pattern of M; JCPDS 02-0528 $\text{ZnC}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$; JCPDS 25-1029 $\text{NiC}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$.



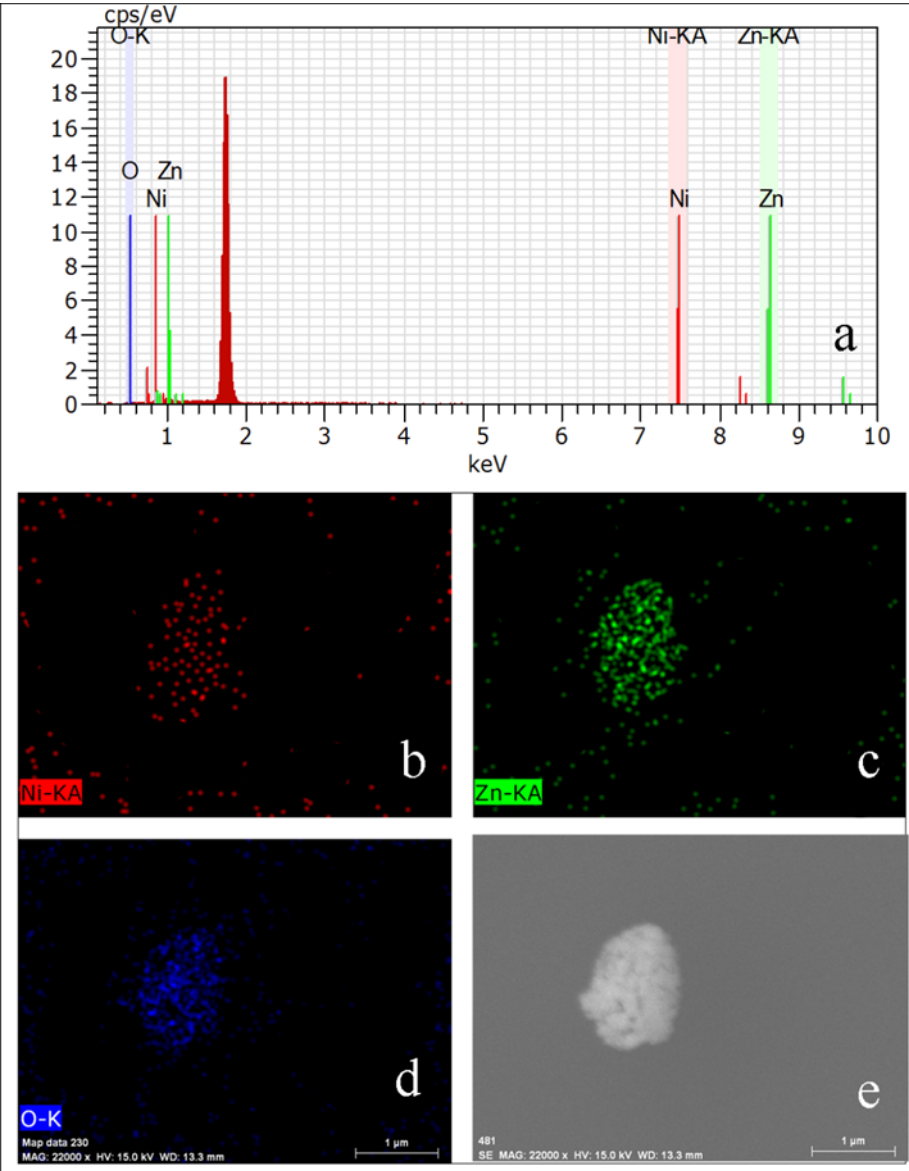
ESI Fig. 2 TG curve of the precursor



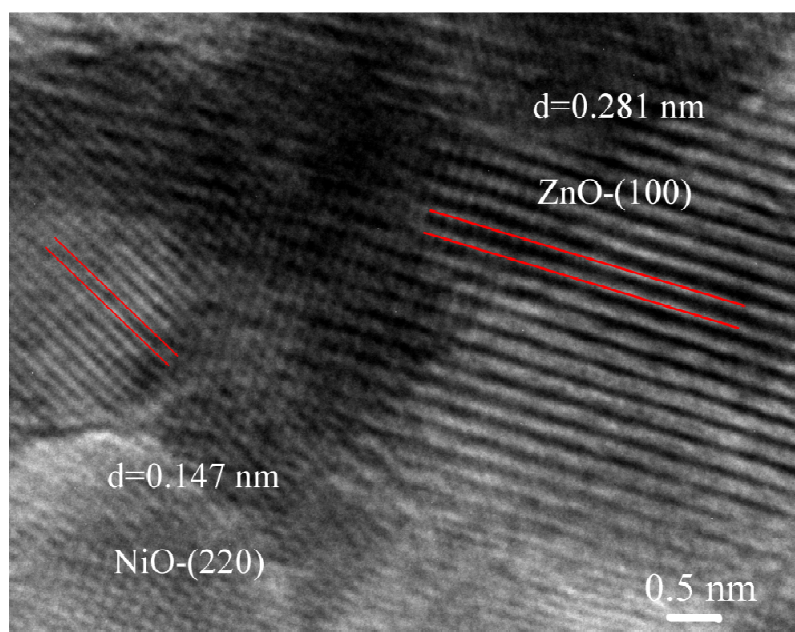
ESI Fig. 3 EDS mapping images of P1



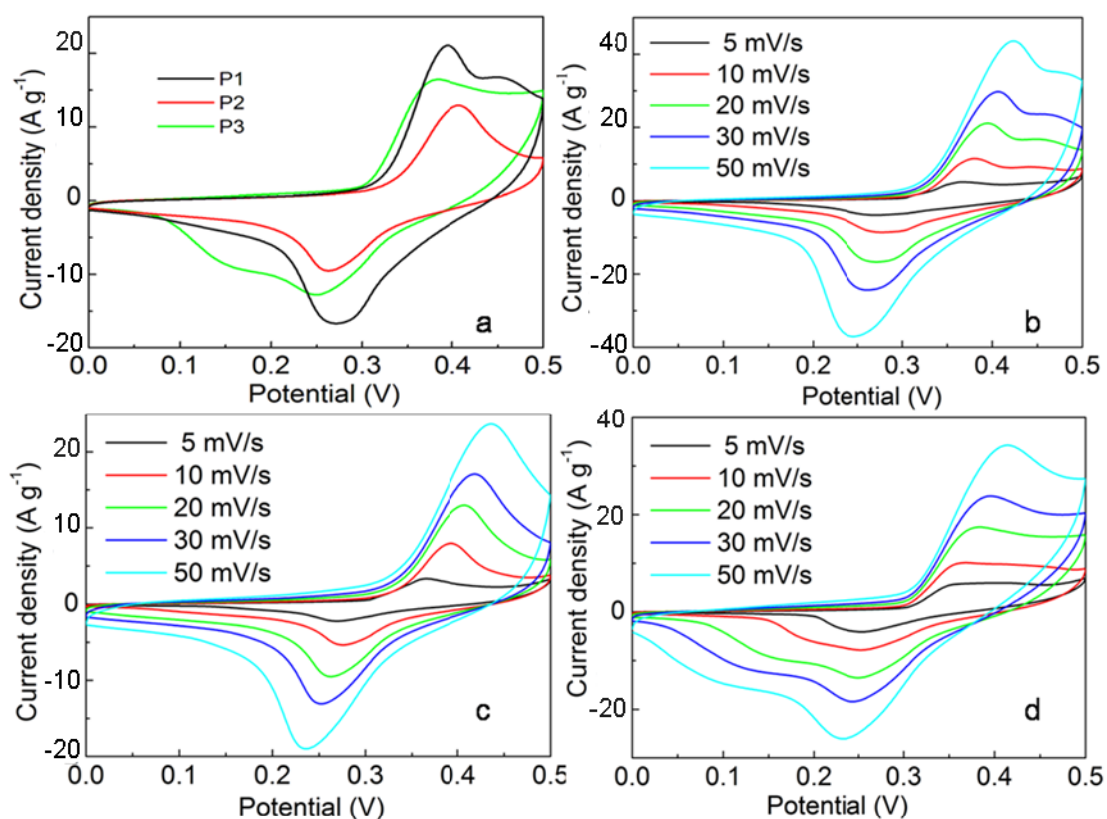
ESI Fig. 4 EDS mapping images of P2



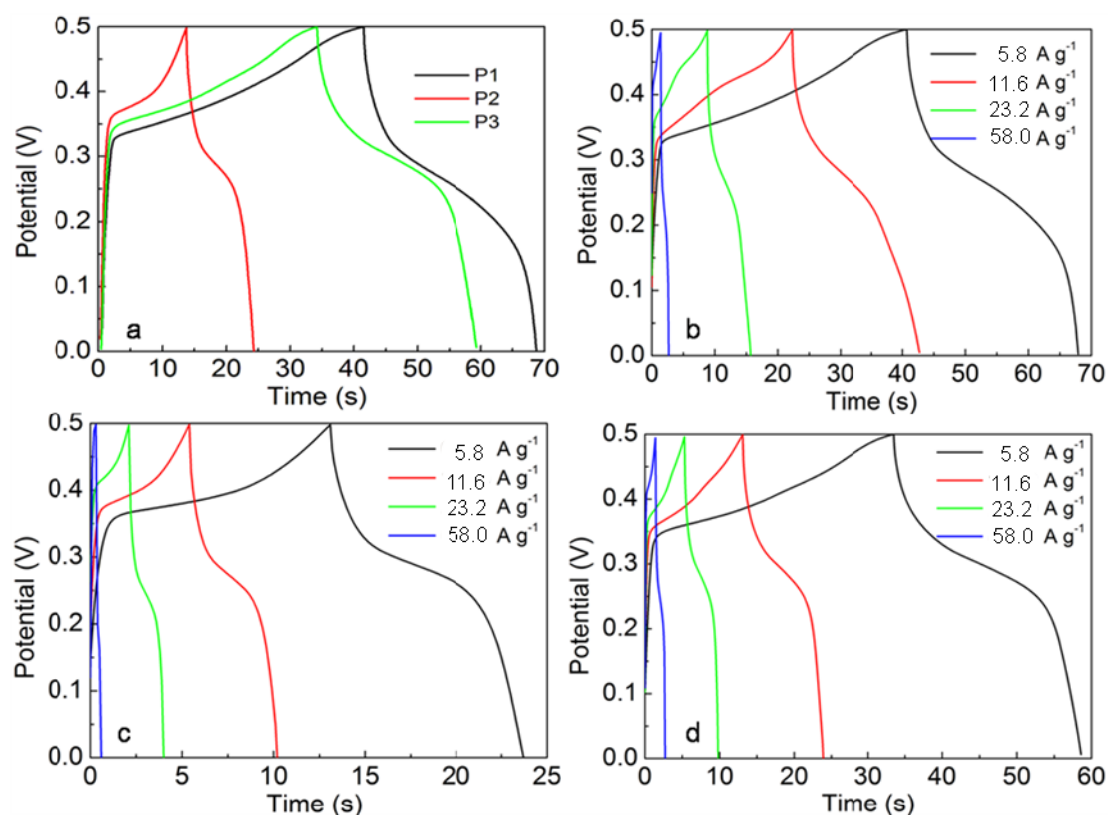
ESI Fig. 5 EDS mapping images of P3



ESI Fig. 6 HRTEM image of P3.



ESI Fig. 7 (a) CV curves of P1-P3 at the scan rate of 20 mV s⁻¹; (b-d) cyclic voltammetry experiments within a 0.0–0.50 V range at a scan rate from 5 to 100 mV s⁻¹ were performed on the P1-P3 electrodes in 1.0 M KOH electrolyte at room temperature.



ESI Fig. 8(a) the galvanostatic charge–discharge curves of P1-P3 at 5.8 A g^{-1} in 1.0 M KOH electrolyte at room temperature; (b-d) the galvanostatic charge–discharge curves of P1-P3 when current densities were 5.8 , 11.6 , 23.2 and 58.0 A g^{-1} in 1.0 M KOH electrolyte at room temperature.