Supporting information

Ordered VO_2 nanoflower with amorphous hybrid interfaces induced by Iodide ion doping for superior Zinc-ion storage

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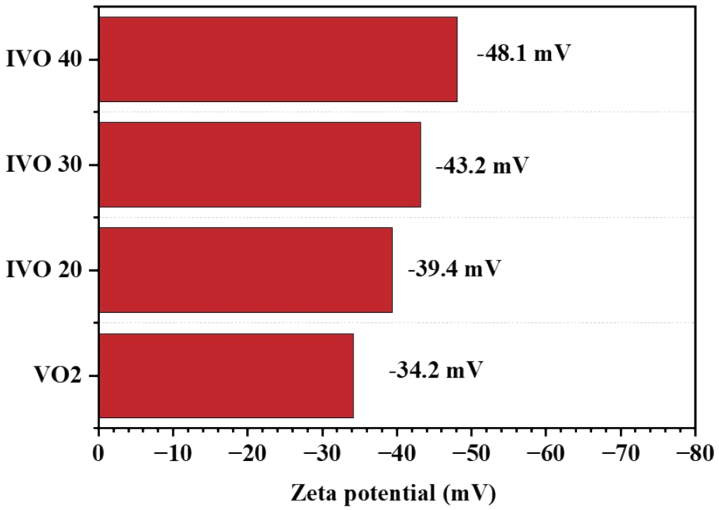

Fig. S1 Zeta potential test results

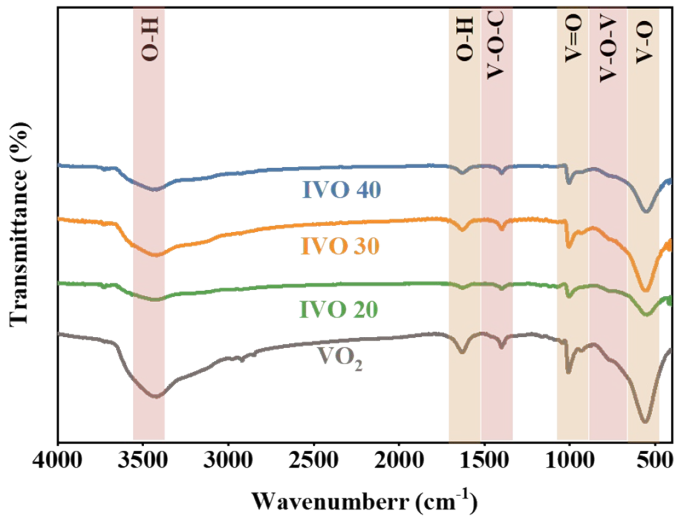

Fig. S2 FTIR spectra of VO_2, IVO 10, IVO 20, IVO 30 and IVO 40

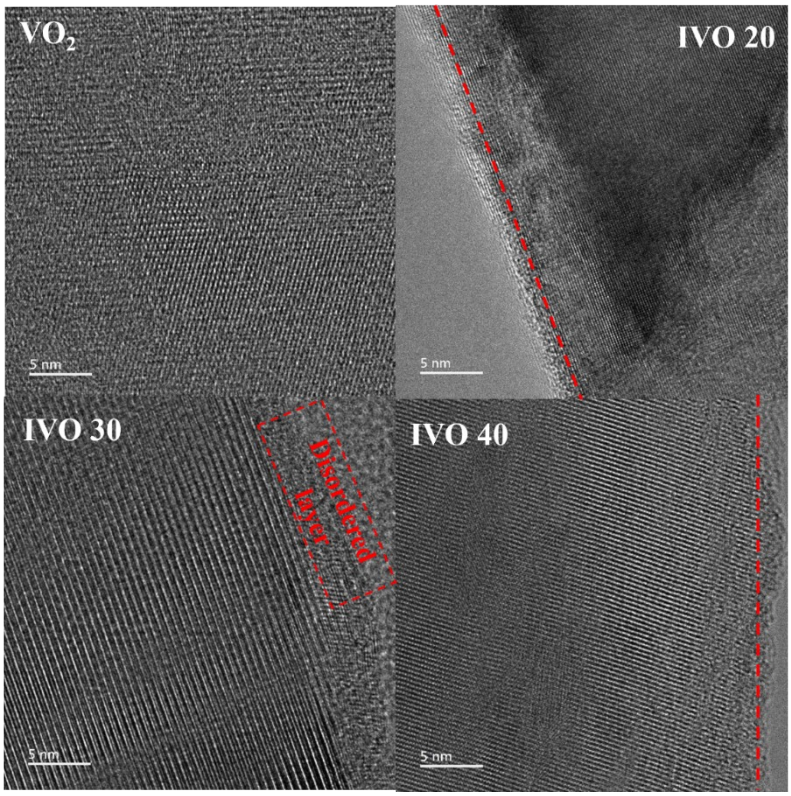

Fig. S3 Morphology and structural characterizations of IVO.

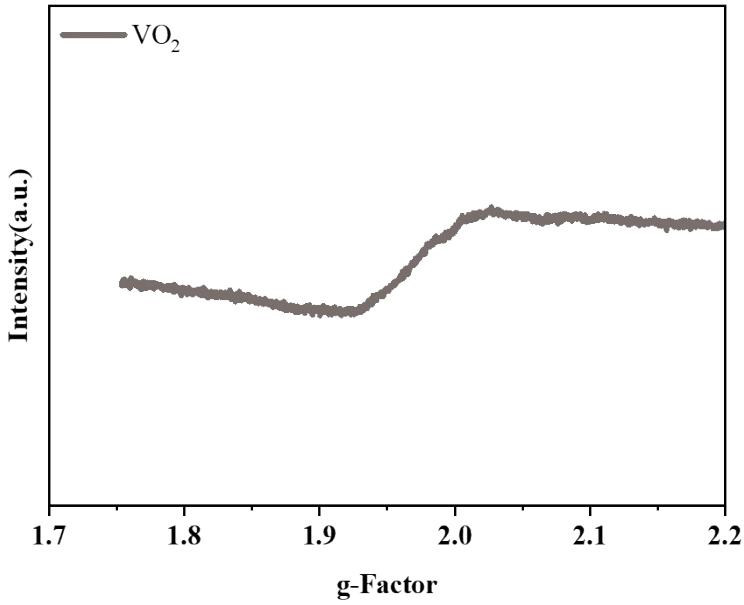

Fig. S4 EPR for VO_2.

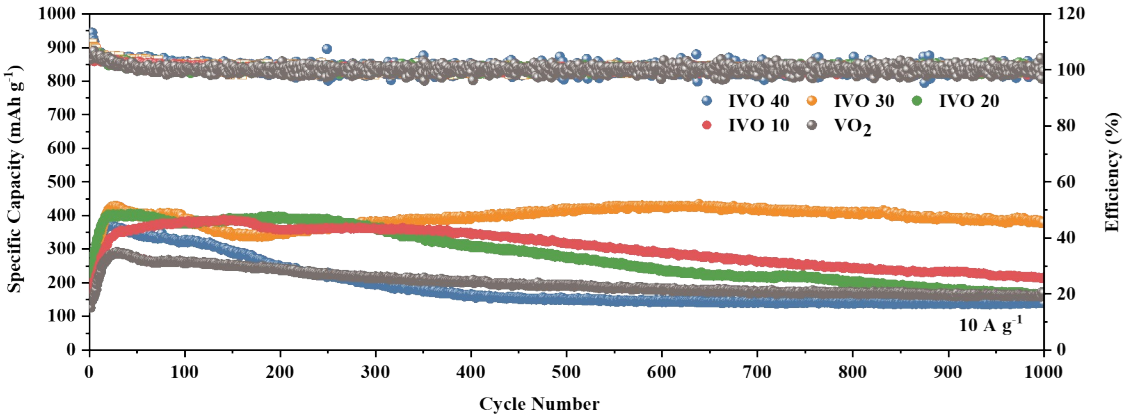

Fig. S5 Long-term cycle performance at 10 A g^{-1} of VO_2, IVO 10, IVO 20, IVO 30 and IVO 40.

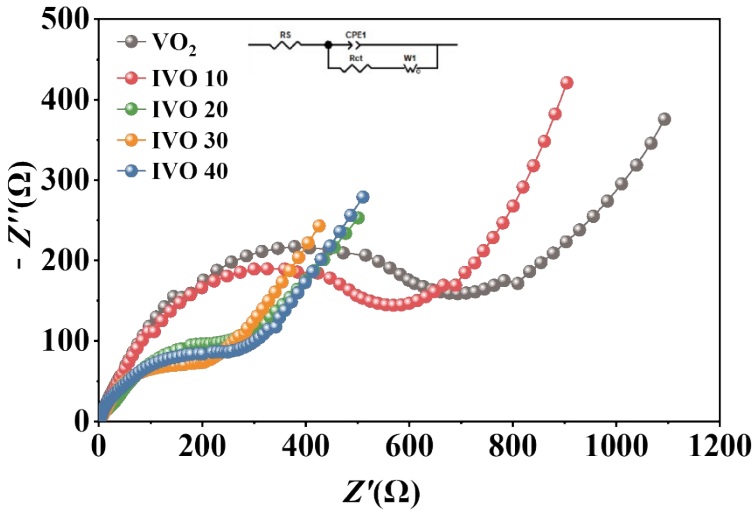

Fig. S6 EIS of VO_2, IVO 10, IVO 20, IVO 30 and IVO 40.

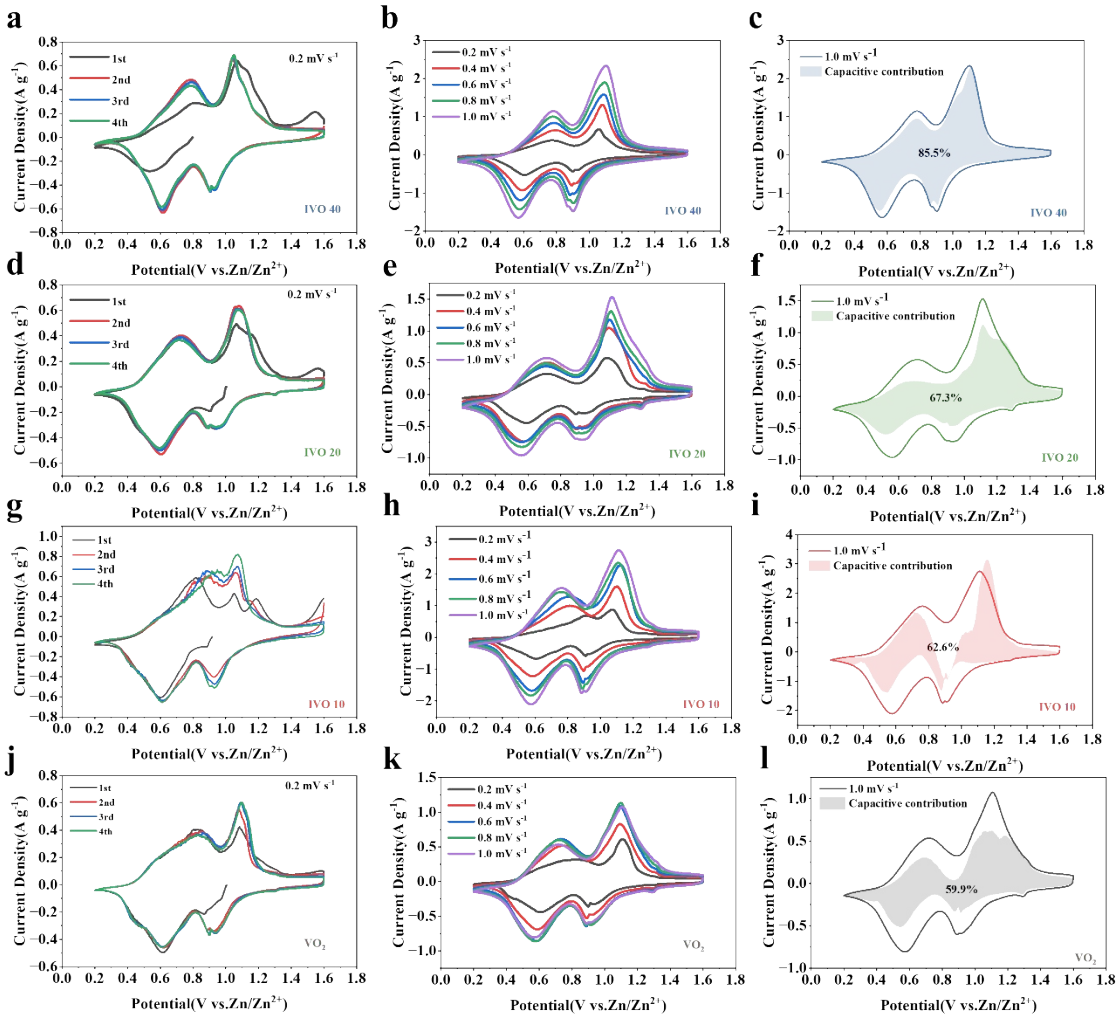

Fig. S7 (a) CV curves of IVO 40 in the first four cycles at 0.2 mV s^{-1}. (b) CV curves at various scan rates of IVO 40. (c) Capacitive contribution at 1.0 mV s^{-1} of IVO 40. (d) CV curves of IVO 20 in the first four cycles at 0.2 mV s^{-1}. (e) CV curves at various scan rates of IVO 20. (f) Capacitive contribution at 1.0 mV s^{-1} of IVO 20. (g) CV curves of IVO 10 in the first four cycles at 0.2 mV s^{-1}. (h) CV curves at various scan rates of IVO 10. (i) Capacitive contribution at 1.0 mV s^{-1} of IVO 10. (j) CV curves of VO_2 in the first four cycles at 0.2 mV s^{-1}. (k) CV curves at various scan rates of VO_2. (l) Capacitive contribution at 1.0 mV s^{-1} of VO_2.

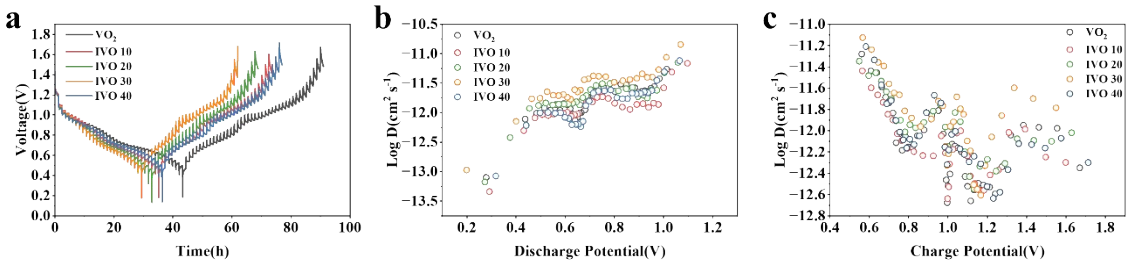

Fig. S8 (a) GITT curves of VO_2, IVO 10, IVO 20, IVO 30 and IVO 40. (b-c) The corresponding diffusivity coefficient for Zn^{2+} during the discharge and charge process.

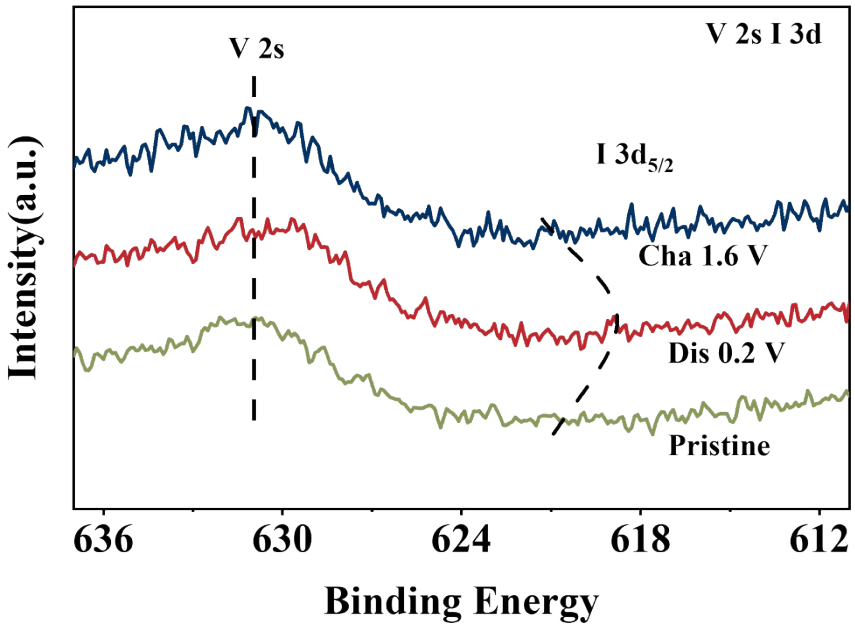

Fig. S9 XPS spectra of I elements in the first cycle