

Supplementary materials for

Metal Coordination Enhanced Ni-Co@ N-doped porous carbon core-shell microsphere bi-functional electrocatalyst and its application in rechargeable zinc/air battery

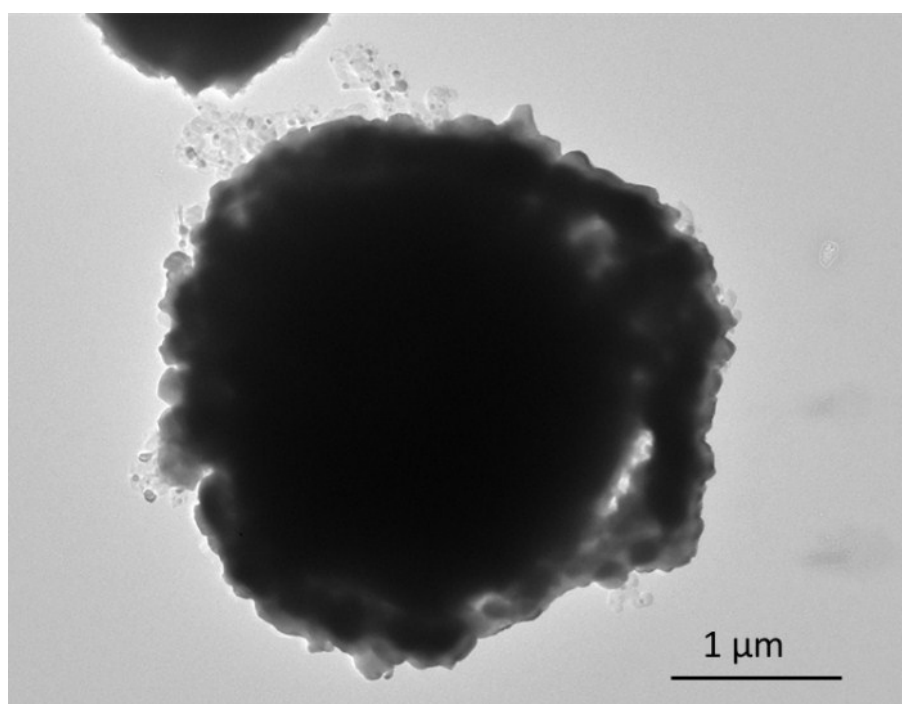


Figure S1. The TEM image of NC@NPC.

Sample	Ni (at.%)	Co (at.%)	N (at.%)	C (at.%)
NC@NPC	0.62%	1.18%	7.1%	90.02%

Table 1. The atom ratio of NC@NPC

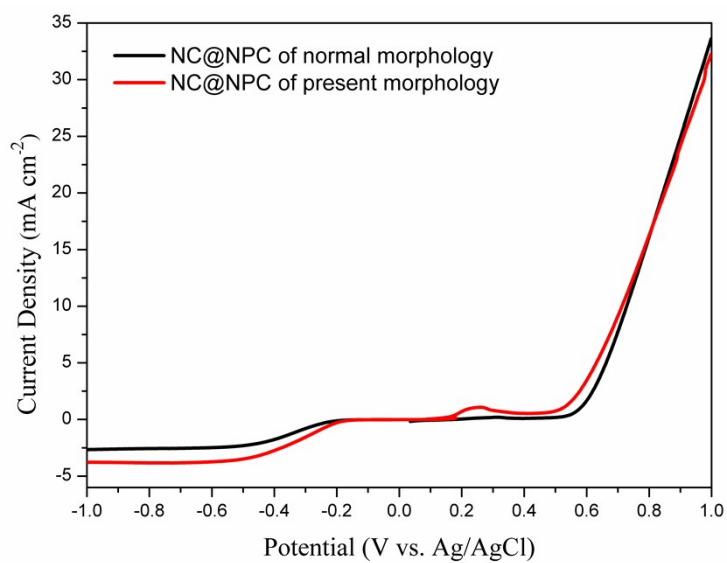


Fig.S2 The LSV curves of the NC@NPC with normal morphology and present morphology.

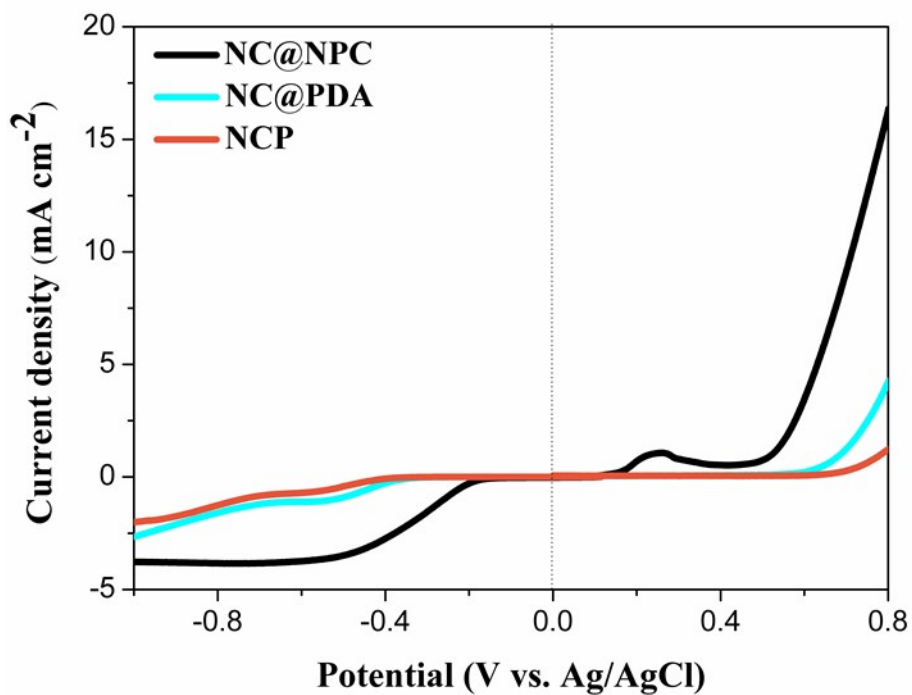


Figure S3. The ORR and OER curves of washed NCP, NC@PDA and NC@NPC.

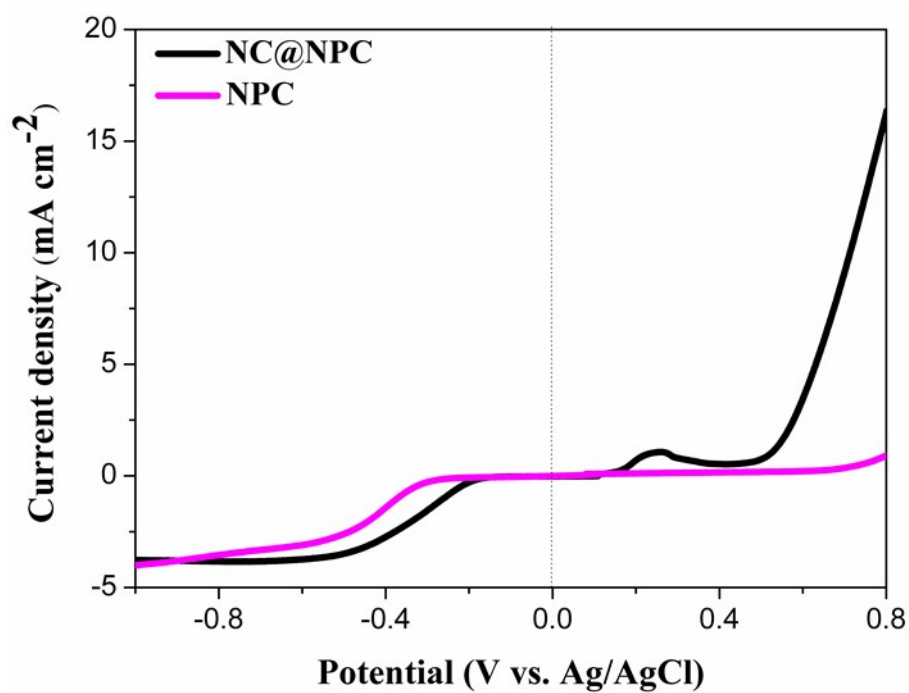


Figure S4. The ORR and OER curves of NPC and NC@NPC.

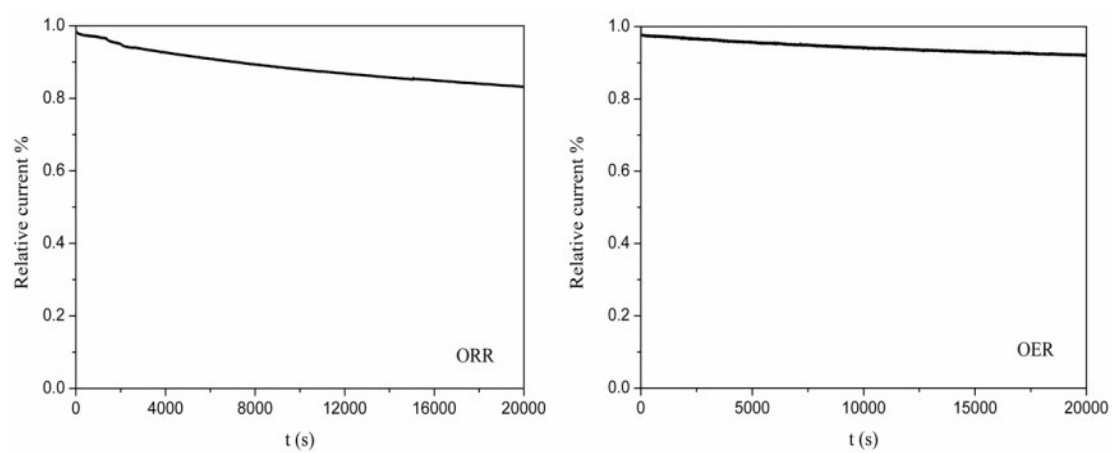


Fig. S5 Chronoamperometric responses of NC@NPC at -0.55 V (ORR) and 0.4 V (OER) in an O₂-saturated 0.1 M KOH solution.

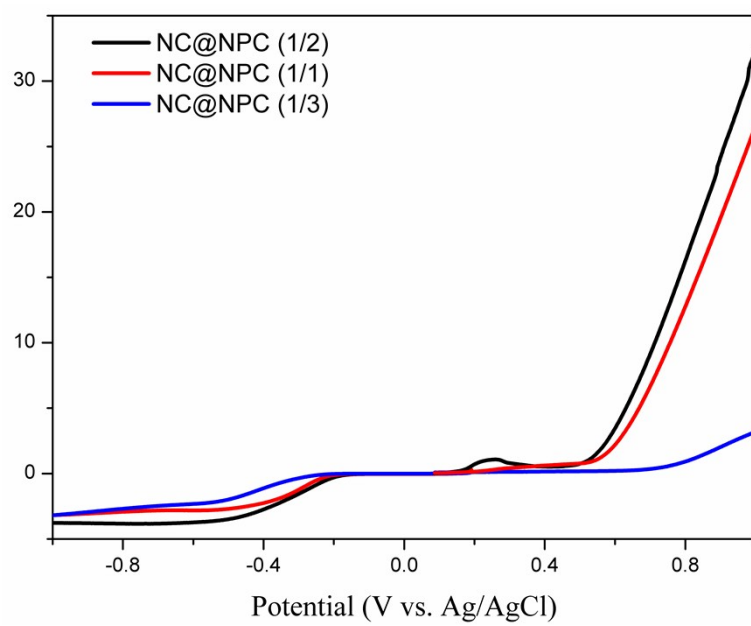


Fig. S6 The LSV curves of the NC@NPC samples with various Ni/Co ratio