

Electronic Supplementary Material (ESI) for

Nitrogen and Cobalt Co-doped Carbon Materials Derived from Biomass Chitin as High-performance Electrocatalyst for Aluminum-air Batteries

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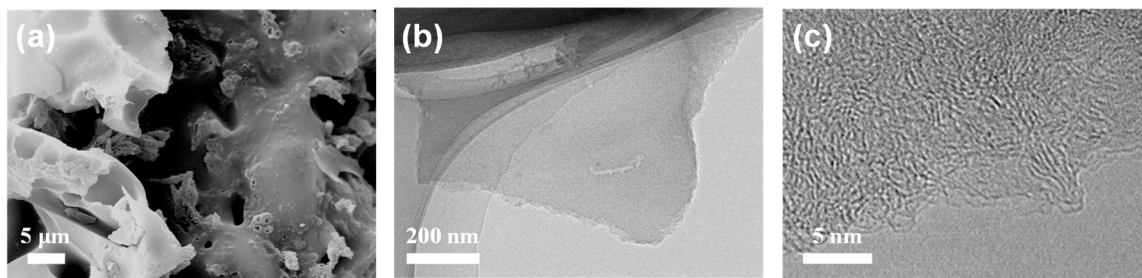


Figure. S1. The SEM and TEM images of NC

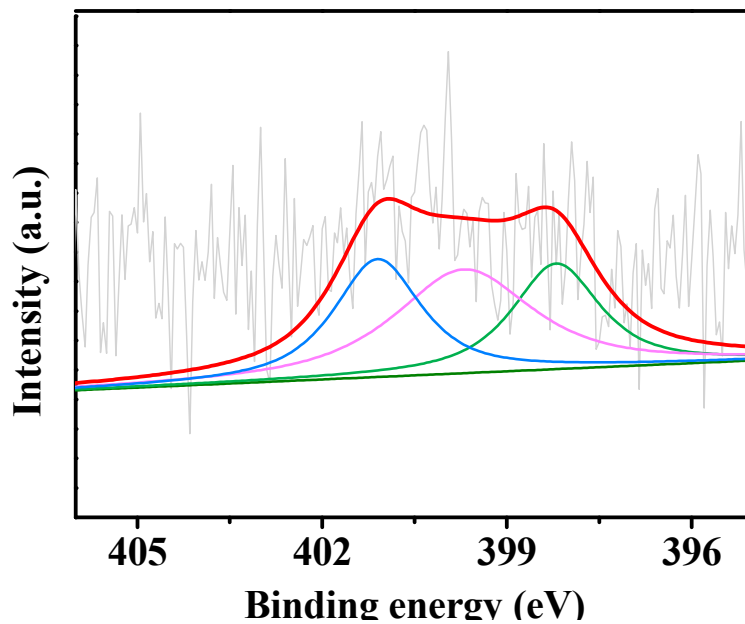


Figure. S2. N1s XPS spectrum of NC.

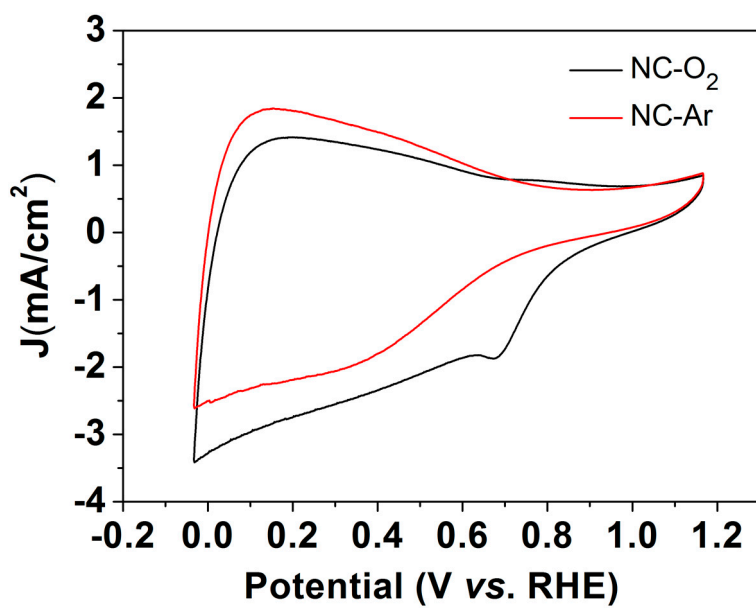


Figure. S3. CV curves of NC catalysts.

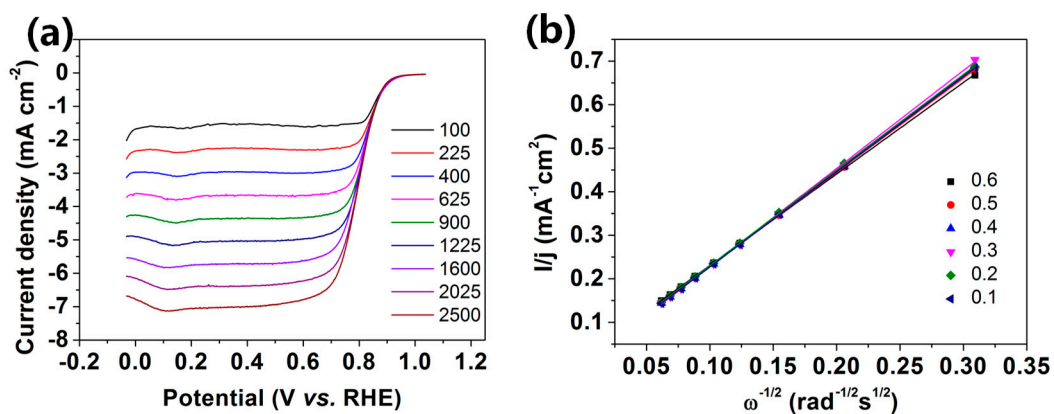


Figure. S4. The LSV curves of Pt/C catalyst at the rotation speeds of 100, 225, 400, 625, 900, 1225, 1600, 2025 and 2500 rpm (a). The corresponding Koutecky-Levich (K-L) plots (b)

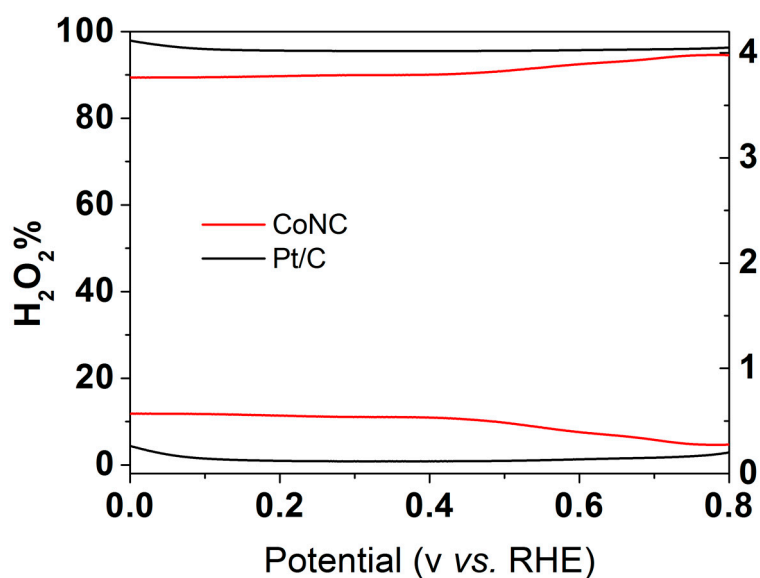


Figure. S5. The H_2O_2 yield and n value of CoNC and Pt/C.

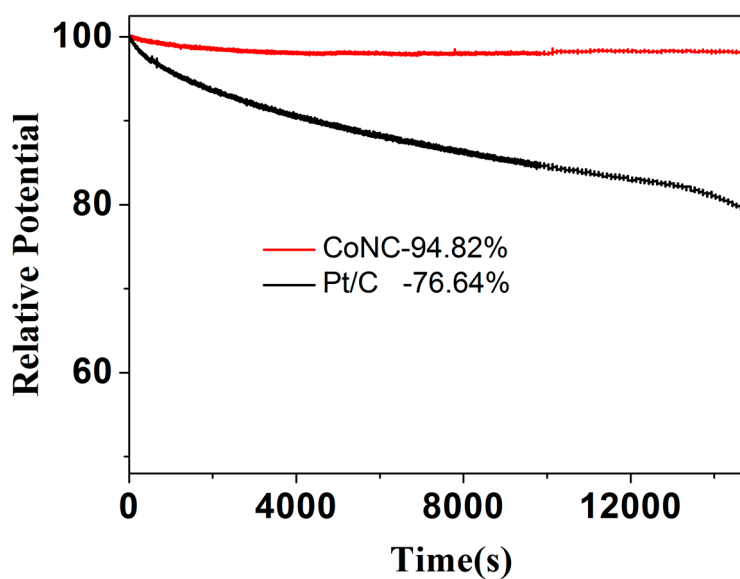


Figure. S6. the $i-t$ chronoamperometric curves of CoNC and Pt/C for 15000 s in an O_2 -saturated 0.1 M KOH solution.

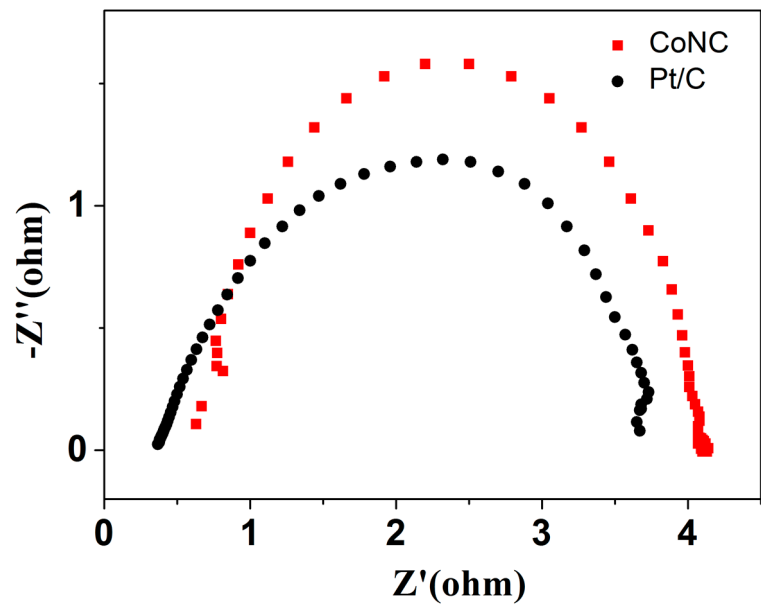


Figure. S7. Nyquist plots of CoNC and commercial Pt/C from 100 KHz to 0.01 Hz.