Supporting Information for

N, F-Codoped Microporous Carbon Nanofibers as Efficient Metal-

Free Electrocatalysts for ORR

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Supplementary Figures



Fig. S1 CV curves of N, F-MCFs-A and N, F-MCFs-B in N₂-saturated and O₂-saturated 0.1 M KOH with a scan rate of 10 mV s⁻¹



Fig. S2 LSV curves of N, F-MCFs-A and N-MCFs-C in O₂-saturated 0.1 M KOH with a scan rate of 10 mV s⁻¹



Fig. S3 LSV curves of N, F-MCFs-A via RRDE in O₂-saturated 0.1 M KOH with a scan rate of 10 mV $\rm s^{-1}$



Fig. S4 High-resolution XPS spectra of and F1s of F-monodoped catalysts



Fig. S5 a Photo of electrochemical cell with Teflon container. b LSV curves of Pt/C 20% in Teflon container and quartz cell with O_2 -saturated 0.1M KOH at 1600 rpm. c LSV curves of N, F-MCFs-A in Teflon container and quartz cell with O_2 -saturated 0.1M KOH at 1600 rpm