Supporting Information for

# **Stepwise Fabrication of Co-Embedded Porous Multi-Channels**

## **Carbon Nanofibers for High-Efficiency Oxygen Reduction**

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### **Supplementary Figures**



**Fig. S1 a** DSC curves of PS fibers (N<sub>2</sub>), PS fibers (Air) and PAN+PS fibers (N<sub>2</sub>) with the temperature range of 50-600 °C. **b** TGA curve of PAN+PS fibers (N<sub>2</sub>) with the temperature range of 50-600 °C

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Fig. S2 SEM images of a, b Co/MCCNFs-D and c, d Co/IMCCNFs



**Fig. S3** High-resolution TEM images of **a** MCCNFs and **b** Co/IMCCNFs; **c** Lattice-distance profile of the red frame in the image **b** 

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**Fig. S4** Rotating-disk voltammograms of 30% Pt/C, MCCNFs and porous MCCNFs in 0.1 M KOH



Fig. S5 a Rotating ring-disk electrode voltammograms recorded with porous MCCNFs, Co/IMCCNFs and Co/MCCNFs-D. b Percentage of peroxide (lower line) and the electron transfer number (n) (upper line) of porous MCCNFs, Co/IMCCNFs, and Co/MCCNFs-D at various potentials, based on the corresponding RRDE data in **a** 



**Fig. S6** Rotating-disk voltammograms of Co/IMCCNFs which were pyrolyzed at different temperatures