

High Catalytic Activity of Mesoporous Co-N/C Catalysts for Aerobic Oxidative Synthesis of Nitriles

Sensen Shang,^{a,b} Lianyue Wang,^a Wen Dai,^a Bo Chen,^{a,b} Ying Lv^a and Shuang Gao^{*a}

^aDalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian National Laboratory

for Clean Energy, Dalian 116023, China. E-mail: sgao@dicp.ac.cn; Fax: +86-0411-84379728; Tel:

+86-0411-84379728

^bUniversity of the Chinese Academy of Sciences, Beijing 100049, China.

*To whom correspondence should be addressed. E-mail: sgao@dicp.ac.cn.

This PDF file includes:

Figure S1 to S6

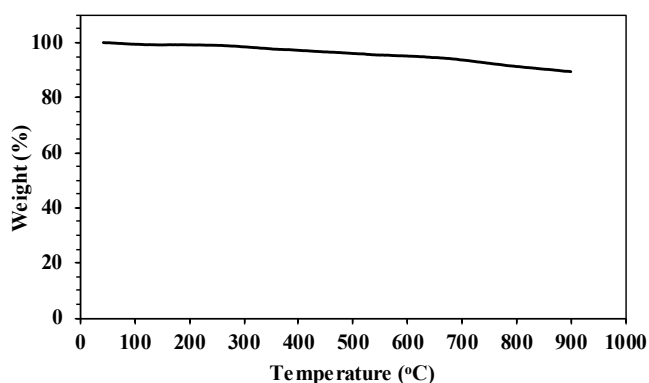


Fig. S1 TGA curve of the as-synthesized Co-bidppz/template composites.

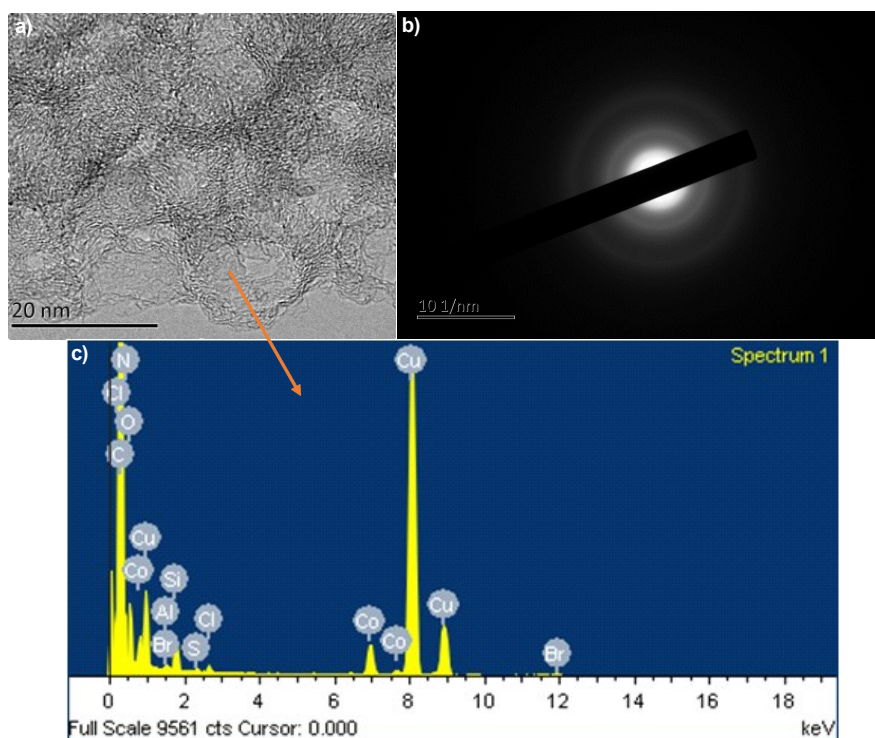


Fig. S2 (a) HRTEM image, (b) selected area electron diffraction (SAED) pattern of the edge area, (c) EDXS of meso-Co-N/C (800).

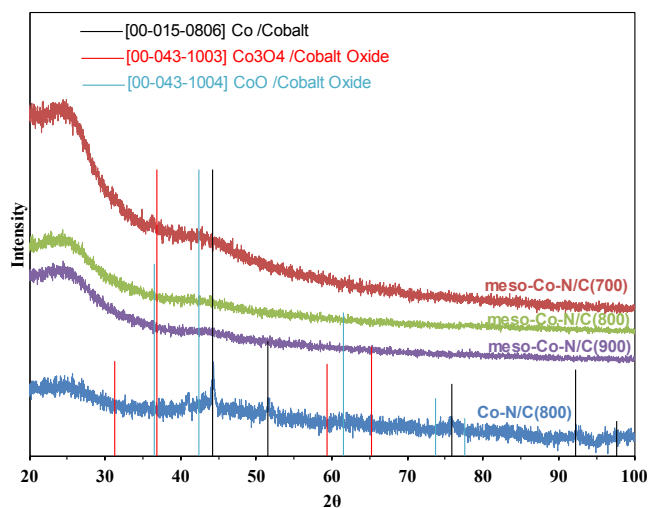


Fig. S3 XRD powder pattern of all Co-N/C samples. The PDF (Powder Diffraction Files) numbers are in brackets.

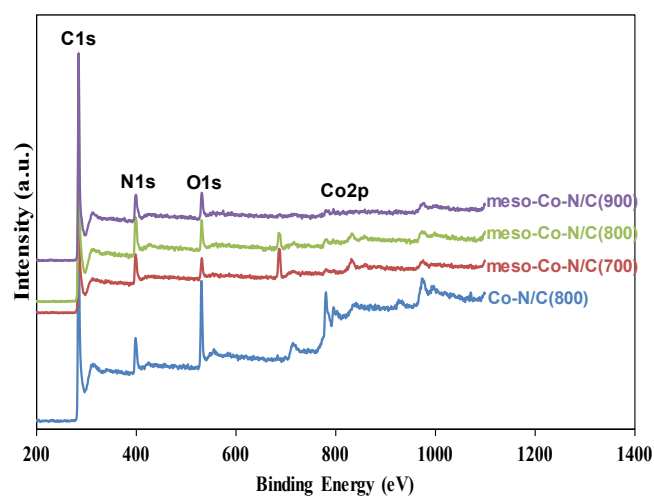


Fig. S4 XPS survey spectra of all Co-N/C samples.

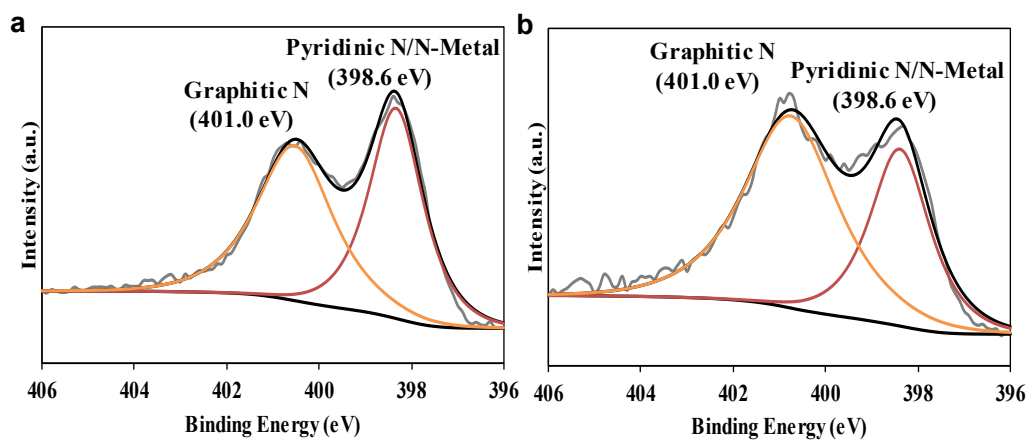


Fig. S5 XPS spectra of N 1s in (a) meso-Co-N/C (700) and (b) meso-Co-N/C (900).

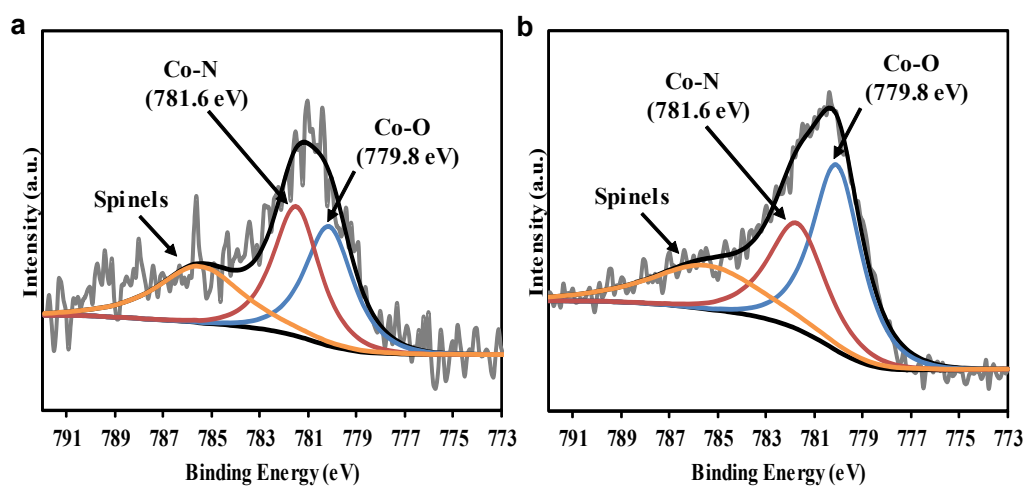


Fig. S6 XPS spectra of Co 2p_{3/2} in (a) meso-Co-N/C (700) and (b) meso-Co-N/C(900).