Electronic Supplementary Material (ESI) for Dalton Transactions.

This journal is © The Royal Society of Chemistry 2020

Three-dimensional nitrogen-sulfur codoped layered porous carbon nanosheets

with sulfur-regulated nitrogen content as high-performance anode materials for

potassium-ion batteries

Ying Zhang¹, Sheng Tian¹, Chenghao Yang^{2,*}, Junmin Nan^{1,*}

1. School of Chemistry, South China Normal University, Guangzhou 510006, P.R.

China

2. Guangzhou Key Laboratory for Surface Chemistry of Energy Materials, New

Energy Research Institute, School of Environment and Energy, South China

University of Technology, Guangzhou 510006, P.R. China

Corresponding author: Junmin Nan, Chenghao Yang

Tel.: +86-20-39310255

Fax: +86-20-39310187

E-mail: jmnan@scnu.edu.cn (J. Nan), esyangc@scut.edu.cn (C. Yang)

1

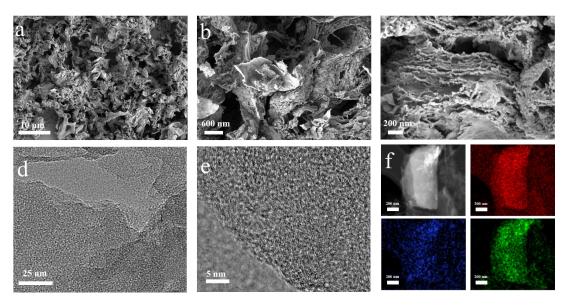


Figure S1 a-c) SEM images of 3D-NCNs. d-e) TEM image of 3D-NCNs. f) EDS element mapping of 3D-NCNs.

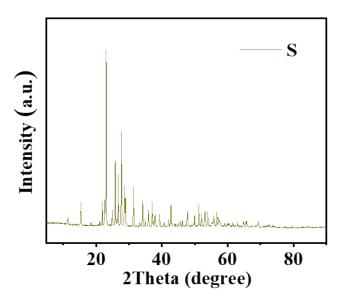


Figure S2 XRD patterns of the S powders.

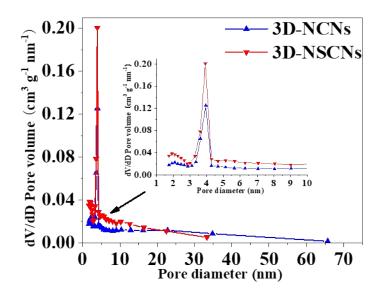


Figure S3 Pore size distribution of 3D-NCNs and 3D-NSCNs.

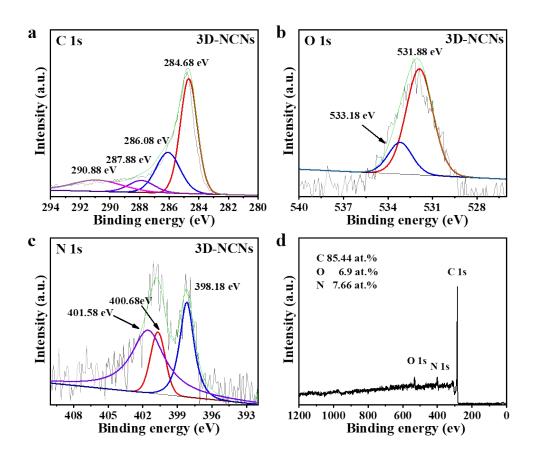


Figure S4 XPS spectra of 3D-NCNs a) C1s, b) O1s and c) N1s. d) XPS survey spectrum of the S-BC-1.