Supplementary material for:

A simple strategy for converting starch to novel compressible carbonaceous foam: mechanism, enlightenment and potential application

Hong Lei^{a,*}, Yao Wu^a, Sen Yang^a, Chunfang Fu^a, Jichuan Huo^{a,*}

^a State Key Laboratory for Environment-friendly Energy Materials, School of Materials Science and Engineering, Southwest University of Science and Technology, Mianyang 621010, People's Republic of China

* Corresponding author. Tel: + 86 816 2419201. Fax: + 86 816 2419201. E-mail: honglei117@163.com (H. Lei); huojichuan@swust.edu.cn (J. Huo).

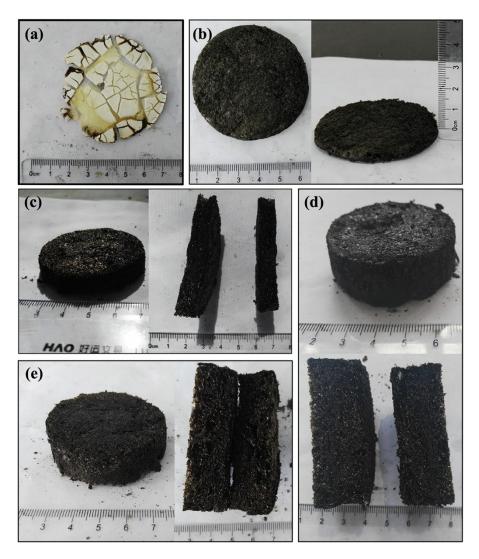


Figure S1. Digital images of the samples during the transition from starch to carbonaceous foam: (a) 45 min, (b) 55 min, (c) 1 h, (d) 2 h and (e) 3 h.

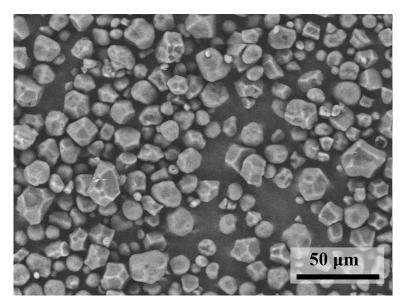


Figure S2. SEM image of native corn starch.

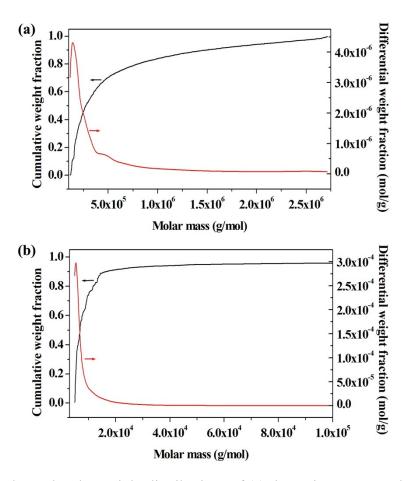


Figure S3. The molecular weight distributions of (a) the native corn starch and (b) the dark brown glutinous intermediate formed during the preparation of carbonaceous foam.

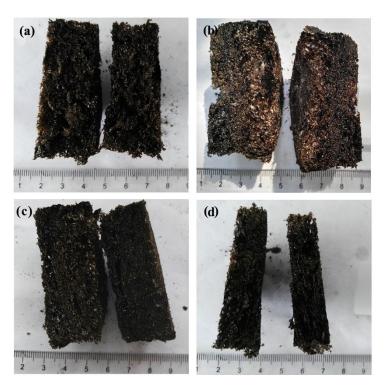


Figure S4. Digital images of the carbonaceous products prepared from the starch filter cakes that were hydrolytically etched by acid mixture for (a) 0 h, (b) 1 h, (c) 2 h and (d) 3 h.