Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Appendix. Supporting information (SI)

Mechanism of porosity development and defect engineering in chemically activated woven carbon fibres

Milad Laghaei [1, 2]*, Chao Liu [1], Quanxiang Li [1], Minoo Naebe [1], and Lingxue Kong [1]*

[1] Institute for Frontier Materials, Deakin University, Waurn Ponds, VIC 3216, Australia

[2] School of Engineering, Deakin University, Waurn Ponds, VIC 3216, Australia

* Corresponding authors:

Milad Laghaei (m.laghaei@deakin.edu.au)

Lingxue Kong (lingxue.kong@deakin.edu.au)

1. Supplemental results

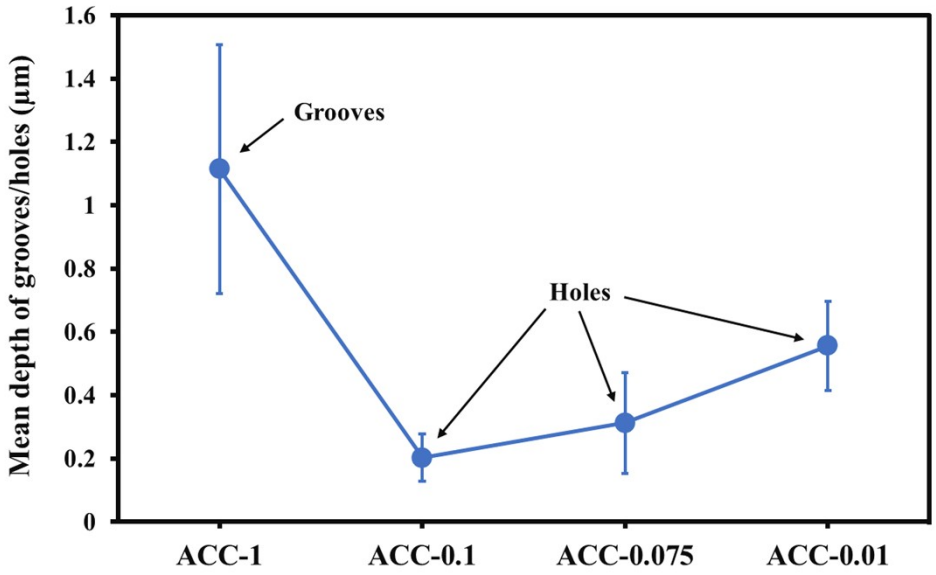

Figure S1. Mean depth of the grooves/holes for the chemically activated carbon fibres, calculated by the profilometry images.

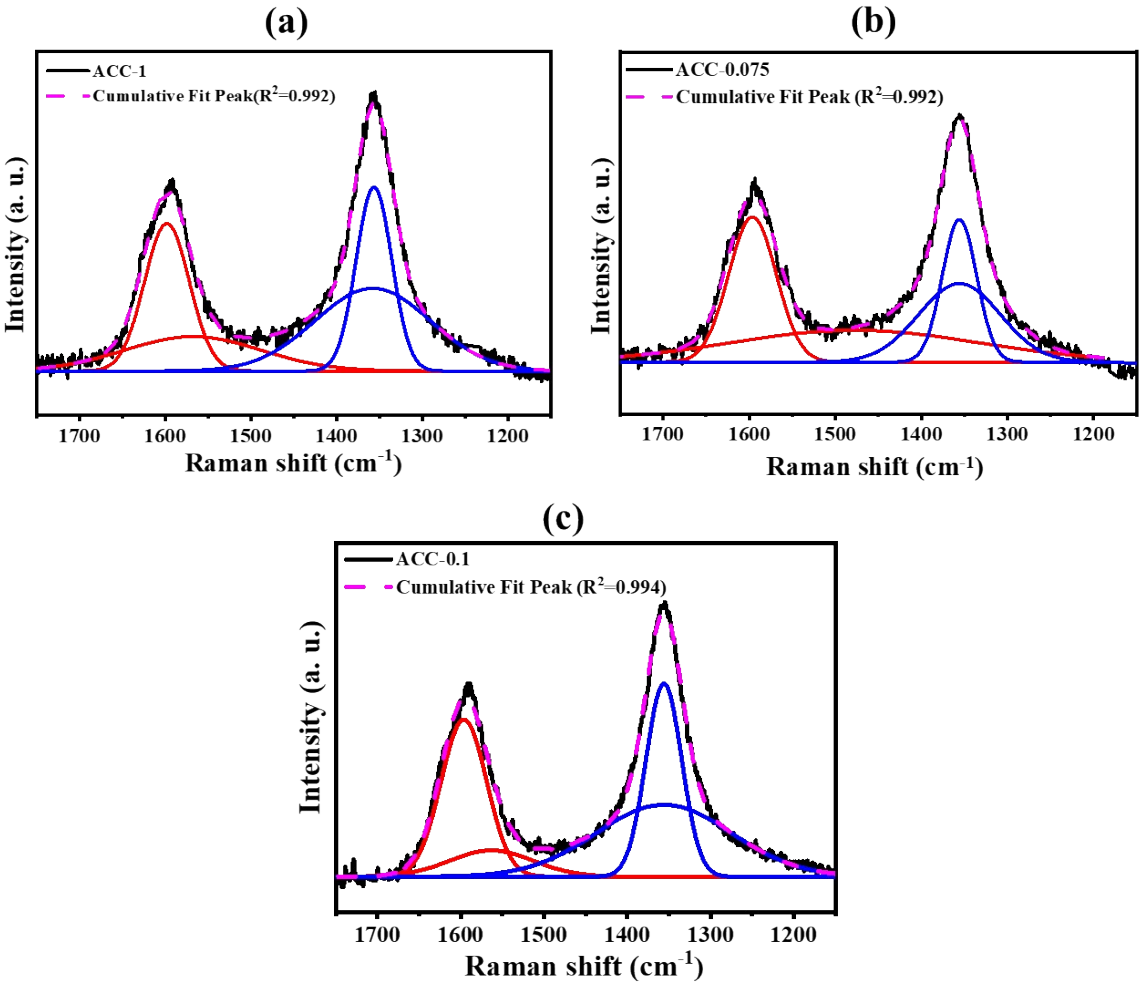

Figure S2. Raman spectra of KOH activated with the different WRs of (a) 1, (b) 0.1, and finally (c) 0.01 with the fitting results using four Gaussians.

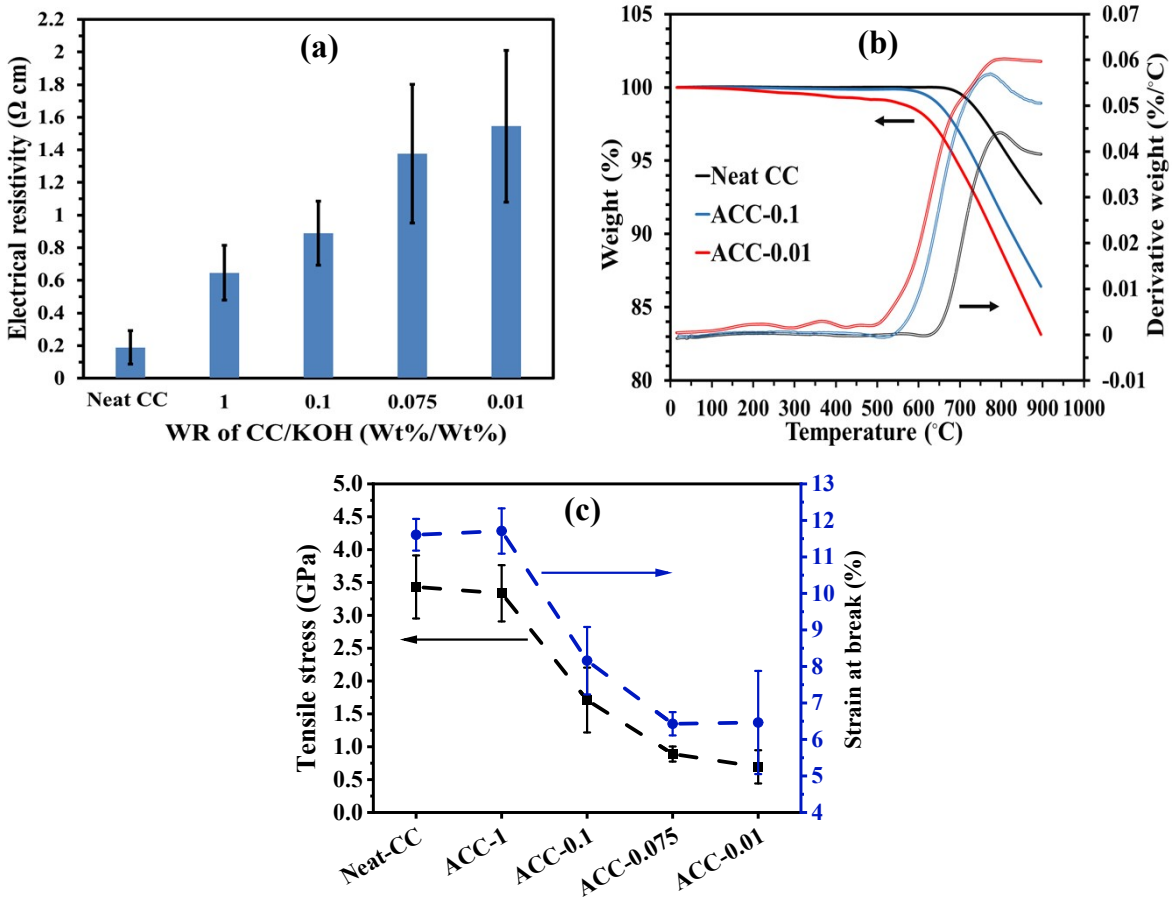

Figure S3. (a) Electric resistivity of the CCs as a function of the etchant concentration (at 10 mA and 20 mV), (b) TGA and DTA (lines with dots) of the neat and the activated CCs with the WRs of 0.1 and 0.01 wt%/wt% and (c) tensile stress and strain at break of the neat and the activated carbon cloths.