Electronic Supplementary Material (ESI) for Sustainable Energy & Fuels.

Supporting Information

Enhanced activated carbon lithium-ion capacitor electrochemical stability through electrolyte dielectric optimization

Obinna Egwu Eleri[a,b],Julie Pires[a], Frederik Huld[a], Song Lu[b], Philipp Schweigart[c] , Ann Mari Svensson[c], Fengliu Lou[a*], and Zhixin Yu[b*]

[a] Beyonder AS, Stokkamyrveien 30, 4313 Sandnes, Norway

[b] Department of Energy and Petroleum Engineering, University of Stavanger, 4036 Stavanger, Norway

[c] Department of Material Science and Engineering, Norwegian University of Science and Technology, 7034 Trondheim, Norway

Corresponding authors*

ZY: zhixin.yu@uis.no

FL: fengliu@beyonder.no

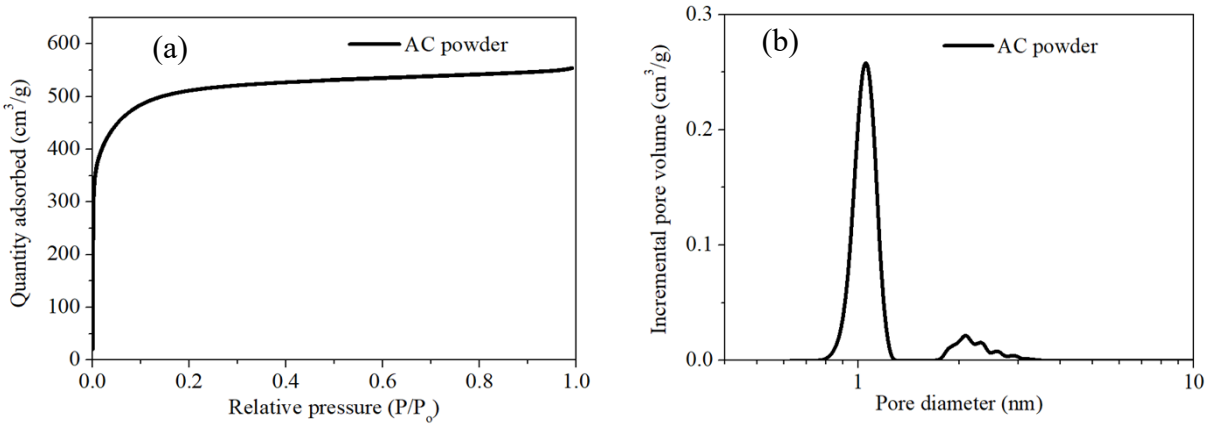

Figure S1: (a) Nitrogen adsorption/desorption isotherm, and (b) Pore size distribution of the AC.

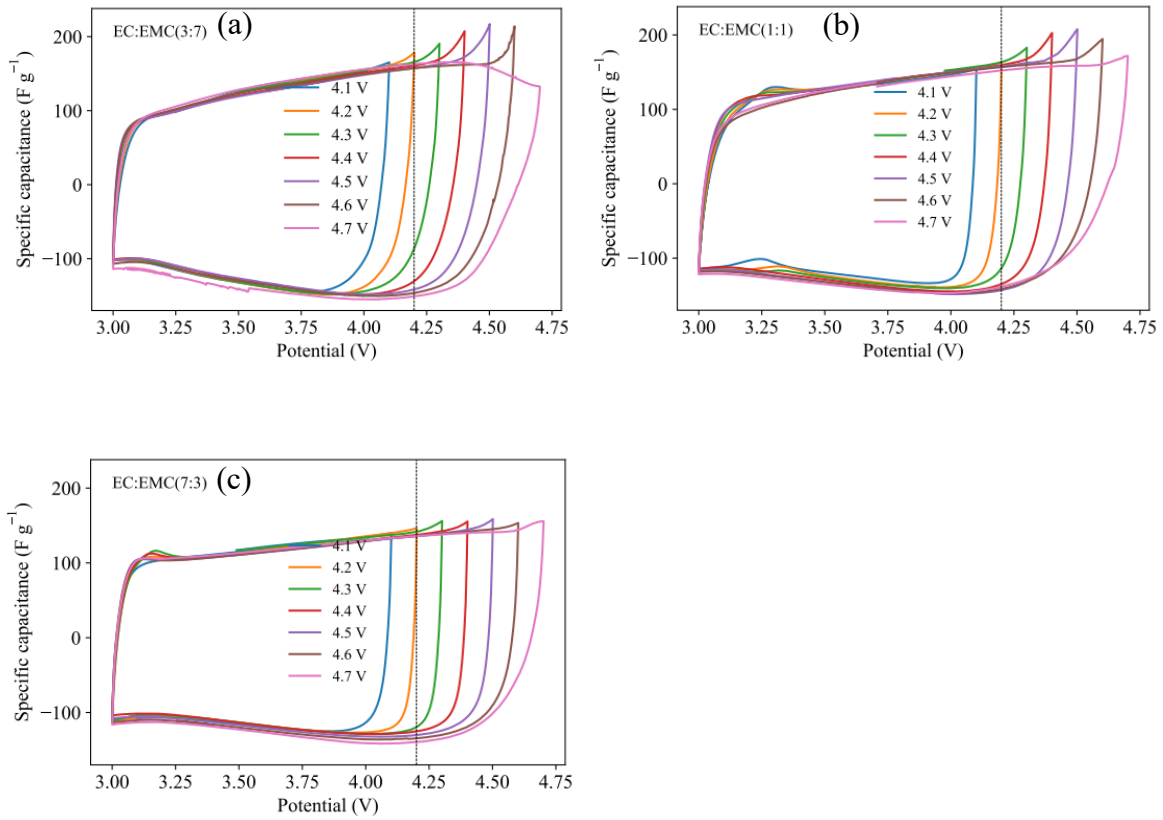

Figure S2: Cyclic voltammograms of the EC:EMC solvent combinations at various potential windows (a) EC:EMC (3:7), (b) EC:EMC (1:1), and (c) EC:EMC (7:3)

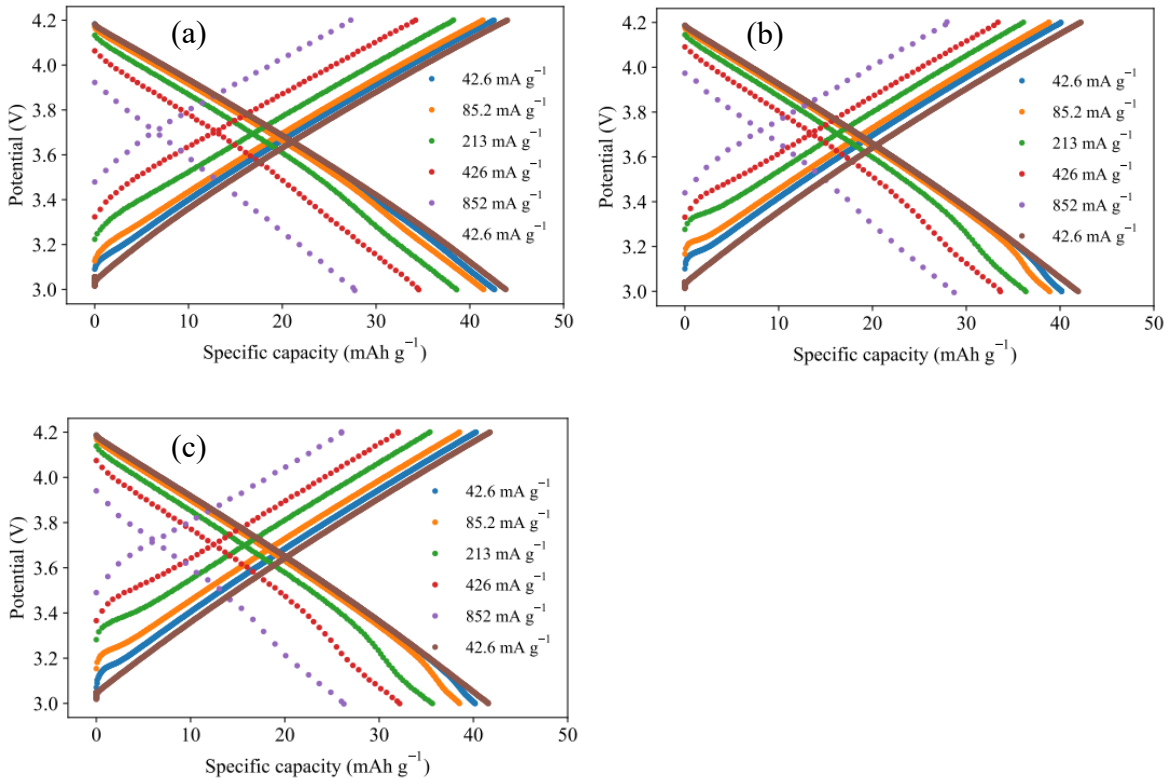

Figure S3: Charge and discharge plots at different C-rates. (a) EC:EMC (3:7), (b) EC:EMC (1:1), and (c) EC:EMC (7:3).

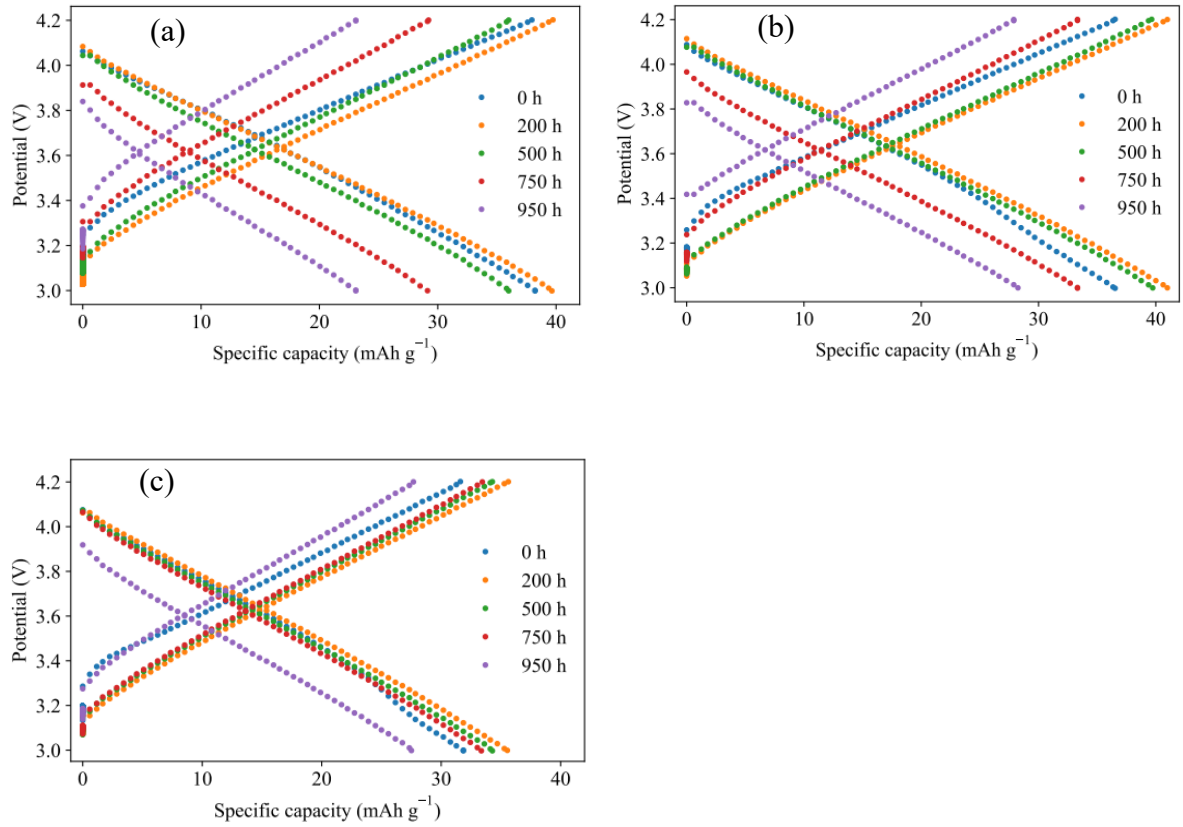

Figure S4: Charge and discharge plots after different durations of floating voltage (a) EC:EMC (3:7), (b) EC:EMC (1:1), and (c) EC:EMC (7:3).