

Supporting Information

Kraft Black Liquor as a Carbonaceous Source for the Generation of Porous Monolithic Materials and Applications towards Hydrogen Adsorption and Ultra-stable Supercapacitors

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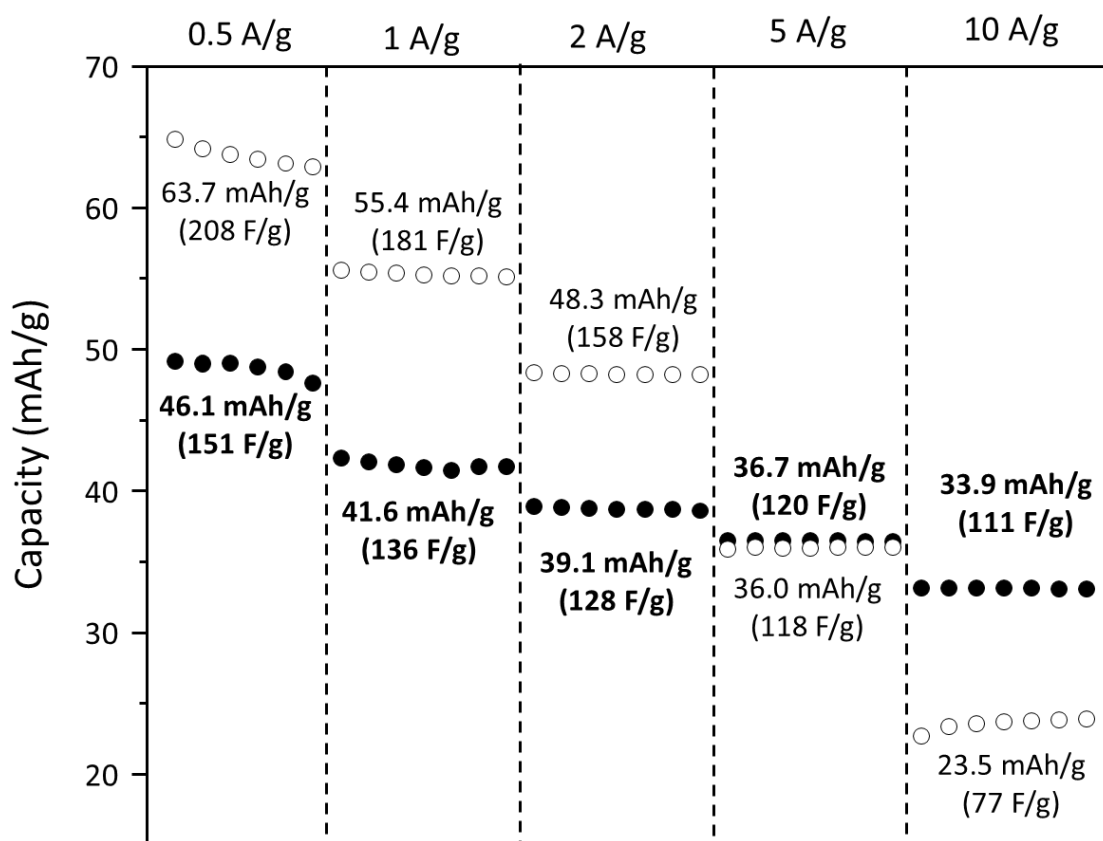
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- Formulation: 80 wt% of Carbo(HIPE), 15 wt% of Carbon black and 5 wt% of PTFE
- Formulation: 95 wt% of Carbo(HIPE) and 5 wt% of PTFE

Figure S1 : Evolution of the specific capacity versus the current density for two different electrode formulations. The galvanostatic charge/discharge measurements were performed in 5M KOH at 25°C.

The results clearly demonstrate that the electrode formulation without carbon black delivers very good capacities at moderate current densities, with for instance 208 F/g at 0.5 A/g versus 151 F/g for a classical formulation. However, such carbon black free formulation presents capacity retention issues at high current densities probably to a limited electronic percolation within the electrode.

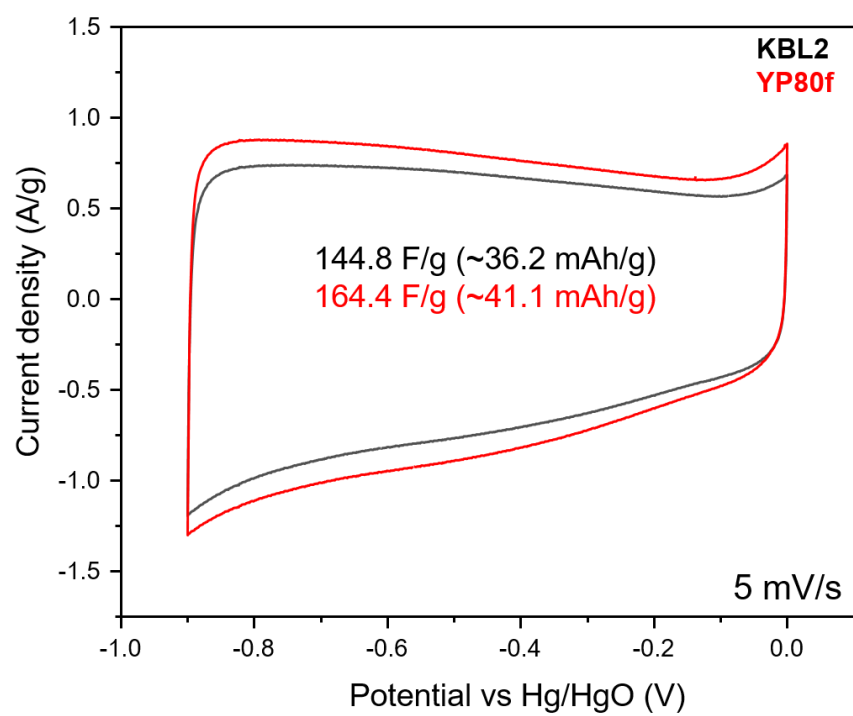


Figure S2 : Cyclic voltammetry curves at 5 mV/s of carboHIPE (black curve) and commercial activated carbon YP80f (red curve) in 5M KOH.