

**Facile and sustainable technique to produce low-cost high surface area mangosteen shell
activated carbon for supercapacitors applications**

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Supporting Information:

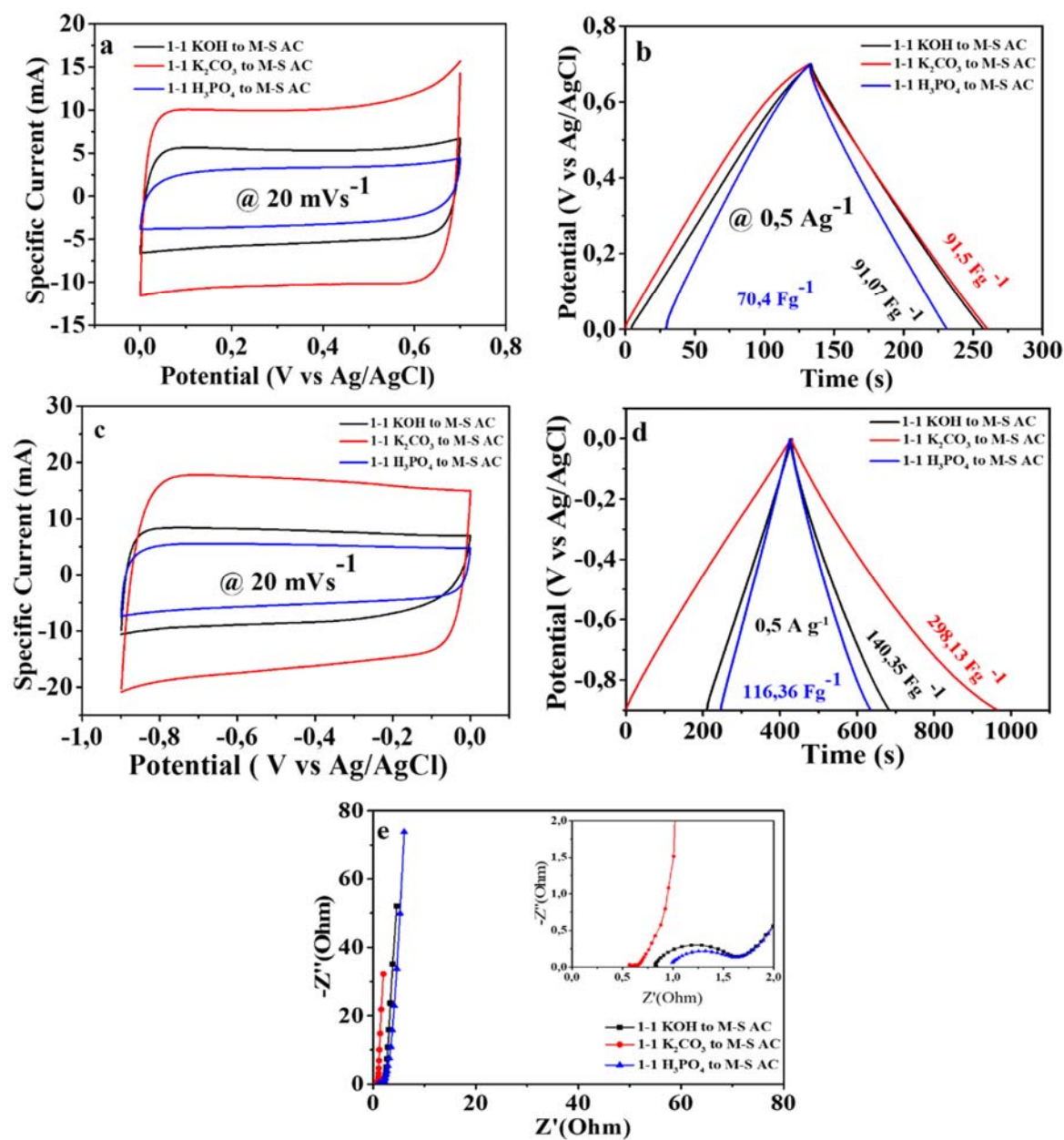


Figure S 1: (a, c) CV patterns at 20 mV s⁻¹, and (b, d) GCD patterns at 0.5 A g⁻¹ for the positive and negative electrode, respectively. (e) EIS Nyquist plot, with the inset showing low-frequency region evaluated from different activating agent in 2.5 M KNO₃ as the electrolyte

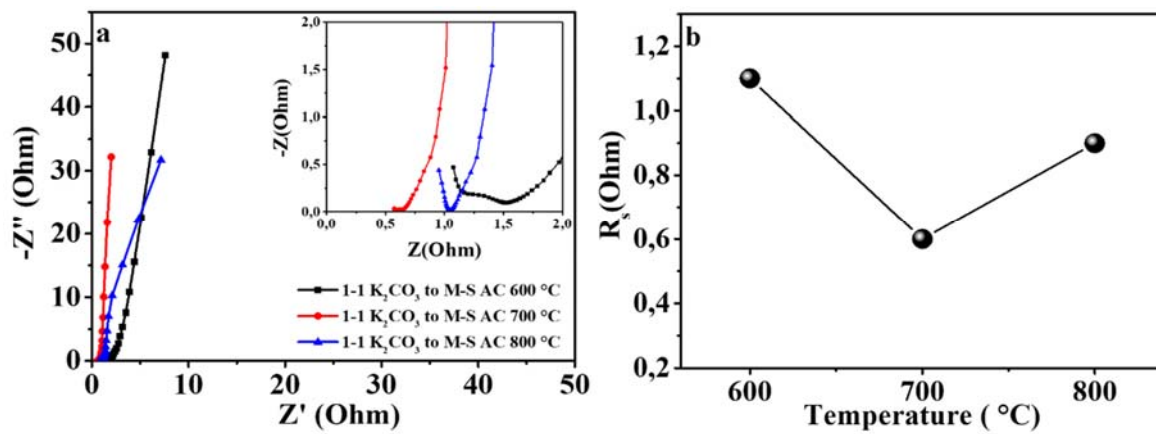


Figure S 2: (a) EIS Nyquist plot, with the inset showing low-frequency region and, (b) Electrical series resistance for 1-1 K_2CO_3 samples evaluated from different temperature.

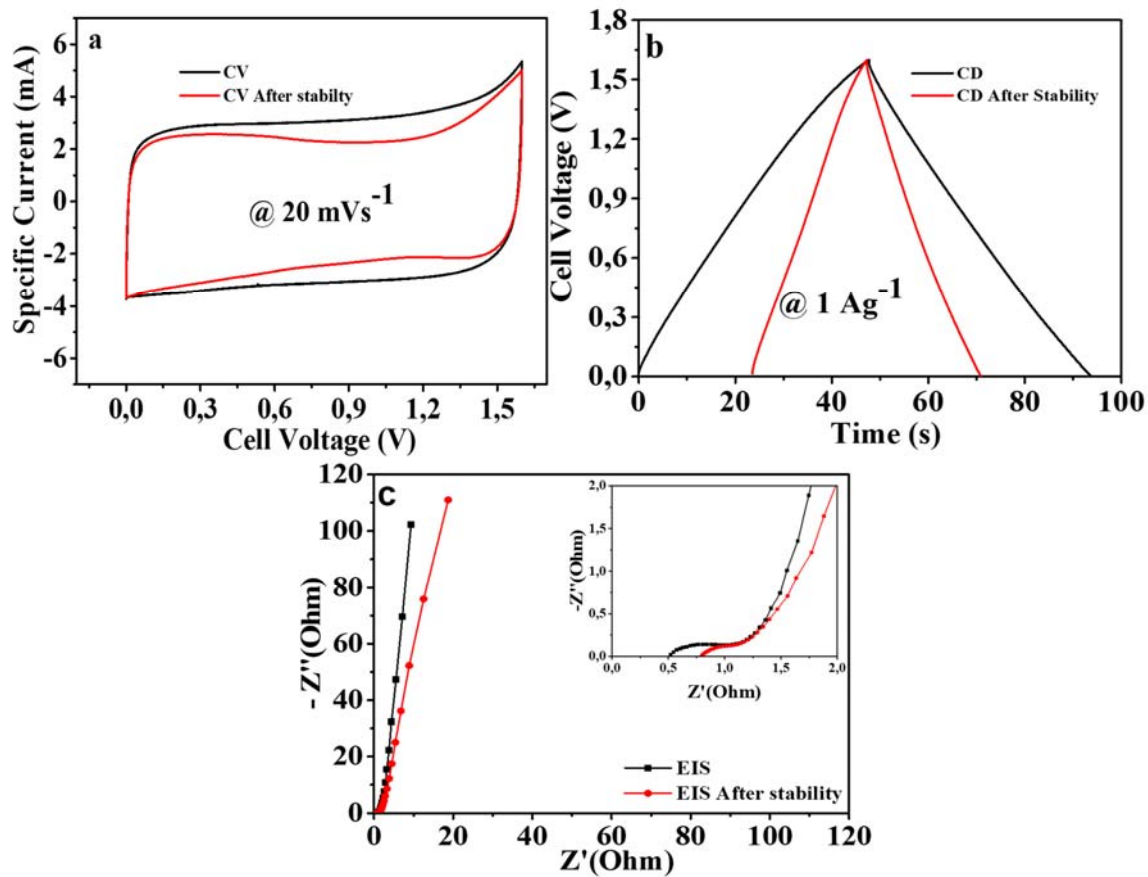


Figure S 3: Electrochemical characterisation before and after stability: (a) CV curves, (b) GCD curves, and (c) EIS Nyquist plot obtained by using 2.5 M KNO_3 .

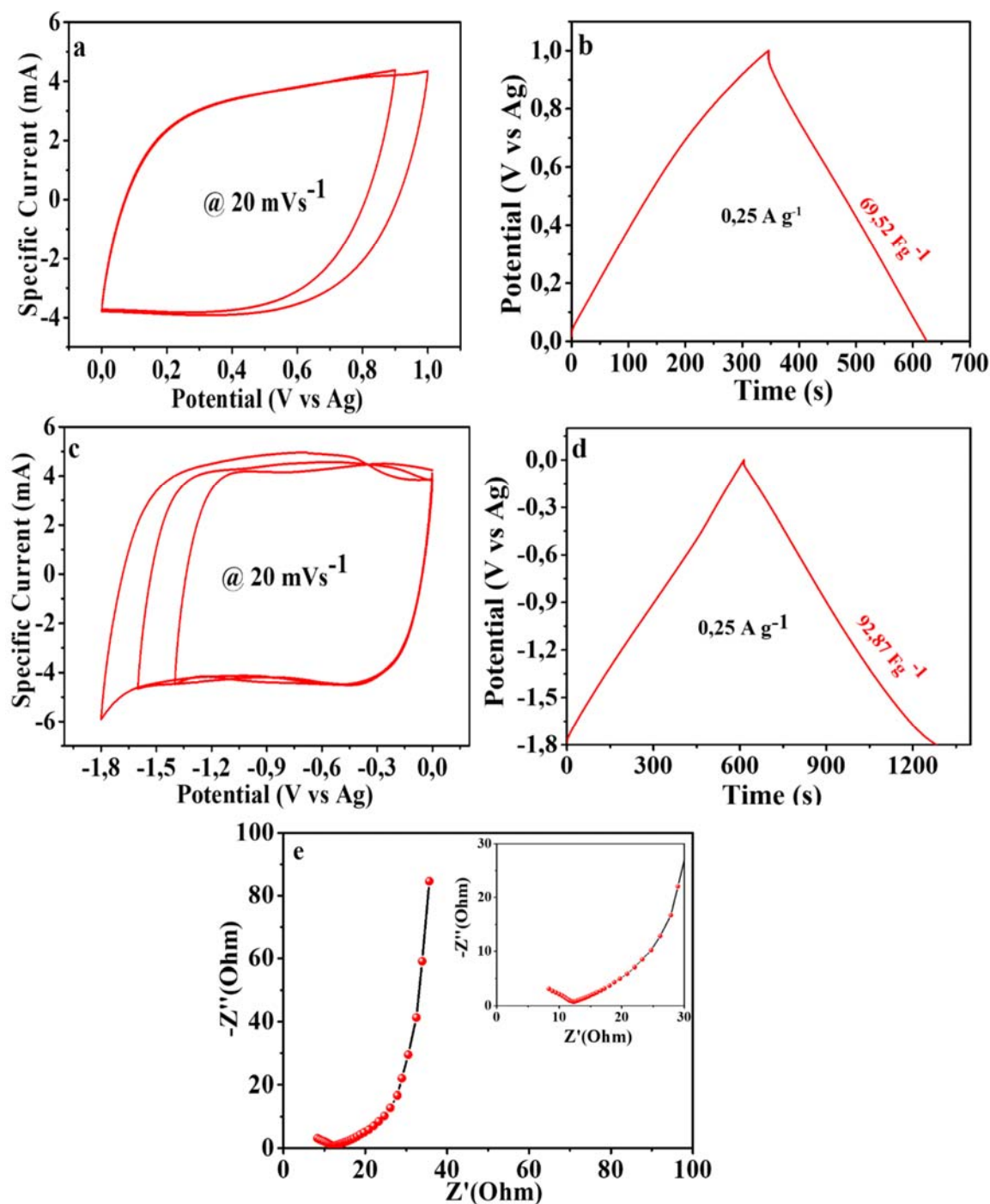


Figure S 4 : (a and c) Positive and negative electrode CV curves at different potentials vs. Ag, (c and d) Positive and negative electrode GCD curves, (e) EIS Nyquist plot with the inset showing low-frequency region for the optimised potentials vs. Ag at 0.25 A g⁻¹ obtained by using Emi-FSI in a three electrode measurement.

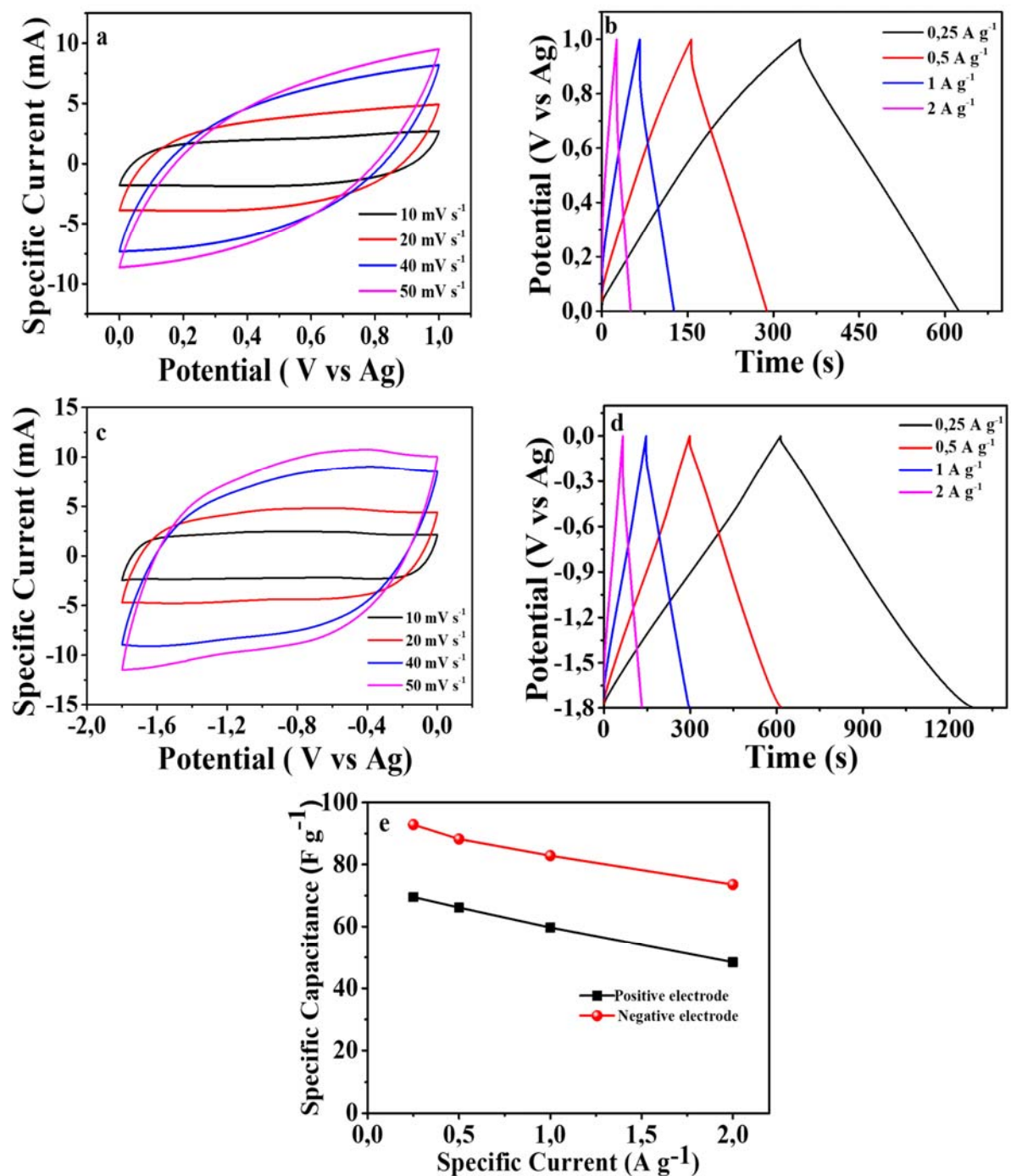


Figure S 5: (a, and c) Positive and negative electrode CV curves at various scan rates, (b, and d) Positive and negative electrode GCD curves at distinct specific currents, and (e) specific capacitance versus specific current for 1:1 K₂CO₃ to M-S AC obtained by using Emi-FSI.