

ChemPlusChem

Supporting Information

Synthesis of Porous Carbon Honeycomb Structures Derived from Hemp for Hybrid Supercapacitors with Improved Electrochemistry

Manickam Minakshi,* Agha Mujeeb, Jonathan Whale, Richard Evans, Rob Aughterson, Pragati A. Shinde, Katsuhiko Ariga, and Lok Kumar Shrestha*

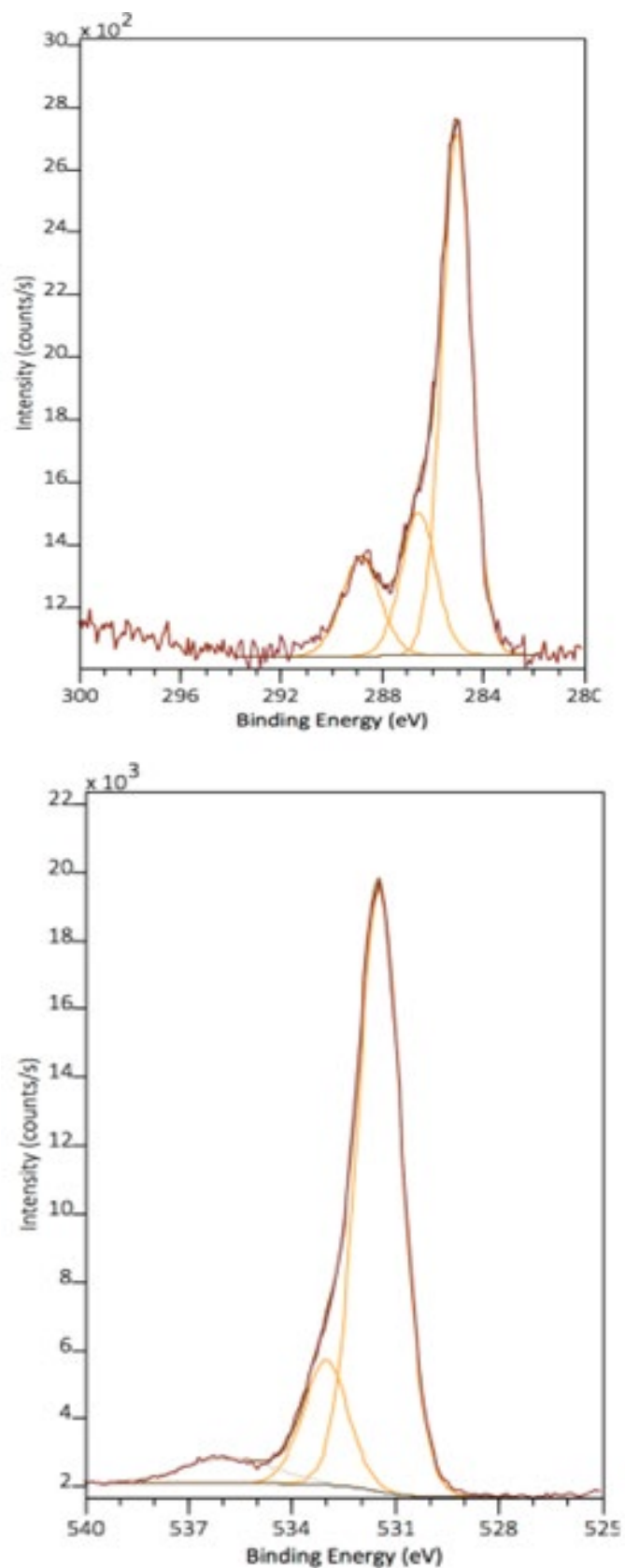


Figure S1 High-resolution fitted X-ray Photoelectron Spectroscopy (XPS) of (a) C 1s, and (b) O 1s analysis for the HAC synthesized with mass ratios of biochar to KOH (1:2) at 450 °C for 1h

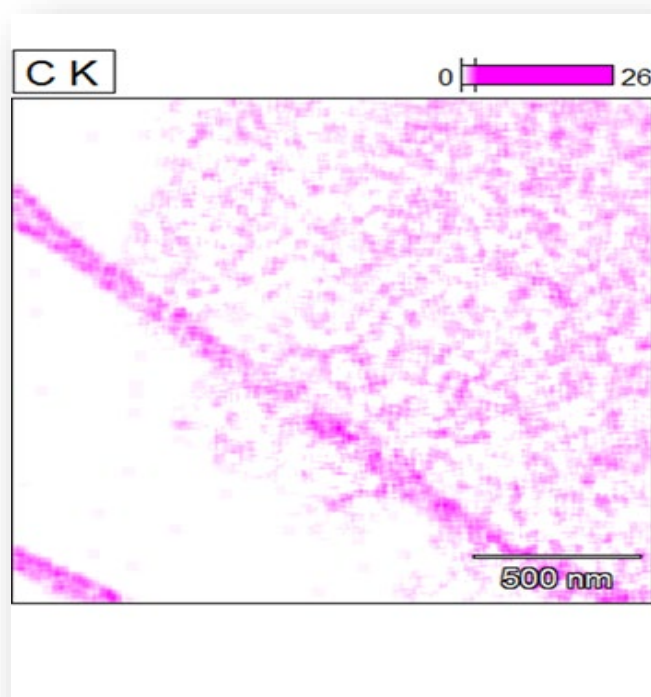
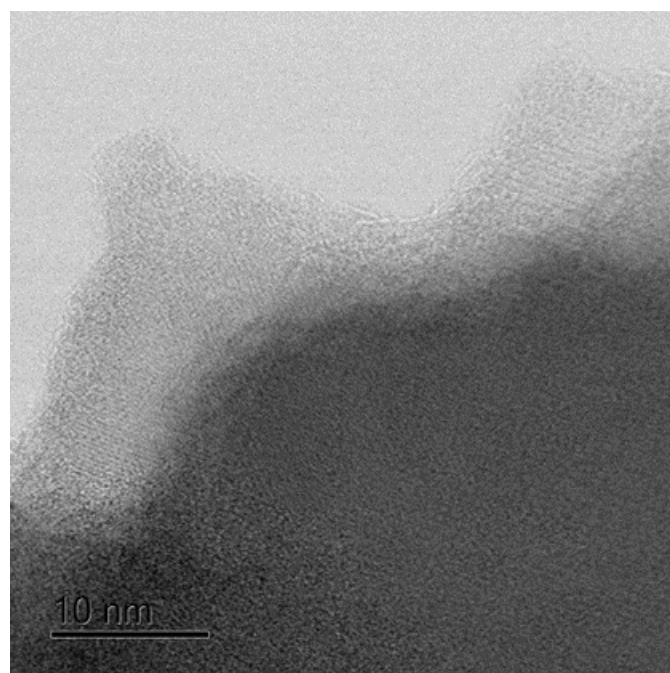


Figure S2 High-resolution TEM analysis and the corresponding composition profile showing amorphous carbon for the HAC synthesized with mass ratios of biochar to KOH (1:2) at 450 °C for 1h.

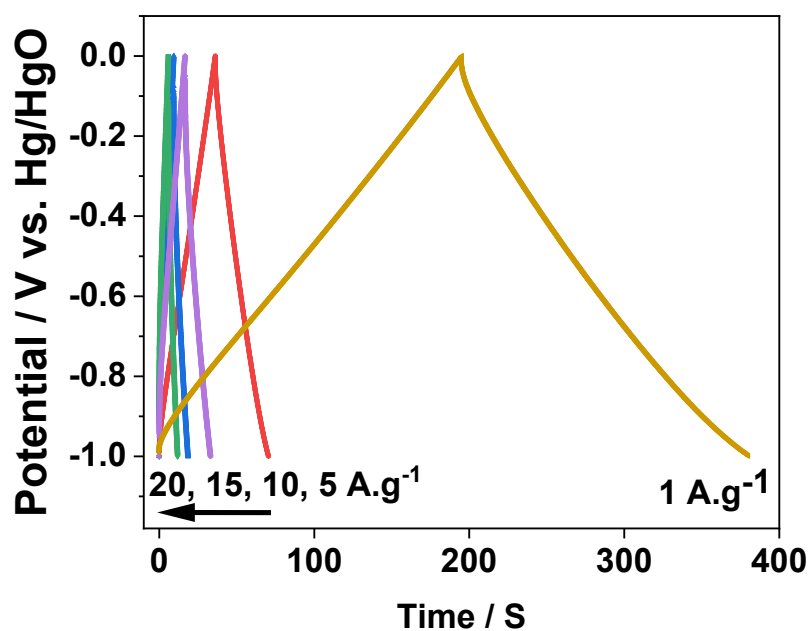


Figure S3 Galvanostatic charge-discharge (GCD) of HAC single electrode at different current densities 1, 5, 10, 15, and 20 A.g⁻¹.

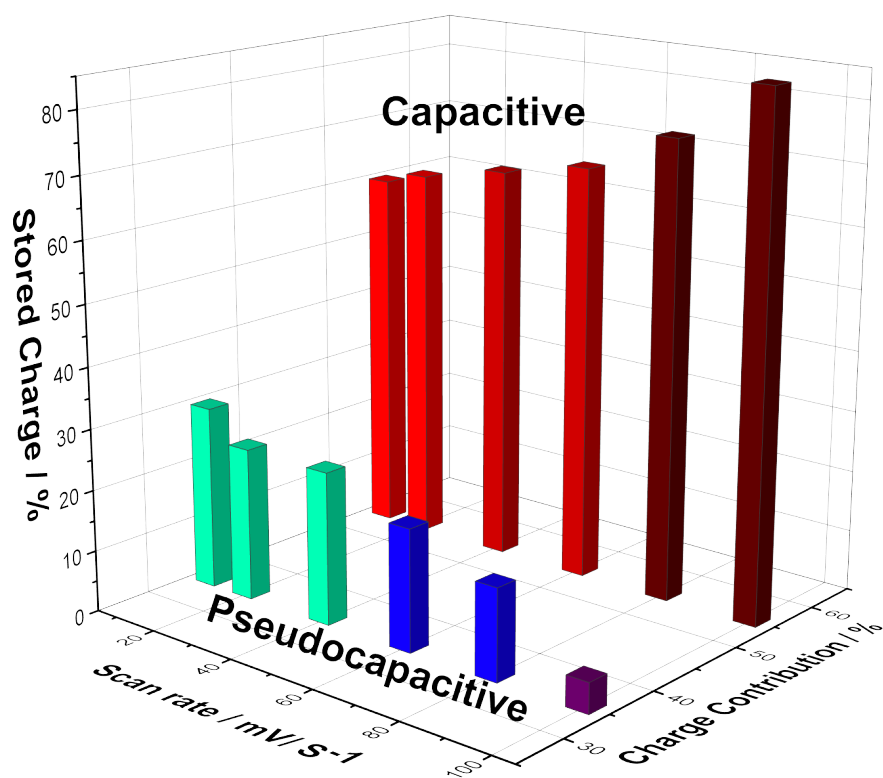


Figure S4 Comparison of the faradaic (capacitive), and faradaic non-diffusion limited (pseudocapacitive) controlled processes contribution to the total charge storage.