

A study of porous carbon structures derived from composite of cross-linked polymers and reduced graphene oxide for supercapacitor applications

Daba T. Bakhoun ^a, Kabir O. Oyedotun ^a, Samba Sarr ^a, Ndeye F. Sylla ^a, Vusani Maphiri ^a,
Ndeye M. Ndiaye Balla D. Ngom ^b and Ncholu Manyala ^{a*}

^a Department of Physics, Institute of Applied Materials, SARChI Chair in Carbon Technology and Materials,
University of Pretoria, Pretoria 0028, South Africa.

^b Laboratoire de Photonique Quantique, d’Energie et de Nano-Fabrication, Faculté des Sciences et Techniques
Université Cheikh Anta Diop de Dakar (UCAD) B.P. 5005 Dakar-Fann Dakar, Sénégal

*Corresponding author’s email: ncholu.manyala@up.ac.za, Tel.: + (27)12 420 3549, Fax: + (27)12 420 2516

Supporting information

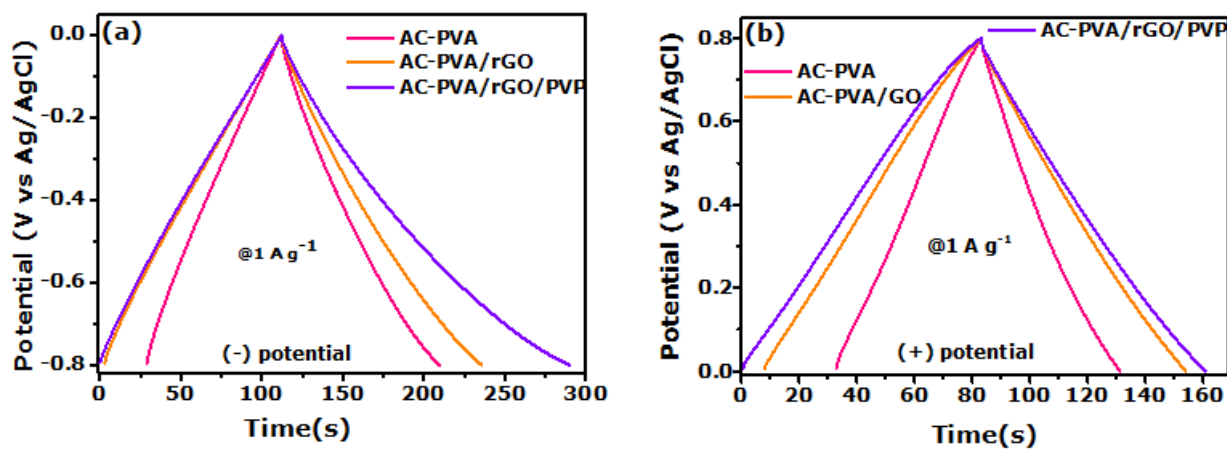


Fig. S1. (a) and (b) GCD curves of as-prepared electrode materials in both negative and positive potentials.

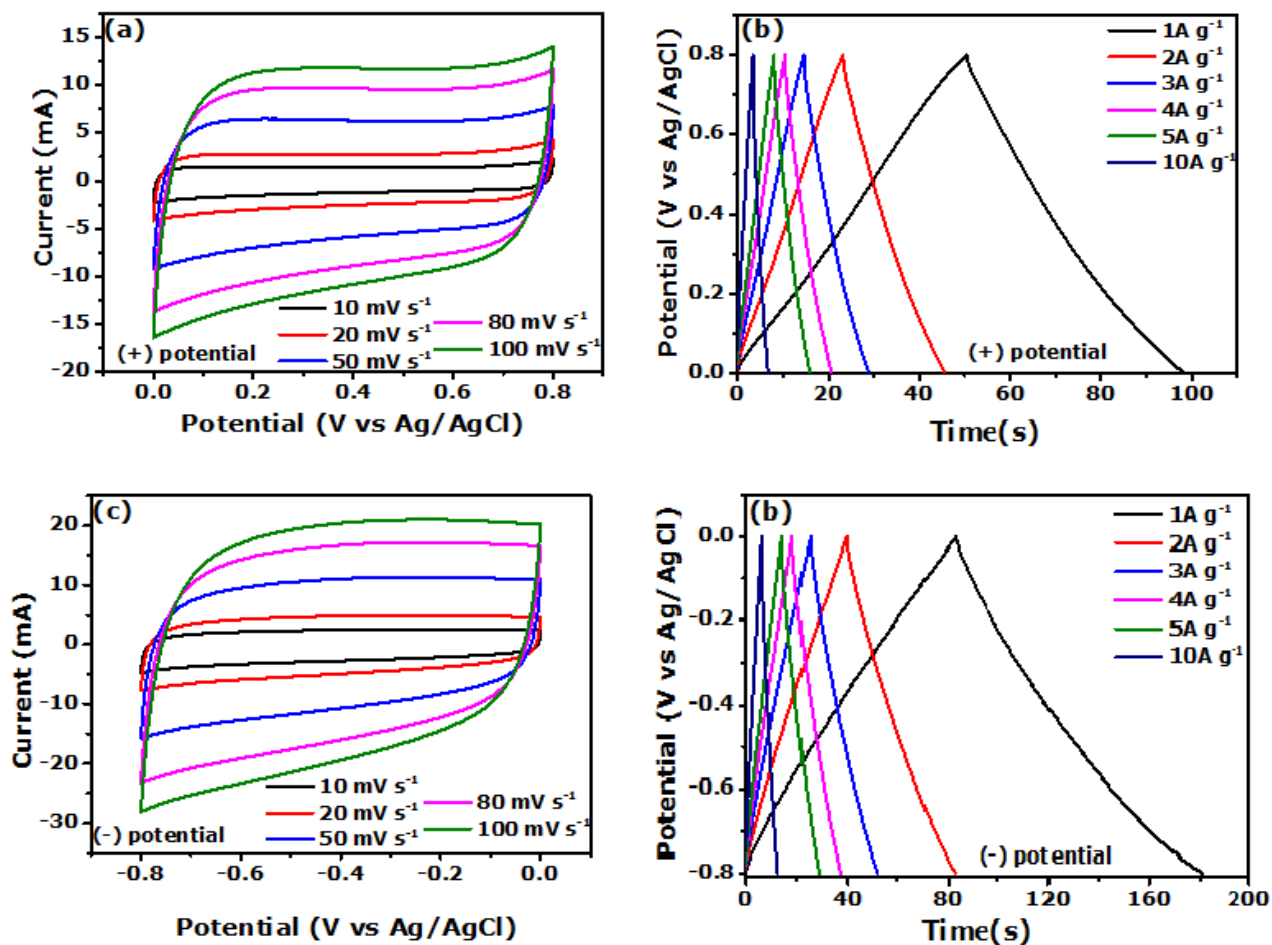


Fig. S2. (a) and (b) CV and GCD curves, and (c) and (d) CV and GCD curves of AC-PVA at various scan rates and specific currents measured in negative and positive working potential, respectively.

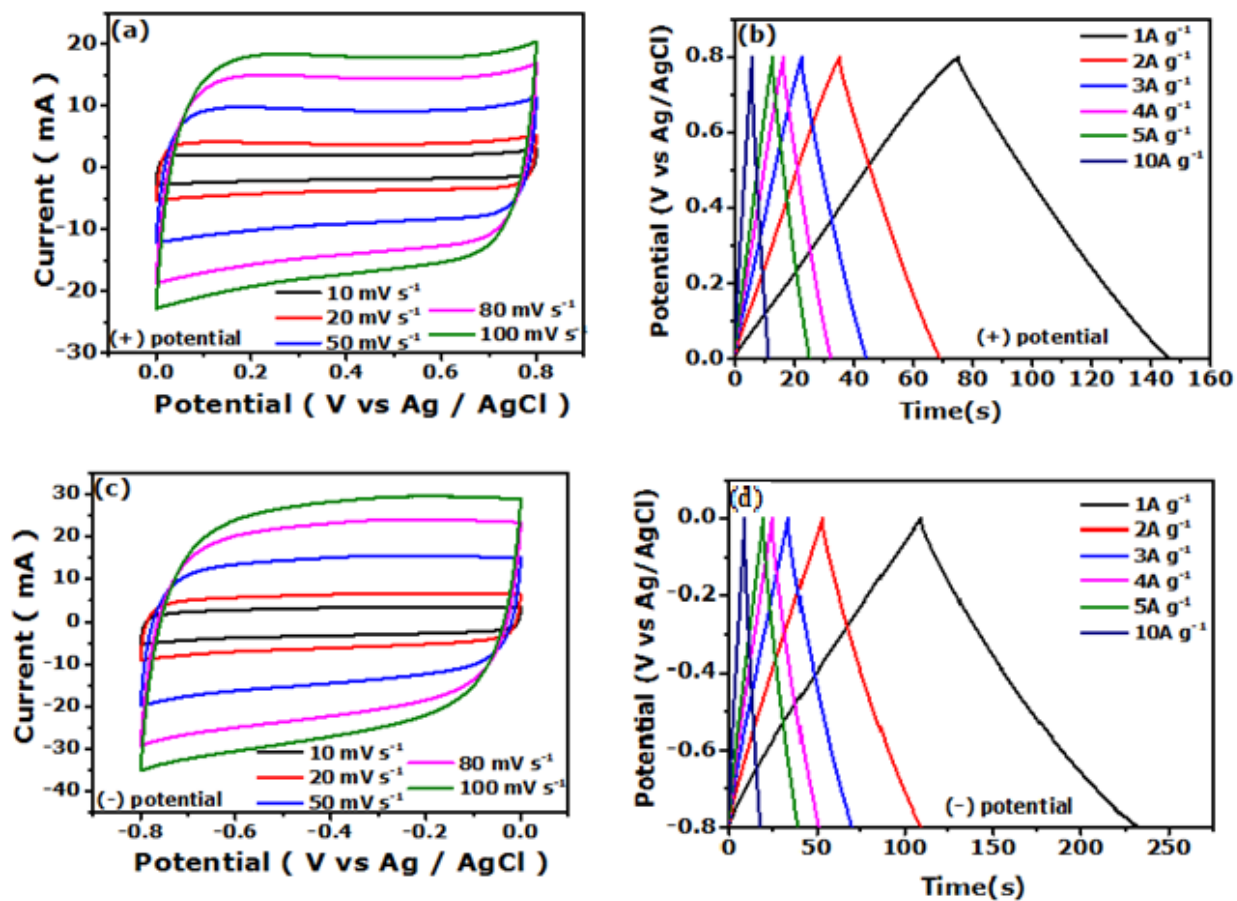


Fig. S3. (a) and (b) CV and GCD curves, and (c) and (d) CV and GCD curves of AC-PVA/rGO at various scan rates and specific currents measured in negative and positive working potential, respectively.

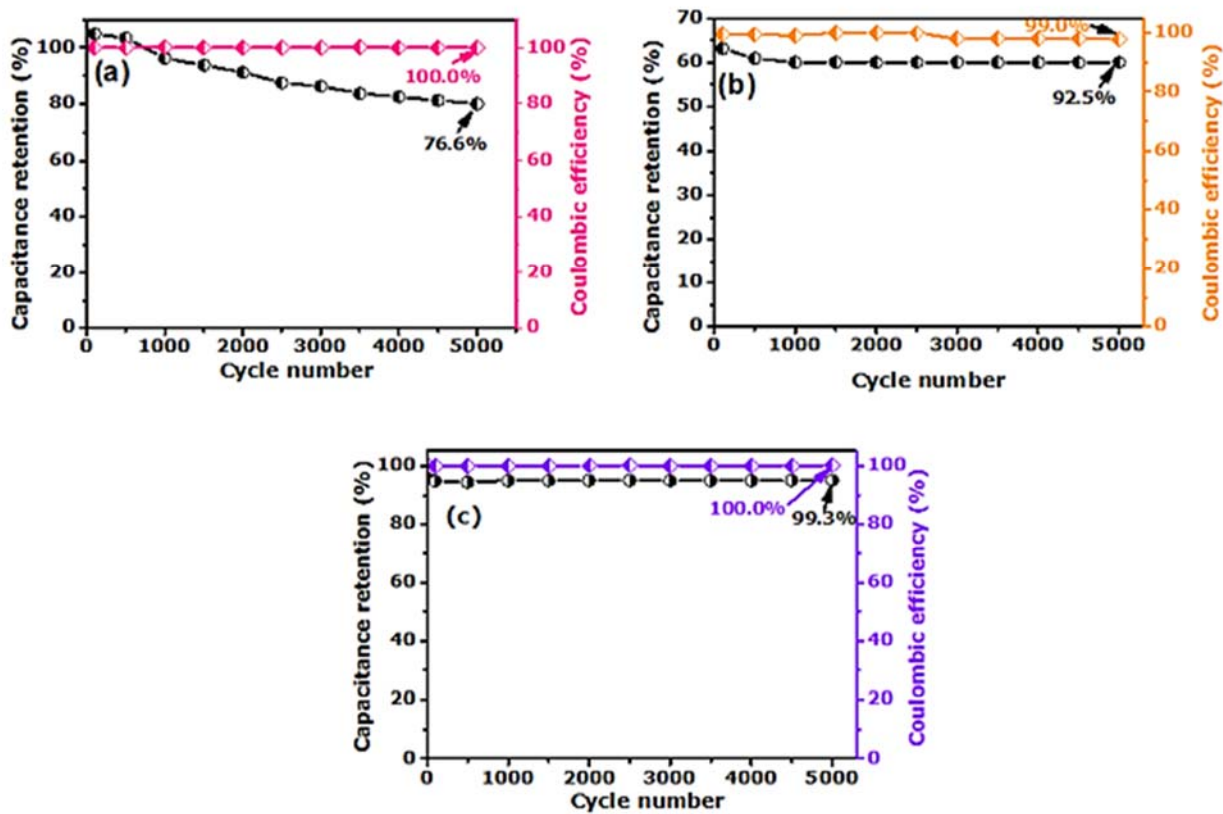


Fig. S4. (a), (b) and (c) GCD cycling test analysis for AC-PVA, AC-PVA/rGO and AC-PVA/rGO/PVP electrodes, respectively, conducted for over 5000 cycles at a specific current of 10 A g^{-1} .