

Sustainable valorisation of wastewater sludge into activated carbon for permanganate adsorption and reuse in supercapacitors

Mojeed O. Bello*, Thabo T.I. Nkambule and Moshawe J. Madito^{1**}

*Corresponding author.

**Corresponding author.

Email addresses: bellomo@unisa.ac.za (Mojeed O. Bello), maditmj@unisa.ac.za (Moshawe J. Madito)

Supplementary Information

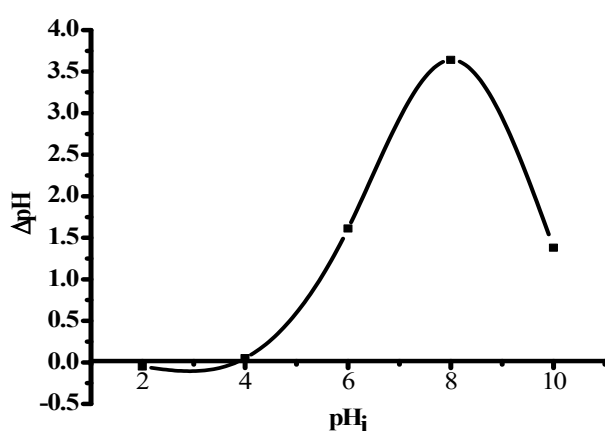


Fig. SI-1. pHpzc of H-WSAC

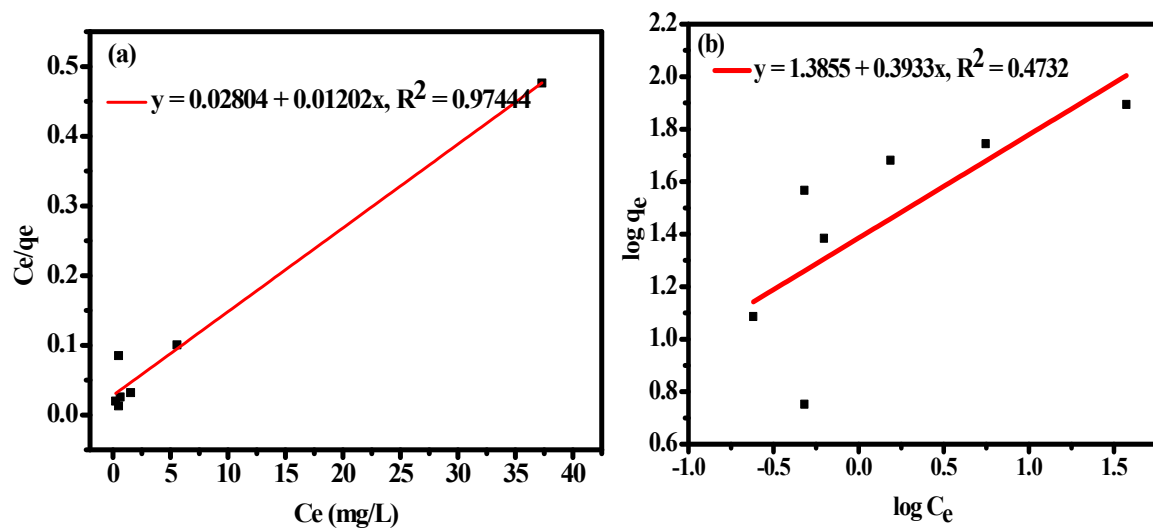


Fig. SI-2. (a) Langmuir isotherm and (b) Freundlich isotherm

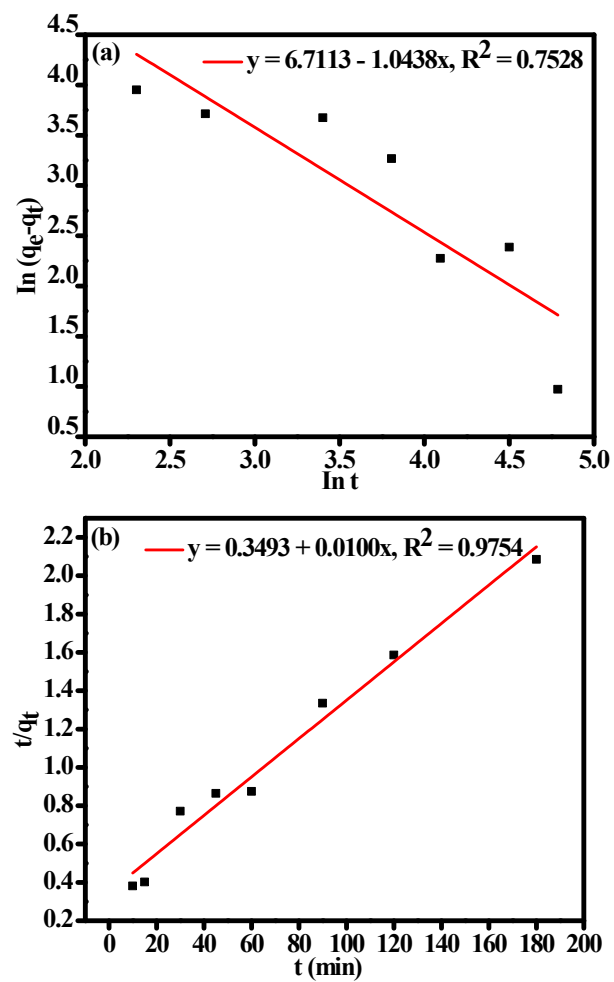


Fig. SI-3. (a) pseudo-first-order kinetics and (b) pseudo-second-order kinetics

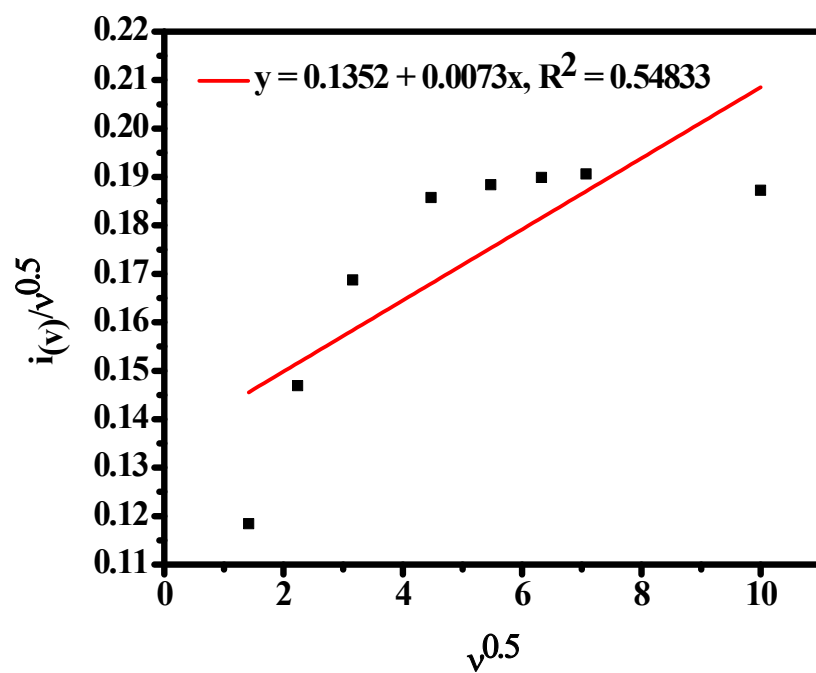


Fig. SI-4 Plot of $\frac{i(v)}{v^{0.5}}$ versus $v^{0.5}$ for the determination of capacitive and diffusion contributions