Supplementary materials

KOH activated carbon/graphene nanosheets composites as high performance electrode materials in supercapacitor

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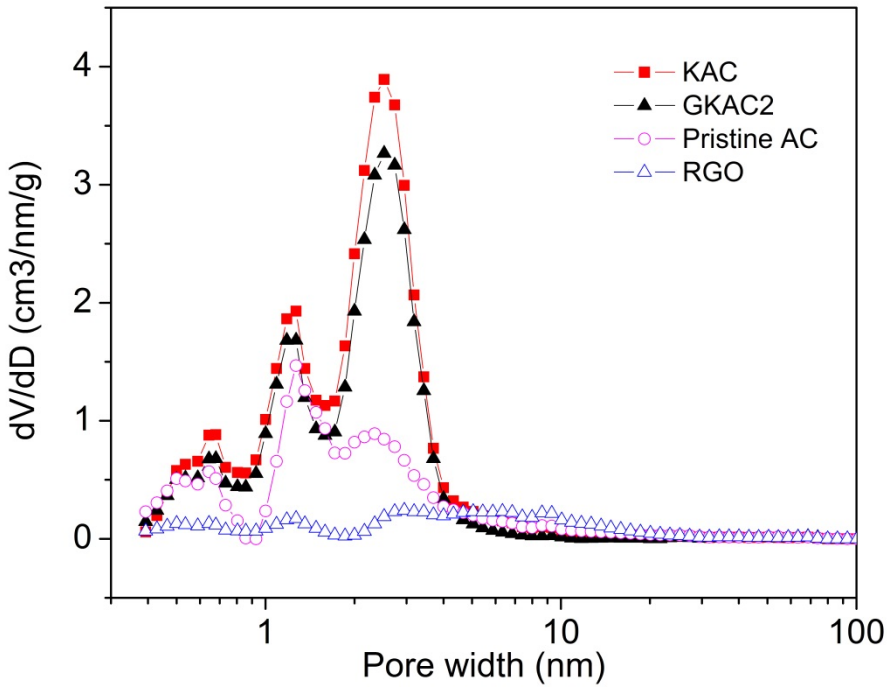

Fig. S1 Pore size distribution of KAC, pristine AC, RGO and GKAC2 using NLDFT calculation assuming slit geometry.

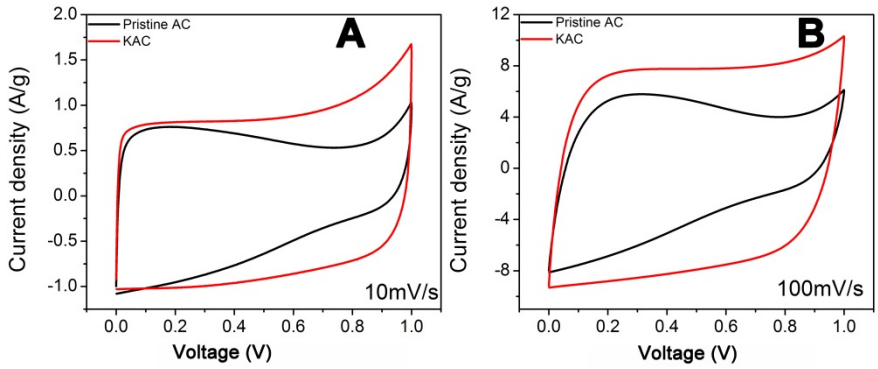

Fig. S2 CV curve of pristine AC and KAC electrode at various scan rates of 10mV s^{-1} and 100mV s^{-1} in 6M KOH aqueous solution.

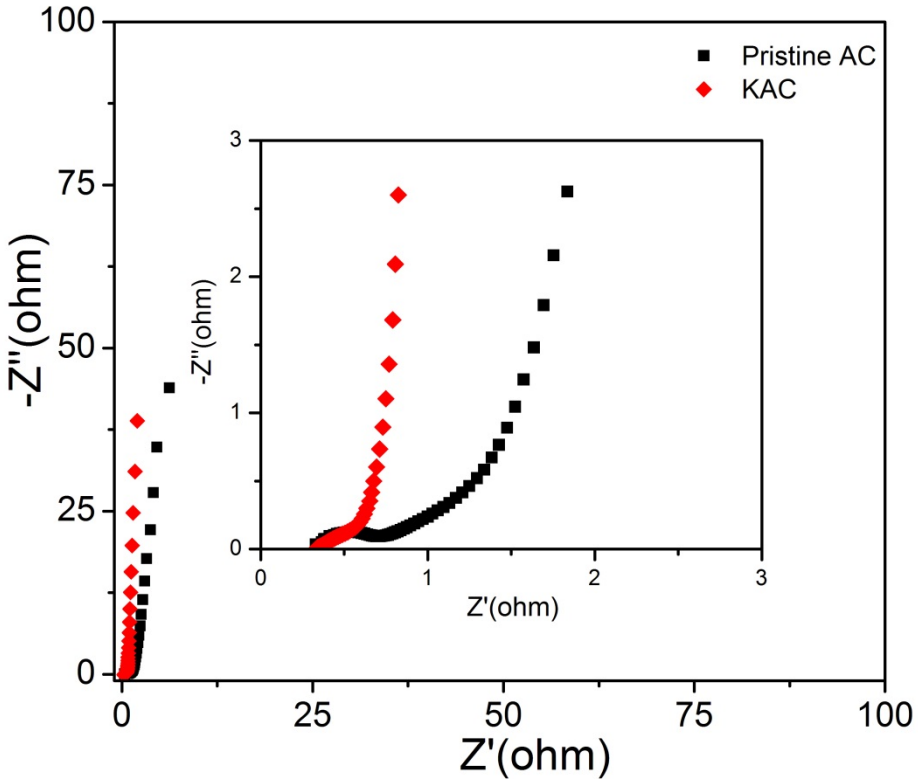

Fig. S3 Nyquist plots of pristine AC and KAC electrodes (inset: magnified part at high frequency) in 6M KOH aqueous solution.

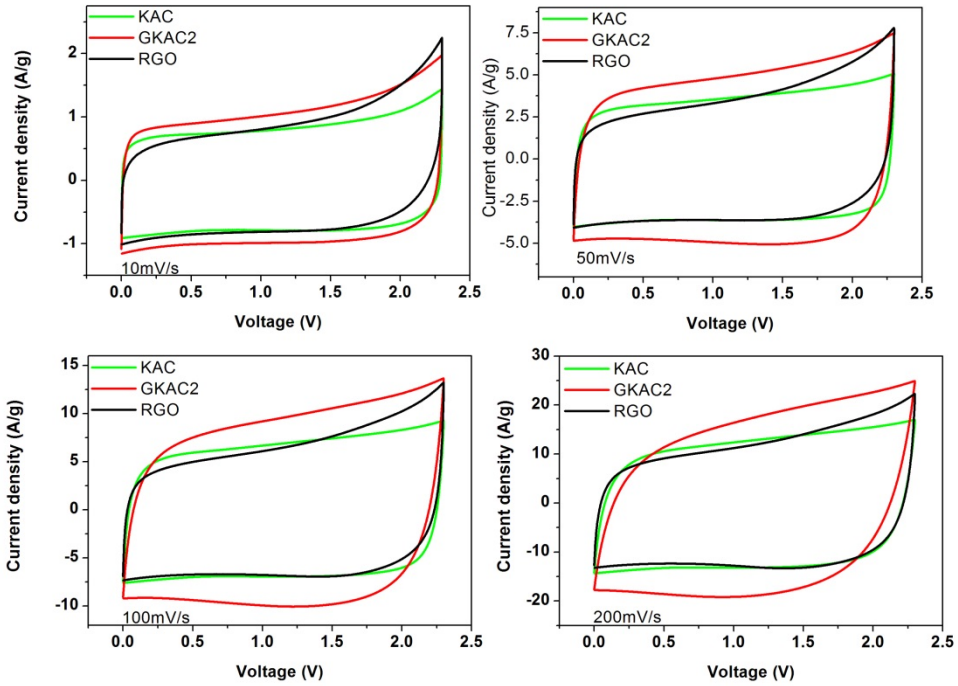

Fig. S4 Cyclic voltammetry curves of RGO, GaAC2, and KAC electrodes at various scan rates in 1M $TEABF_4$ in AN solution.

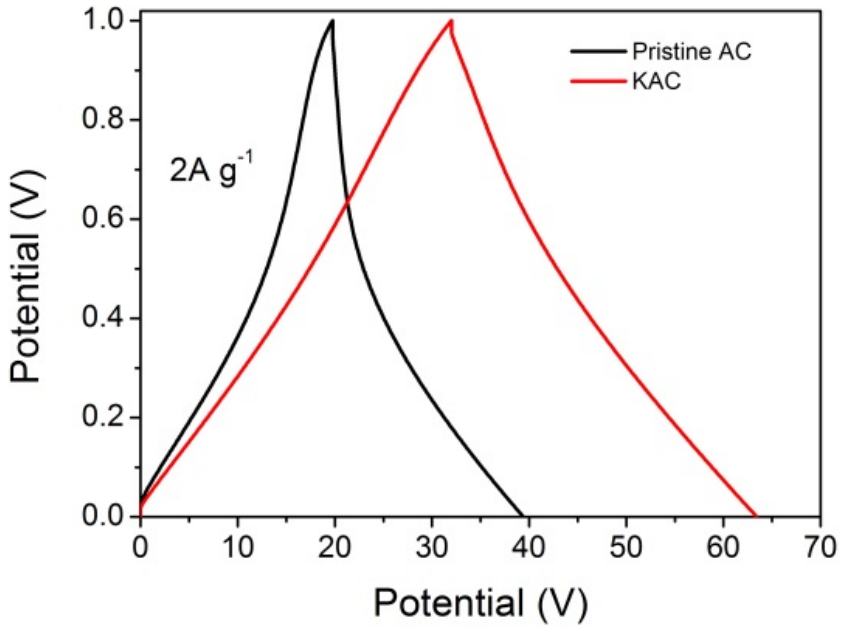

Fig. S5 Charge-discharge curves of pristine AC and KAC electrodes at current density of 2 Ag^{-1} in 6M KOH aqueous solution.

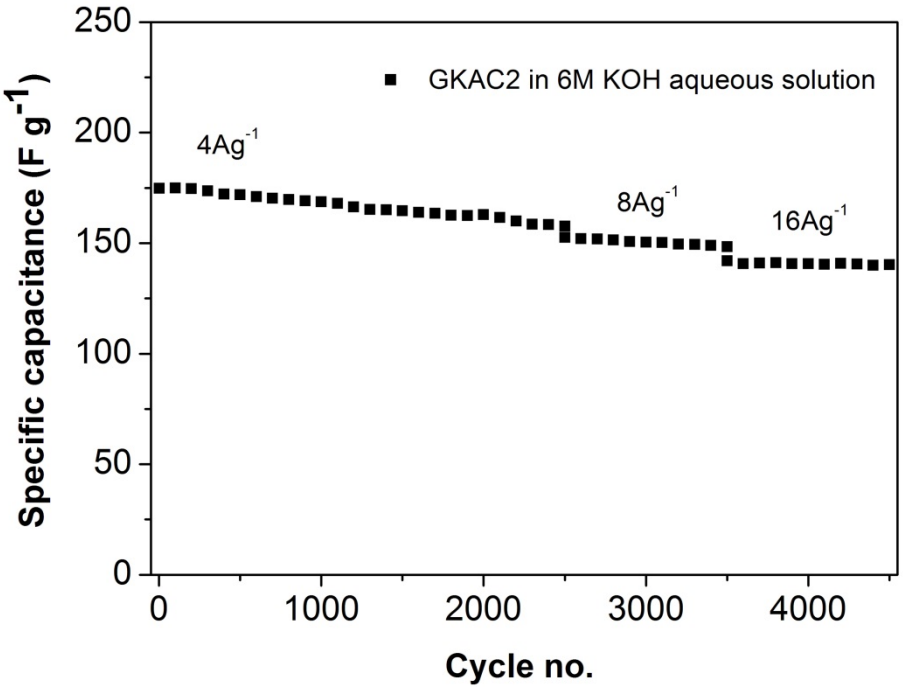

Fig. S6 Cycle life of GKAC2 at varied current density in 6M KOH aqueous solution.

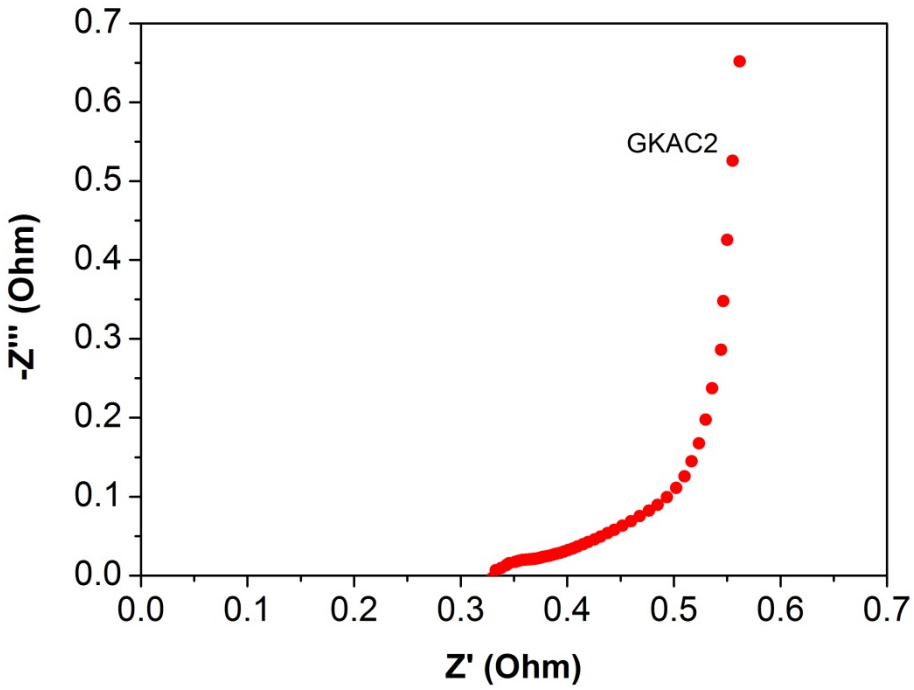

Fig. S7 Nyquist plots of GKAC2 electrodes at high frequency in 6M KOH aqueous solution.