Supporting information for:

Local Mobility in Electrochemically Inactive Sodium in Hard Carbon Anodes after the First Cycle

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Figure S1: Arrhenius plot of the jump frequency and temperature for the sodiated(A) and desodiated sample(B).



Figure S2. Calculated sodium intercalation energy for a) one sodium atom in graphitic bilayer model as a function of interlayer distance, and b) as a function of sodium concentration. For b) the interlayer distance was allowed to expand (cell optimisation), with the interlayer spacing recorded on the secondary axis. The red dashed line in a) shows when the Na intercalation becomes energetically favourable (below 0 eV).