Supporting Information

for

Gas sorption porosimetry for the evaluation of hard carbons as anodes for Li- and Na-ion batteries

Yuko Matsukawa, Fabian Linsenmann, Maximilian A. Plass, George Hasegawa, Katsuro Hayashi and Tim-Patrick Fellinger


Additional figures
Figure S1: Publication trend since the year 2000 on carbons for SIBs according to Web of Science.

Figure S2: Powder X-ray diffraction pattern of HT2. $d_{002} = 4.02$ Å ($2\theta = 22.1^\circ$), $d_{101} = 2.06$ Å ($2\theta = 43.9^\circ$).
Figure S3: Powder X-ray diffraction patterns of (a) RF-1000 and (b) RF-1600. (a) $d_{002} = 4.28 \, \text{Å} \ (2\theta = 20.8^\circ)$, $d_{101} = 2.09 \, \text{Å} \ (2\theta = 43.2^\circ)$, (b) $d_{002} = 3.94 \, \text{Å} \ (2\theta = 22.5^\circ)$, $d_{101} = 2.06 \, \text{Å} \ (2\theta = 44.0^\circ)$.
Figure S4: Raman spectrum of HT2. $I_D/I_G = 0.98$. 
Figure S5: Raman spectra of (a) RF-1000 and (b) RF-1600. (a) $I_D/I_G = 1.12$, (b) $I_D/I_G = 1.29$. c) Micropore size distributions of the carbons calcined at different temperatures obtained from the corresponding N$_2$ isotherms by the Horvath–Kawazoe (HK) method. The carbons treated above 1600 °C possessed negligible micropores.

Figure S6: SEM images of RF carbons. (a) RF-1000, (b) RF-1600.
Figure S7: Failed N\textsubscript{2} sorption isotherms of HT1.

Figure S8: Charge-discharge curves of HT2 vs (a) Li and (b) Na metal electrode.