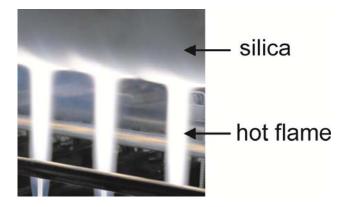
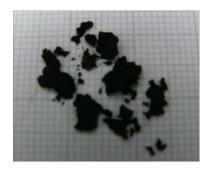
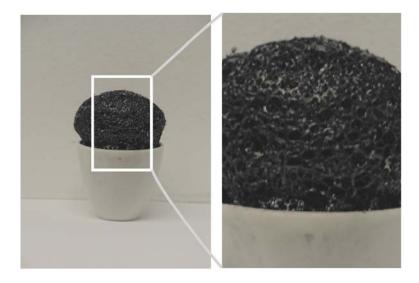
## **Supporting Information**



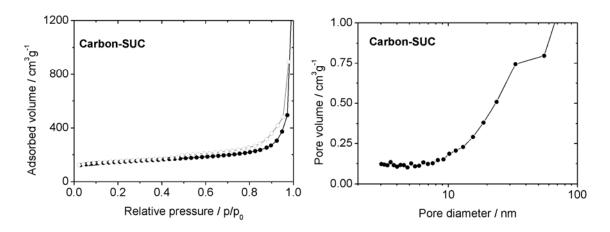
**Figure S1** Flame pyrolysis and deposition of silica. The silica template is formed on a rotating substrate (top part image).



**Figure S2** Carbon flakes as prepared (1 square =  $1 \text{ mm}^2$ )



**Figure S3** Pure mesophase pitch after carbonization in absence of the silica template (non-templated carbon).  $\mathcal{9}=700$  °C, N<sub>2</sub> atmosphere.



**Figure S4** Isotherm and cumulative pore volume (BJH adsorption branch) of CarbonSUC derived from nitrogen physisorption.