

Electronic Supplementary Information (ESI)

Improvement of thermal stability by vapor infiltration to spin-on mesostructured carbon films

We performed supplementary experiments. First, the mesostructured carbon films were prepared by the conventional method⁸ (spin-coating). After that, the film was treated by a benzyl alcohol vapor. The XRD patterns were shown below. The treated film has higher thermal stability than the untreated one. This result indicates that the vapor of benzyl alcohol penetrated into the film and densified the carbon wall. The *d*-spacing of the vapor-treated carbon film was larger than that of the untreated film. This result supports our conclusion that successive penetration of benzyl alcohol densified pore walls and inhibited the structural shrinkage.

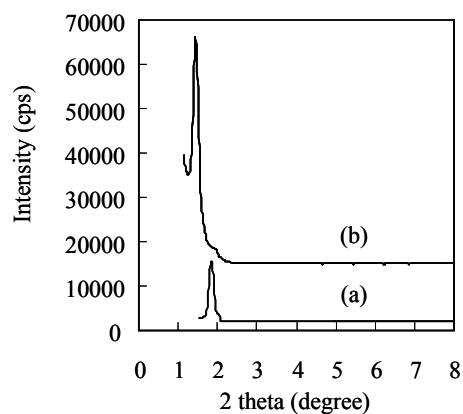


Figure XRD patterns of mesoporous carbon films prepared by spin-coating. (a) untreated and (b) vapor-treated.