Supporting Information

Monolithic polymeric aerogels with VOCs sorbent nanoporous crystalline and water sorbent amorphous phases.

Vincenzo Venditto*^l, Marina Pellegrino^l, Rosa Califano^l, Gaetano Guerra^l, Christophe Daniel^l,

Luigi Ambrosio², Anna Borriello²*

¹Department of Chemistry and Biology, Nanomates Center and INSTM Research Unit, University of Salerno, via Gio-vanni Paolo II, 84084 Fisciano (SA), Italy

²Institute for Polymers, Composites and Biomaterials, National Research Council of Italy, P.le Fermi,1 80055 Portici Naples

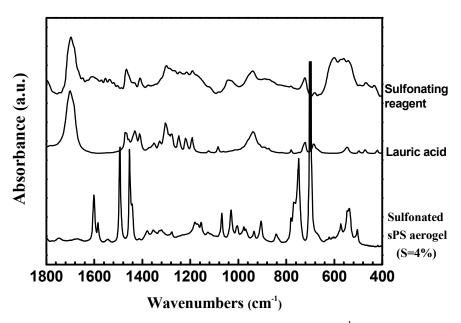


Figure S1. FTIR spectra in the wavenumber range 1800-400 cm⁻¹ of the sulfonated sPS aerogel (S=4%), lauric acid and sulfonating reagent.

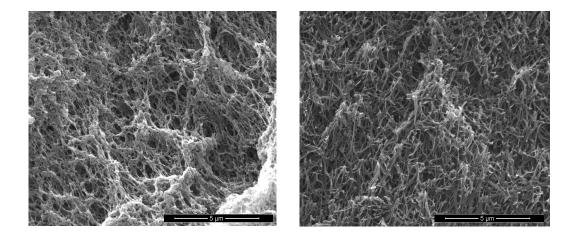


Figure S2. SEM micrographs of an unsulfonated aerogel (left) and of a sulfonated aerogel with S=20% (right) being obtained from gels prepared in 1,2-dichloroethane at $C_{pol}=0.1$ g/g.

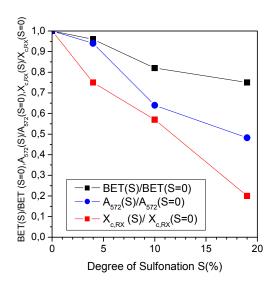


Figure S3. Variation of the BET values, 572 cm⁻¹ s(2/1)2 helical absorbance band, and X-ray diffraction crystalline degree values for sulfonated DCE-based aerogels; normalization is made with respect to the unsulfonated aerogel values.