

Electronic Supplementary Information

Engineering of Carbon Nanotube/Polydimethylsiloxane

Nanocomposites with Enhanced Sensitivity for Wearable Motion

Sensors

Qi Li^a, Jin Li^a, Danhquang Tran^a, Chengqiang Luo^a, Yang Gao^{a,}, Cunjiang Yu^b,*

Fuzhen Xuan^{a,}*

^aSchool of Mechanical and Power Engineering, East China University of Science and
Technology, Shanghai 200237 (China)

^bDepartment of Mechanical Engineering, University of Houston, Houston, TX, 77204
(USA)

*E-mail: yanggao@ecust.edu.cn (Yang Gao); fzxuan@ecust.edu.cn (Fuzhen Xuan)

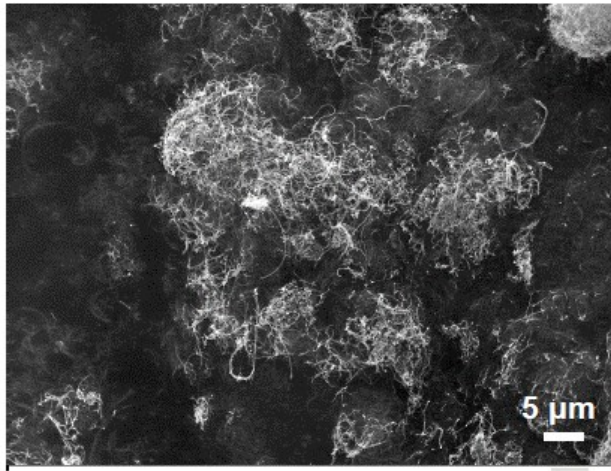


Figure S1. An SEM image of CNTs used to prepare the CNT/PDMS nanocomposites.

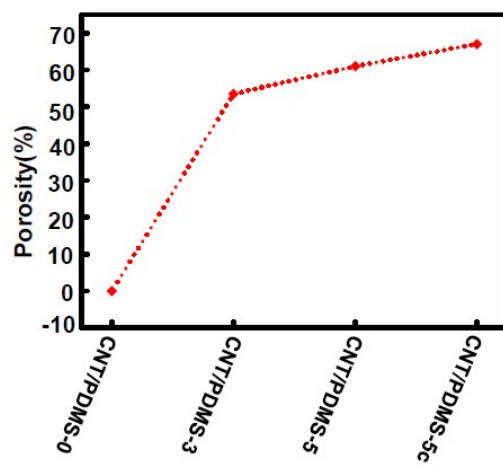


Figure S2. Porosity of the CNT/PDMS nanocomposites.

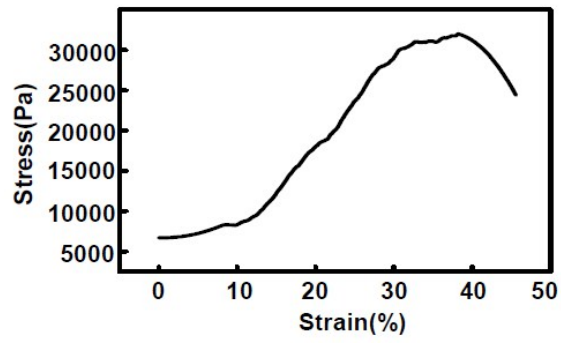


Figure S3. Stress-strain curve of the sample of CNT/PDMS-0.

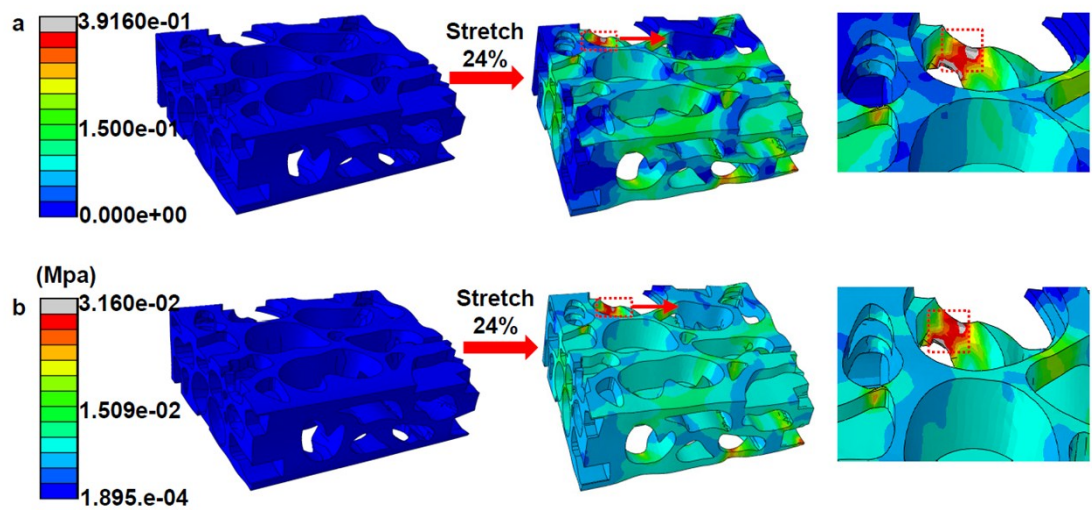


Figure S4. Finite-element simulation of the porous CNT/PDMS nanocomposite during stretching. (a) Strain and (b) stress distributions using nonlinear material condition.

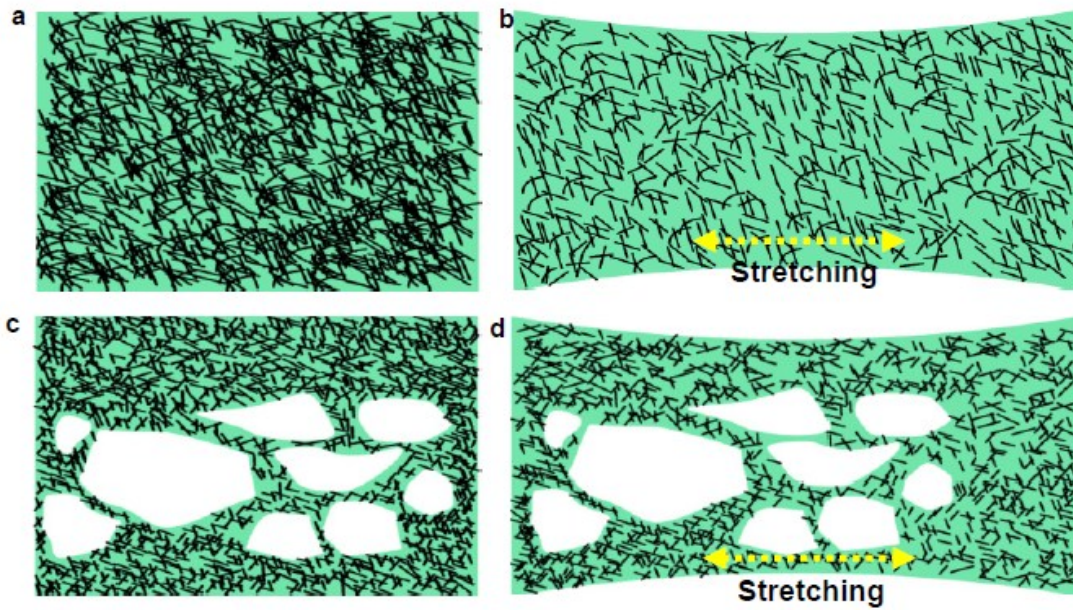


Figure S5. Schematics illustrating the stretching process of CNT/PDMS nanocomposites with (a and b) and without porous structures (c and d).