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Compressible Elastomeric Aerogels of Hexagonal Boron Nitride and Single-wall Carbon Nanotubes

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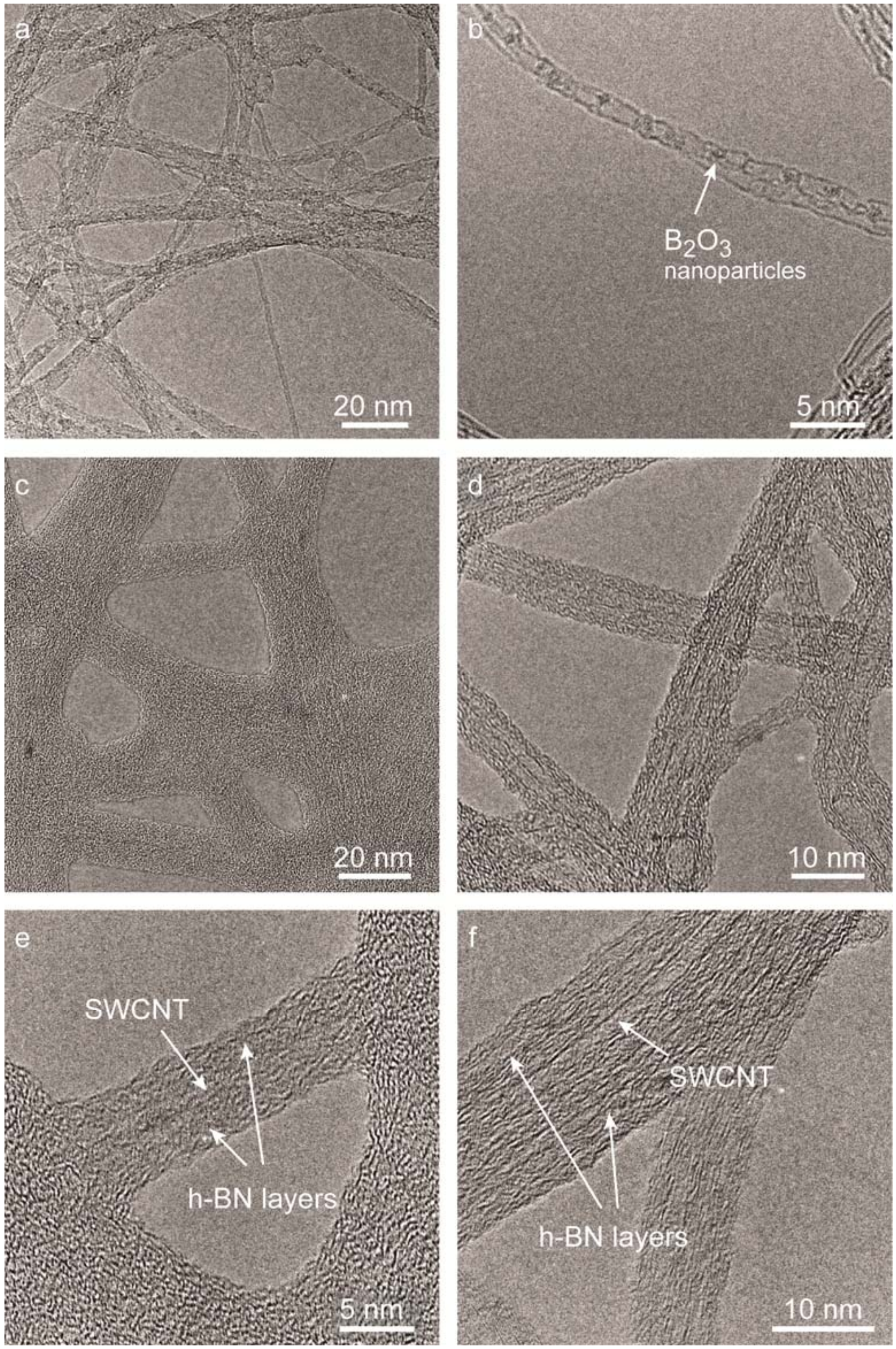

Fig. S1 Additional high-resolution TEM images of (a-b) SWCNT aerogels coated with B_2O_3 nanoparticles and (c-f) cross-sections of h-BN/SWCNT aerogels.

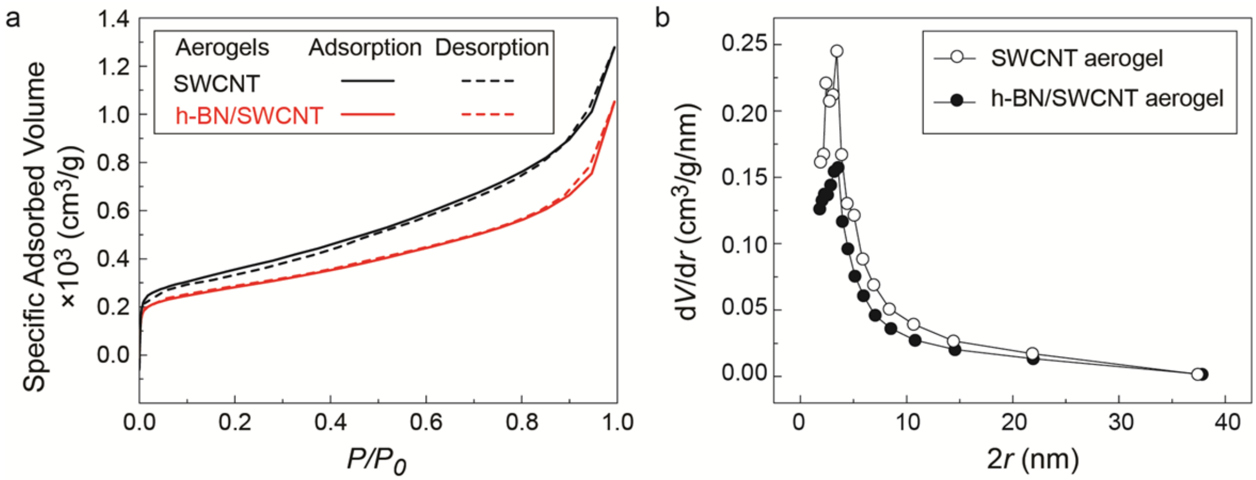

Fig. S2 Adsorption isotherms and pore characteristics of pristine SWCNT and h-BN/SWCNT aerogels. (a) Nitrogen adsorption-desorption isotherms for pristine SWCNT and h-BN/SWCNT aerogels of mass density of ~8 mg/mL and ~13 mg/mL, respectively, are based on experimentally measured specific adsorbed volume (i.e., absorbed volume divided by mass of the sample) versus relative pressure (P/P_0). Here, P and P_0 are equilibrium pressure and saturation pressure of the adsorbate at the adsorption temperature of 77 K, respectively. (b) Pore distribution (dV/dr) as a function of pore diameter (2r) of pristine SWCNT and h-BN/SWCNT aerogels, calculated from the desorption branch of the isotherm by Barrett–Joyner–Halenda (BJH) method, where V is the pore volume.

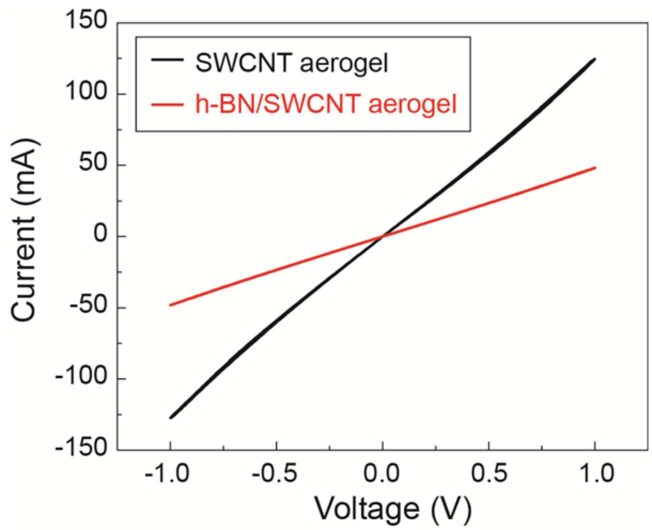

Fig. S3 Electrical conductivity of h-BN/SWCNT aerogels was similar to that of pristine SWCNT aerogels.

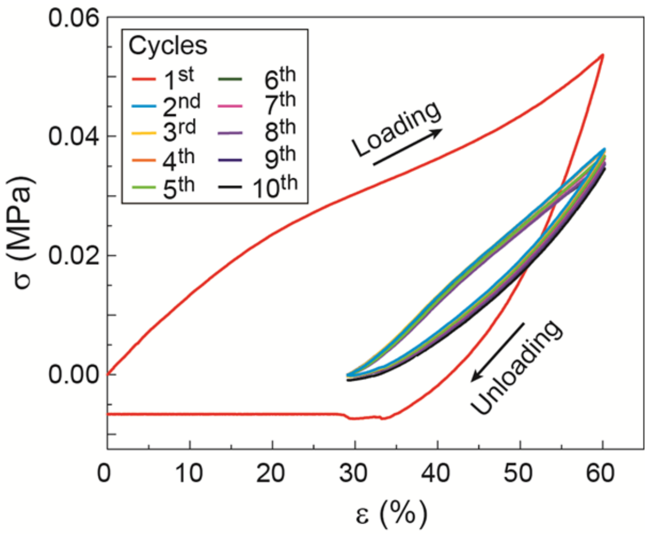

Fig. S4 Compressive stress (σ) versus compressive strain (ε) curves for h-BN/SWCNT aerogels during 10 loading-unloading cycles with ε = 60% with respect to initial sample dimensions.