Supporting Information

Thin Boron Nitride Nanotubes with Exceptionally High Strength and Toughness

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Figure S1. Forward (blue) and backward (red) force-displacement curves and the corresponding TEM images of an individual BNNT (~9.5 nm in diameter) under bending deformation. Once the tube is fully unloaded, it fully restores its original shape. TEM images marked with numbers indicate the particular stages in parallel numbered on the force curves. In particular, one can see that the nanotube keeps almost straight configuration even when the load at the stages 3 or 4 becomes more than 4 times larger than the critical buckling force.



Figure S2. The plot of F_{max}/F_{cr} with respect to the outer diameters of the measured nanotubes. F_{max} is the maximum of the loading force which the nanotube can hold. F_{cr} is the ideal critical force calculated using the geometry parameters of the nanotubes, assuming E=0.8 TPa.