Supporting information

Synthesis of Mesoporous Silica Nanobamboo with Highly Dispersed Tungsten Carbide Nanoparticles

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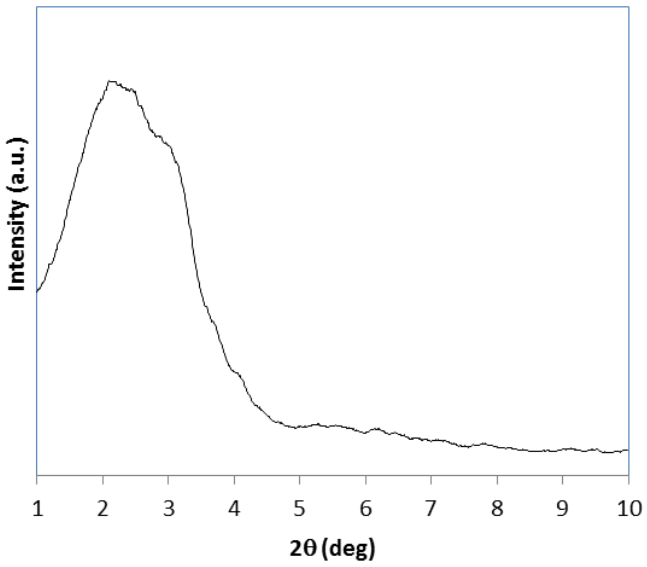


Figure S1. Small-angle X-ray diffraction of nanobamboo, indicating the mesoporous structure with d_{100} = 3.8 nm. XRD patterns were recorded on a Phillips Norelco powder diffractometer using Cu K radiation (40 kV, 40 mA) at the rate of 0.6° min^{-1} over the range 2θ = 1.0 – 10.0°.

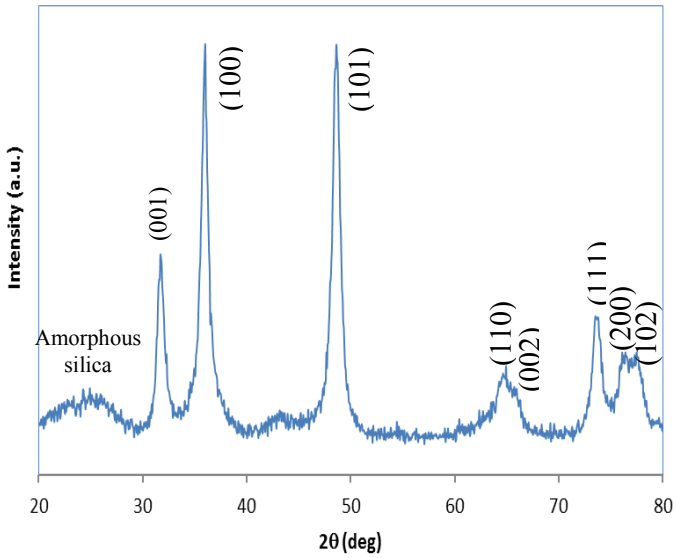


Figure S2. Large-angle X-ray diffraction of nanobamboo, indicating the pure phase of WC with amorphous silica.

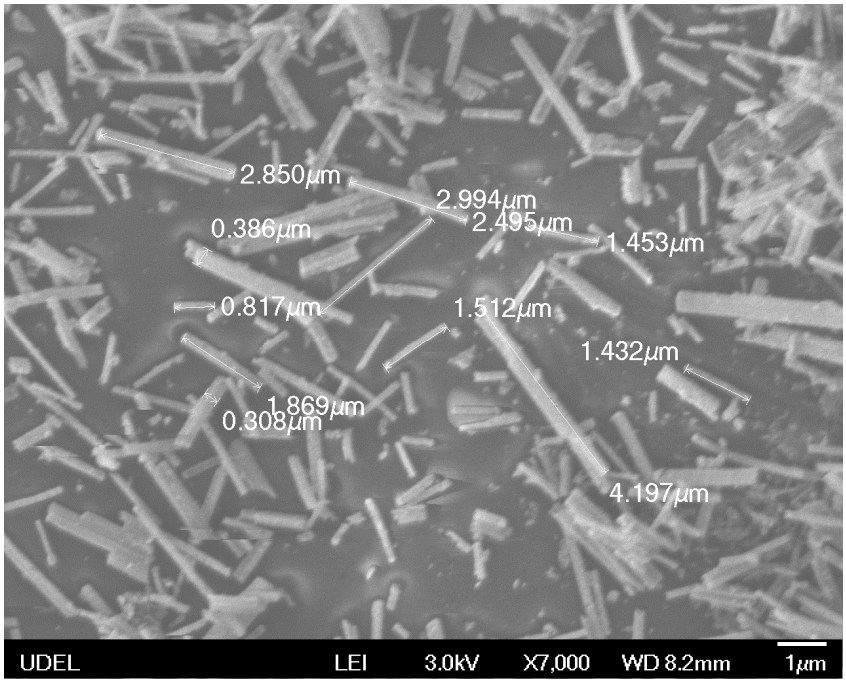


Figure S3. SEM image of nanobamboo material indicating the tube length varies from one to a few microns.

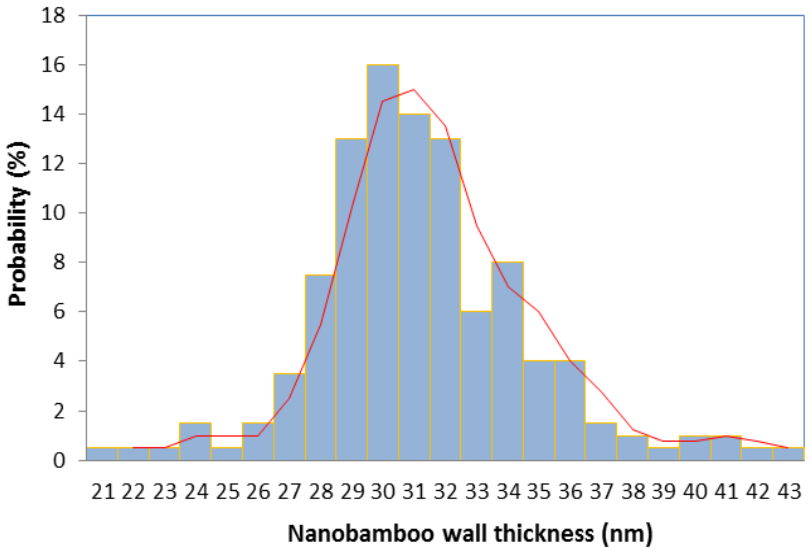


Figure S4. Wall thickness distribution of 200 nanobamboos.

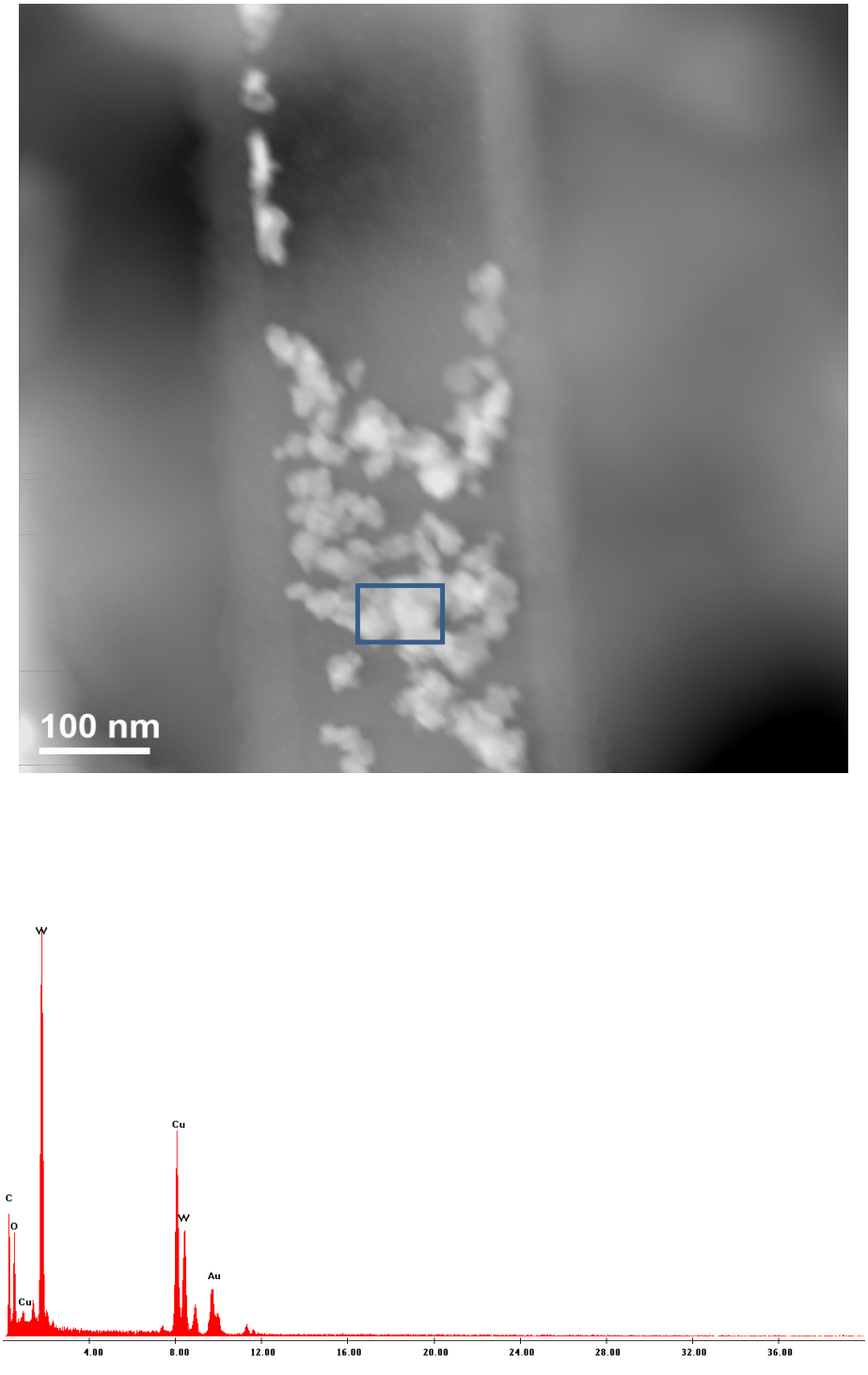
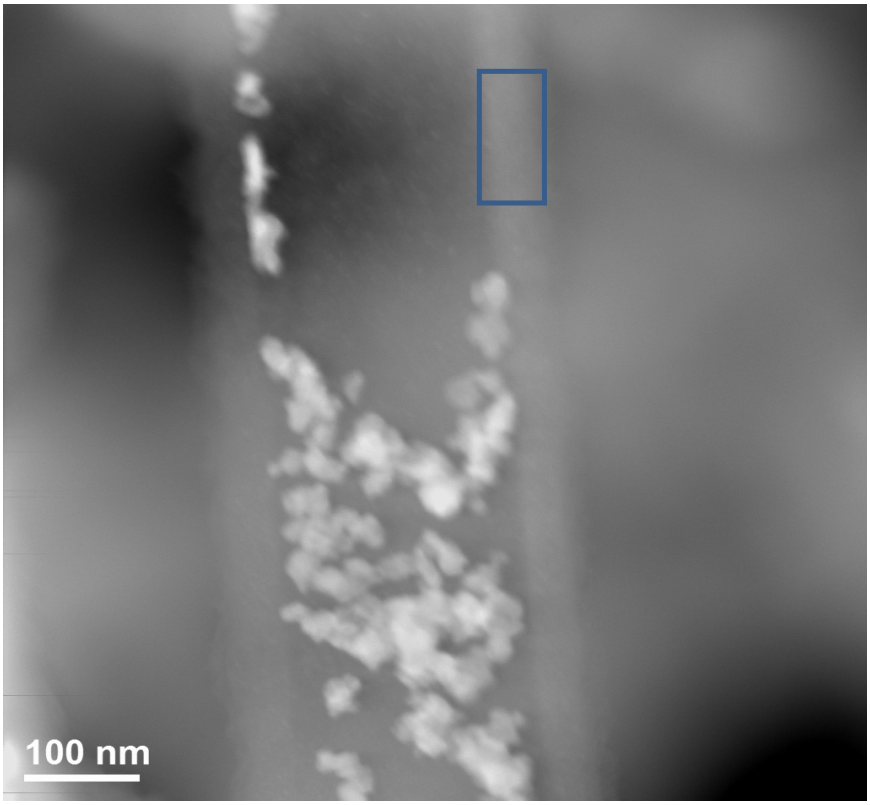


Figure S5. EDX analysis of the internode of a nanobamboo.



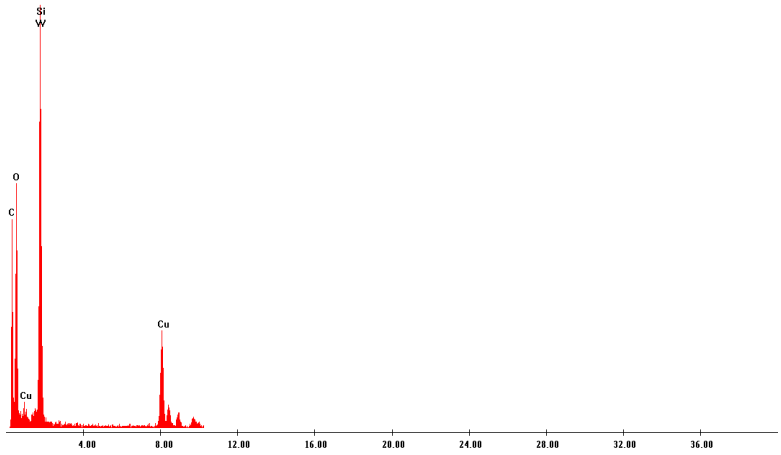


Figure S6. EDX analysis of the wall of a nanobamboo.