

Supporting Information for

Simple Growth of BCNO@C Core Shell Fibers and Luminescent BCNO Tubes

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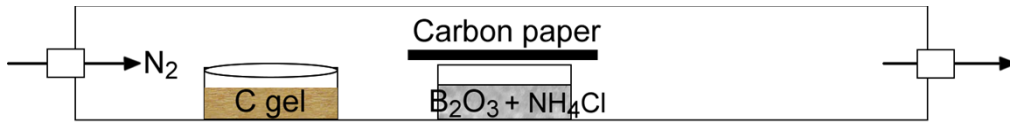
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Scheme S1. Scheme of the preparation of BCNO@C fibers.

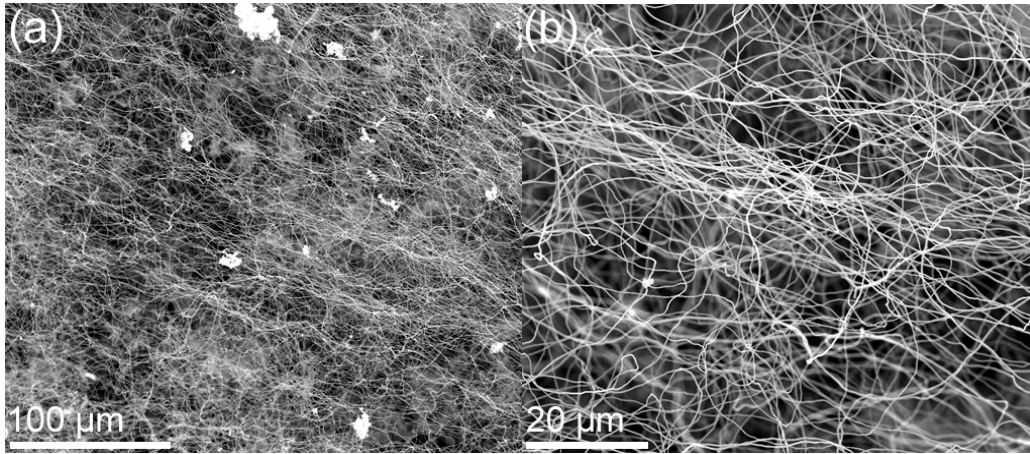


Figure S1. SEM images of the BCNO@C fibers.

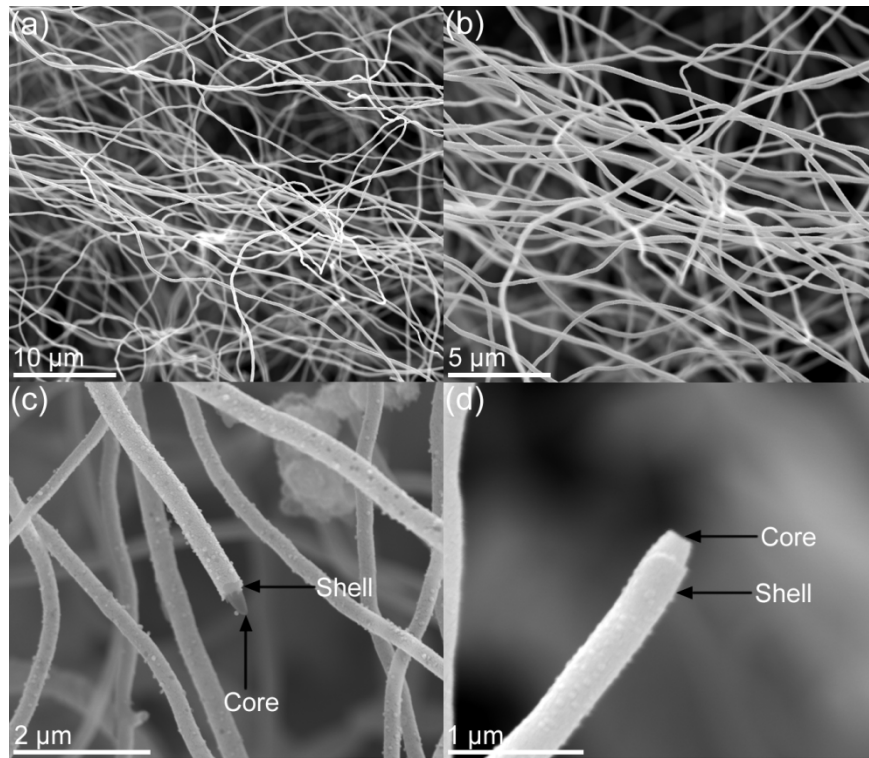


Figure S2. SEM images of the BCNO@C fibers on Si substrate, showing the core shell structure.

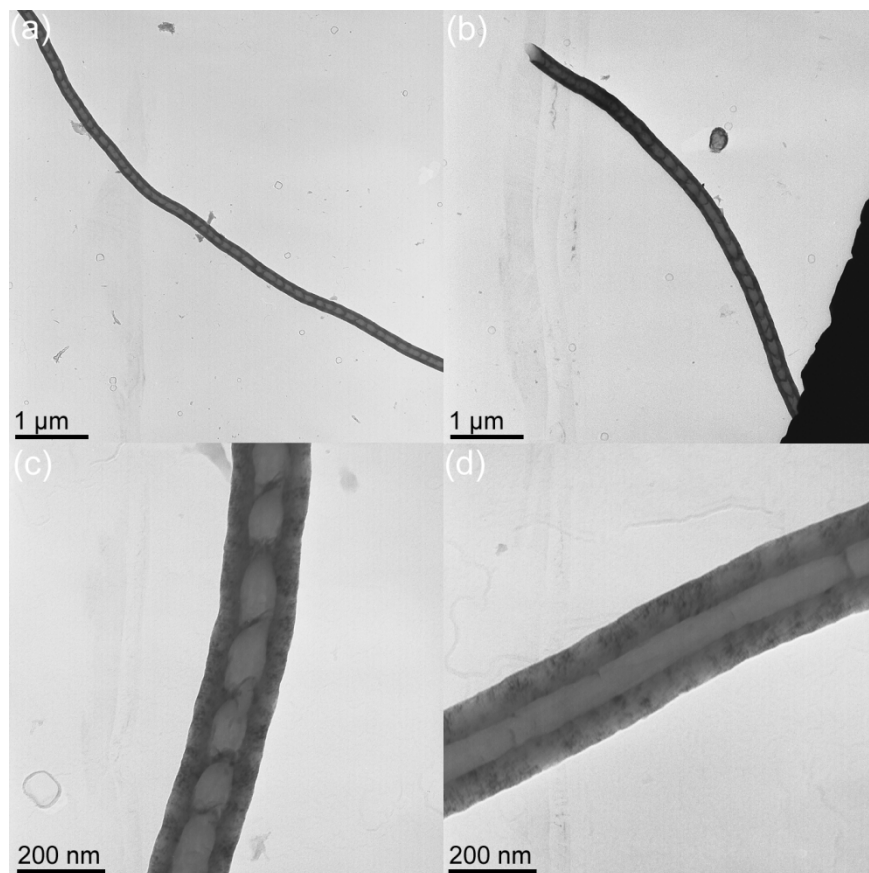


Figure S3. TEM images of the BCNO@C fibers.

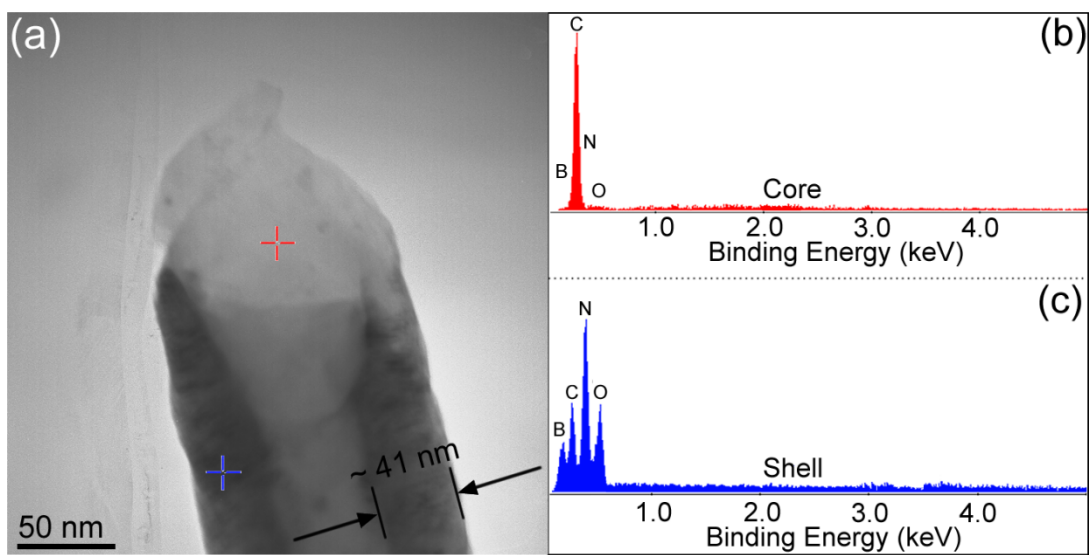


Figure S4. TEM (a) and EDS (b-c) of the BCNO@C fiber. The EDS was taken from different areas of the fibers, as indicated by the label in these images.

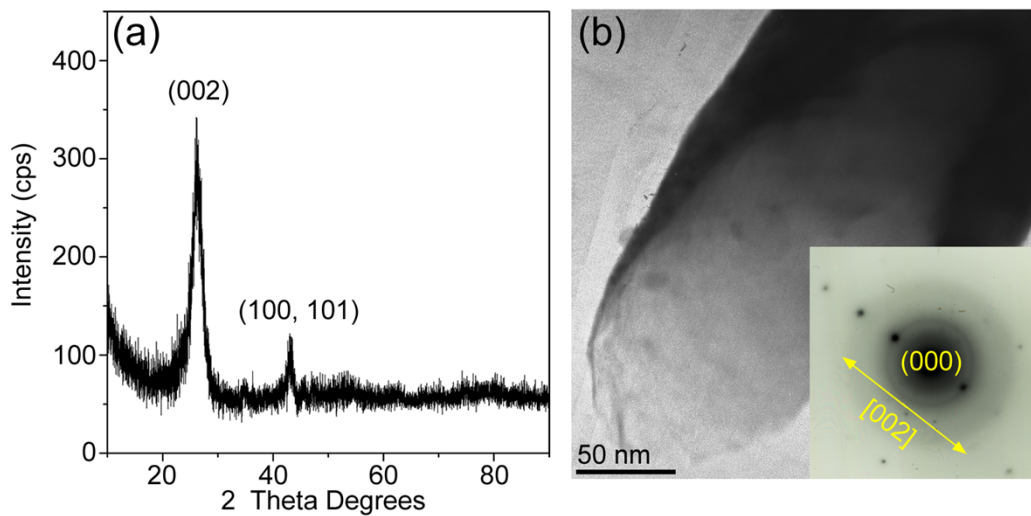


Figure S5. XRD (a), TEM (b) and relating SAED pattern (image b inset, diffraction pattern of the fiber tip) suggest the crystallinity of the BCNO@C fibers. Crystal structure was assigned with the layered structure BN and graphite (JCPDS: 45-0896 and 41-1487). Substitution of the BN with C or O (or substitution of graphite with B, O) should give similar layered structure.

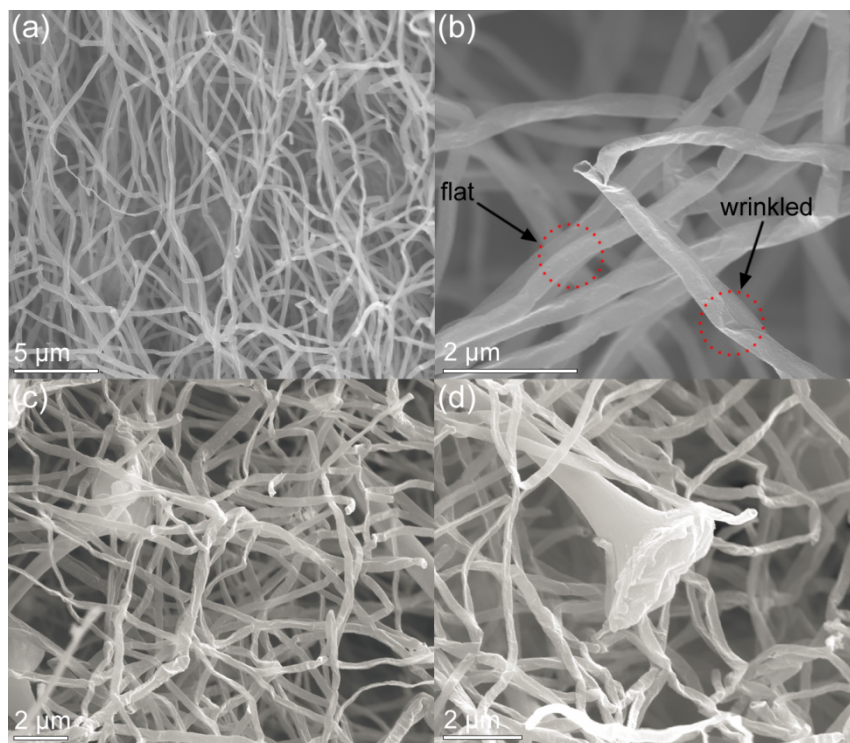


Figure S6. SEM images of BCNO tubes on Si substrate.

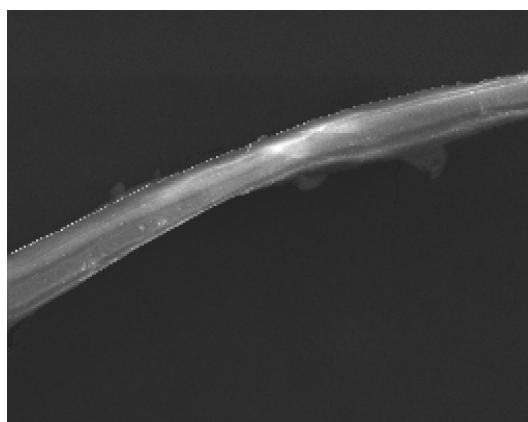


Figure S7. SEM image of one BCNO tube on Si substrate.

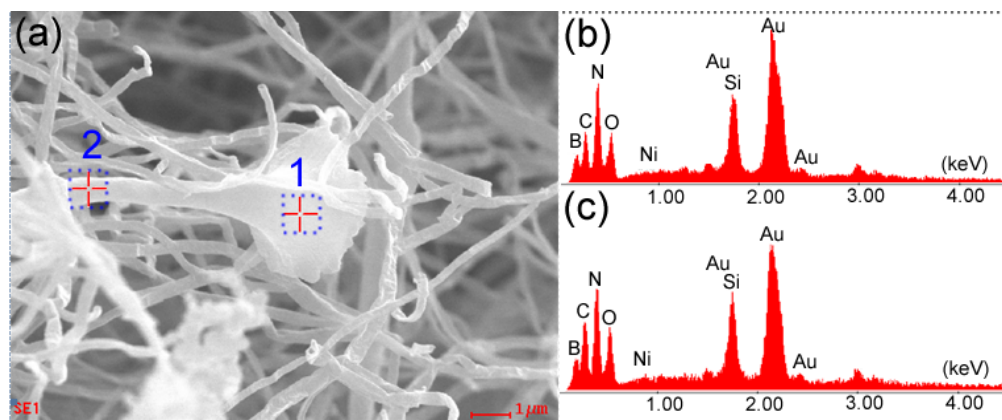


Figure S8. EDS analyses of the BCNO tubes, which show the similar compositions of the tip and tube body. Images b and c correspond the EDS taken from beam positions 1 and 2 in image a, respectively. The results are also similar with the EDS taken under TEM analysis (see Figure S4c). The Si element arose from the substrate.

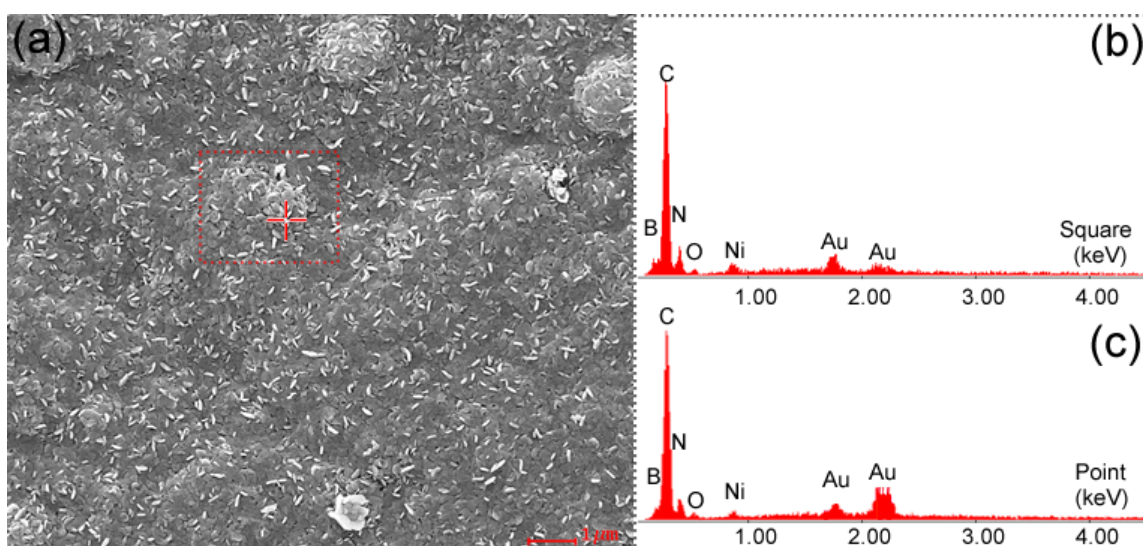


Figure S9. SEM image (a) and EDS analyses of carbon seeds (b) (collected from the square in image a) and (c) (collected from a carbon seed). Only weak Ni signal was detected and the seeds were mainly composed by C.

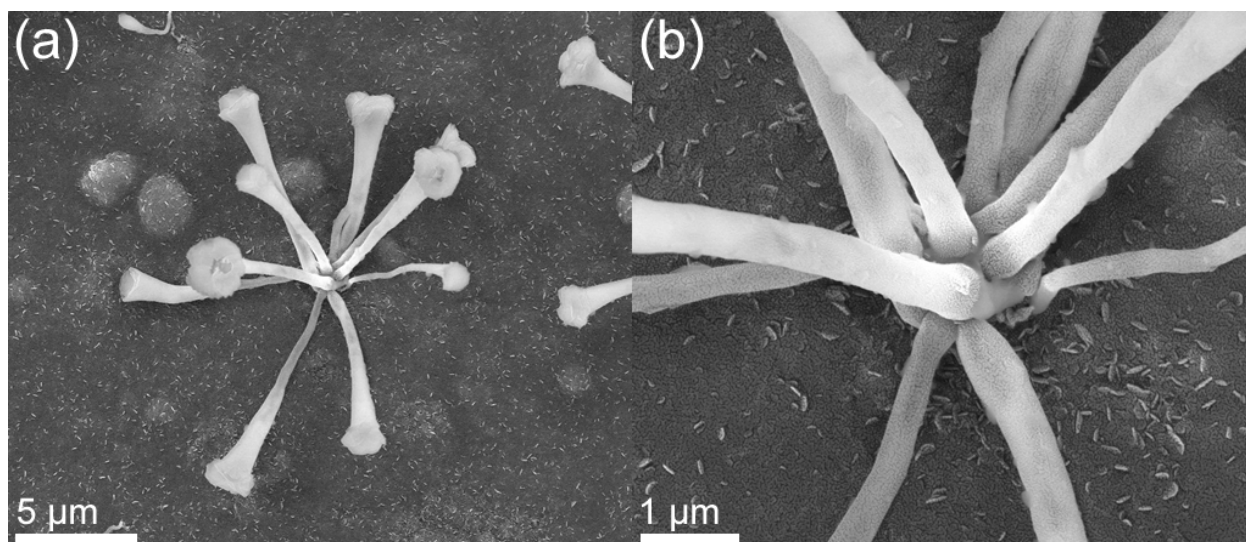


Figure S10. SEM image of one root with different magnifications which was mixed with carbon source.