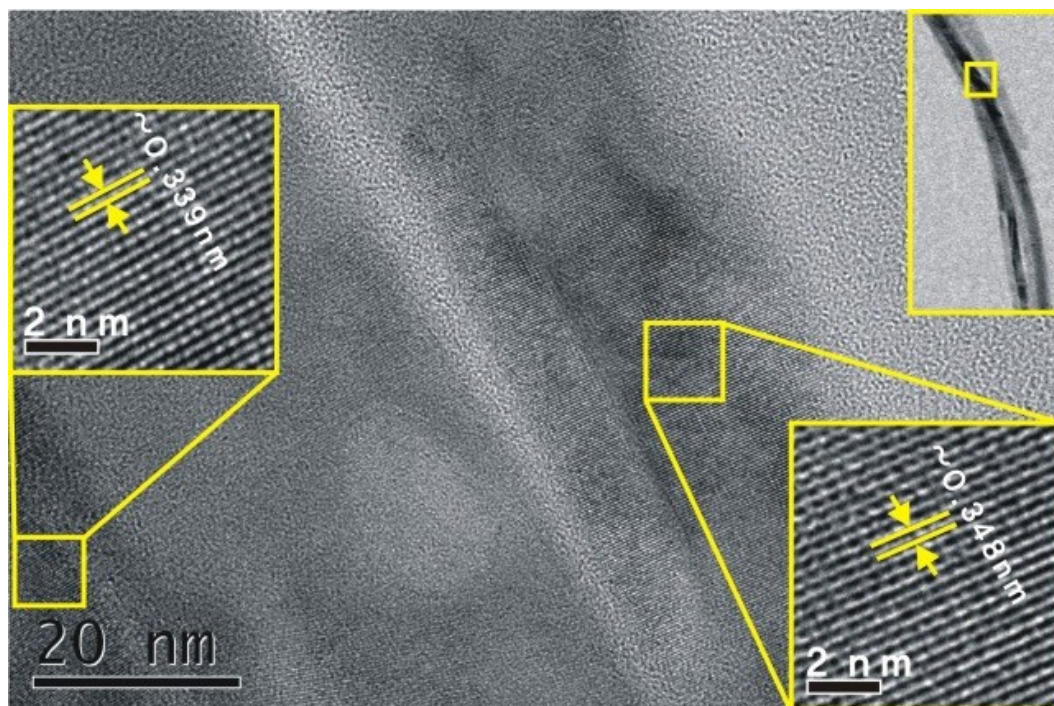
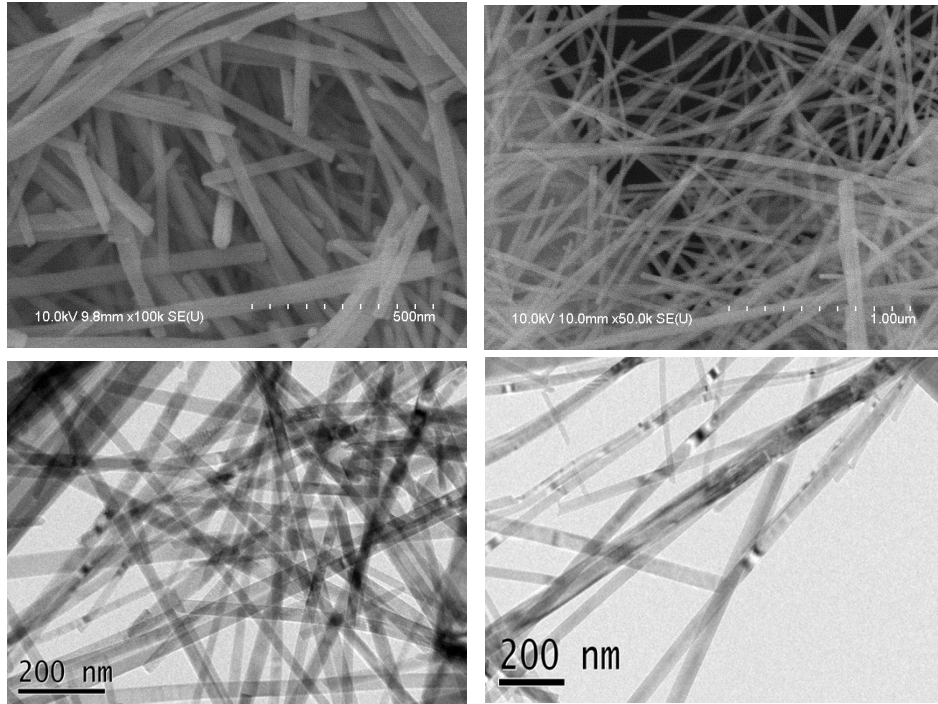


Supporting Information



HRTEM image of bent region is displayed in the above figure. Because of bending, convex side of wire is in tension and the concave side is in compression. In the figure, the right-hand side of the wire image is in tension and the left-hand side in compression. Enlarged images from the squares placed in the right-hand side and left-hand side of the nanowire is displayed in Fig. (a) and Fig. (b). Bending could take place either elastically or plastically by introducing geometrically necessary dislocations^{1, 2}. Careful and through examination of HRTEM images in Fig (a) and (b) did not reveal the geometrically necessary dislocations in bending, suggesting that the bending occurs elastically after growth and drying of HA nanowires.



Additional images of HA nanowires prepared by surfactant (CTAB) assisted hydrothermal method.

References:

1. Ashby, M.F. The Deformation of Plastically Non-Homogeneous Materials. *Philos Mag.* **1970**, *21*, 399-424.
2. Hong, S. I.; Gray, G. T.; Lewandowski, J. J. Dynamic Deformation Behavior of Al-Zn-Mg-Cu Alloy Matrix composites reinforced with 20 Vol.% SiC. *Acta metallurgica et materialia* **1993**, *41*, 2337-2351.