Supplementary Information for

New progress in bismuth sulfide nanofabrics: high-yield synthesis, and study on growth and stability mechanism

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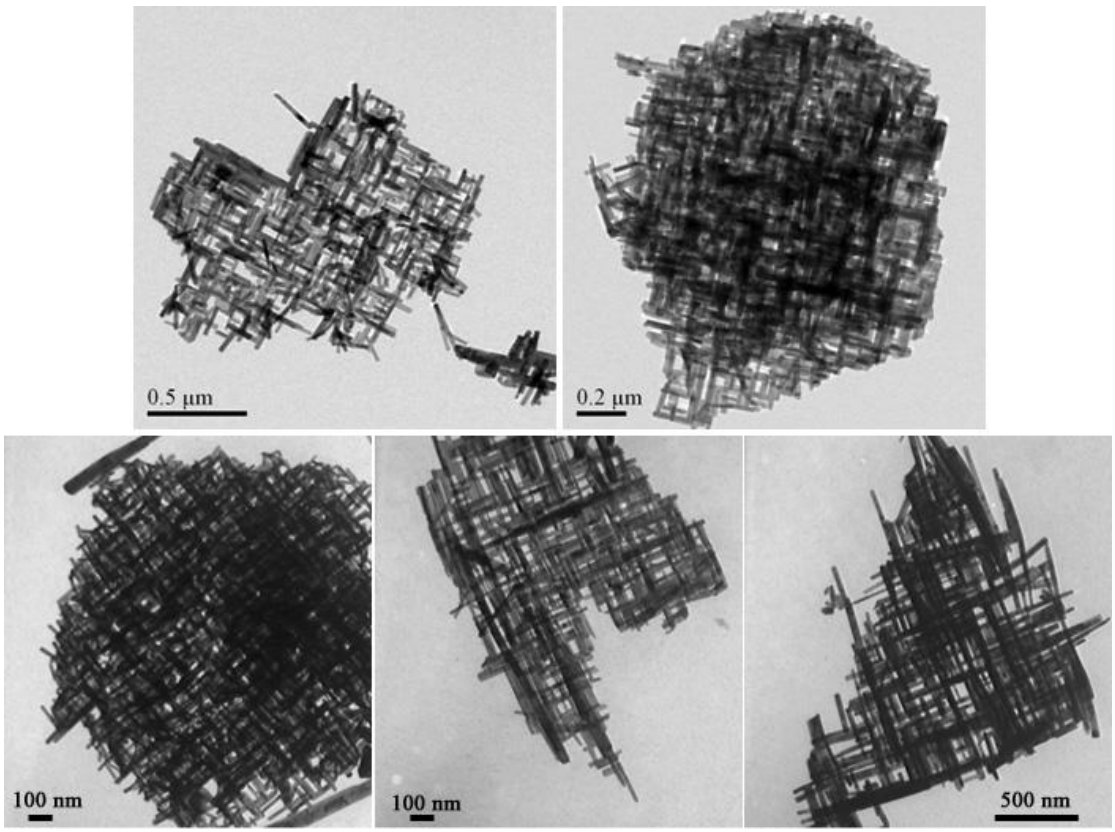

Figure S1. Low-resolution TEM images of Bi_2S_3 nanorod networks with varied outlines.

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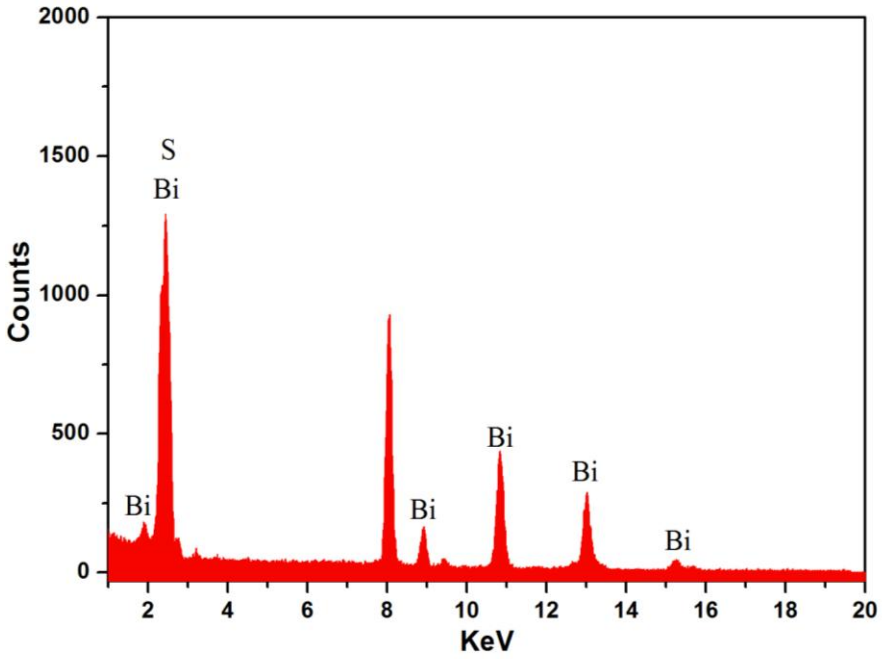

Figure S2. EDS spectrum taken from the Bi_2S_3 sample prepared with reaction time of 8 hours.

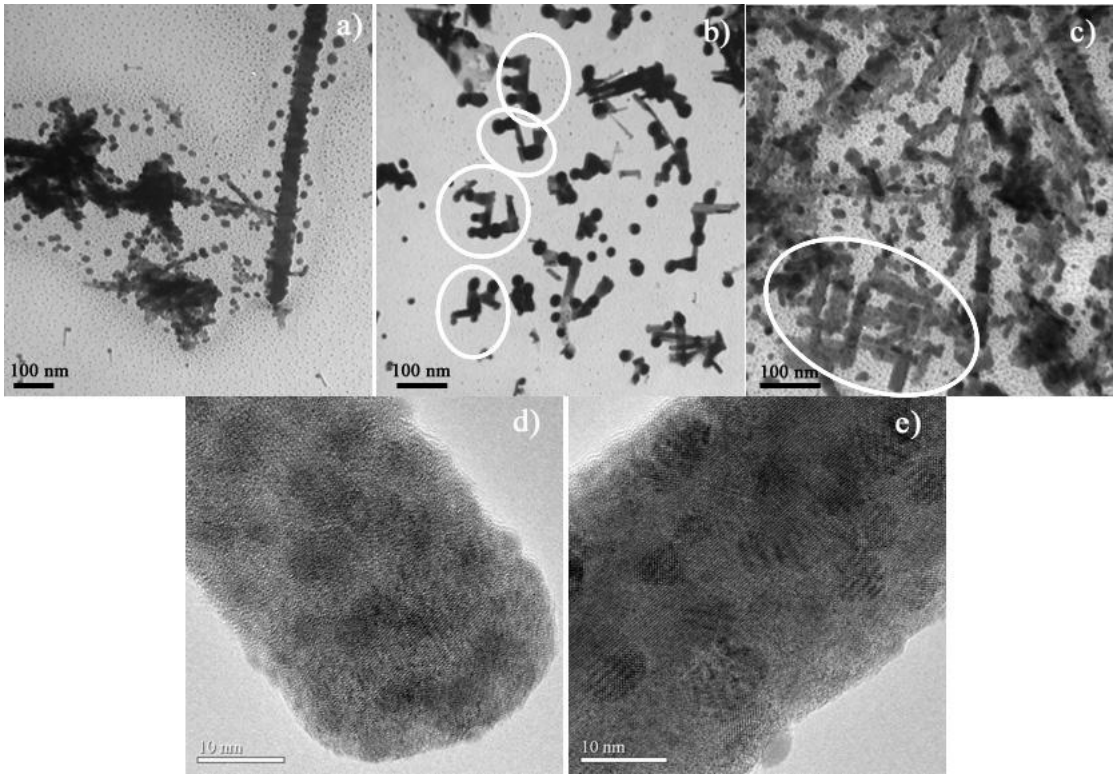

Figure S3. (a-c) Low-resolution TEM images of products prepared with reaction time of 2 hours. White dotted ellipses in (b) and (c) illustrated right-angled branched nanocrystals and embryonic quadrate frame, respectively. (d, e) HRTEM images of end and body of nanorod collected at 4 h, revealing the nanorods are composed of building nanoparticles.

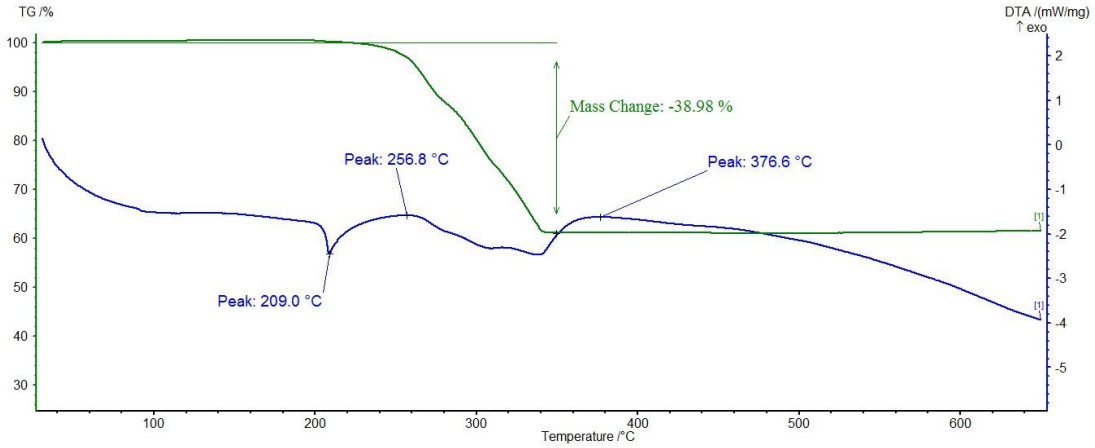

Figure S4. TG/DTA curves of compound Bi^{3+}-(APDC) under atmosphere.

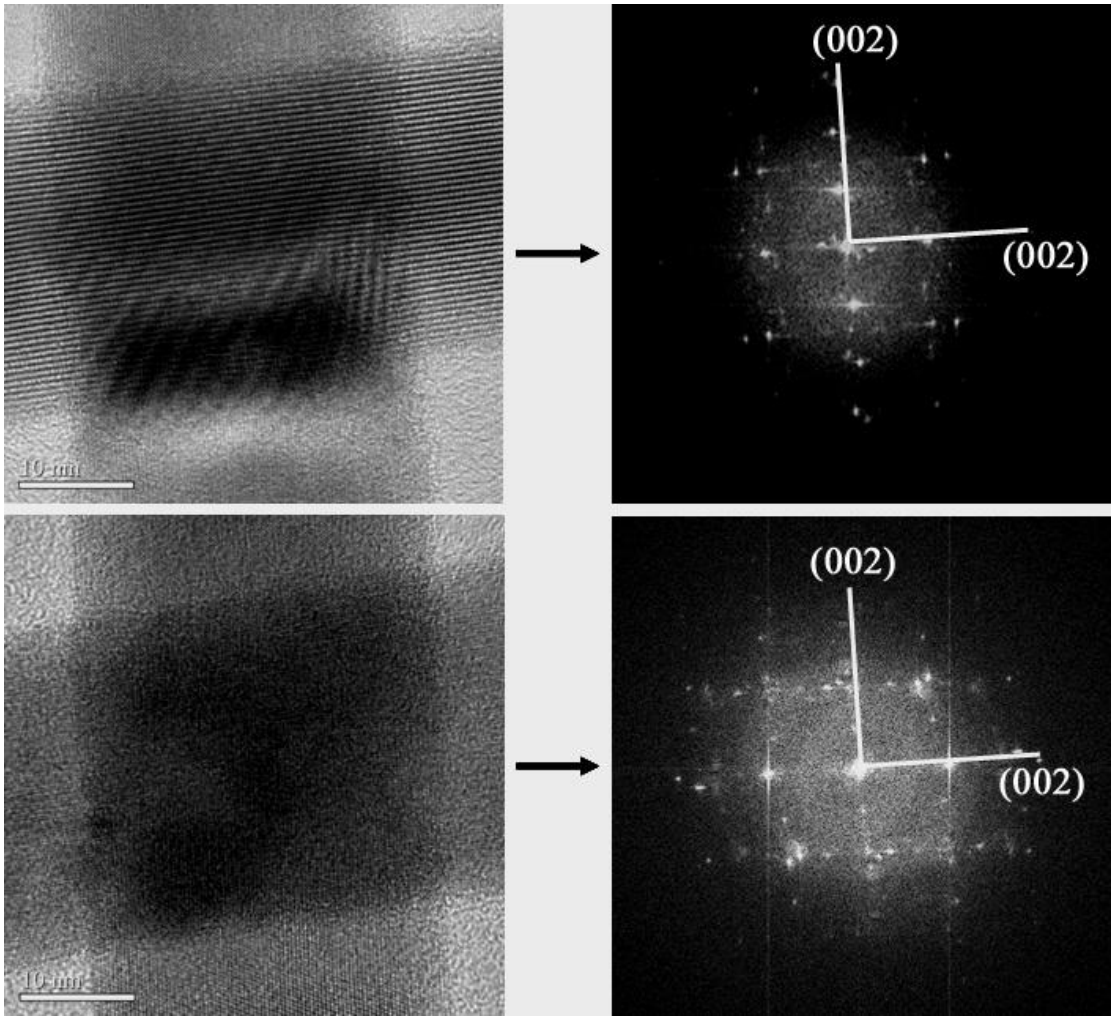

Figure S5. HRTEM images of sectional lattices and their FFTs, revealing the precise crystallographic registry between crossed nanorods, and the overlapping diffraction patterns with rotational angle 90^{o}, and the nanorods elongated in the [002] direction respectively.

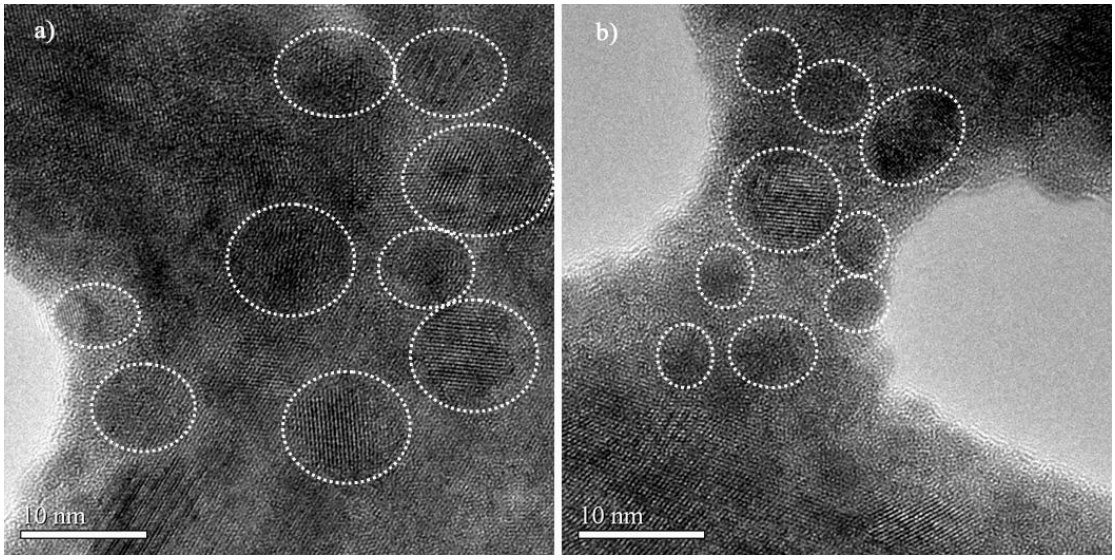

Figure S6. (a, b) HRTEM image of a junction and a sub-nanorod collected at 4 h**.** White dotted ellipses in them indicated the primary building nanounits.