Supporting Information for:

Metallic 1T-WS₂ nanoribbons as high conductive electrode for supercapacitor

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Fig. S1: SEM images of 1T-WS₂ nanoribbons at different resolution.



Fig. S2: XRD patterns of fresh 1T-WS₂ and 300 °C-annealed 1T-WS₂ (namely 2H-WS₂) nanoribbons, as compared to the bulk WS₂ (JCPDS card No. 08-0237). The shift of (002) peak with enhance intralayer's distance in 1T-WS₂ is due to the ammonia intercalation (Ref. Adv. Mater., 2015, **27**, 4837). After 300 °C heat-treatment, the (002) peak are quite similar with bulk 2H-WS₂, indicating 2H phase in the annealed sample.



Fig. S3: (a) SEM image of 2H-WS₂ nanoribbons (b) High-resolution HADDF-STEM images of 2H-WS₂. Scale bar is 2 nm. We have used the high-angle annular dark field (HAADF) imaging mode in an aberration-corrected scanning transmission electron microscope (STEM) to observe microstructure of bulk 2H-WS₂ as reference. In Figure S3 (b), we observed W-W distance of 3.15 Å for 2H-WS₂, while the value decreases to 2.7 Å for zigzag chain superlattices in 1T-WS₂ (shown in Figure 1 (b) of the main text).