

Supplementary Information:

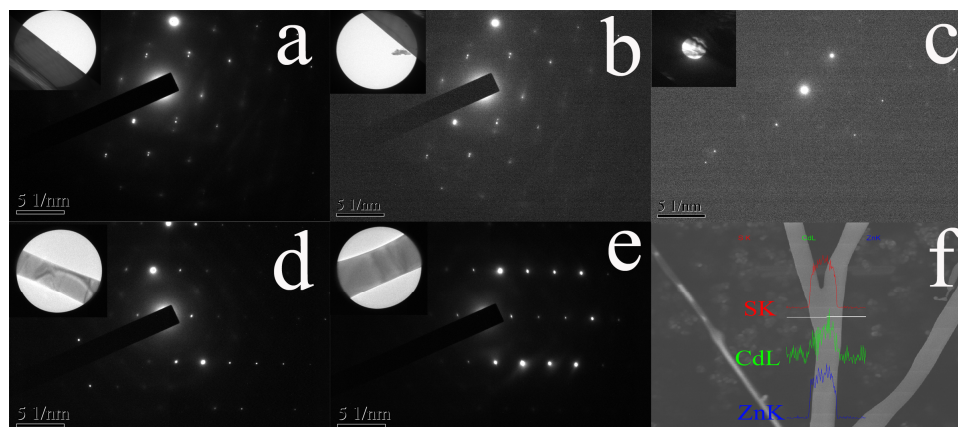


Figure SI: SAED images of the two sides (Figures a & b) and center (Figure c) of a piece of as-prepared Zn_xCd_{1-x}S nanosword; (d, e) SAED images of the different branches of a piece of as-prepared Zn_xCd_{1-x}S nanorod; (f) EDS line scans of the trunk of Zn_xCd_{1-x}S nanorod.

The SAED images of two sides and center of Zn_xCd_{1-x}S nanosword are rather similar, showing patterns of similar kind. The immethodical spots of Figures a & b might be due to difference in thickness of the two sides and the incline of nanoribbon on the Cu holder. Figures d and e are the SAED images of a branch of Zn_xCd_{1-x}S nanorod. Obviously, they show the same pattern as the total branched nanorod. Figure f shows the EDS line scans of the trunk of Zn_xCd_{1-x}S nanorod. The results indicated that the trunk and the branches are similar in Zn, Cd, and S distribution.