

Supporting Information for

Surface Structure of Zigzag SnO₂ Nanobelts

Ning Lu, Quanhe Wan, and Jing Zhu*

Beijing National Center for Electron Microscopy, Tsinghua University, Beijing 100084, China

Laboratory of Advanced Materials, Department of Materials Science and Engineering, Tsinghua University, Beijing

100084, China

E-mail: jzhu@mail.tsinghua.edu.cn

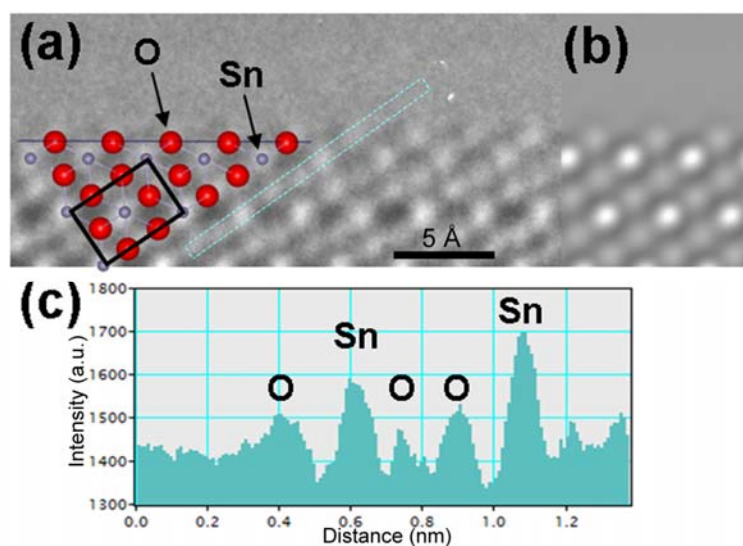


Figure S1. (a) Experimental HRTEM image of a SnO₂ nanobelt (101) surface in stoichiometric termination with O outermost layer. (b) Simulated HRTEM image based on the stoichiometric surface model as shown in Figure S1a. (c) Intensity profiles along [100] direction corresponding to the lines indicated in Figure S1a.

The elongated contrast of atomic columns in Figure S1a is due to a small deviation of the crystallographic zone axis from the direction of the incident electron beam. Therefore, the parameter of

crystal rotation with 15 mrad was introduced for the HRTEM image simulation. The simulated HRTEM image agrees well with the experiment image.

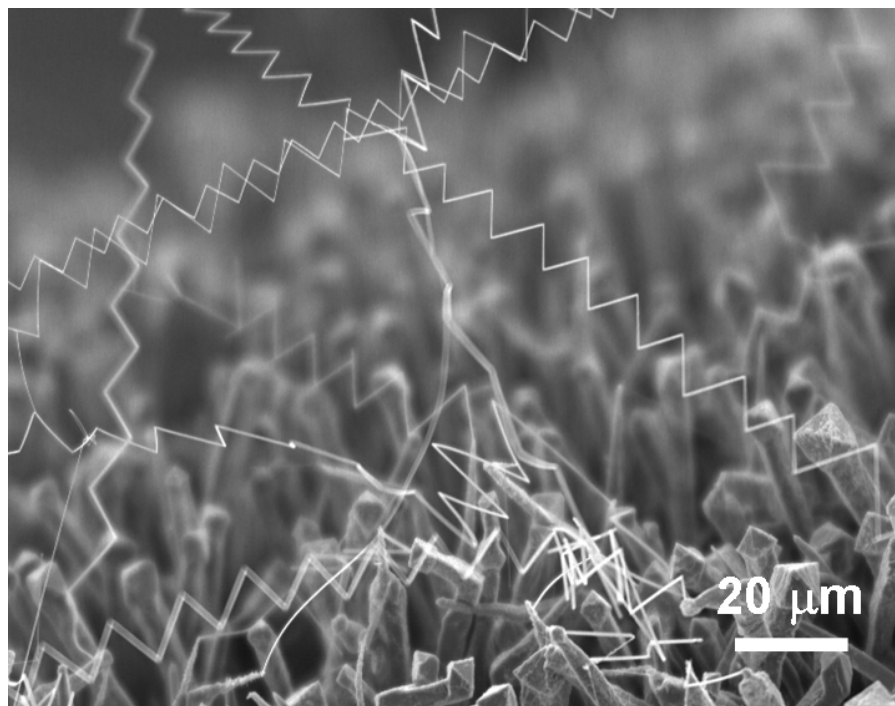


Figure S2. SEM image of rutile SnO₂ zigzag nanobelts.