

Supporting Information for

Sn-Induced Low-Temperature Growth of Ge Nanowire Electrodes with a Large Lithium Storage Capacity

*Young-Dae Ko,^a Jin-Gu Kang,^a Gwang-Hee Lee,^a Jae-Gwan Park,^a Kyung-Soo Park,^b Yun-Ho Jin,^b and
Dong-Wan Kim^{*b}*

^aNano-Materials Center, Korea Institute of Science and Technology, Seoul 136-791, Korea

^bDepartment of Materials Science and Engineering, Ajou University, Suwon 443-749, Korea

[*] To whom correspondence should be addressed. E-mail: dwkim@ajou.ac.kr

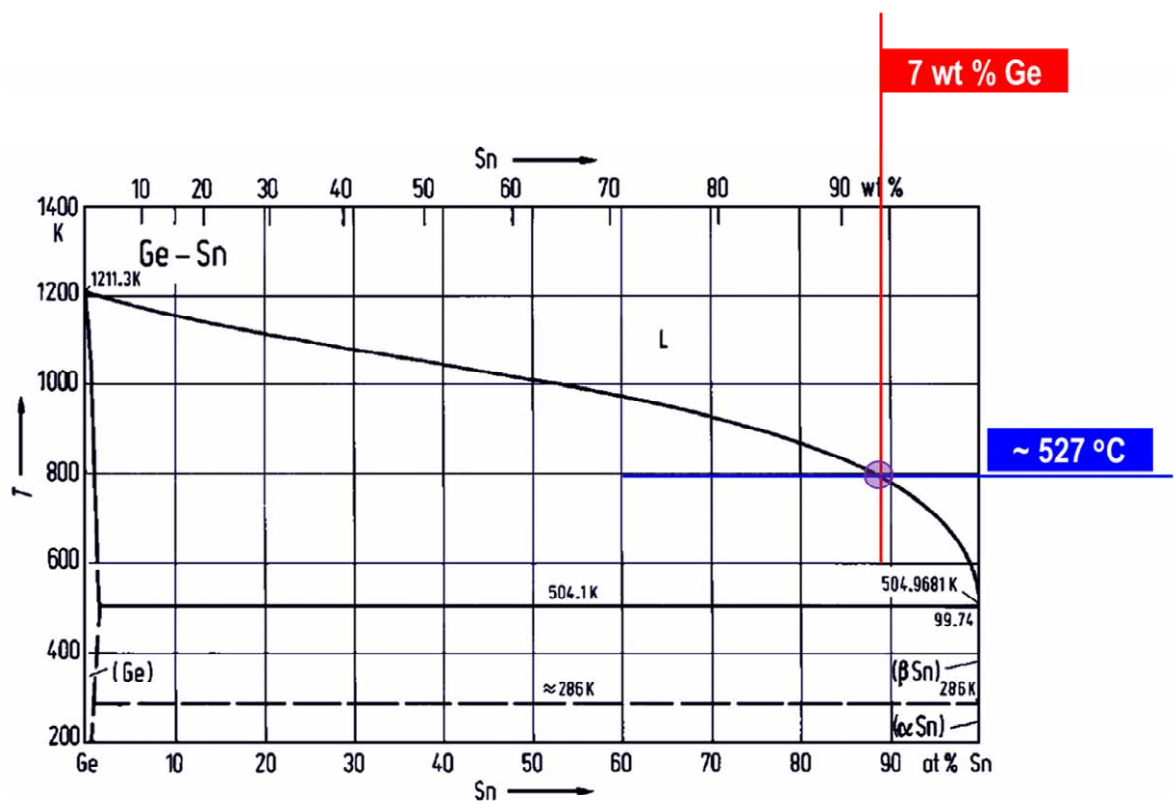


Figure S1. (a) Binary phase diagram of Ge-Sn showing the formation of a eutectic alloy with a Ge composition of 7 wt % and at 527 °C.

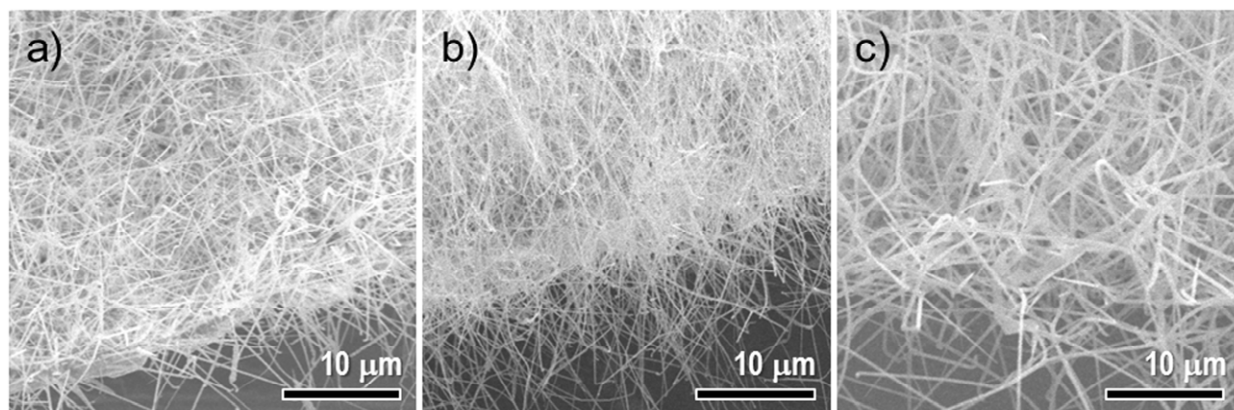


Figure S2. SEM images of Ge nanowires grown at source temperatures of: (a) 550 °C; (b) 575 °C; (c) 600 °C.

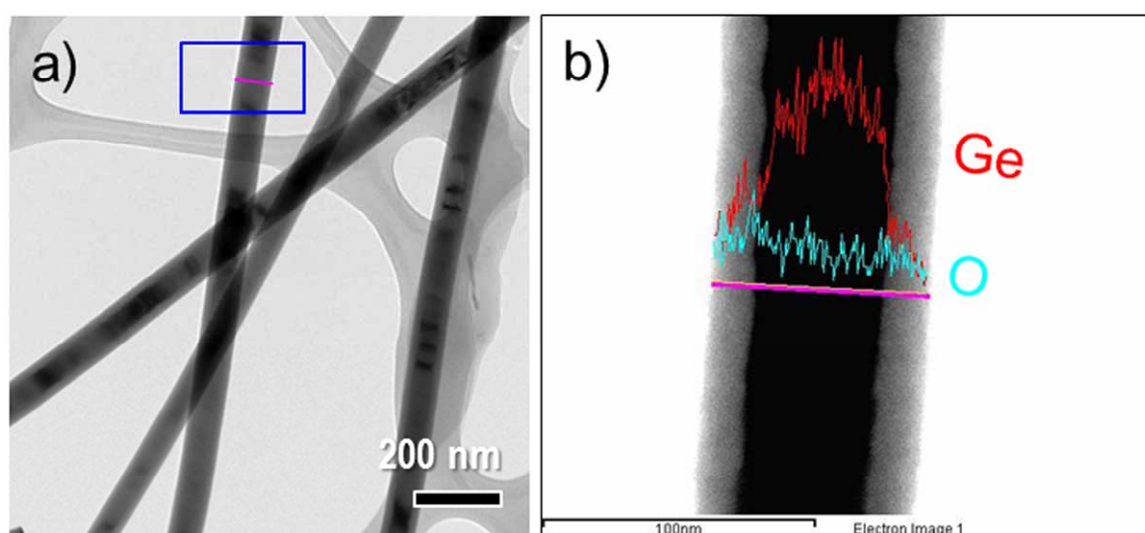


Figure S3. (a) Typical TEM image of Ge nanowires showing a uniform diameter. (b) EDS intensity profile of the Ge and O elements along the cross-sectional line, marked by the blue square in (a).

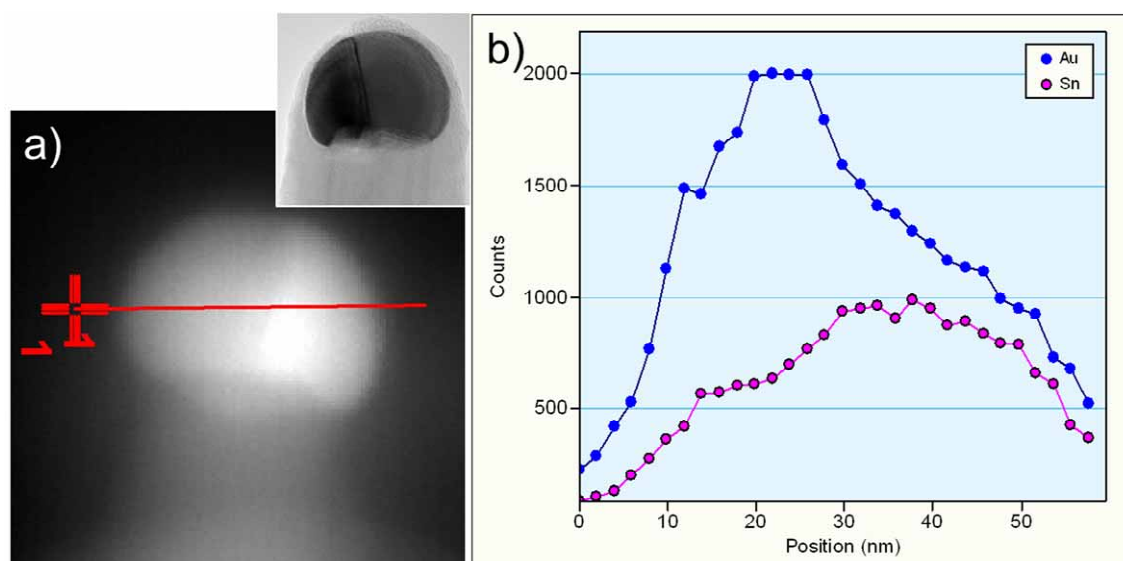


Figure S4. (a) HAADF STEM image of the tip region showing contrast difference. (b) EDS intensity profile of the Au and Sn elements along the red line in (a).

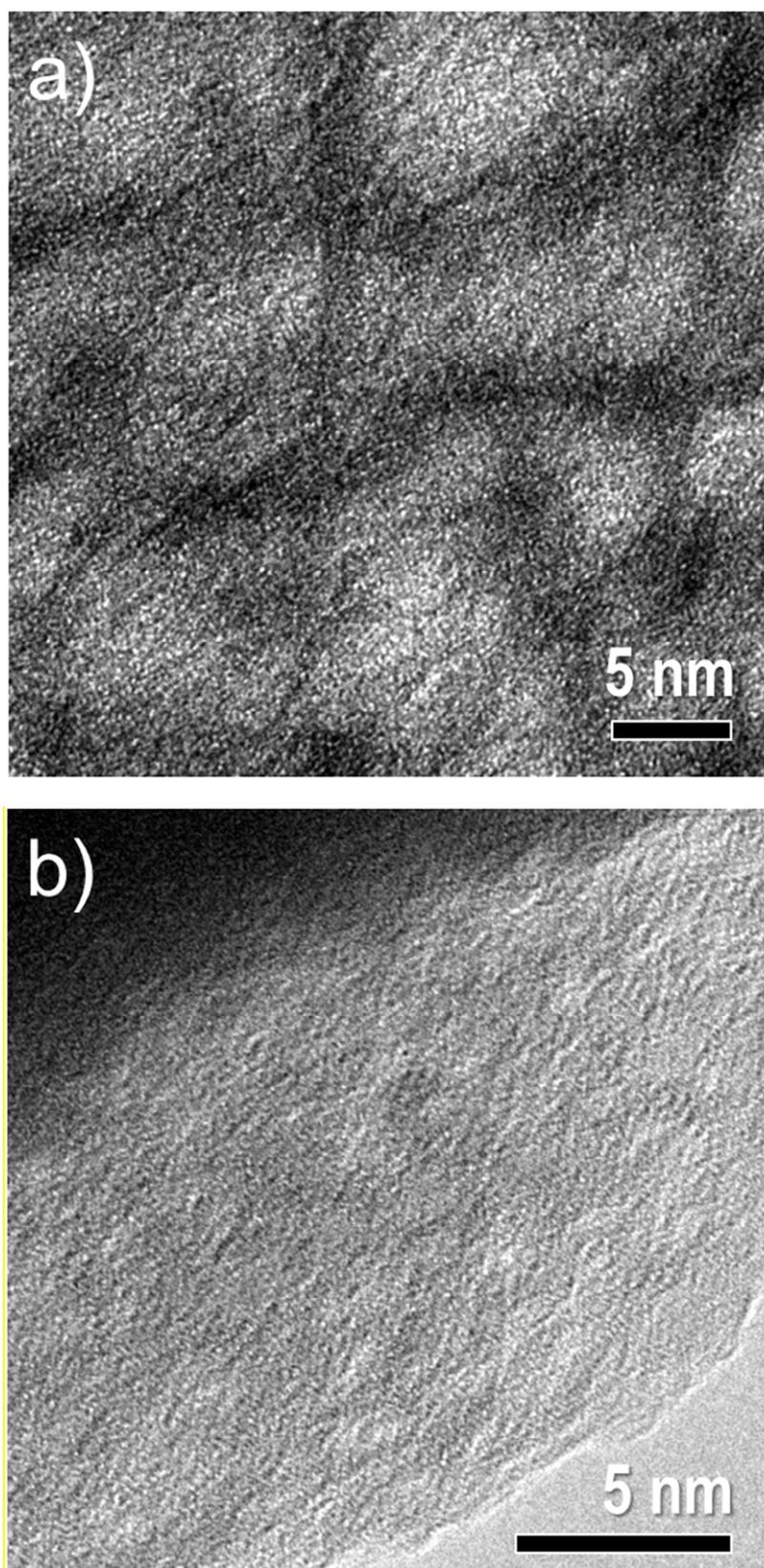


Figure S5. Magnified HRTEM images of (a) core and (b) shell regions, respectively.