Theoretical investigation on the temperature and crystallographic orientation influence on the breaking behavior of the copper nanowire

Supporting Information

Yunhong Liu¹, Fenying Wang¹, Jianwei Zhao¹*, Luyun Jiang¹, Manabu Kiguchi² and Kei Murakoshi²

¹ Key Laboratory of analytical Chemistry of Life Science (Ministry of Education), School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China 210008

² Division of Chemistry, Graduate School of Science, Hokkaido University, Sapporo, Japan

*Corresponding author. Email: zhaojw@nju.edu.cn, Tel/fax: +86-25-83596523
The whole deformation processes of copper nanowires are given as .gif files.

Video 1: A short movie of whole breaking process of formation of an atomic copper chain along [100] orientation at 100 K.

Video 2: A short movie of whole breaking process of formation of an atomic copper chain along [100] orientation at 200 K.

Video 3: A short movie of whole breaking process of formation of an atomic copper chain along [100] orientation at 300 K.

Video 4: A short movie of whole breaking process of formation of an atomic copper chain along [110] orientation at 100 K.

Video 5: A short movie of whole breaking process of formation of an atomic copper chain along [110] orientation at 200 K.

Video 6: A short movie of whole breaking process of formation of an atomic copper chain along [110] orientation at 300 K.

Video 7: A short movie of whole breaking process of formation of an atomic copper chain along [111] orientation at 100 K.

Video 8: A short movie of whole breaking process of formation of an atomic copper chain along [111] orientation at 300 K.

Video 9: A short movie of whole breaking process of formation of an atomic copper chain along [111] orientation at 300 K.