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

## **Supporting Information**

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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 at300 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.