## **Electronic Supplementary Information (ESI) for** Nanoscale

## Void-assisted plasticity in Ag nanowires with a single twin structure

He Zheng,<sup>ab</sup> Jiangwei Wang,<sup>a</sup> Jian Yu Huang,<sup>c</sup> Jianbo Wang,<sup>\*a</sup> and Scott X. Mao\*<sup>b</sup>

<sup>a</sup> School of Physics and Technology, Center for Electron Microscopy and MOE Key Laboratory of Artificial Micro- and Nano-structures,

Wuhan University, Wuhan 430072, China. Fax: +86-27-6875-2569; Tel: +86-27-6875-2481.ext. 8132; E-mail: wang@whu.edu.cn

<sup>b</sup> Department of Mechanical Engineering & Materials Science, University of Pittsburgh, PA 15261, USA. E-mail:

## smao@engr.pitt.edu

<sup>c</sup> 8915 Hampton Ave NE, Albuquerque, NM 87122, USA.





Figure S1. The statistic diameter distribution of Ag nanowires.

Electronic Supplementary Information (ESI) for Nanoscale



**Figure S2**. (a-c) Time-lapsed images showing the uniaxial tensile loading of an individual Ag NW without TB. The displacement rate is approximately 0.04 nm/s.

**Movie M1**: In-situ recorded deformation dynamics of an individual Ag NW under tensile stress, recorded at 2 frames/sec and played at  $10 \times$  speed.

**Movie M2**: Real time video showing the emission of partial dislocations from the free surface, recorded at 2 frames/sec and played at  $10 \times$  speed.

**Movie M3**: The void nucleation and propagation before the NW fractured, recorded at 2 frames/sec and played at  $10 \times$  speed.