



Supporting Information

for

Abrupt elastic-to-plastic transition in pentagonal nanowires under bending

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Beilstein J. Nanotechnol. **2019**, *10*, 2468–2476. [doi:10.3762/bjnano.10.237](https://doi.org/10.3762/bjnano.10.237)

Additional figures and a video link

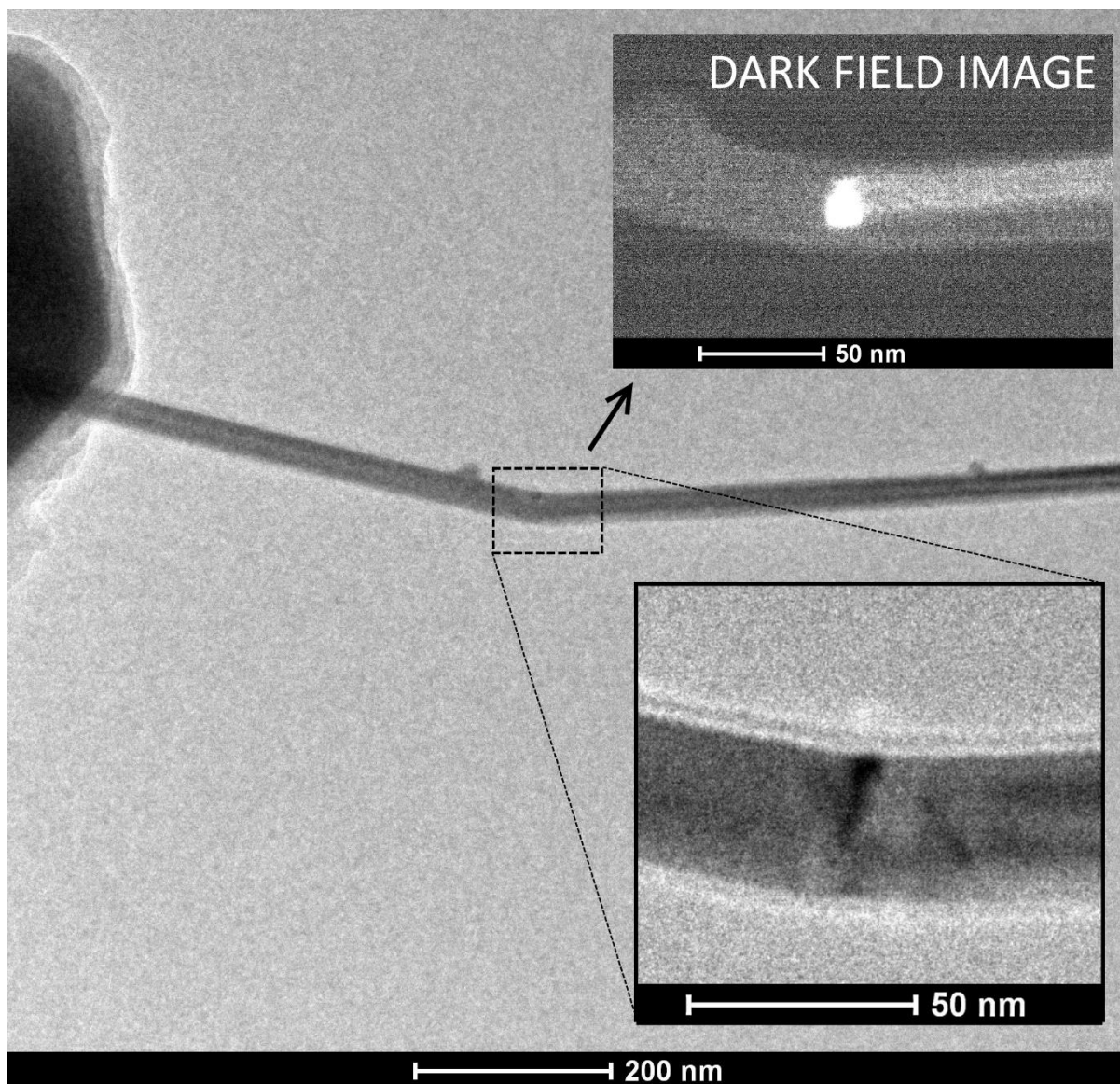


Figure S1: Bright and dark field TEM images of Ag nanowire previously bent inside SEM by nanomanipulator.

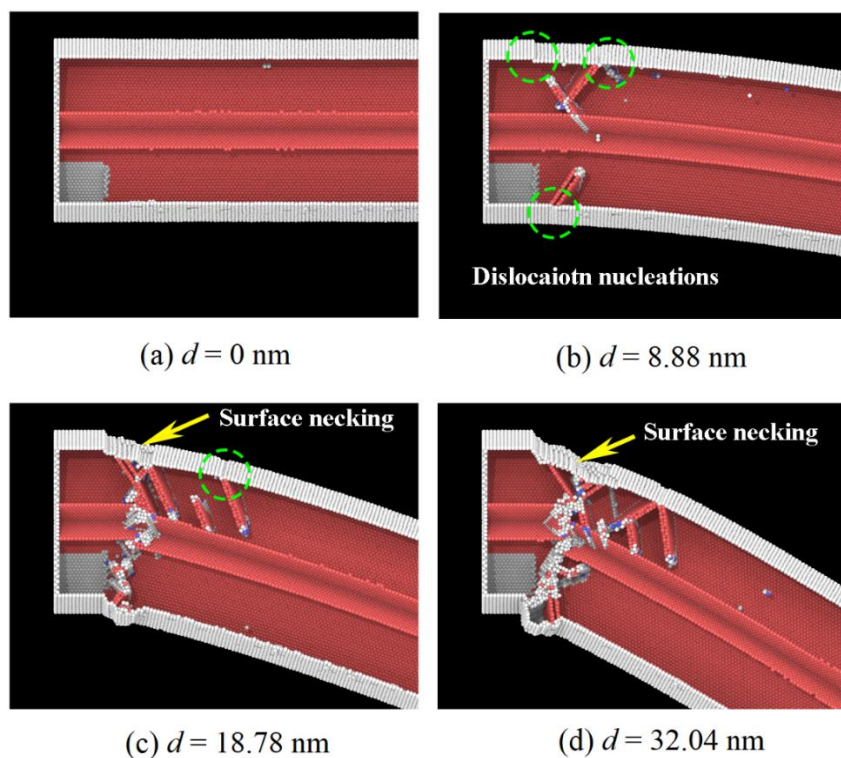


Figure S2: Dislocation structures of the Ag fivefold nanowire in a quasi-static simulation. (Red atoms are twin boundaries and stacking faults, while atoms are dislocation cores and free surfaces. Atoms in perfect lattice are not shown for clearness).

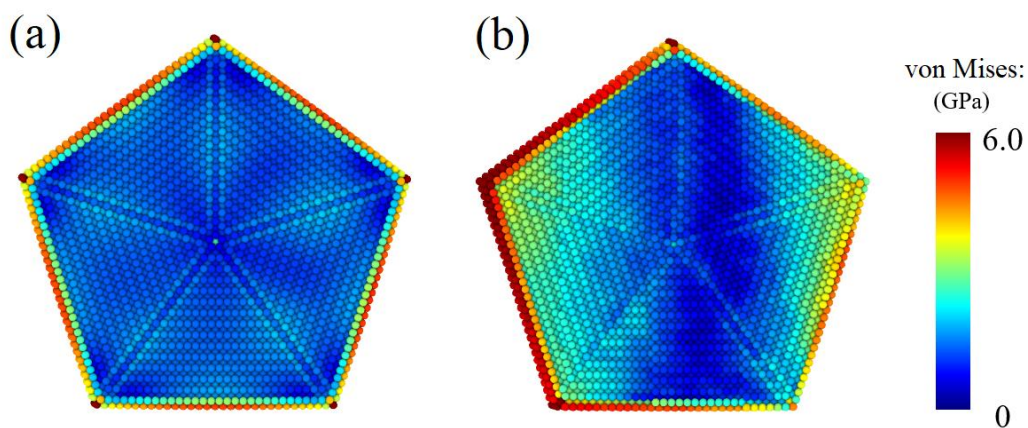


Figure S3: Stress distribution of the Ag nanowire at the initial stage (a) and the stage before the first dislocation nucleation (b).

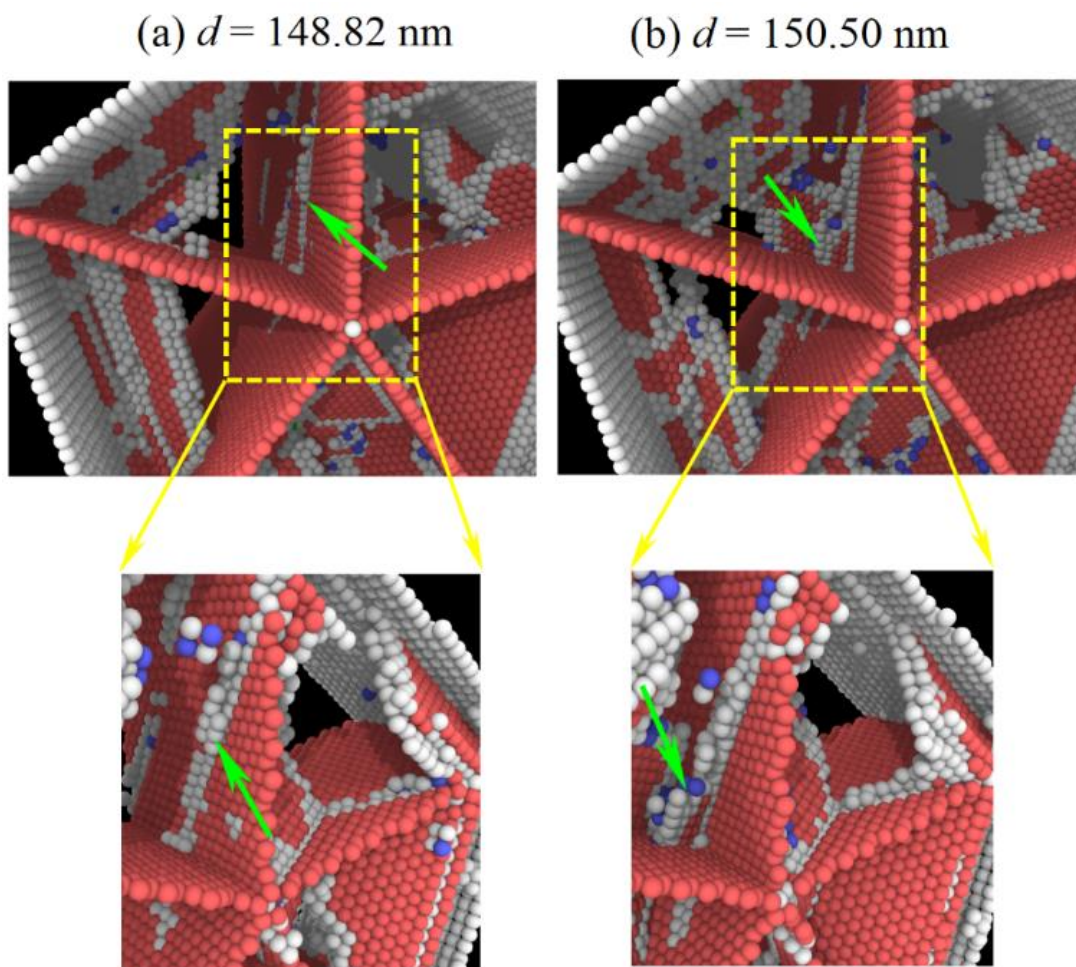


Figure S4: Dislocation cross-slip a twin boundary. (Atom color scheme is the same to that in Figure S2)

Video: Bending of pentagonal Ag nanowire, MD simulations.

<https://1drv.ms/u/s!AuJGTOFjxvz2hAjtbdQKcwr-yY4f?e=kyPlcF>