**Video Caption.** Molecular dynamics simulation of a $<$100$>$1b PbSe nanowire without Eshelby’s twist. The gray and yellow atoms are Pb and Se atoms, respectively. The red arrows denote the position of dislocation line, which is in $<$100$>$ direction ($z$ direction). The length of the cell in $z$ direction is 12 nm and periodic boundary conditions are applied in $z$ direction. The dislocation line quickly migrates to the surface, leaving behind the pristine NW structure.