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Molecular Dynamic Simulation of AuCu I under uniaxial tensile treatment

Structural changes taking place in nanowires of L10 alloy AuCu I during mono-axial tension investigated in the course of high-rate, tensile uniaxial loading along $\langle 001 \rangle$ and $\langle 100 \rangle$ using the method of molecular dynamics at the different temperature. The presence of periodic thermal planar defects in the long-period nanostructure (combined thermal anti-phase boundaries) significantly affects the onset of plastic deformation. young's modulus, Yield stress, Yield strain and poisons ratio were studied for different size and temperature.

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