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Displacement energy of the surface layers of tungsten[1] LONGTAO HAN, PREDRAG KRSTIC, SUNY at Stony Brook , NY 11794-5250 — A molecular dynamics study with BOP potential is used to calculate the threshold displacement energy (E_D) of primary knock-on atoms in the surface layers of the tungsten bcc crystal lattice at 300 K and at various crystallographic directions. Depending on the direction, E_D is 10% to 75% smaller from the bulk value at the first layer, interfacing vacuum, while it reaches close to the bulk value already at the third tungsten layer.

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