

Supplementary Materials for

Effect of Grain Boundary Doping/Segregation on the Mechanical Behavior of Ta Bicrystal

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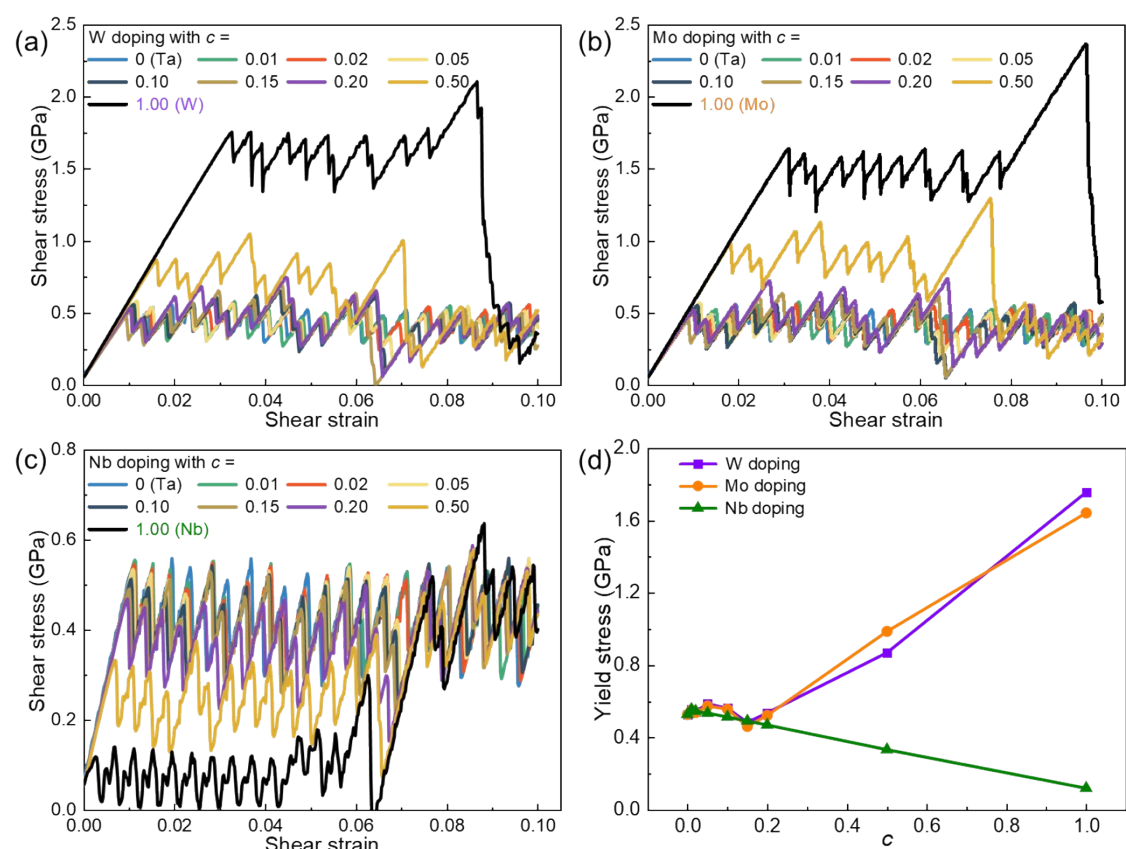


Fig. S1. Mechanical responses of Ta bicrystal containing $\Sigma 3\{112\}\langle 110\rangle$ GBs doped with W, Mo, and Nb atoms under shear. (a)-(c) Shear stress-strain curves of samples doped with various concentrations of W, Mo, and Nb atoms. (d) Variation of yield stress with doping concentration.

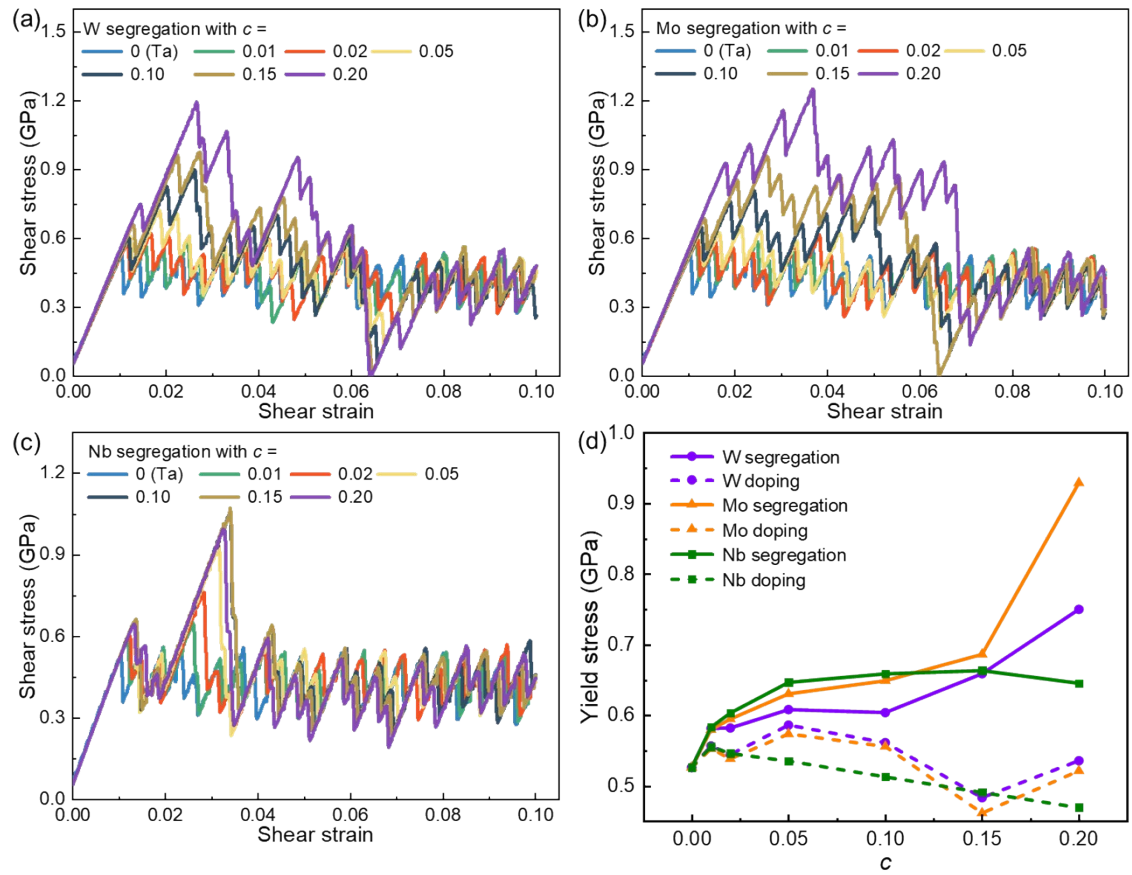


Fig. S2. Mechanical responses of Ta bicrystal sample containing $\Sigma 3\{112\}\langle 110\rangle$ GBs with W, Mo, and Nb segregation under shear. (a)-(c) Stress-strain curves of samples with different segregation concentrations of W, Mo, and Nb. (d) Relationship between the yield stress and type/concentration of doping/segregation elements.