

Supplementary Information

Rate-dependent mechanical behavior of single-, bi-, twinned-, and poly-crystals of CoCrFeNi high-entropy alloy

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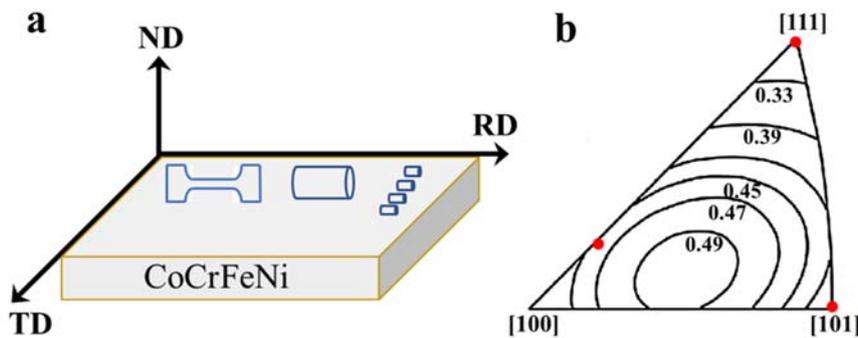


Figure S1. (a) Schematic diagram illustrating the loading axis-rolling direction (RD) relationship in bulk tension, bulk compression, and micropillar compression. (b) Illustration for the crystallographic orientation dependence of the Schmid factor.

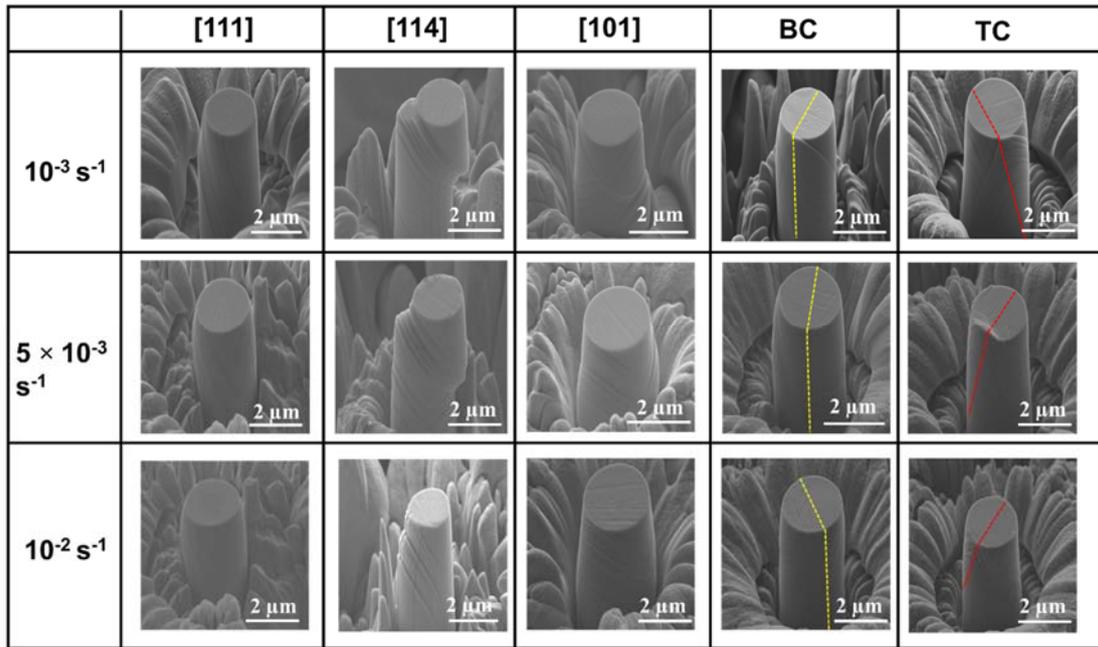


Figure S2. Morphologies of SC-, BC-, and TC-pillars after compression tests at $\dot{\epsilon} = 10^{-3}$, 5×10^{-3} , and 10^{-2} s^{-1} . Yellow and red dashed lines indicate the GBs and TBs in the pillars, respectively.

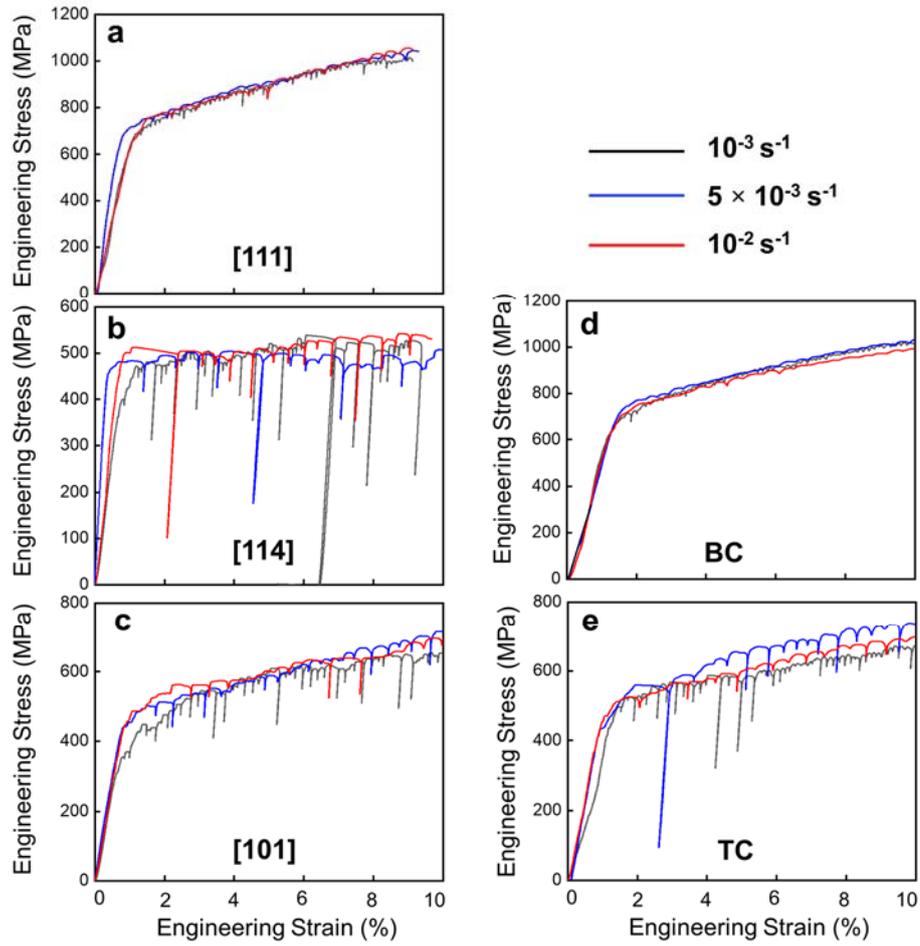


Figure S3. Representative engineering stress–strain plots of the micropillar compression test results at $\dot{\epsilon} = 10^{-2}$, 5×10^{-3} , and 10^{-3} s^{-1} of SC-, BC-, and TC-pillars.

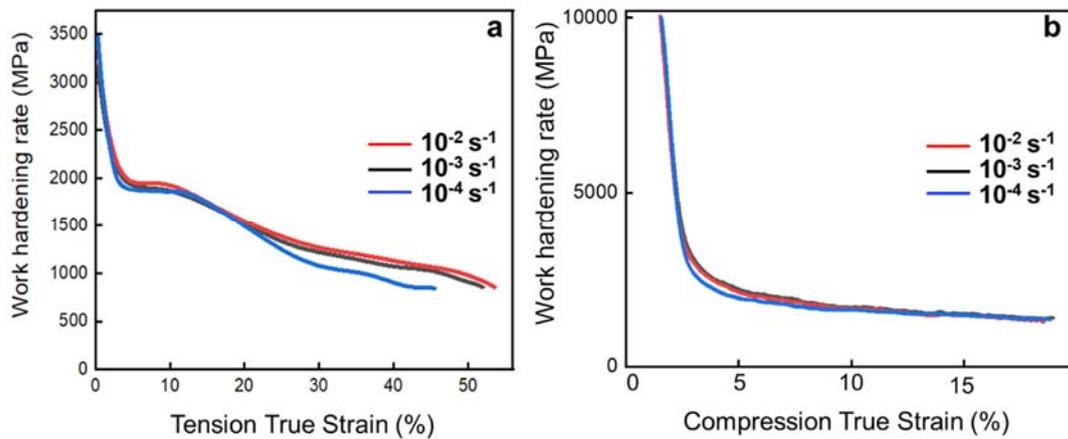


Figure S4. Instantaneous work hardening rate against true strain under bulk tension (a) and compression (b) testing at strain rate $\dot{\epsilon} = 10^{-4}$, 10^{-3} , and 10^{-2} s^{-1} .