

Figure S1. Schematic view of applied tensile and compressive strains in the various crystallographic orientations.

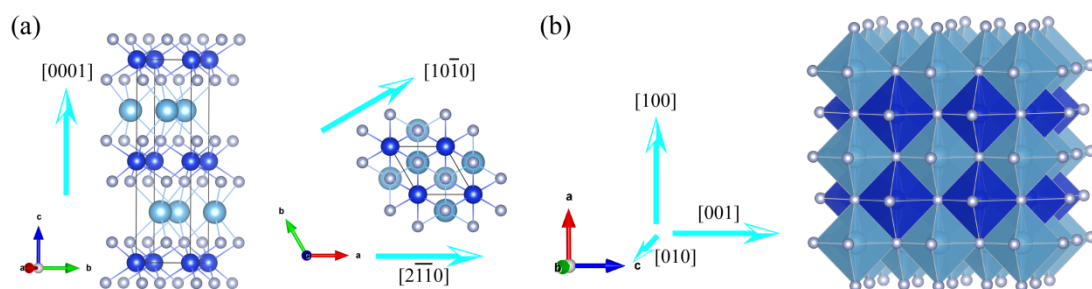


Fig. S2 Tensile/compressive stress-strain curves for ordered B1 $\text{Ti}_{0.5}\text{Si}_{0.5}\text{N}$ (a) and tensile stress-strain curves for disordered SQS-B1 $\text{Ti}_{0.5}\text{Si}_{0.5}\text{N}$.

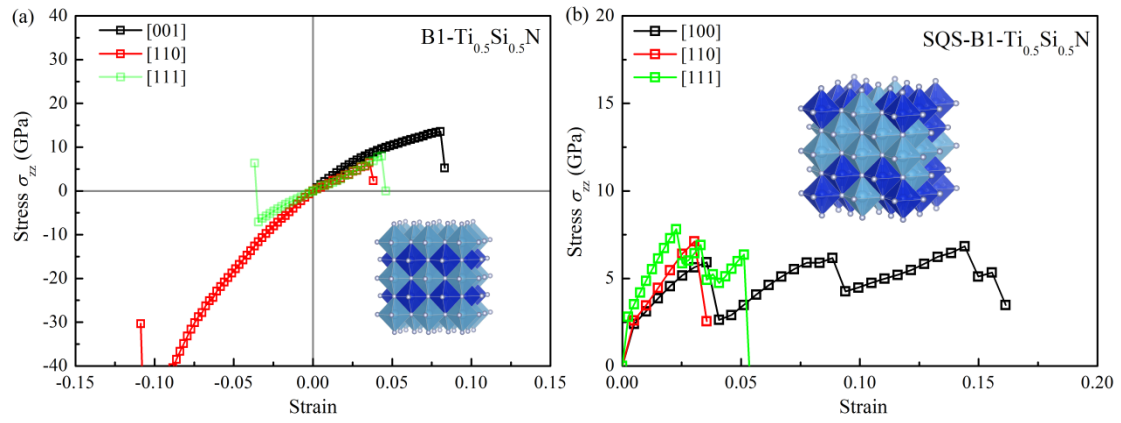


Figure S3. Projected band structures and projected density of states (PDOS) for (a) $B1\text{-Ti}_{0.5}\text{Si}_{0.5}\text{N}$, (b) $P6_3/mmc\text{-TiN}$ and (c) $P6_3/mmc\text{-SiN}$.

