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

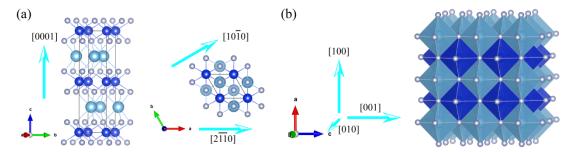


Fig. S2 Tensile/compressive stress-strain curves for ordered B1 $Ti_{0.5}Si_{0.5}N$ (a) and tensile stress-strain curves for disordered SQS-B1 $Ti_{0.5}Si_{0.5}N$.

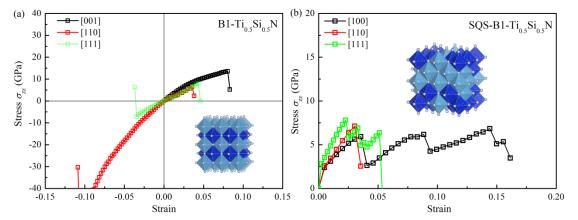


Figure S3. Projected band structures and projected density of states (PDOS) for (a) $B1-Ti_{0.5}Si_{0.5}N$, (b) $P6_3/mmc$ -TiN and (c) $P6_3/mmc$ -SiN.

