

Supplementary Information for: Origin of the Decompression-Driven Superconductivity Enhancement in SnSe₂

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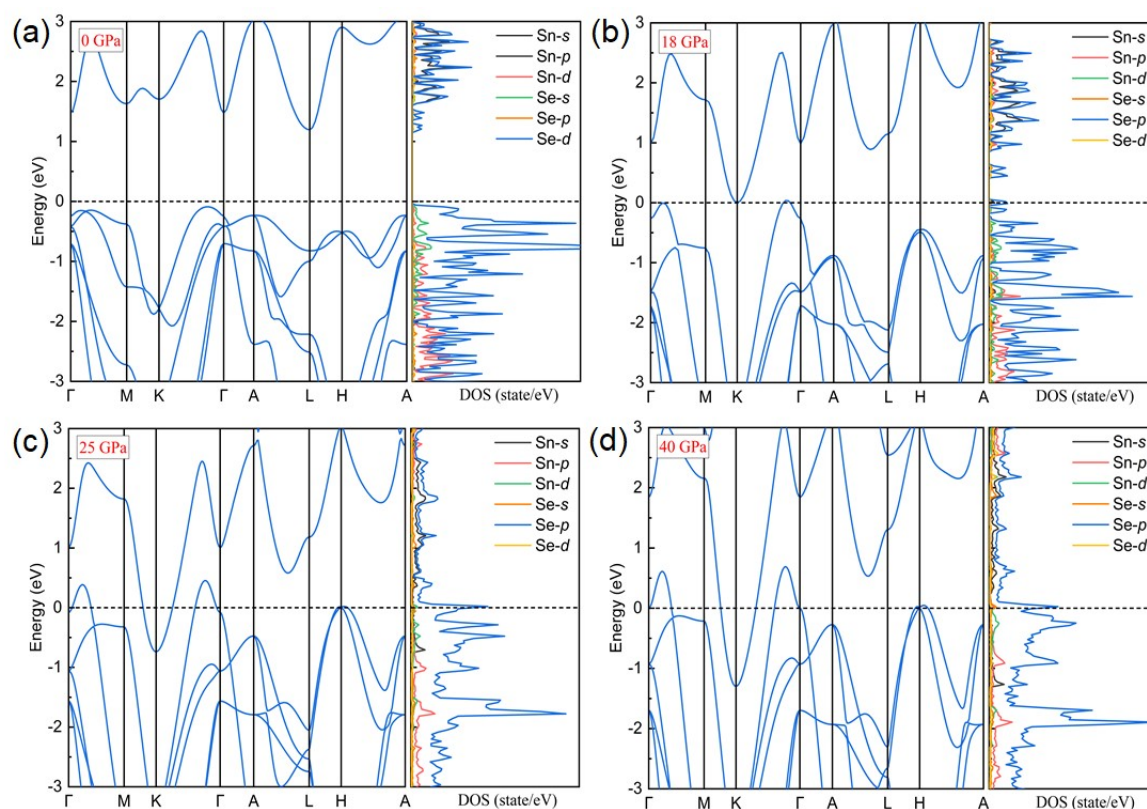


Figure S1. (a)-(d) Electronic structure and projected electronic DOS of SnSe₂ at representative pressures calculated through the DFT method. The electron density of the state at the Fermi level increases very fast from 18 to 25 GPa, which may significantly enhance the electron–phonon coupling (λ).

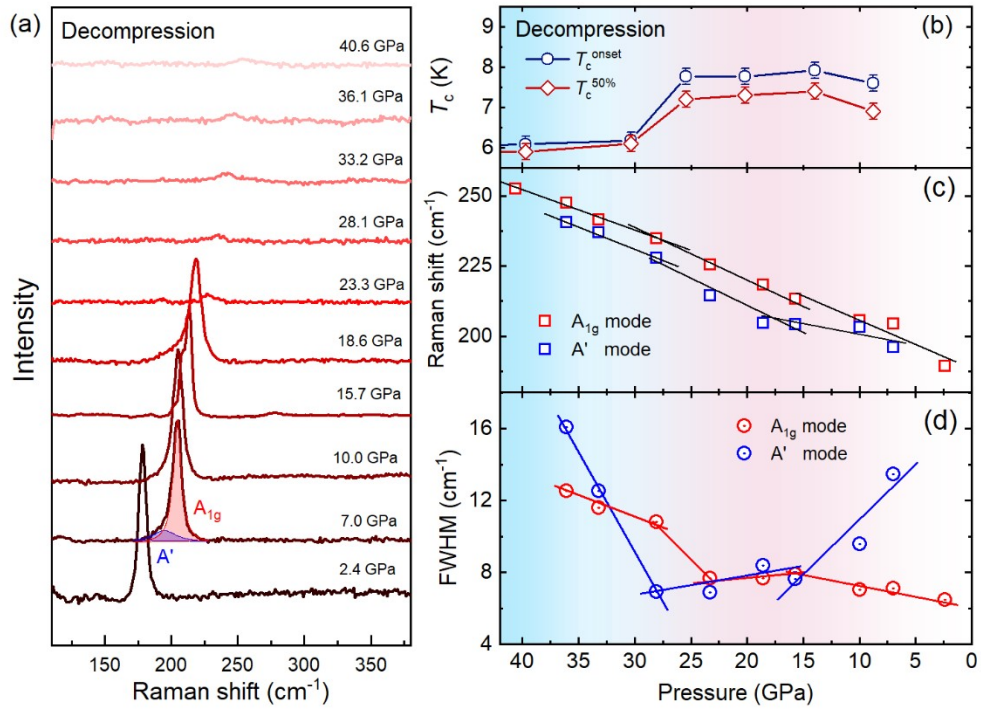


Figure S2. (a) Raman spectra of SnSe₂ under decompression. (b) The evolution of superconducting temperature T_c^{onset} and $T_c^{50\%}$. (c) Pressure dependence of Raman shift of A_{1g} and A' modes. (d) FWHM of A_{1g} and A' modes.