

Photoinduced charge-density-wave phase in 1T-TaS₂: growth and coarsening mechanisms

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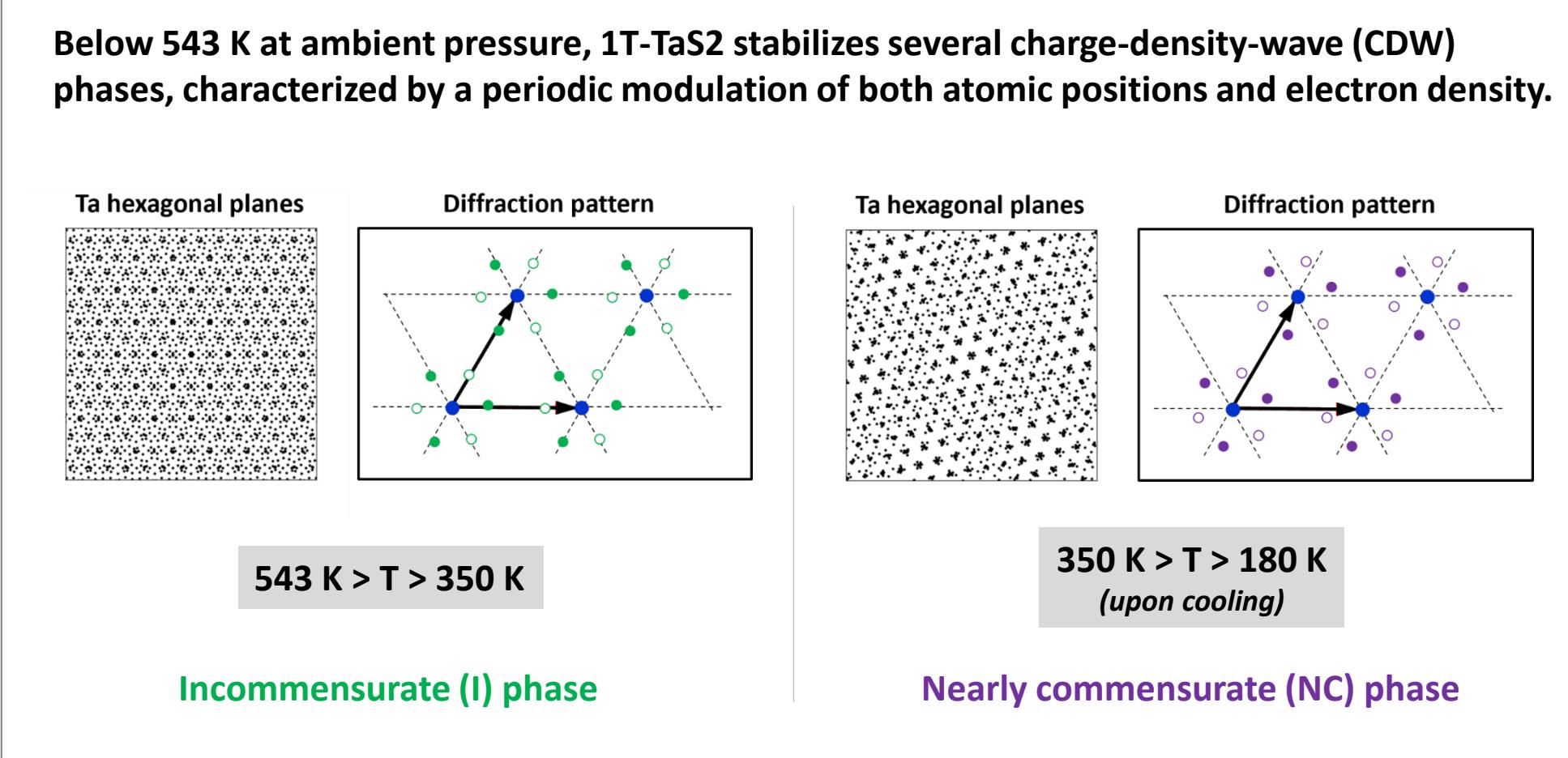
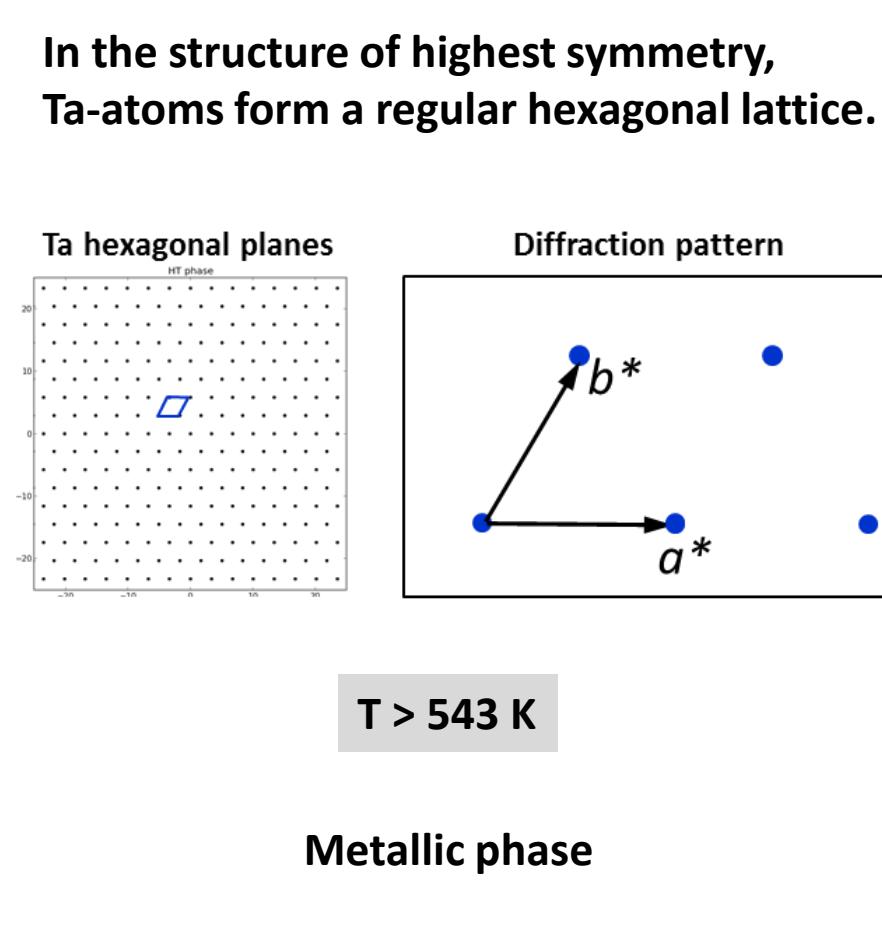
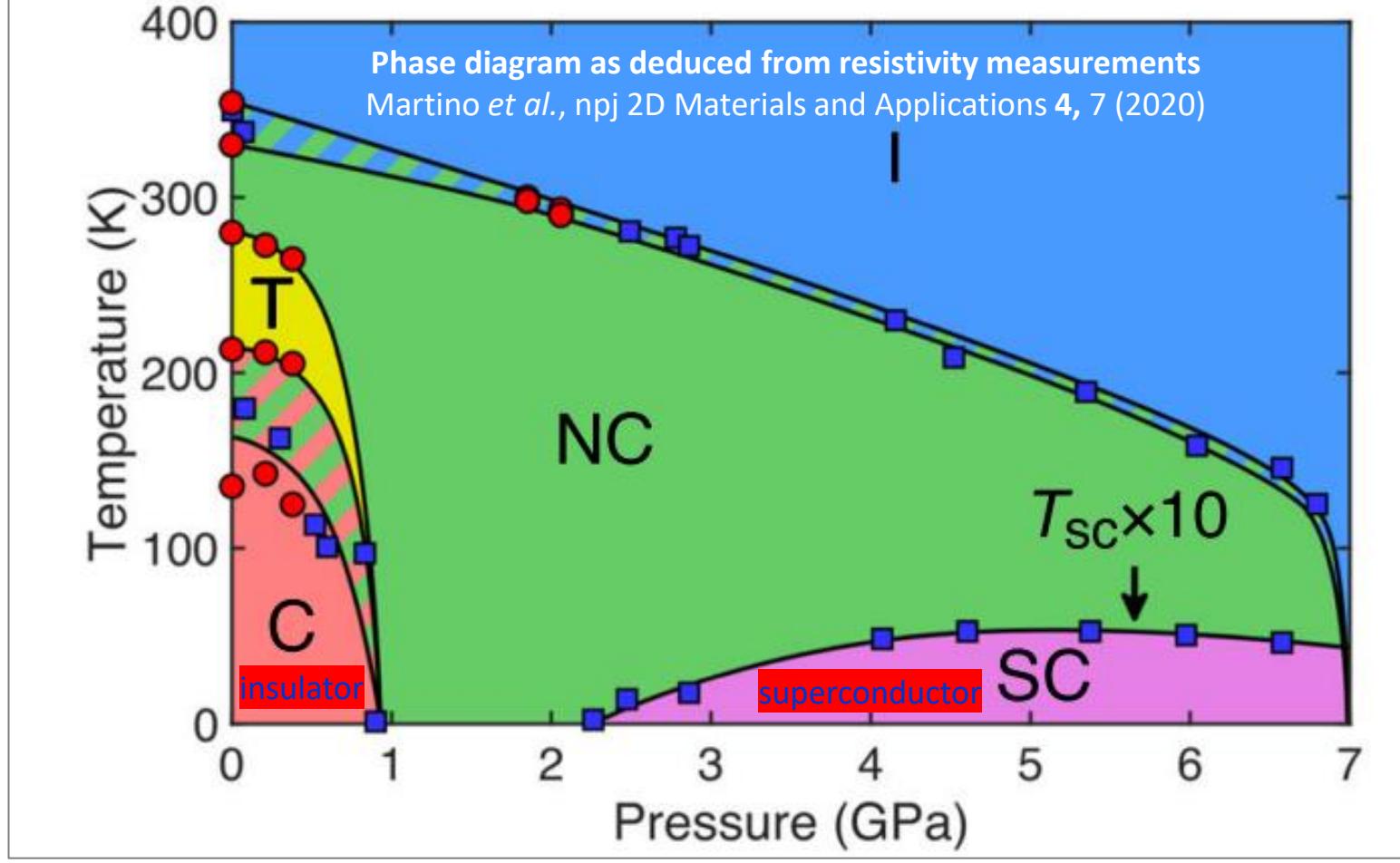
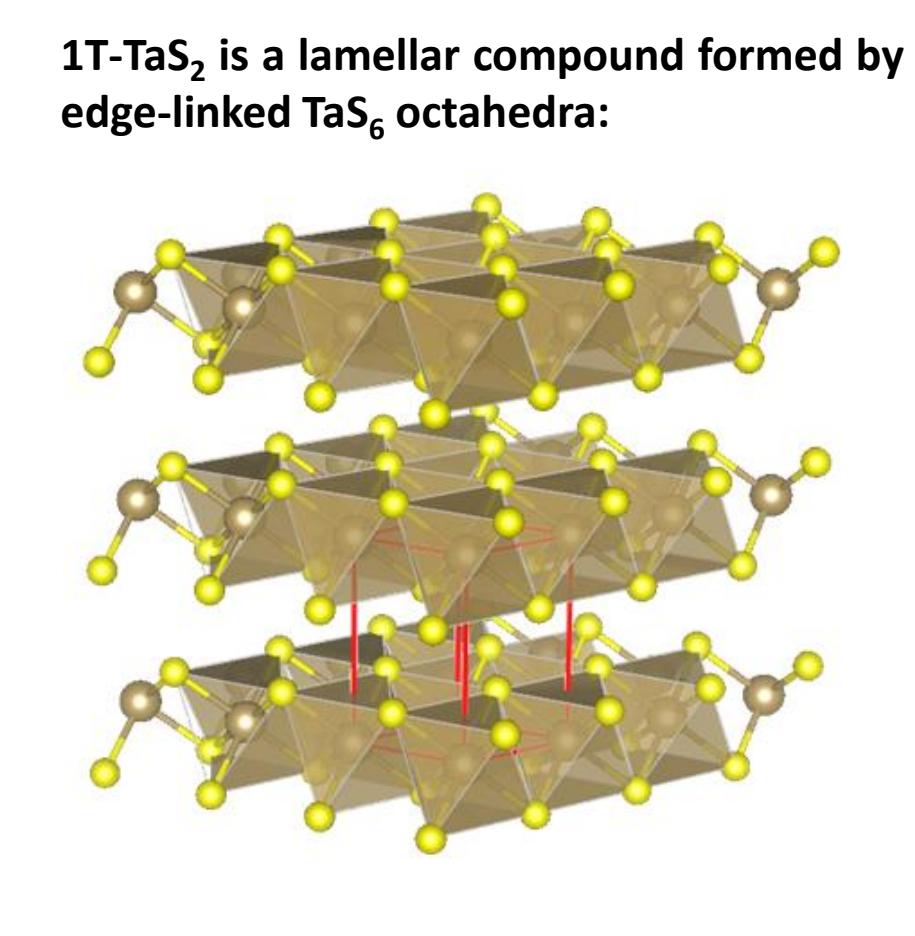
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1T-TaS₂: a rich phase diagram at thermodynamic equilibrium



The numerous CDW phases stabilized in 1T-TaS₂ reveal a variety of electron-phonon coupling mechanisms. The electron band energy lowering upon structural modulation is attributed to Fermi surface nesting (I phase), subband splittings and shifts over extended parts of the Brillouin zone (NC phase), or Mott localization (C phase). See K. Rossnagel, J. Phys: Condens. Matter 23, 213001 (2011).

Formation of a photoinduced CDW state in 1T-TaS₂

