In this work we reproduced melting curves for some metals up to 2 Mbar using *ab-initio* pseudopotential density functional theory calculations (VASP [1]). We applied the quasiharmonic approximation to determine thermodynamic properties and the Lindemann criterion [2] to build melting curves. We also investigated the influence of electron temperature on melting temperature at some isochors of metals under consideration in continuation of earlier studies [3, 4]. It turned out that the melting temperature increases with the rise of electron temperature at normal density and has non-monotonic behavior at higher densities.

Calculations were performed for aluminum, copper and gold. Results of our calculations of melting curves agreed excellently with available experimental data.