

Figure 4.1. Phase diagram of the system of particles interacting through the potential (2) with $\sigma_s = 1.35$ in ρ - T and P - T planes.

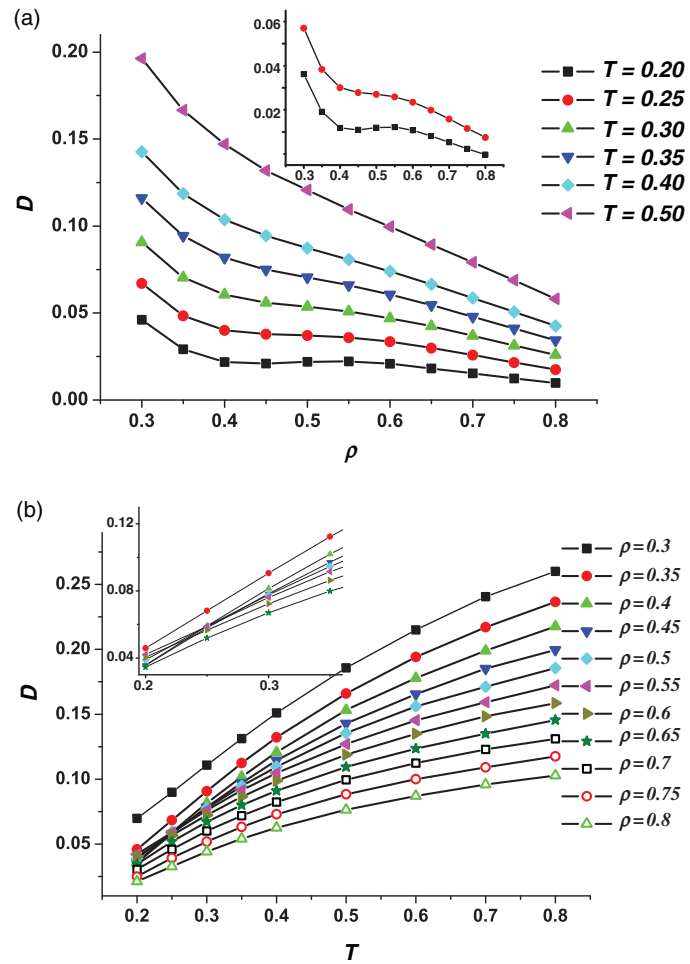


Figure 4.2. Diffusion coefficient of the RSS system along (a) isotherms and (b) isochores. The insets in (a) and the low (b) shows temperature isotherms and low-temperature region, respectively of some isochores.

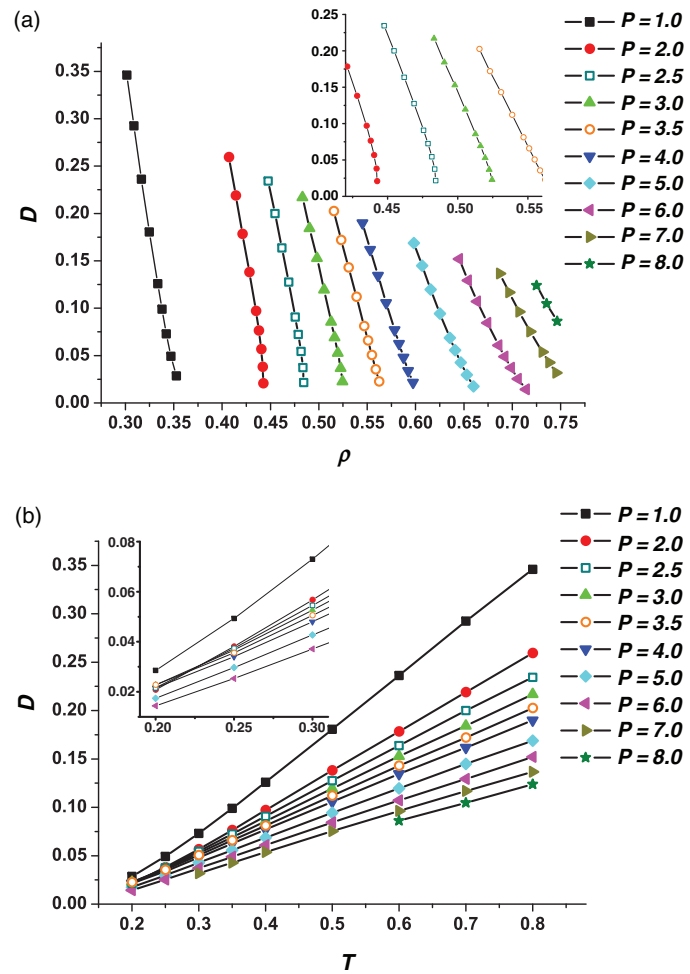


Figure 4.3. Diffusion coefficient of the RSS system along isobars as a function of (a) density and (b) temperature. The insets show anomalous regions in the corresponding coordinates.

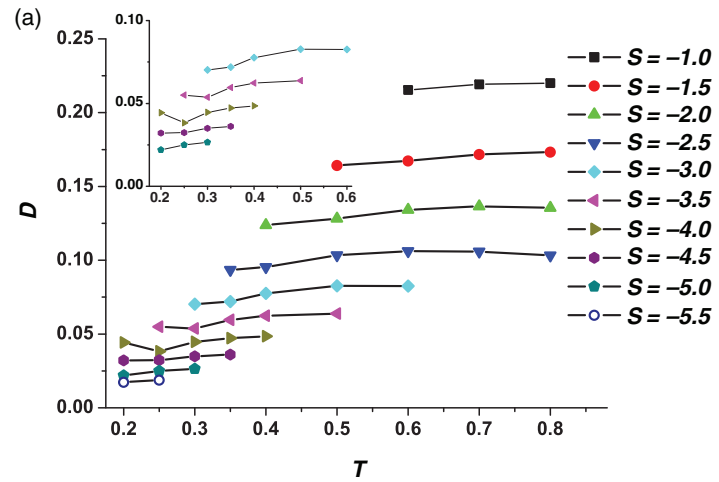


Figure 4.4. Diffusion coefficient of the RSS system along adiabats as a function of (a) temperature, (b) density, and (c) pressure. The insets show anomalous regions in the corresponding coordinates.

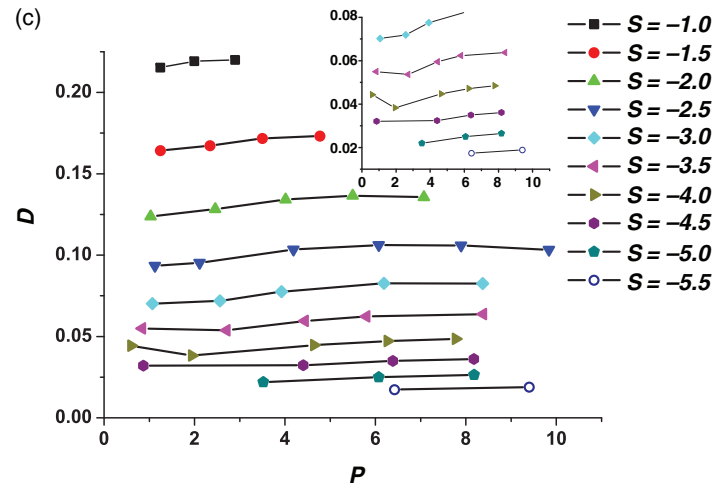
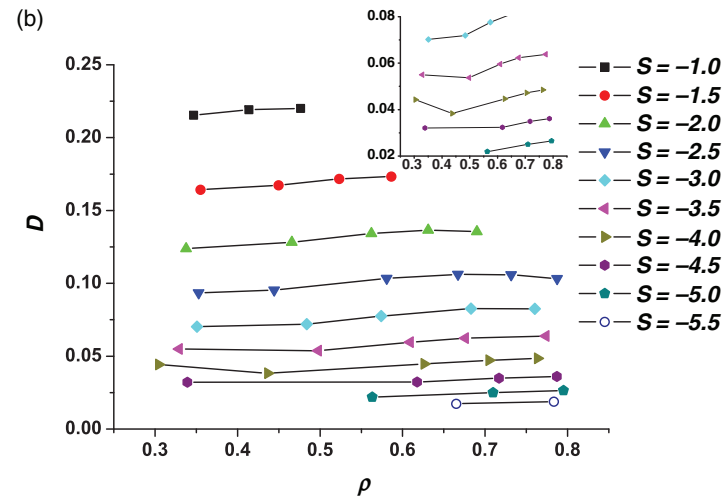


Figure 4.4. (Continued)

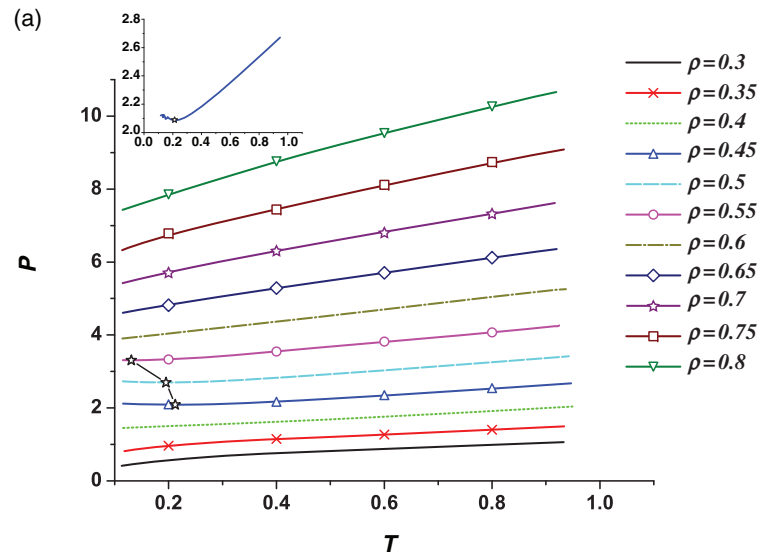


Figure 4.5. (a) A set of isochors of RSS. The stars show the location of minimum. The inset enlarges the $\rho = 0.45$ isochors. (b) The location of the minima on isochors in ρ - T plane.

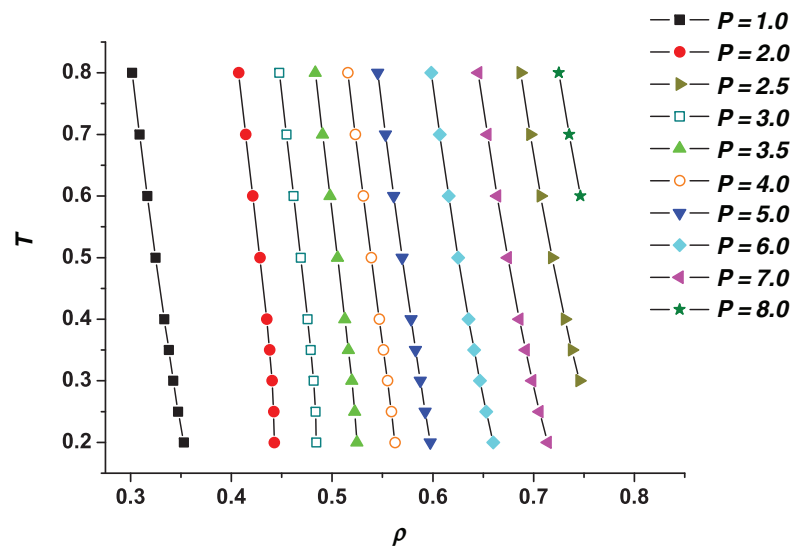


Figure 4.6. A set of isobars of RSS.

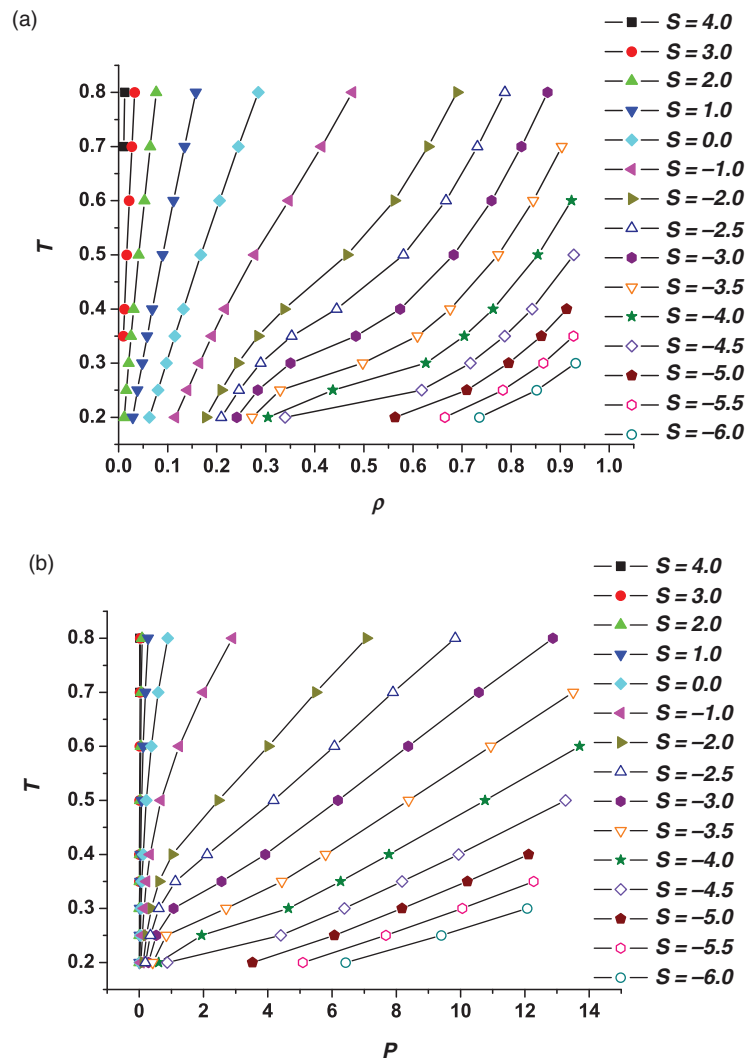


Figure 4.7. Adiabats of the RSS in (a) density–temperature and (b) pressure–temperature coordinates.

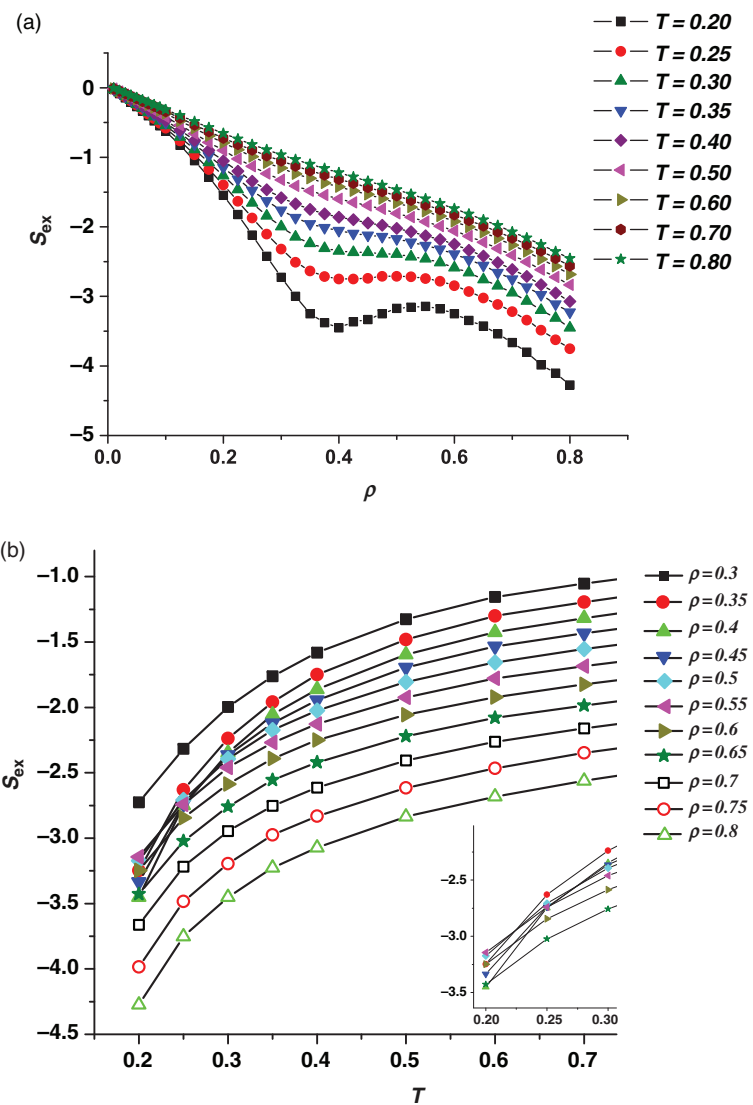


Figure 4.8. Excess entropy of RSS fluid along (a) isotherms and (b) isochors.

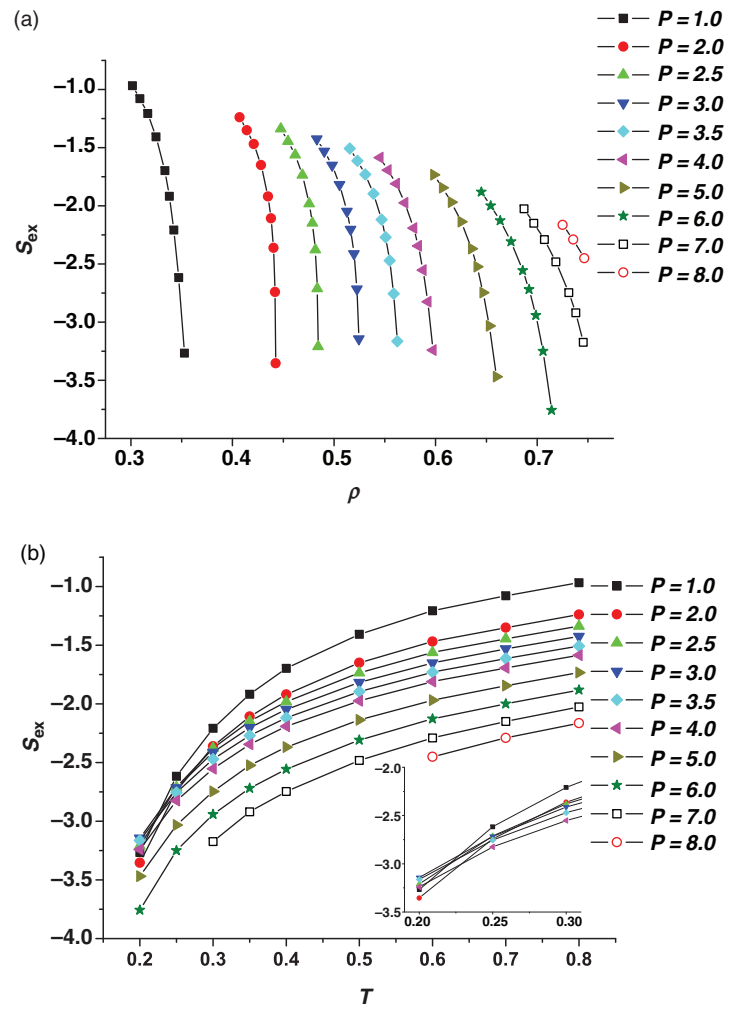


Figure 4.9. Excess entropy of RSS fluid along isobars as a function of (a) density and (b) temperature. The inset in (b) shows the cross of the curves at low temperatures.

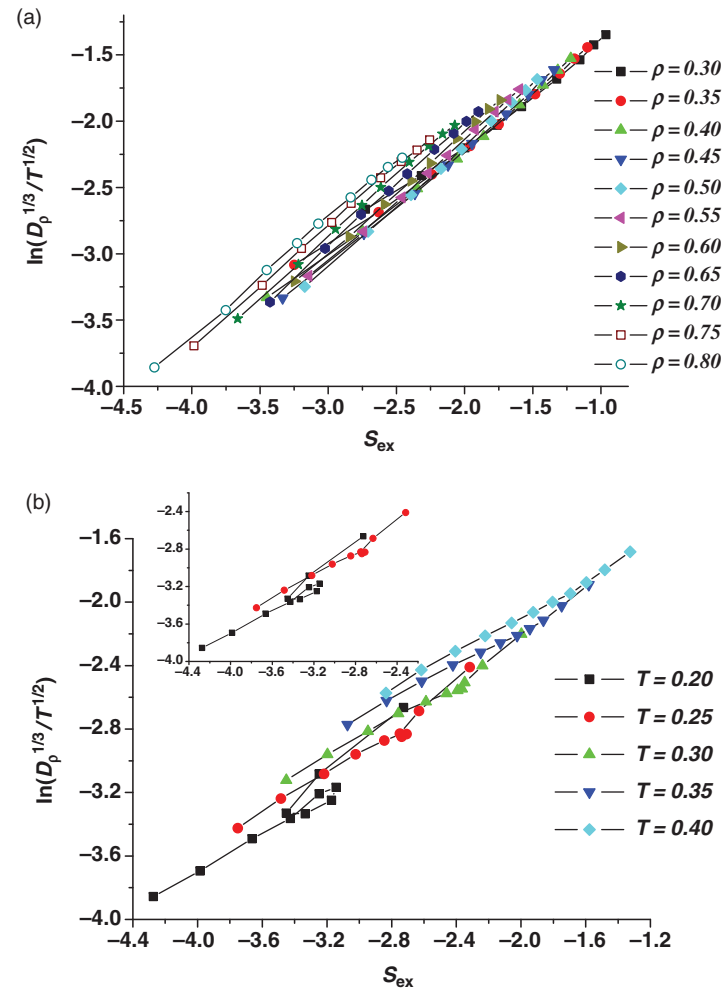


Figure 4.10. Rosenfeld relation for RSS along (a) isochors, (b) isotherms, and (c) isobars.

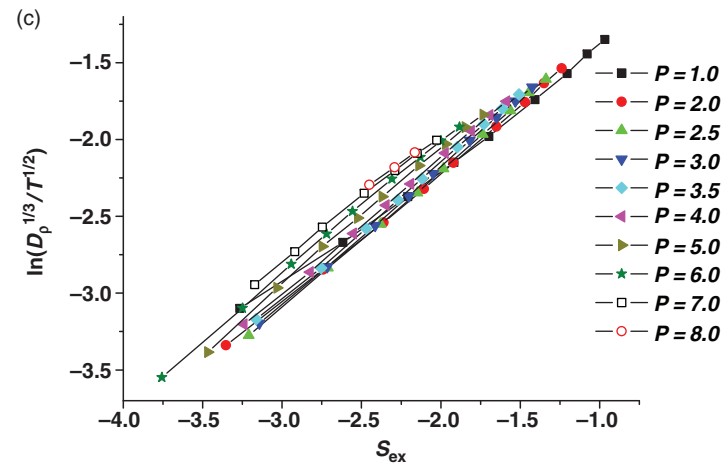


Figure 4.10. (Continued)