

Thermodynamic Properties of Argon in the Critical Region

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Abstract: The thermodynamic properties of fluids are predicted using global equations of state. Among these thermodynamic properties, we consider the pressure, the caloric properties such as the specific heat at constant volume and specific heat at constant pressure and the speed of sound. In the present work, we apply the crossover theory to these thermodynamic properties and give a comparison of the crossover model equation of state with the experimental thermodynamic-property data of argon. Data bank for the thermodynamic properties of argon will be presented.

Keywords: critical region; argon; equation of state; thermodynamic properties.
