| Property | | Definition |
|---|---|---|
| Isochoric heat capacity $c_v$ | $=$ | $T\left(\frac{\partial s}{\partial T}\right)_v = \left(\frac{\partial u}{\partial T}\right)_v$ |
| Isothermal compressibility $\kappa$ | $=$ | $-\frac{1}{v}\left(\frac{\partial v}{\partial p}\right)_T = \frac{1}{\varrho}\left(\frac{\partial \varrho}{\partial p}\right)_T$ |
| Isothermal throttling coeff. $\delta_T$ | $=$ | $\left(\frac{\partial h}{\partial p}\right)_T$ |
| Volume expansivity $\beta$ | $=$ | $\frac{1}{v}\left(\frac{\partial v}{\partial T}\right)_p = -\frac{1}{\varrho}\left(\frac{\partial \varrho}{\partial T}\right)_p$ |
| Isobaric heat capacity $c_p$ | $=$ | $T\left(\frac{\partial s}{\partial T}\right)_p = \left(\frac{\partial h}{\partial T}\right)_p$ |
| Speed of sound $w$ | $=$ | $\sqrt{\left(\frac{\partial p}{\partial \varrho}\right)_s}$ |
| Joule-Thomson coefficient $\mu$ | $=$ | $\left(\frac{\partial T}{\partial p}\right)_h$ |