

Part I

Heat Capacity

Main Symbols

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| Q | Heat flow |
| C | Heat capacity |
| c | Specific heat |
| T | Temperature |
| E | Internal energy |
| V | Volume/molar volume |
| S | Entropy/Total spin momentum |
| p | Pressure |
| c_V | Constant volume specific heat |
| c_p | Constant pressure specific heat |
| β | Coefficient of volume thermal expansion |
| γ_G | Grüneisen parameter |
| ζ_T | Isothermal compressibility coefficient |
| ζ_S | Adiabatic compressibility coefficient |
| θ_D | Debye temperature |
| N_A | Avogadro's constant |
| k_B | Boltzmann's constant |
| h | Plank's constant |
| R | Ideal gas constant/resistance |
| ρ | Density |
| M_m | Molar mass |
| v | Velocity |
| g | Volumetric density of states |
| E_F | Fermi energy |
| γ | Sommerfeld's constant |
| r | Number of atoms per molecule |
| L | Latent heat/orbital angular momentum |
| H | Magnetic field/enthalpy/heater |
| G | Gibbs free energy |
| χ | Magnetic susceptibility |

| | |
|----------|----------------------------------|
| P | Power |
| t | Time |
| κ | Thermal conductivity |
| R | Thermal resistance |
| F | de Gennes factor |
| J | Total angular momentum |
| a | Radial distance from a given ion |