

(a) Density of State

Phase Space and Gibb's Postulates

Phase curve any between positions coordinate along horizontal axis and conjugate momentum along vertical axis for given value of energy is known as phase curve.

Gibbs take account of uncertain principle then Gibbs make postulates

The minimum $\Delta x \cdot \Delta P_x \sim h$ for one dimension

Minimum $(\Delta x \cdot \Delta P_x)(\Delta y \cdot \Delta P_y) \sim h^2$ for two dimension

Minimum $(\Delta x \cdot \Delta P_x)(\Delta y \cdot \Delta P_y)(\Delta z \cdot \Delta P_z) \sim h^3$ for two dimension

Density of State

$g(E)dE$ is number of level (number of quantum state) in the range of E to $E + dE$ then $g(E)$ is known as Density of state

