Konzeptuarea "Hipotesiaren"

Aplikazioa : MAXIMIZAZIOA!

baldintzatua

$$\left(\frac{\partial \Omega_1(E_1)}{\partial E_1}\right)_{E_1=\overline{E}_1} \Omega_2(\overline{E}_2) + \Omega_1(\overline{E}_1)\left(\frac{\partial \Omega_2(E_2)}{\partial E_2}\right)_{E_2=\overline{E}_2} \cdot \frac{\partial E_2}{\partial E_1} = 0$$

maximoan!

$\frac{\partial E_2}{\partial E_1} = -1$

$$\frac{1}{\Omega_1}\left(\frac{\partial \Omega_1(E_1)}{\partial E_1}\right)_{E_1=\overline{E}_1} = \left(\frac{\partial \Omega_2(E_2)}{\partial E_2}\right)_{E_2=\overline{E}_2} \frac{1}{\Omega_2}$$

EZ DAGO ENERGIA-TRUKE GARBIRIK

arpisistema bakuntzaren lotutako parametro

$$\beta \equiv \left(\frac{\partial \ln \Omega(N,V,E)}{\partial E}\right)_{N,V,E=\overline{E}}$$

TENPERATURAREKIN LOTUTA!

$$\left(\frac{\partial S}{\partial E}\right)_{N,V} = \frac{1}{T}$$

TERMODINAMIKATIK...

$$\frac{\Delta S}{\Delta(\ln \Omega)} = \frac{1}{\beta T} = \text{konstante (oreka-egoeran)}$$

edozein sistemaren kasuan

BOLTZMANN

+ $S = kT \ln \Omega$

PLANCK

interpretazio →

$$\beta = \frac{1}{kT} \qquad K \equiv K_B$$

$R = K_B \cdot N_A$