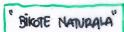| Potentzial termodinamikoa | Bikote naturala | Erlazioak | |
|---|---|---|---|
| $U$ | $S, V$ | $\left(\dfrac{\partial T}{\partial V}\right)_{S,N} = -\left(\dfrac{\partial P}{\partial S}\right)_{V,N}$ | |
| $dU = T\,dS - P\,dV + \mu\,dN$ | $S, N$ | $\left(\dfrac{\partial T}{\partial N}\right)_{S,V} = \left(\dfrac{\partial \mu}{\partial S}\right)_{V,N}$ | |
| | $V, N$ | $-\left(\dfrac{\partial P}{\partial N}\right)_{S,V} = \left(\dfrac{\partial \mu}{\partial V}\right)_{S,N}$ | |
| $U[T] \equiv F$ | $T, V$ | $\left(\dfrac{\partial S}{\partial V}\right)_{T,N} = \left(\dfrac{\partial P}{\partial T}\right)_{V,N}$ | |
| $dF = -S\,dT - P\,dV + \mu\,dN$ | $T, N$ | $-\left(\dfrac{\partial S}{\partial N}\right)_{T,V} = \left(\dfrac{\partial \mu}{\partial T}\right)_{V,N}$ | |
| | $V, N$ | $-\left(\dfrac{\partial P}{\partial N}\right)_{T,V} = \left(\dfrac{\partial \mu}{\partial V}\right)_{T,N}$ | |
| $U[P] \equiv H$ | $S, P$ | $\left(\dfrac{\partial T}{\partial P}\right)_{S,N} = \left(\dfrac{\partial V}{\partial S}\right)_{P,N}$ | |
| $dH = T\,dS + V\,dP + \mu\,dN$ | $S, N$ | $\left(\dfrac{\partial T}{\partial N}\right)_{S,P} = \left(\dfrac{\partial \mu}{\partial S}\right)_{P,N}$ | |
| | $P, N$ | $\left(\dfrac{\partial V}{\partial N}\right)_{S,P} = \left(\dfrac{\partial \mu}{\partial P}\right)_{S,N}$ | |
| $U[\mu]$ | $S, V$ | $\left(\dfrac{\partial T}{\partial V}\right)_{S,\mu} = -\left(\dfrac{\partial P}{\partial S}\right)_{V,\mu}$ | |
| $dU[\mu] = T\,dS - P\,dV - N\,d\mu$ | $S, \mu$ | $\left(\dfrac{\partial T}{\partial \mu}\right)_{S,V} = -\left(\dfrac{\partial N}{\partial S}\right)_{V,\mu}$ | |
| | $V, \mu$ | $\left(\dfrac{\partial P}{\partial \mu}\right)_{S,V} = \left(\dfrac{\partial N}{\partial V}\right)_{S,\mu}$ | |
| $U[T,P] \equiv G$ | $T, P$ | $-\left(\dfrac{\partial S}{\partial P}\right)_{T,N} = \left(\dfrac{\partial V}{\partial T}\right)_{P,N}$ | |
| $dG = -S\,dT + V\,dP + \mu\,dN$ | $T, N$ | $-\left(\dfrac{\partial S}{\partial N}\right)_{T,P} = \left(\dfrac{\partial \mu}{\partial T}\right)_{P,N}$ | |
| | $P, N$ | $\left(\dfrac{\partial V}{\partial N}\right)_{T,P} = \left(\dfrac{\partial \mu}{\partial P}\right)_{T,N}$ | |
| | $V, \mu$ | $\left(\dfrac{\partial P}{\partial \mu}\right)_{T,V} = \left(\dfrac{\partial N}{\partial V}\right)_{T,\mu}$ | |

# MAXWELL-EN ERLAZIOAK

POTENTZIAL TERMODINAMIKOA   "BIKOTE NATURALA"   ERLAZIOAK

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