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$U = U(S, V, N)$ $T = \partial U / \partial S$ $\mu = \partial U / \partial N$ $U[T, \mu] = U - TS - \mu N$ <p>Eliminando U, S y N se obtiene $U[T, \mu]$ como función de T, V, μ</p>	$U[T, \mu] = \text{función de } T, V \text{ y } \mu \quad (5.47)$ $-S = \partial U[T, \mu] / \partial T \quad (5.48)$ $-N = \partial U[T, \mu] / \partial \mu \quad (5.49)$ $U = U[T, \mu] + TS + \mu N \quad (5.50)$ <p>Eliminando $U[T, \mu]$, T y μ se obtiene $U = U(S, V, N)$</p>
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$$dU[T, \mu] = -S dT - P dV - N d\mu$$

$$S[1/T] \equiv S - \frac{1}{T} U = -F/T$$

$$S[P/T] \equiv S - \frac{P}{T} V$$

$$S[1/T, P/T] = S - \frac{1}{T} U - \frac{P}{T} V = -G/T$$

$S = S(U, V, N_1, N_2, \dots)$ $P/T = \partial S / \partial V$ $S[P/T] = S - (P/T) V$ <p>Eliminando S y V se obtiene $S[P/T]$ como función de U, P/T, N_1, N_2, ...</p>	$S[P/T] = \text{función de } U, P/T, N_1, N_2, \dots \quad (5.57)$ $-V = \partial S[P/T] / \partial (P/T) \quad (5.58)$ $S = S[P/T] + (P/T) V \quad (5.59)$ <p>Eliminando $S[P/T]$ y P/T se obtiene $S = S(U, V, N_1, N_2, \dots)$</p>
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$$dS[P/T] = (1/T) dU - V d(P/T) - (\mu_1/T) dN_1 - \frac{\mu_2}{T} dN_2, \dots$$

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