MAXWELL-EN ERLAZIOAK

	U
$H = U + PV$	
$F = U$	$- TS$
$G = U + PV - TS$	

T	P
S	V

BARNE-ENERGIA

ENTALPIA

HELMHOLTZ-EN FUNTZIOA

GIBBS-EN FUNTZIOA

μ
N

+

T	P				
S	V	U	H	F	G

INTENTSIBOAK

EXTENTSIBOAK

$z = z(x,y)$

$$dz = M\,dx + N\,dy$$

$$\left(\frac{\partial M}{\partial y}\right)_x = \left(\frac{\partial N}{\partial x}\right)_y$$

DIFERENTZIAL ZEHAZA

$$dU = T\,dS - p\,dV + \dots \Rightarrow \left(\frac{\partial T}{\partial V}\right)_S = -\left(\frac{\partial p}{\partial S}\right)_V$$

$$dH = T\,dS + V\,dp + \dots \Rightarrow \left(\frac{\partial T}{\partial p}\right)_S = \left(\frac{\partial V}{\partial S}\right)_p$$

$$dF = -S\,dT - p\,dV + \dots \Rightarrow \left(\frac{\partial S}{\partial V}\right)_T = \left(\frac{\partial p}{\partial T}\right)_V$$

$$dG = -S\,dT + V\,dp + \dots \Rightarrow \left(\frac{\partial S}{\partial p}\right)_T = -\left(\frac{\partial V}{\partial T}\right)_p$$

(...)