$$\begin{array}{ccc} V & \boxtimes & T \\ S & & P \end{array}$$

$$[dP]_T = \left(\frac{\partial P}{\partial S}\right)_V dS$$

$$= \left(\frac{\partial P}{\partial S}\right)_V \cdot \frac{T}{T} dS = \left(\frac{\partial P}{\partial S}\right)_V \cdot \frac{1}{T}\,[T dS] = \left[\left(\frac{\partial P}{\partial S}\right)_V \frac{1}{T}\right] \cdot \delta Q$$

$$\left(\frac{\partial P}{\partial S}\right)_V = \frac{1}{\left(\frac{\partial S}{\partial P}\right)_V} = \frac{1}{\left(\frac{\partial S}{\partial T}\right)_V \cdot \left(\frac{\partial T}{\partial P}\right)_V} = \frac{1}{\frac{T}{T}\left(\frac{\partial S}{\partial T}\right)_V \cdot \frac{-\left(\frac{\partial V}{\partial P}\right)_T}{\left(\frac{\partial V}{\partial T}\right)_P}} = \left[\frac{T}{C_V} \cdot \frac{\alpha}{\kappa_T}\right]$$

$$[dP]_T = \left[\frac{\cancel{T}}{C_V} \cdot \frac{\alpha}{\kappa_T}\right] \cdot \frac{1}{\cancel{T}}\delta Q$$

$$\boxed{dP = \left[\frac{1}{C_V \kappa_T}\right] \cdot \alpha \cdot \delta Q}$$

datua erantzuna

$dV > 0$; $(\alpha > 0\ ,\ \delta Q > 0) \Rightarrow dP > 0$

$(\alpha < 0\ ,\ \delta Q < 0) \Rightarrow dP > 0$

$dV < 0$; $(\alpha > 0\ ,\ \delta Q < 0) \Rightarrow dP < 0$

$(\alpha < 0\ ,\ \delta Q > 0) \Rightarrow dP < 0$

$\boxed{dV > 0 \Rightarrow dP > 0}$

$\boxed{dV < 0 \Rightarrow dP < 0}$

lehengo "gauza" berbera