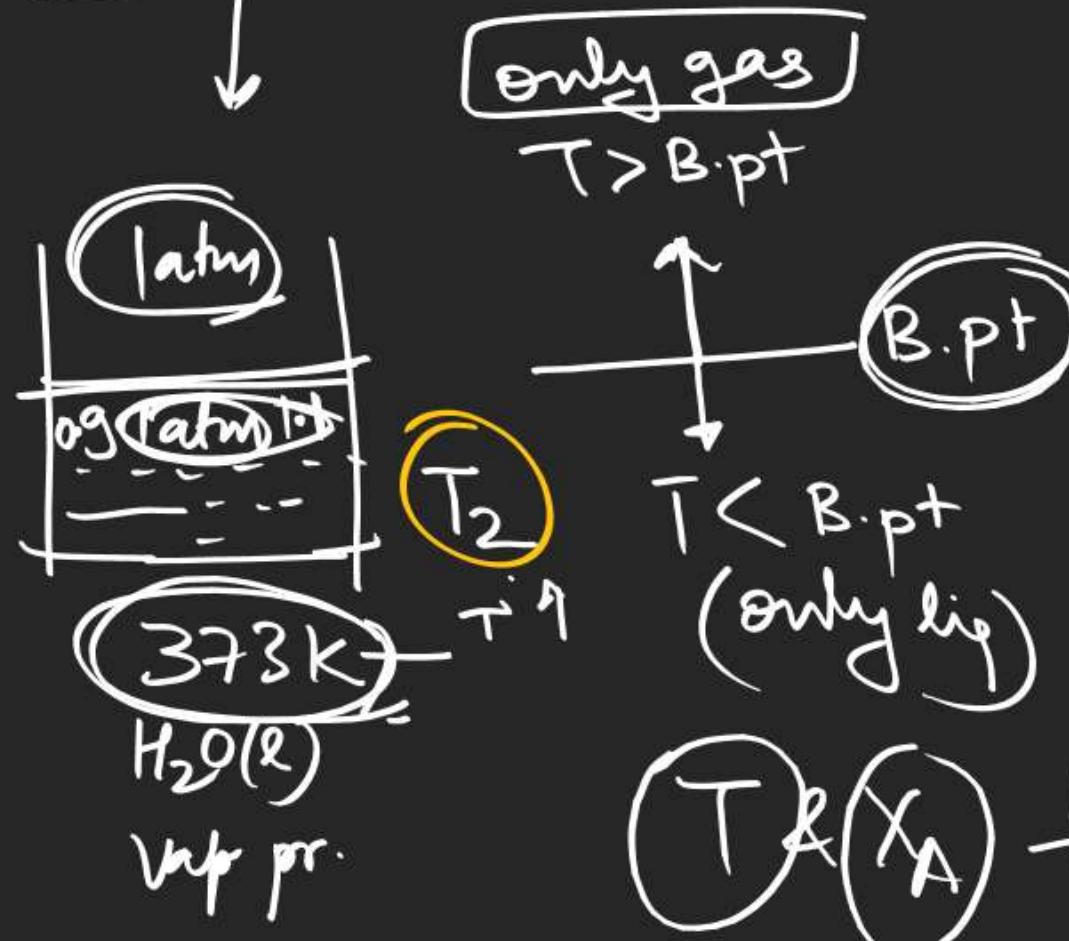
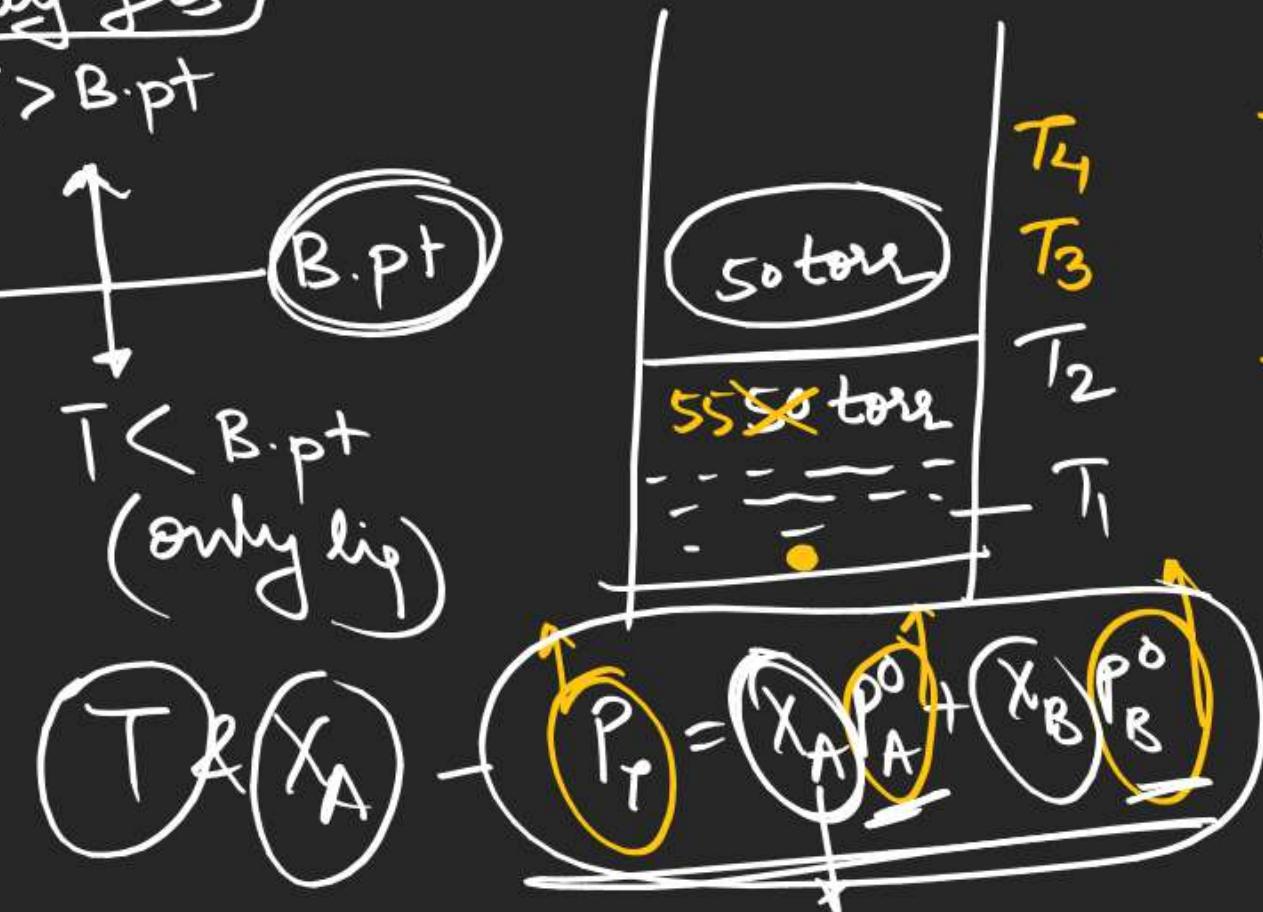


(b) By changing temp at constant external pressure.

@ for pure liq



b) Solution

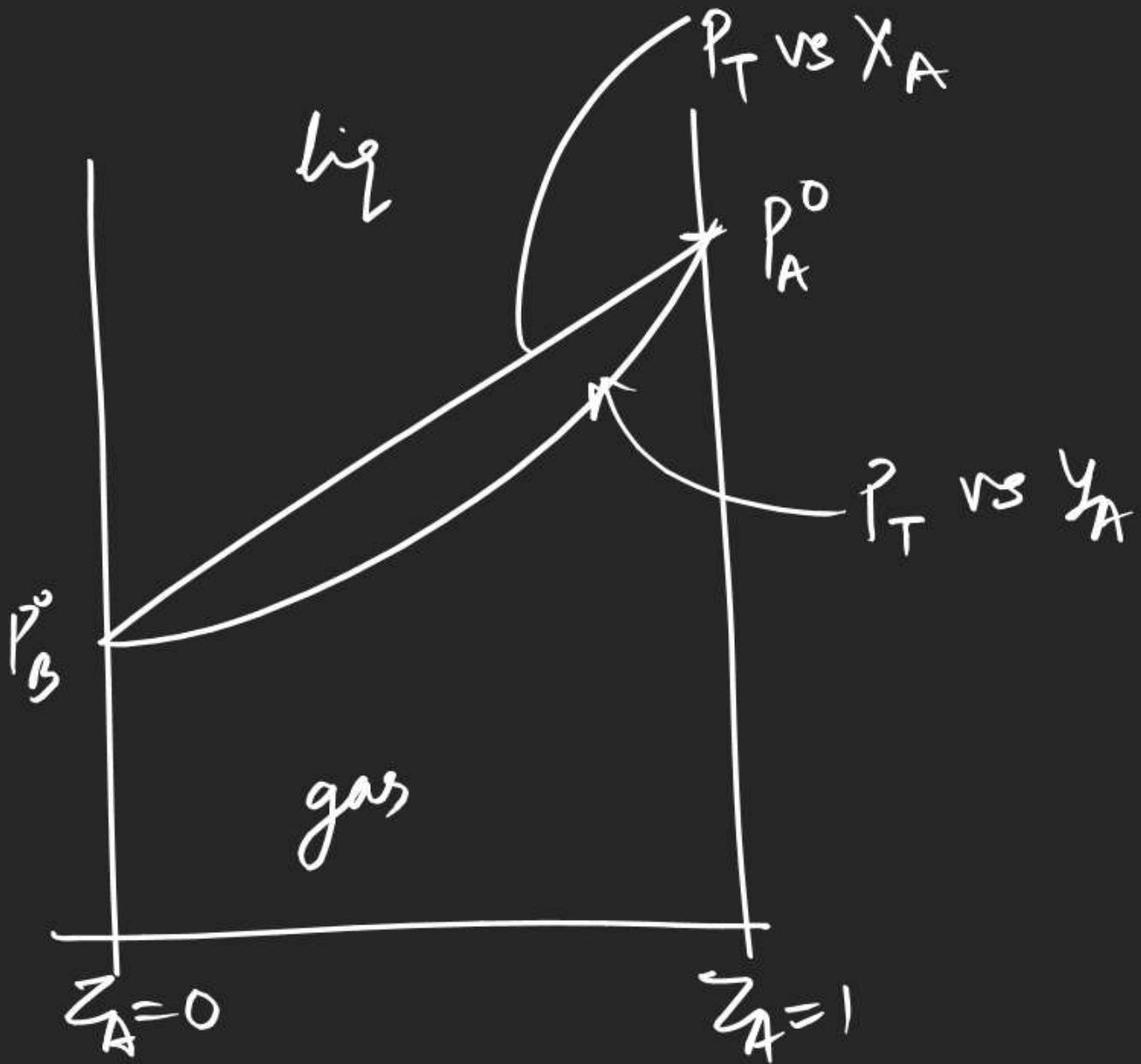
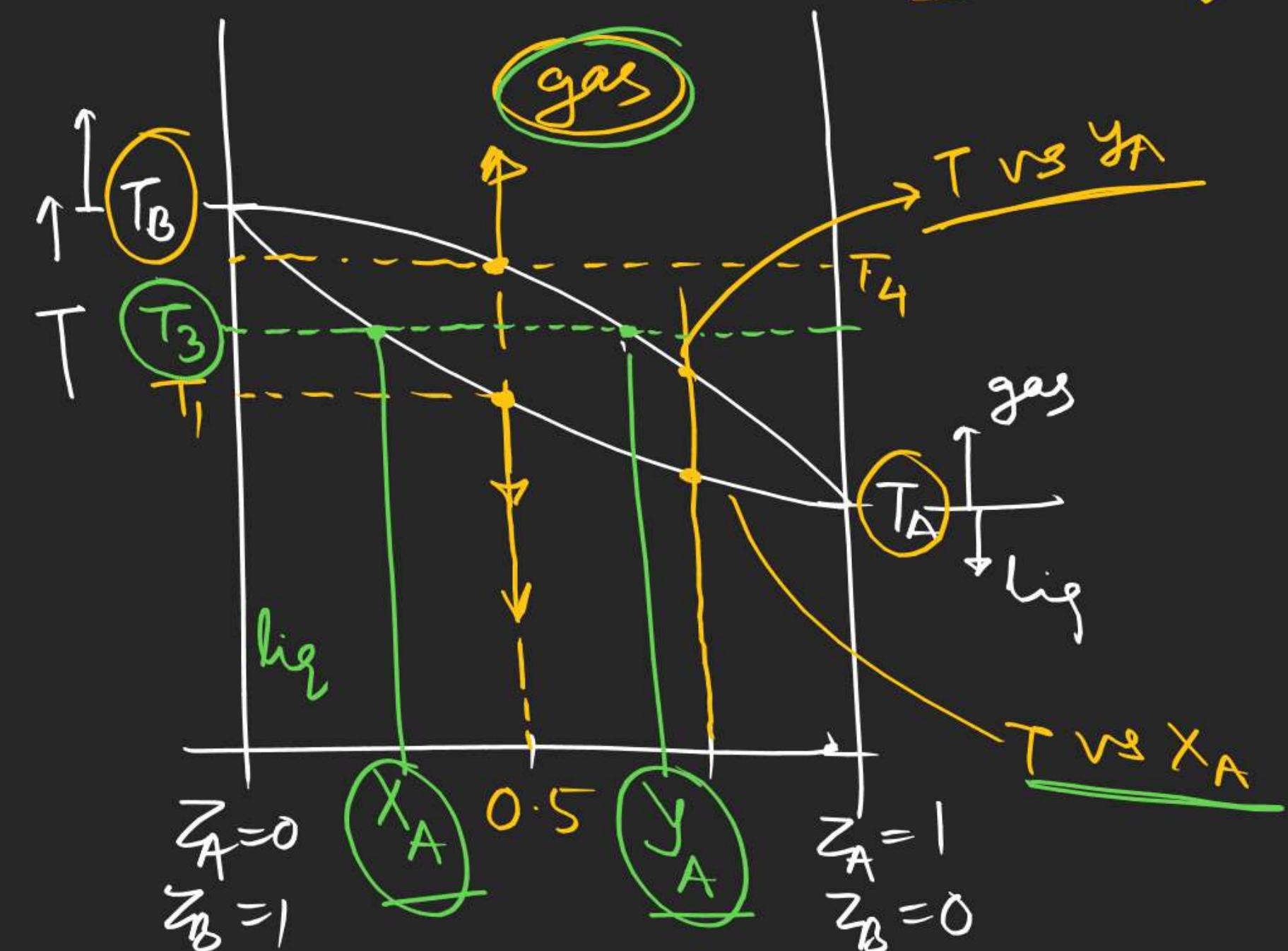


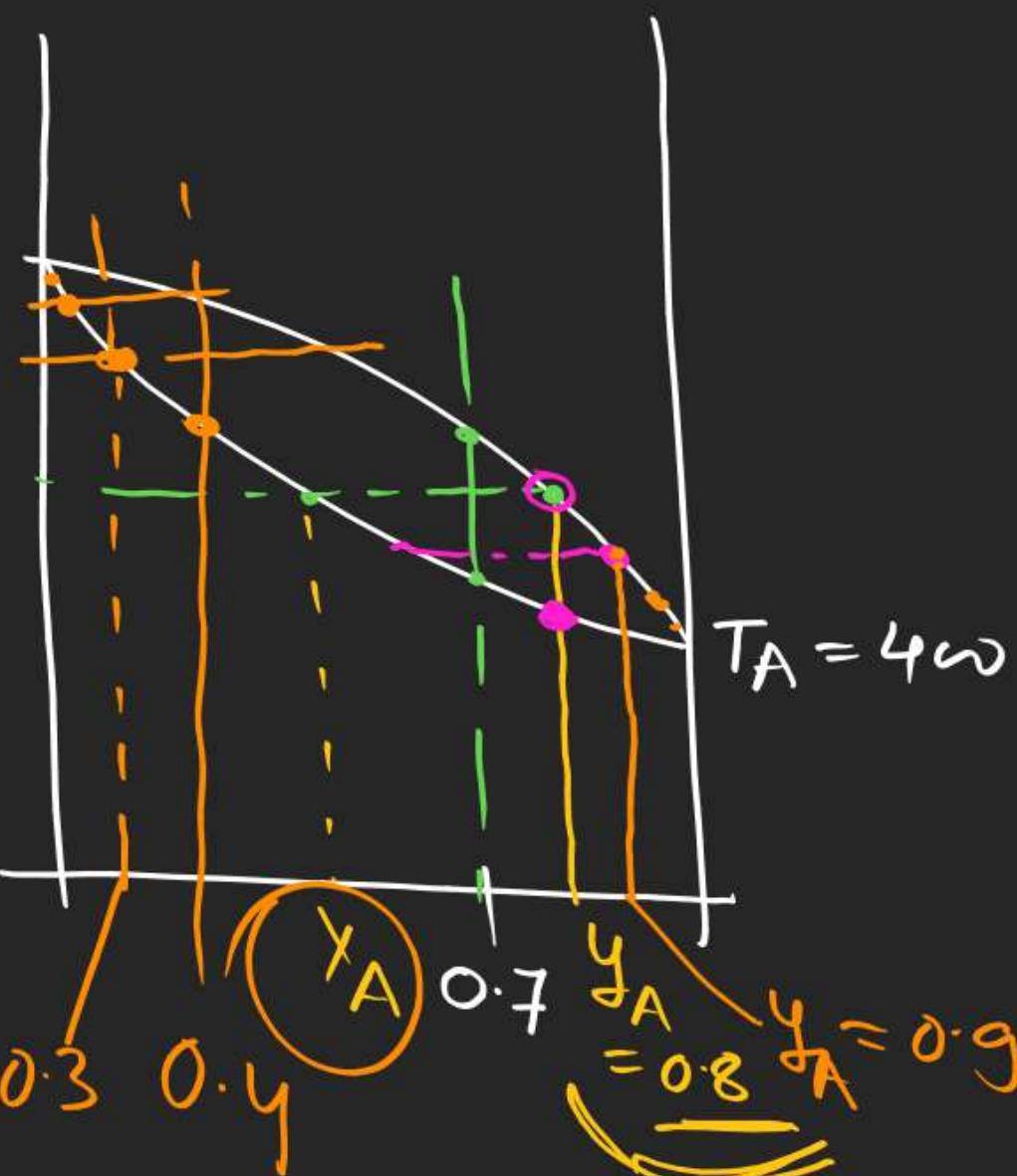
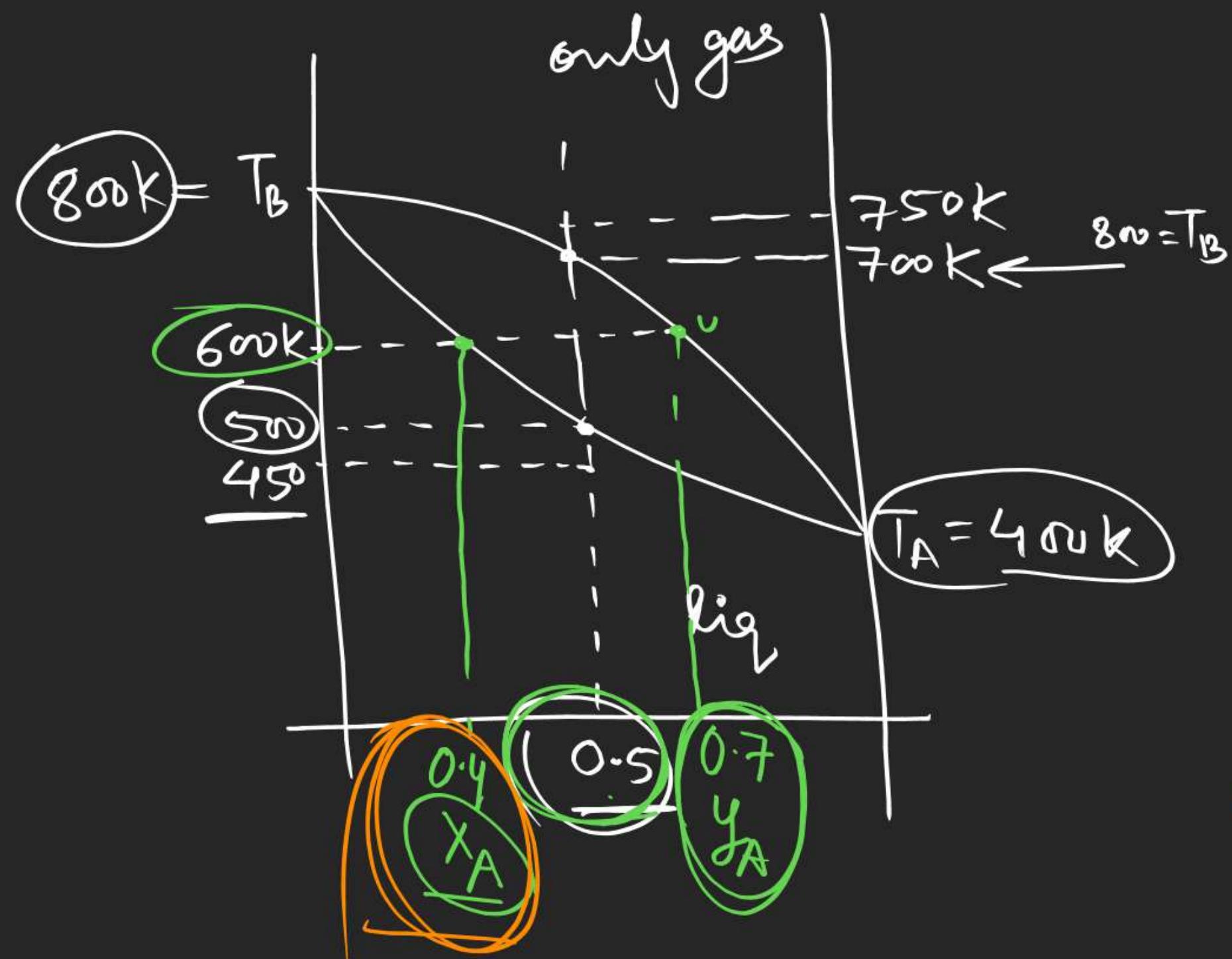
$$P_T = X_A P_A^{\circ} + X_B P_B^{\circ}$$

only gas
↑
 T_4
liq + gas
 T_1
only liq

by $T \text{ vs } Y_A$

by $T \text{ vs } X_A$

Phase diagram



Distillation

\bar{m} 90 $^{\circ}\text{C}$
 $\uparrow \text{Cd}$ 76 $^{\circ}\text{C}$



30, 31, 32 hold

(28)

$$\frac{4 \times 0.5}{2 \text{mol}} = 1 \text{mol}$$

446 gm

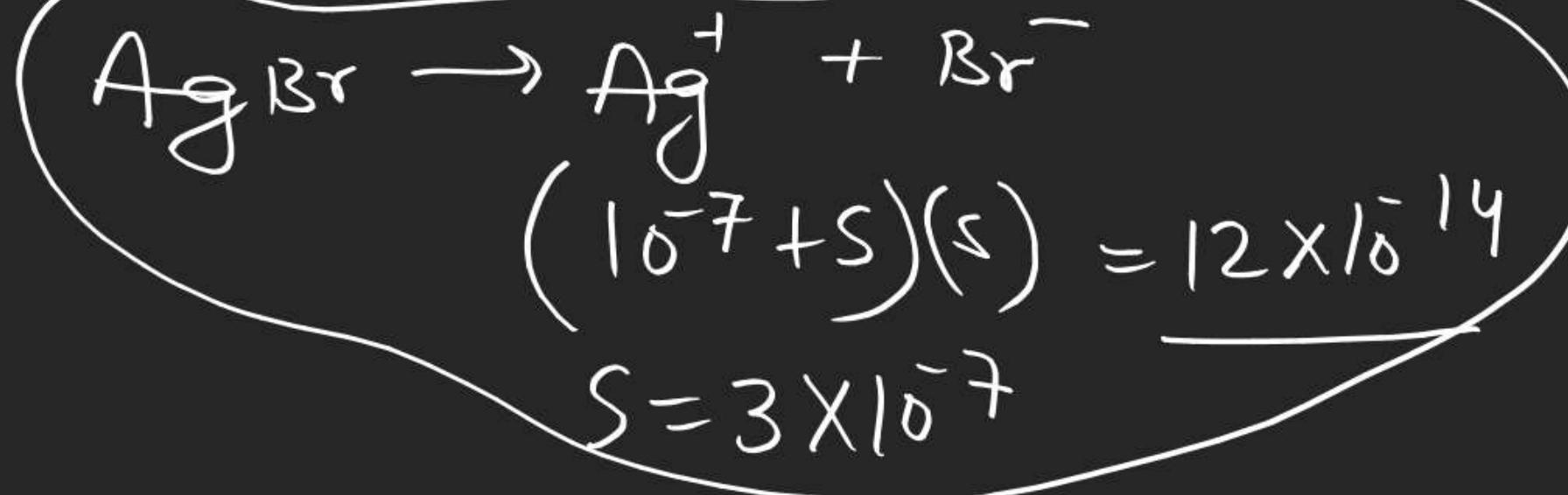


(33)

$$K_{\text{Sdn}} = K_{\text{Ag}^+} + K_{\text{Br}^-} + K_{\text{NO}_3^-}$$

for ions

$$\Lambda_m^\infty = \Lambda_m - \frac{K}{1000 \times M}$$





$$\Delta G_r^\circ = \Delta G_f^\circ(\text{R}) - \Delta G_f^\circ(\text{R}) \\ = -nFE_{\text{cell}}^\circ$$

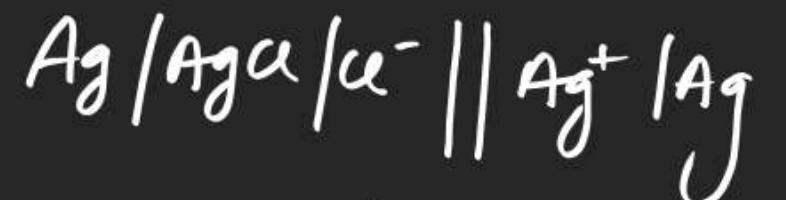
$$\Delta G^\circ = -RT \ln \frac{1}{K_{\text{sp}}}$$

$$S = K_{\text{sp}} = 10^{-10}$$

$$K_{\text{sp}} = \frac{[\text{Zn}^{2+}]}{[\text{Ag}^+]^2}$$

$$E_{\text{cell}}^\circ = 1.56$$

$$E^\circ = \frac{0.059}{2} \log K$$



$$10^{-3} \quad 10^{-6} \quad 0 \\ 0 \quad 10^{-6} \text{ mol}$$

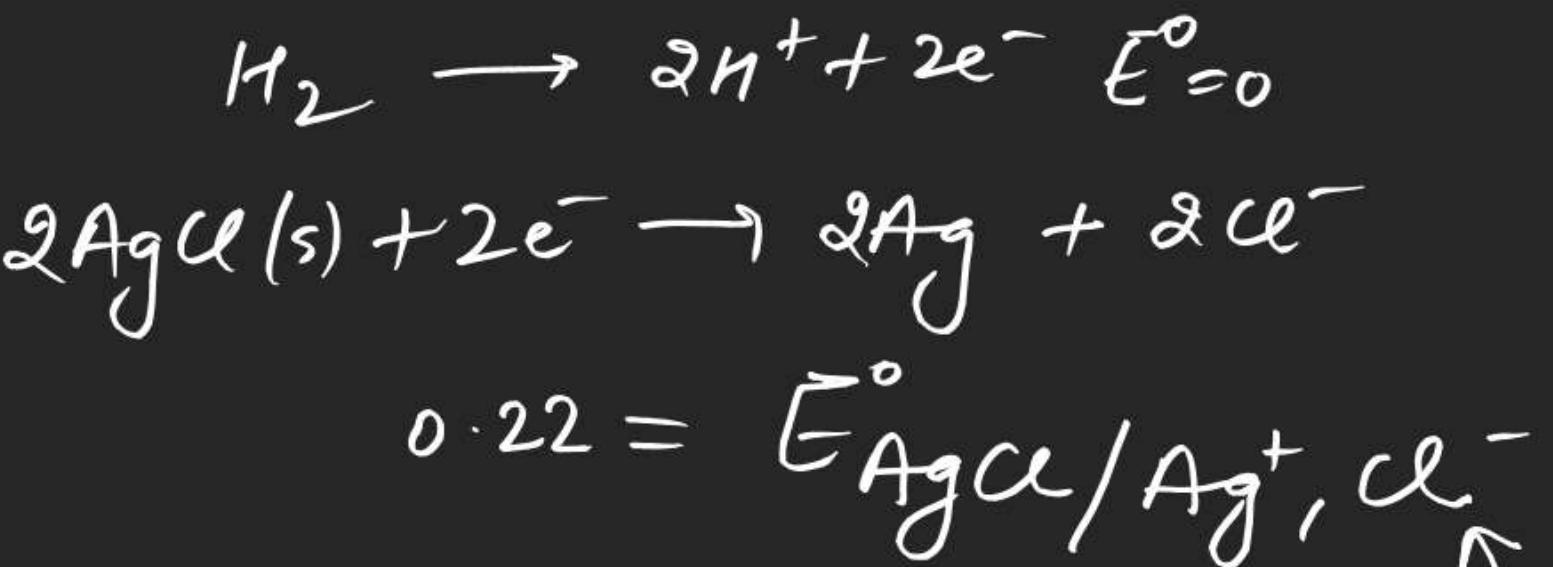
(44)

	15°C	25°C	35°C
	0.23	0.22	0.21 volt

$$-\eta F \left(\frac{\partial E}{\partial T} \right) = \Delta G = \frac{\Delta H^\circ}{T} - \Delta S^\circ$$

$$\eta F \frac{dE}{dT} = \Delta S$$

$$-\eta F \left(\frac{0.02}{20} \right) = \Delta S$$



$$0.8 = E^\circ_{\text{Ag}^+/\text{Ag}}$$

Kep