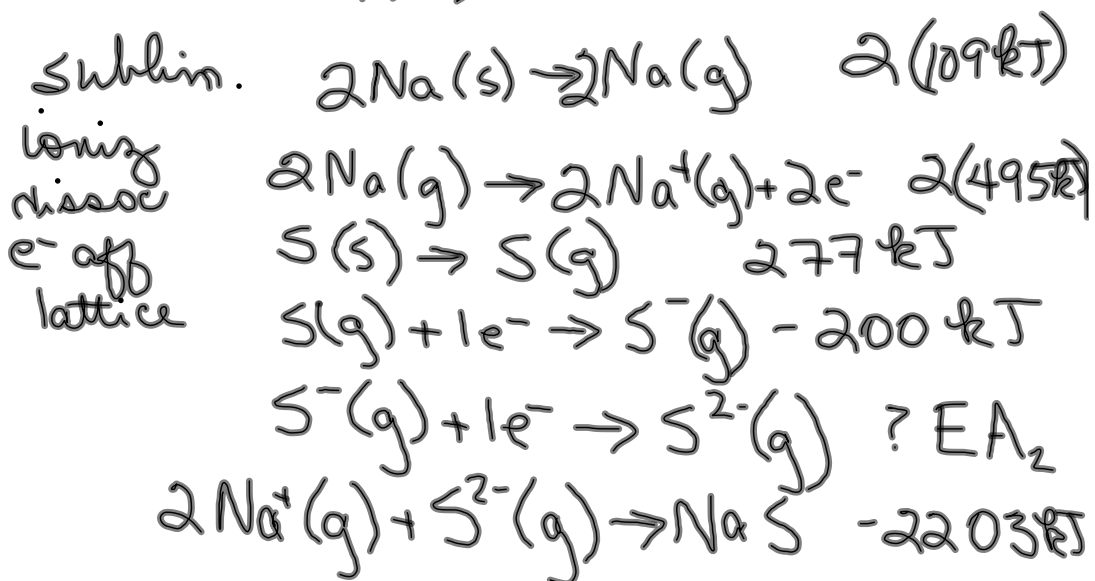


50.



$$\Delta H_f = -365 \text{ kJ}$$

$$\Delta H_f = 2(H_{\text{sub}}) + 2(IE) + B.E. + EA_1 + EA_2 + L.E.$$

$$-365 \text{ kJ} = \dots - EA_2$$

$$553 \text{ kJ} = EA_2 \quad \text{for } \text{Na}_2\text{S}$$

$$576 \text{ kJ} = EA_2 \quad \text{K}_2\text{S}$$

$$529 \text{ kJ} = EA_2 \quad \text{Rb}_2\text{S}$$

$$493 \text{ kJ} = EA_2 \quad \text{Cs}_2\text{S}$$

$$\frac{553 + 576 + 529 + 493}{4} = 538 \text{ kJ}$$

$$576 - 538 = 38$$

$$538 - 493 = 45$$

$$EA_2 = 538 \pm 50 \text{ kJ}$$