

Homework

1. molar heat

$$\Delta H_r = \sum n H_{fP} - \sum n H_{fR} \quad \leftarrow \text{heat of } \underline{\underline{rxn}}$$

$$H_r = \frac{\Delta H_r}{n} = \quad \text{kJ/mol}$$

Reference Energy State

Reference energy state - elements are defined as the reference point at which the potential energy is shown to be zero.

Therefore: E_p of $H_{2(g)} = 0$ kJ

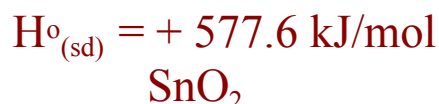
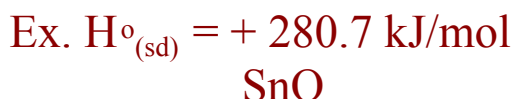


*allows us to describe the enthalpy change for a formation reaction from zero to a final value

Thermal Stability

Thermal Stability - the tendency of a compound to resist decomposition when heated.

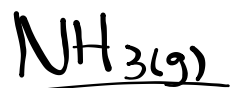
- the more endothermic the simple decomposition (sd), the more stable the compound.



Therefore SnO_2 is more stable.

*Normally not given the H_{sd} , but given the H_f

Which is more stable, ammonia or butane?



$$H_f = -45.9 \text{ kJ/mol}$$

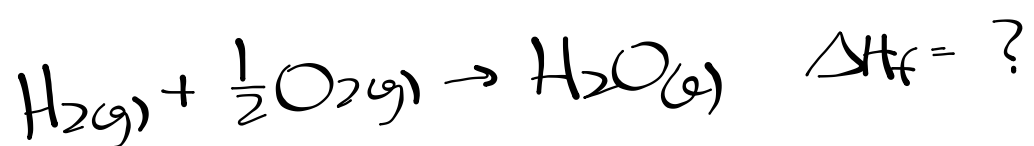
$$H_{sd} = 45.9 \text{ kJ/mol}$$



$$H_f = -125.6 \text{ kJ/mol}$$

$$H_{sd} = 125.6 \text{ kJ/mol}$$

$$\Delta H_{\text{vap}} = ?$$



Worksheet