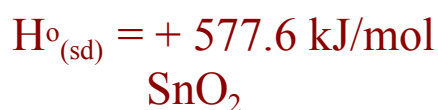
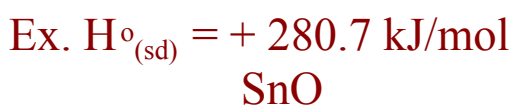


Thermal Stability

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?



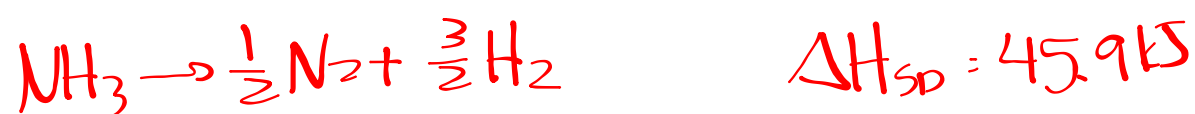
$$H_f = -45.9 \frac{\text{kJ}}{\text{mol}}$$

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



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

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



Worksheet

$$\Delta H_r = \sum n H_{f,p} - \sum n H_r$$

molar

$$H_r = \frac{\Delta H_r}{n}$$