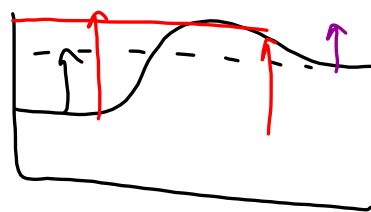


4 Mole NO₂	33.2 kJ
1 Mole NO ₂	

$$= 132.8 \text{ kJ}$$



Entropy - Degree of Disorder
↳ ΔS

$\oplus \Delta S \rightarrow$ messier
 \rightarrow Spontaneously.

$\ominus \Delta S \rightarrow$ Neater/Organized.
 \rightarrow Requires energy
 \rightarrow NOT Spontaneous.

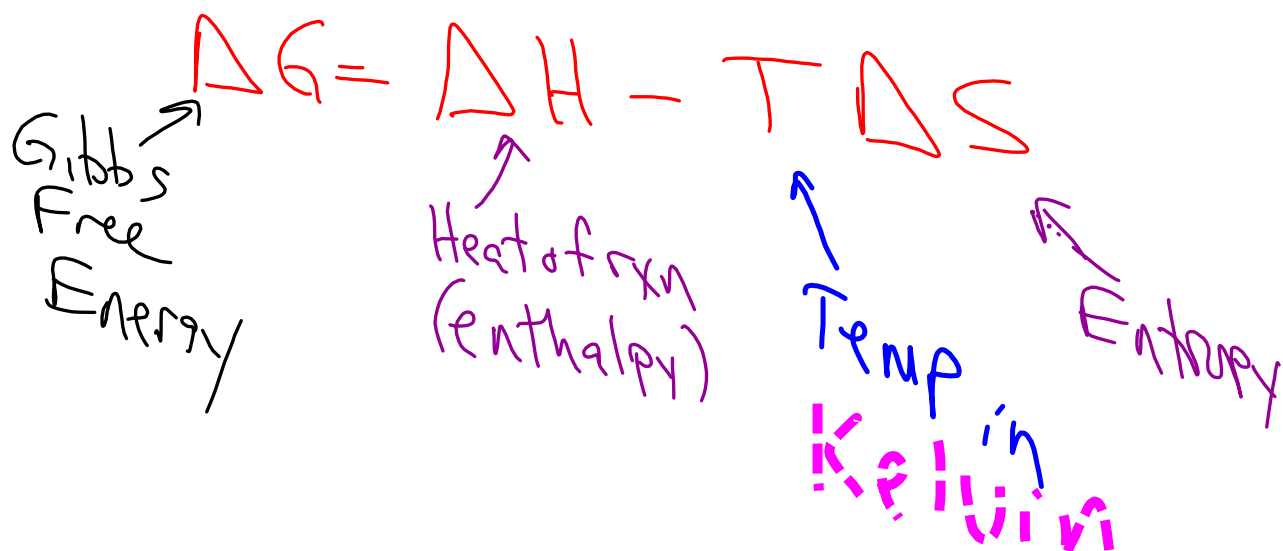
SPONTANEOUS RXNS

$\oplus \Delta S$ \uparrow entropy.
 $\ominus \Delta H$ Exothermic

Universe is cooling down & getting messier spontaneously.

Deciding Factor for spontaneity

TEMP



$$\Delta G = \Delta H - T \Delta S$$

$$\Delta G = \ominus - \oplus \oplus$$

SPONT

$$\Delta G = \ominus - \oplus$$

$$\Delta G = \ominus + \ominus$$

$$\Delta G = \ominus$$

$$\Delta H = 23 \text{ KJ}$$

$$\Delta S = 100 \text{ J}}$$

$$T = 25^\circ\text{C}$$

Spont?

$$\Delta G = \Delta H - T \Delta S$$

$$= 23 - [(298)(0.1)]$$

$$= 23 - 29.8$$

$$\Delta G = -6.8 \text{ KJ}$$

P 19/8-11

26/2+4

Test Chap 10 ~ WED