

④  $\text{H}_2\text{P and } \times 2 \rightarrow 2\text{S} + 2\text{O}_2 \rightleftharpoons \cancel{2\text{SO}_2}$   $\left(\frac{1}{2.5 \times 10^{-33}}\right)^2$

$\rightarrow \cancel{2\text{SO}_2} + \text{O}_2 \rightleftharpoons 2\text{SO}_3$   $\left(\frac{1}{4 \times 10^{-13}}\right)^2 \times$

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$2\text{S} + 3\text{O}_2 \rightleftharpoons 2\text{SO}_3$

$\left(\frac{1}{2.5 \times 10^{-33}}\right)^2 \left(\frac{1}{4 \times 10^{-13}}\right)^2$

$\left(0.16 \times 10^{106}\right) \times \left(0.0625 \times 10^{26}\right) = 0.01 \times 10^{132}$

$1.0 \times 10^{130}$

Feb 12-7:44 AM

①  $2\text{BrCl} \rightleftharpoons \text{Br}_2 + \text{Cl}_2$   $K=32$

$\text{Fav Prod} \rightarrow$

⑧  $K_p = K_c (RT)^{\Delta n}$

$54 = K_c \left(0.08206 \times 700\right)^{\Delta n}$

1

Feb 12-8:56 AM

Q  $3\text{N}_2\text{H}_4 + 4\text{ClF}_3 \rightleftharpoons 12\text{HF} + 3\text{N}_2 + 2\text{Cl}_2$

I	0.88	0.88	0	0	0
D		$x = \frac{4}{3}(0.525)$		0.525	
E		0.18		0.525	

$0.88 - 0.7$

$$\frac{4}{x} = \frac{3}{0.525}$$

$$\frac{x}{4} = \frac{0.525 \times 4}{3}$$

Feb 12-9:02 AM

12  $Q = \frac{(\text{NO})^2 (\text{Cl}_2)}{(\text{NOCl})^2} = \frac{(1.2)^2 (0.6)}{(1.3)^2}$

$Q < K$        $Q = K$        $Q > K$

Not there yet      AT EQ      Went too far back up.

$Q = 0.51$

Feb 12-9:08 AM

(14)  $4 \text{PCl}_3 \rightleftharpoons \text{P}_4 + 6\text{Cl}_2$

I	1	0	0
Δ	-4x	+x <small>Given</small>	+6x
E	1-4x	x	6x

MOLE RATIO

$$\frac{(\text{P}_4)(\text{Cl}_2)^6}{(\text{PCl}_3)^4} = \frac{x(6x)^6}{(1-4x)^4}$$

Feb 12-9:11 AM

(15)  $\text{NH}_3 + \text{H}_2\text{S} \rightleftharpoons \text{NH}_4\text{HS}$

I	1	1	0
Δ	-x	-x	+x
E	1-x	1-x	x

$$\frac{(\text{NH}_4\text{HS})}{(\text{NH}_3)(\text{H}_2\text{S})} = \frac{9.7}{1} \frac{x}{(1-x)(1-x)}$$

$$9.7x^2 - 19.4x + 8.7 = 0$$

Feb 12-9:14 AM