

2018F

rxn orders TABLE

② Rate = $k [\text{React}] [\text{React}]$

NO₂ = rate = 4

O₂ = rate = 2

Rate = $k [\text{NO}]^2 [\text{O}_2]^1$

May 3-8:06 AM

④ Rate = $k [\text{Reactant}]^2$

0.3 = $k (0.2)^2$

$k = 7.5$

$\frac{1}{\text{Mole} \times \text{sec}} = k$

$\frac{\text{Mole}}{\text{sec}} = k$

May 3-8:21 AM

⑤

$$\text{Rate} = k [\text{NO}]^2 [\text{Br}]$$

NO 2-3
 [] rate
 2² = 4

Br₂ 1-2
 [] rate
 2¹ = 2

May 3-8:24 AM

[] rate
 2^x = 3

$$2^x = 3$$

$$\ln 2^x = \ln 3$$

$$x \frac{\ln 2}{\ln 2} = \frac{\ln 3}{\ln 2}$$

May 3-8:26 AM

⑥ $-g Cd(s)$, $1M Cd^{+2}$, $1.25amps$
 $15min.$
 ~~$900sec$~~

~~$\frac{1mole Cd}{2mole e^-}$~~ ~~$\frac{1mole Cd}{112.4g}$~~ ~~$\frac{1.25 coul}{Sec}$~~

~~$\frac{96500 coul}{1mole e^-}$~~

$112.4g Cd$	$1mole Cd$	$1mole e^-$	$1.25 coul$	$900 sec$
$1mole Cd$	$2mole e^-$	$96500 coul$	Sec	

May 3-8:27 AM

⑨ $K_c = \frac{(BrCl)^2}{(Br_2)(Cl_2)}$

May 3-8:35 AM

(15) $\overset{400 \text{ ml}}{\text{HNO}_3} + \overset{60 \text{ ml}}{\text{NaOH}} \rightarrow \text{NaNO}_3 + \text{H}_2\text{O}$

Net
Mole,

I	0.08 mole	0.06			
Δ	-0.06	-0.06			
F	0.02 mole H ⁺				

$\frac{0.02 \text{ mole H}^+}{1 \text{ l}} = 0.02 \text{ M H}^+$ Moles = M * l

May 3-8:42 AM