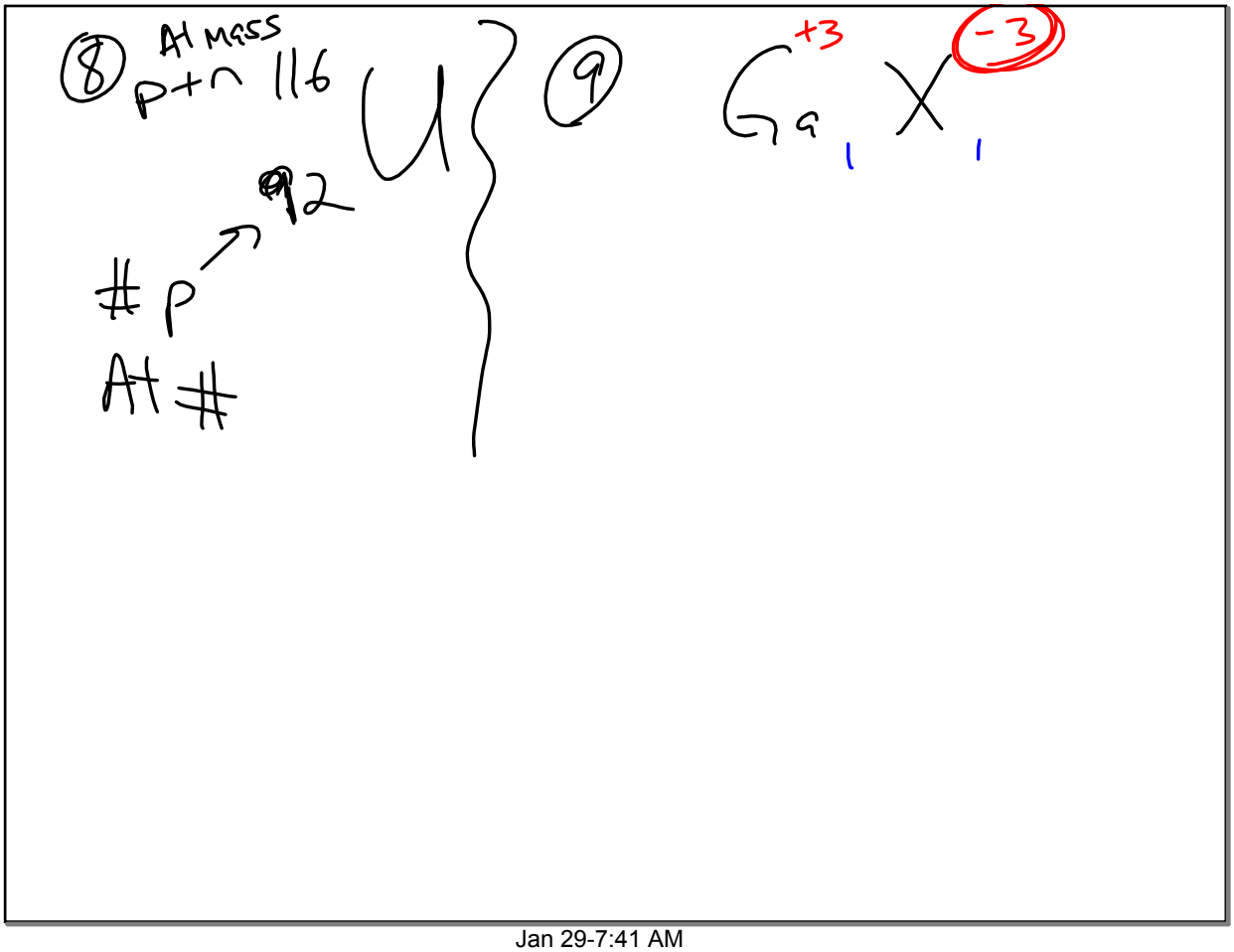


Jan 29-7:41 AM

⑲

H_2SO_4

moles A = moles B

$NaOH$

$n*M*l = n*M*l$

$(2)(0.0875)(50ml) = (1)(0.115)(ml)$

76.1ml

Jan 29-8:12 AM

(21) $M = ?$ Na^+ 4.5 L of 0.847 M Na_3PO_4

$Na_3PO_4 \rightarrow 3Na^+ + PO_4^{-3}$

0.847 M — M

1 : 3 (*3)

Jan 29-8:16 AM

(23) $N_2O_3 \rightarrow N_2 + \frac{3}{2}O_2$ −83.7

$\frac{1}{2}N_2 + \frac{1}{2}O_2 \rightarrow NO$ ½(180.4)

$\frac{1}{2}N_2 + O_2 \rightarrow NO_2$ 33.2

+39.7 kJ

Jan 29-8:19 AM

(26/27) Ni: [Ar] ~~4s²~~ 3d⁸

N. 12 ↑↓ ↑↓ ↑↓ ↑ ↑

Jan 29-8:23 AM

(31) :S=C=N:

FC = val e⁻ - (½b + all nb)

(33) ΔT = (~~K~~ * ~~M~~) i

Jan 29-8:35 AM

(33) $\frac{PV}{T} = \frac{PV}{T}$

$\frac{(10)(900)}{1} = \frac{P(30)}{2}$

Jan 29-8:38 AM

(EC1) $CaCO_3 + 2HF \Rightarrow CaF_2 + H_2O + CO_2$

50g — moles

100ml 1M 0.1 l

M*l

0.1 mole → 0.05 mole

$\frac{50g\ CaCO_3}{100g\ CaCO_3} \left| \frac{1\ mole\ CaCO_3}{1\ mole\ CaCO_3} \right| \frac{1\ mole\ CO_2}{1\ mole\ CaCO_3} = 0.5\ mole$

Jan 29-8:39 AM

FC2 Metal

Heat lost = Heat gained Water

$MC\Delta T = MC\Delta T$

$(95)(C)(75-23) = (50)(4.184)(23-18)$

$C = 0.211\ J/g^{\circ}C$

Jan 29-8:43 AM

FALL CHE 106 / 107

Lec (3) Lab (1)

Spring 116 / 117

Jan 29-8:49 AM

Chap 14 - Chemical Kinetics

how a chemical rxn proceeds.

RATE of a rxn.

↳ how fast

↳ $\frac{dx}{dt}$ = $\frac{\text{change in } X}{\text{change in time}}$

Jan 29-8:51 AM

Rate determining step

Factors → head on collision - FAST

① Temp ⇒ Avg KE

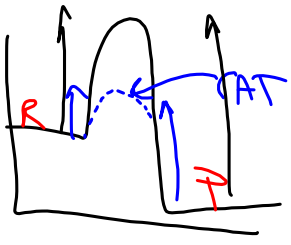
② Concentration $M = \frac{\text{Moles}}{\ell}$ [ ]

Gas Pressure

↳ high [ ]

③ ↓ Volume

④ Catalyst ↓ E_a



⑤ ↑ Surface Area

Jan 29-8:58 AM

7AM time 0 — Reactants 100% — Products 0%

↓ Δ 90

3pm End time — Reactants 10% — Products 90%

Rate of disappearance Reactants

Rate of appearance Products

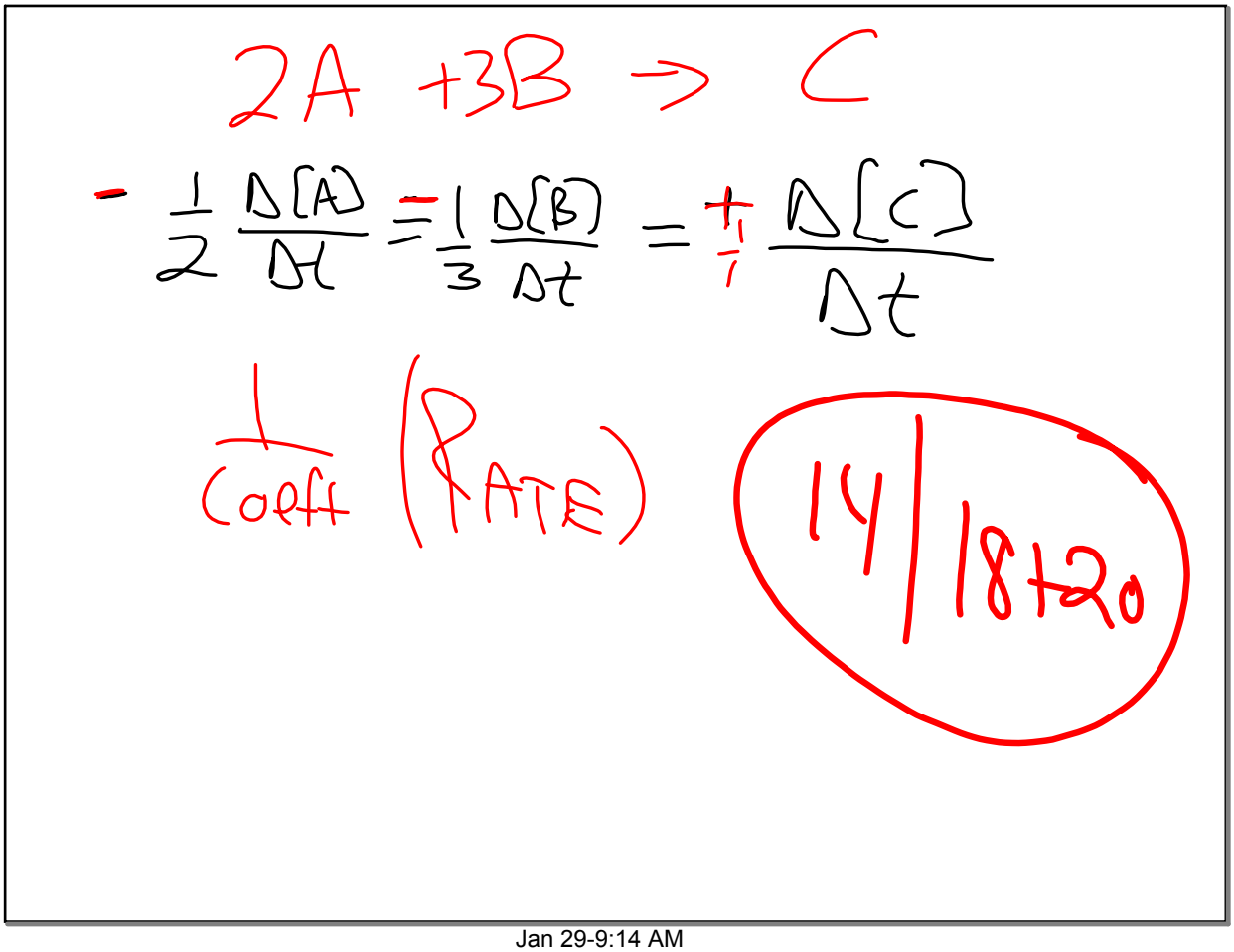
Jan 29-9:09 AM

Efficiency Curve

Rate

$\frac{d[\,]}{dt} = \frac{\Delta[\,]}{\Delta t}$

Jan 29-9:12 AM


2A + 3B → C
$-\frac{1}{2}\frac{\Delta[A]}{\Delta t} = \frac{1}{3}\frac{\Delta[B]}{\Delta t} = +\frac{1}{1}\frac{\Delta[C]}{\Delta t}$
$\frac{1}{\text{Coeff}}$ (RATE)
14/18+20

Jan 29-9:14 AM