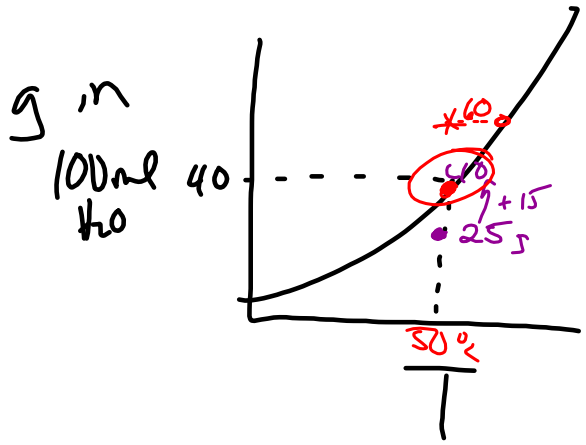


60
- 40 dissolve,
20 precipitates out
PPT

Mar 16-8:34 AM

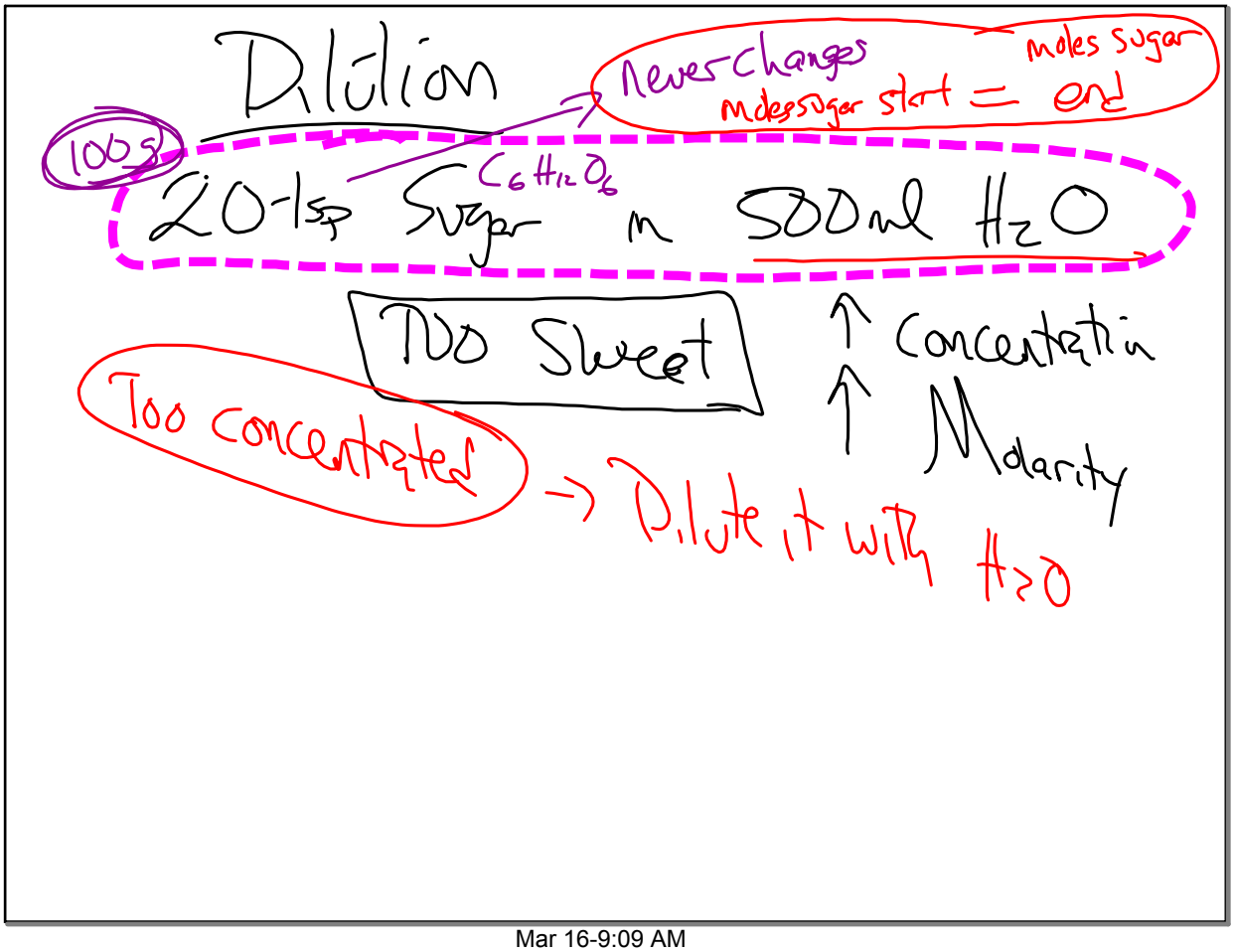
Rate of Solution

Solids (S) -> dissolve.

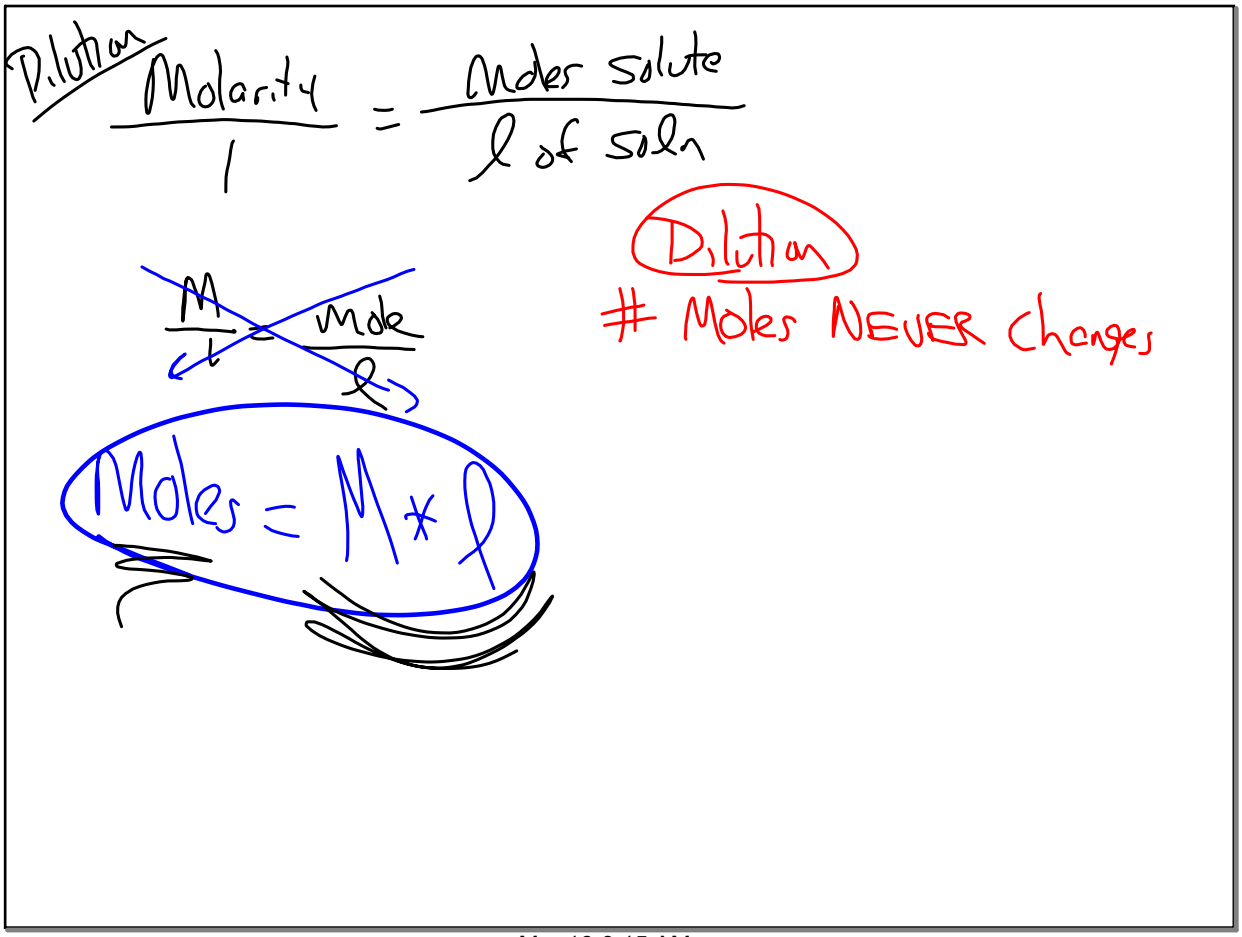
1. Stir
2. Heat
3. ↑ surface area

GAS
1. ↑P

Mar 16-9:02 AM



Mar 16-9:09 AM



Mar 16-9:15 AM

Dilution

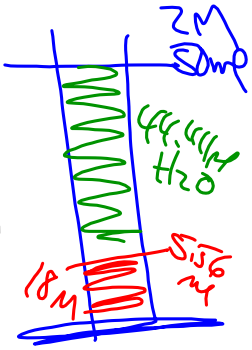
moles start = moles end

$M * l = M * l$

$(18M)(ml) = (2M)(50ml)$

$\frac{18(ml)}{18} = \frac{100}{18}$

Start ⇒ ml = 5.56 ml of 18M



5.56ml + 44.44ml = 50ml

18M DILUTE 2M

Mar 16-9:26 AM

Colligative Properties

CHANGES to FP / BP / VP, osmotic pressure

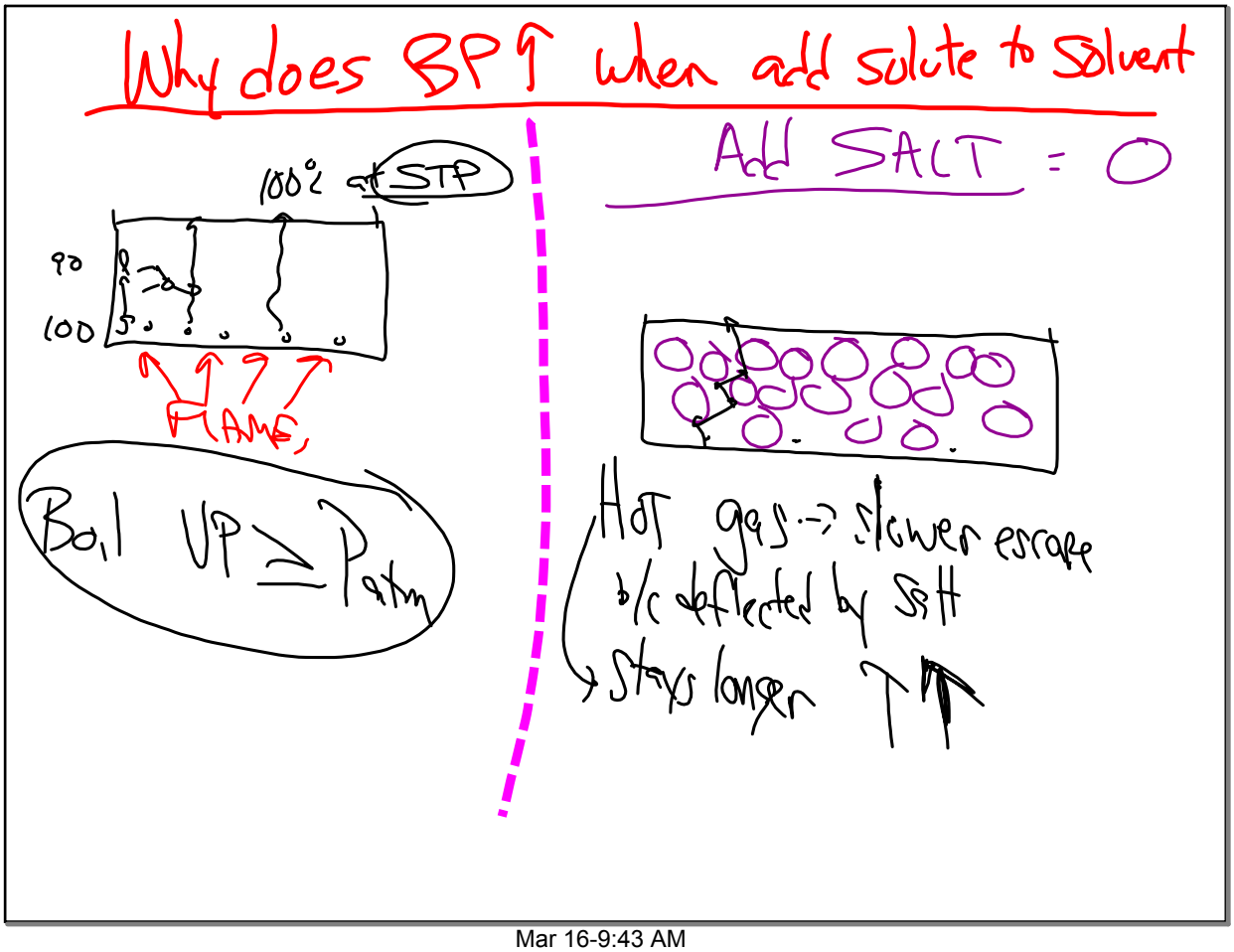
Freezing Pt. / Boiling Pt / Vapor pressure

Add a Solute (salt) to a solvent (water)

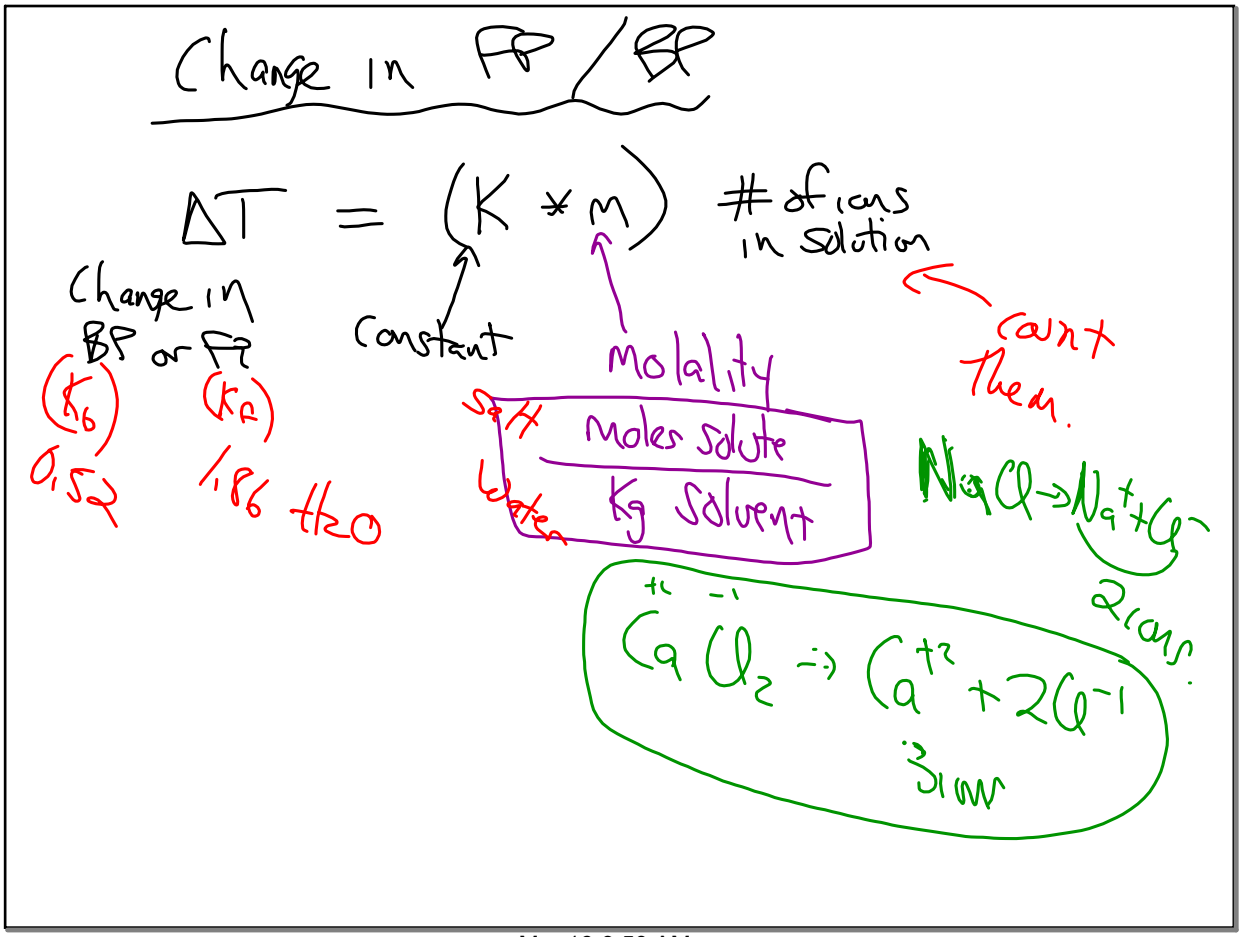
Ex Pure water FP = 0°C, BP = 100°C

Salt water FP < 0°C ↓ BP > 100°C ↑

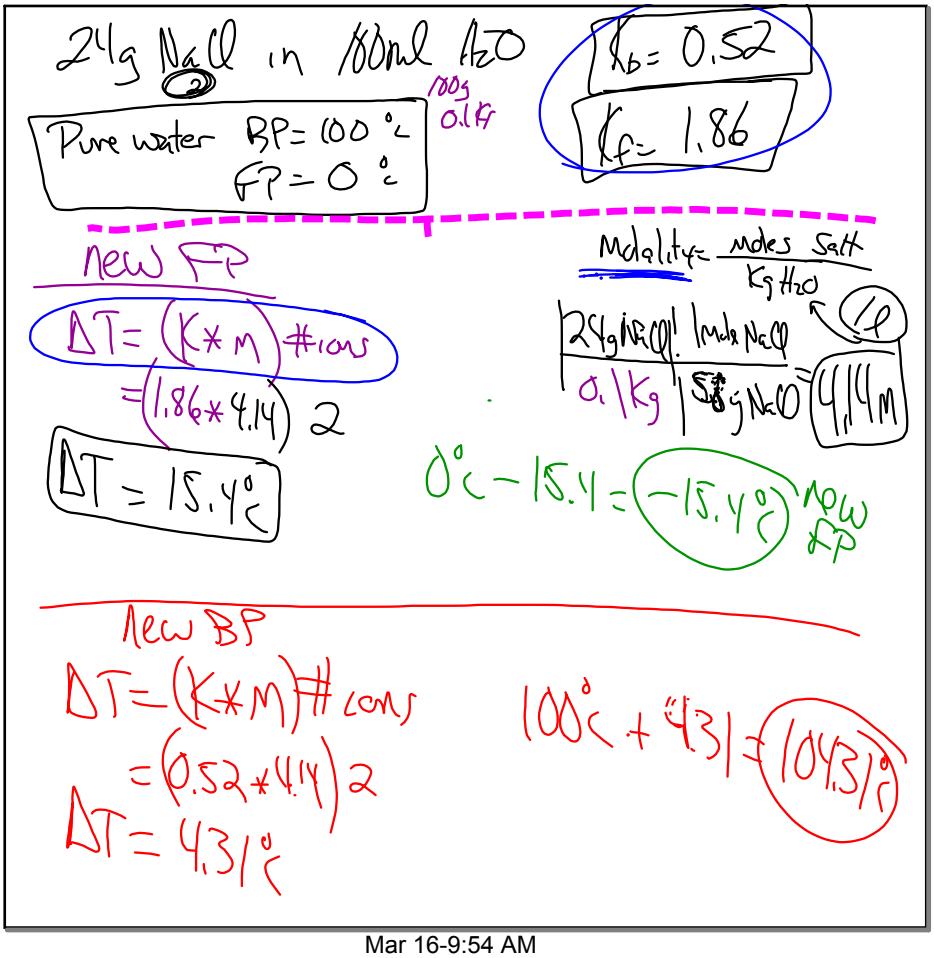
Mar 16-9:35 AM



Mar 16-9:43 AM



Mar 16-9:50 AM


24g NaCl in 100ml H2O
Pure water BP = 100°C
FP = 0°C
100g
0.1kg
Kb = 0.52
Kf = 1.86
new FP
ΔT = (K*m) #ions
= (1.86*4.14) 2
ΔT = 15.4°C
Molality = moles salt / Kg H2O
24g NaCl | 1mole NaCl | 1/2
0.1kg | 58.5g NaCl
4.14M
0°C - 15.4 = -15.4°C new FP
new BP
ΔT = (K*m) #ions
= (0.52*4.14) 2
ΔT = 4.31°C
100°C + 4.31 = 104.31°C

Mar 16-9:54 AM