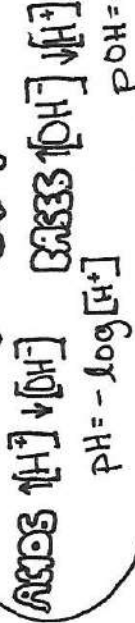


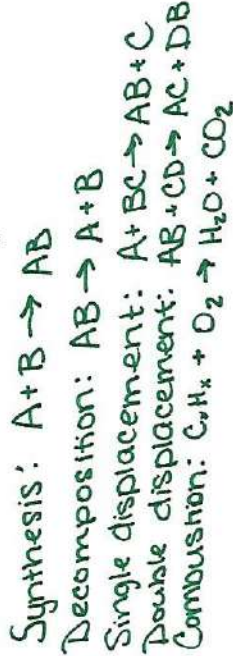
REFERENCE

CHEMISTRY

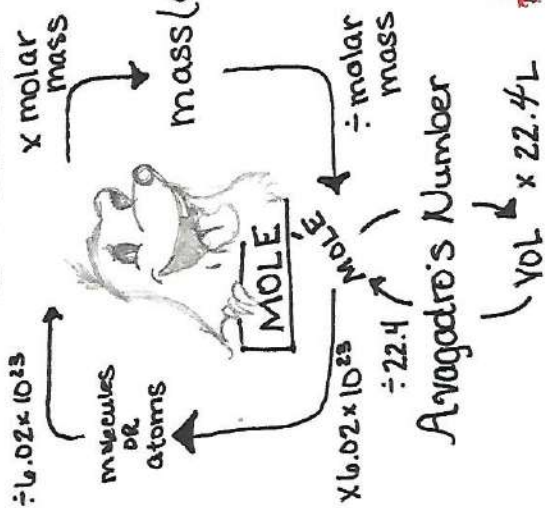
pH & pOH



REACTIONS



STOICHIOMETRY



Δ greek letter 'delta'
 meaning 'change in'
 $\Delta T = T_f - T_i$ f-final i=initial



G M k h da - o d c m μ n p

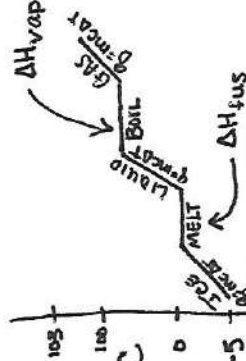
↓ · →
 ← · ↑

METRIC
 PREFIXES

Thermochemistry

EXOTHERMICS
 (+)
 ENDOTHERMICS
 (-)

ENTHALPY:
 (H) heat of a reaction
 Coefficient = ΔH



IDEAL GAS

PV = nRT
 Pressure: (atm)
 Volume: Liters (L)
 n: number of moles
 R: Gas Constant: 0.0821 mol·L / atm·K
 T: Temperature: Kelvin (K)

Significant
 Figures
 Rules

1. All non-zero digits are Significant
2. zeros between sig. figs are Significant
3. Trailing zeros that are also after a decimal are Significant
4. Placeholder zeros are not Significant

IONS:

CATION (+)
 ANION (-)

HUND: □ □ □ same direction first
 PAULI: opposite spins ↑↓
 AUFBAU: Lowest energy level first

1s 2s 2p 3s 3p 3d 4s 4p 4d 4f 5s 5p 5d 5f 6s 6p 6d 7s 7p
 $2n^2$

PERIODIC TABLE:

GROUPS:
 1. ALKALI
 2. ALKALINE EARTH METAL
 3-12 TRANSITION METALS
 17. HALOGEN
 18. NOBLE GASES
 METALS
 NON-METALS
 METALLOIDS
 PERIODS:
 A LANTHANIDES
 B ACTINIDES