

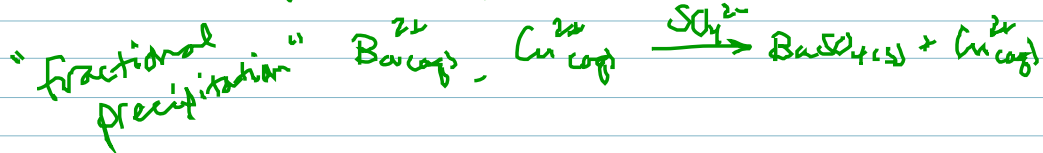
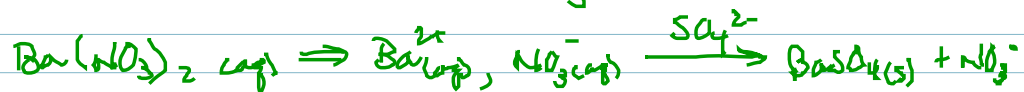
SEPARATIONS OF MIXTURES

MIXTURE \rightarrow not chemically combined

* HELD TOGETHER BY IMFS

SEPARABLES \Rightarrow take advantage of property difference

① PRECIPITATION \rightarrow separation based on (CRYSTALLIZATION) solubility differences



② DISTILLATION \rightarrow SEPARATING A MIXTURE OF LIQUIDS DUE TO A DIFFERENCE IN BOILING POINTS

③ CHROMATOGRAPHY \rightarrow a separation of mixture components based on differences in attractions/IMFS

\rightarrow SOLVENT / ELUENT / MOBILE PHASE

\rightarrow SUBSTRATE / STATIONARY PHASE

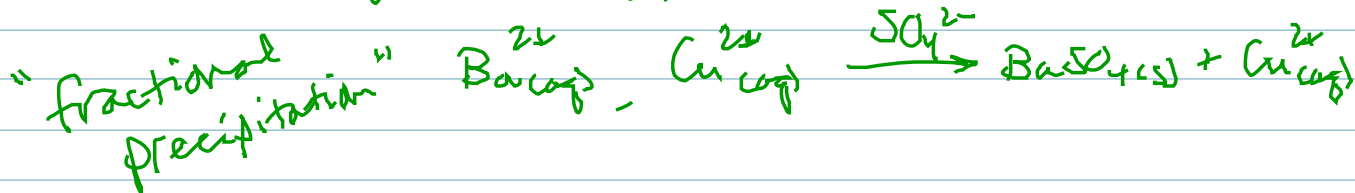
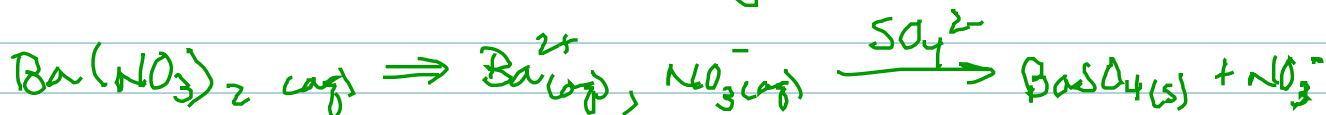
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(A) STATIONARY PHASE \rightarrow A SOLID SUPPORT MEDIUM

\rightarrow VARIED ATTRACTIONS BETWEEN
MIXTURE COMPONENTS + THIS PHASE

(B) MOBILE PHASE \rightarrow liquid or gas solvent
"eluent"

\Rightarrow flows past/across the stationary
phase

$R_f =$ "ratio of
fronts"

$= \frac{\text{distance spot travels}}{\text{distance to solvent front}}$

PAPER \Rightarrow stationary
phase

TLC \Rightarrow thin layer

LIQUID \Rightarrow tube filled
w/ stationary
phase

GAS \Rightarrow see handout

