جامعة المستقبل
كلية الهندسة والتقنيات الهندسية
قسم هندسة تقنيات الأجهزة الطبية

Medicinal chemistry

Stage: first

Lecturer: Tarig Hussein

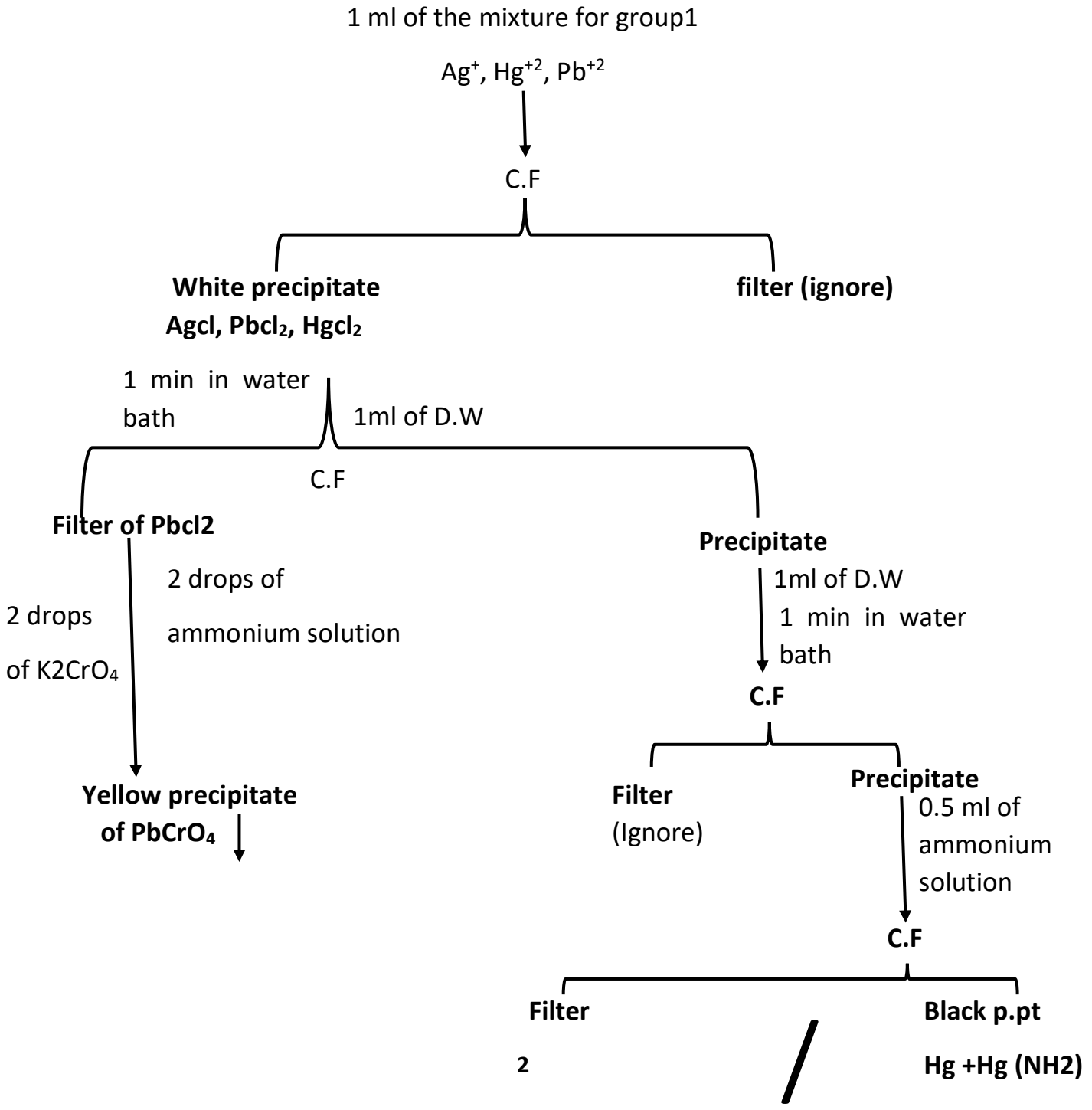
Mustafa fahd

Practical analytical chemistry

Separation and identification of group1

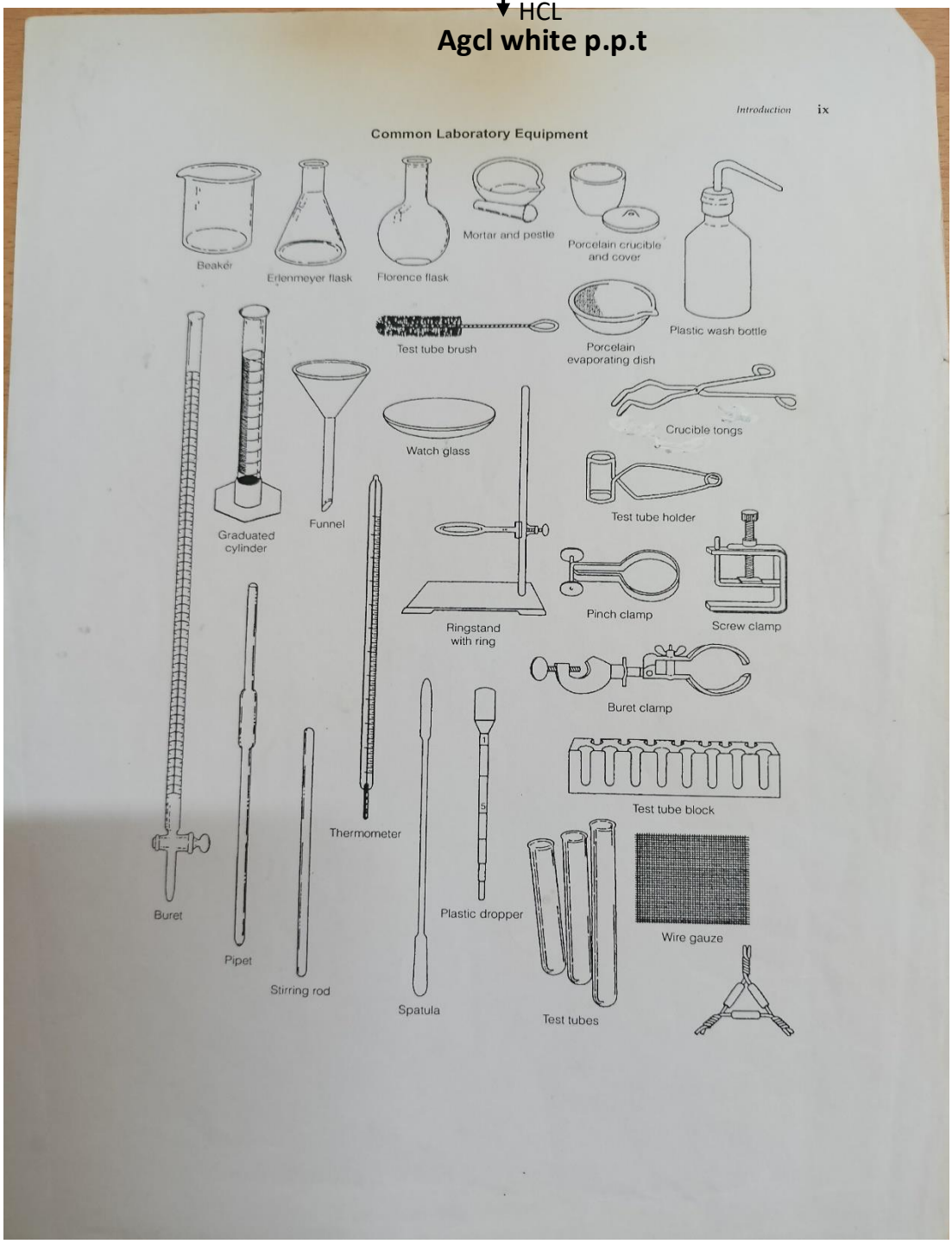
1 elements (Pb^{+2}, Hg_2^{+2}, Ag^{+})

The cations of this group are silver, mercuries and lead. These ions are separated from the mixture by precipitation as white chlorides after using diluted HCL.



5drops of dil. HCL /

Agcl white p.p.t



THE IMPORTANT APPARATUS IN THE LABORATORY:

TEST TUBE, Centrifuge Tube, Class Rod, Droppers, Wash Bottle, Beaker, Benzene Burner, Spatula, Brush, Water Bath, Conical Flask, Test Tube Rack, Heater, Stand And Clamp, Balance, Condenser, Pipete, Graduated Cylinder, Burrete, Volumetric Flask, Funnel, Thermometer, Watch Glass.

Normality and molarity

Molarity and normality are both units of concentration that describe the amount of solute in a solution. However, **molarity is the number of moles of a compound present in a liter of solution**, while **normality is the amount of gram equivalents of a compound present in a liter of solution**. Normality takes into account the chemical reactivity (equivalence) of the solute, especially in acid-base reactions, while molarity only measures the number of moles of solute in a solution. Normality can be described as a multiple of molarity.

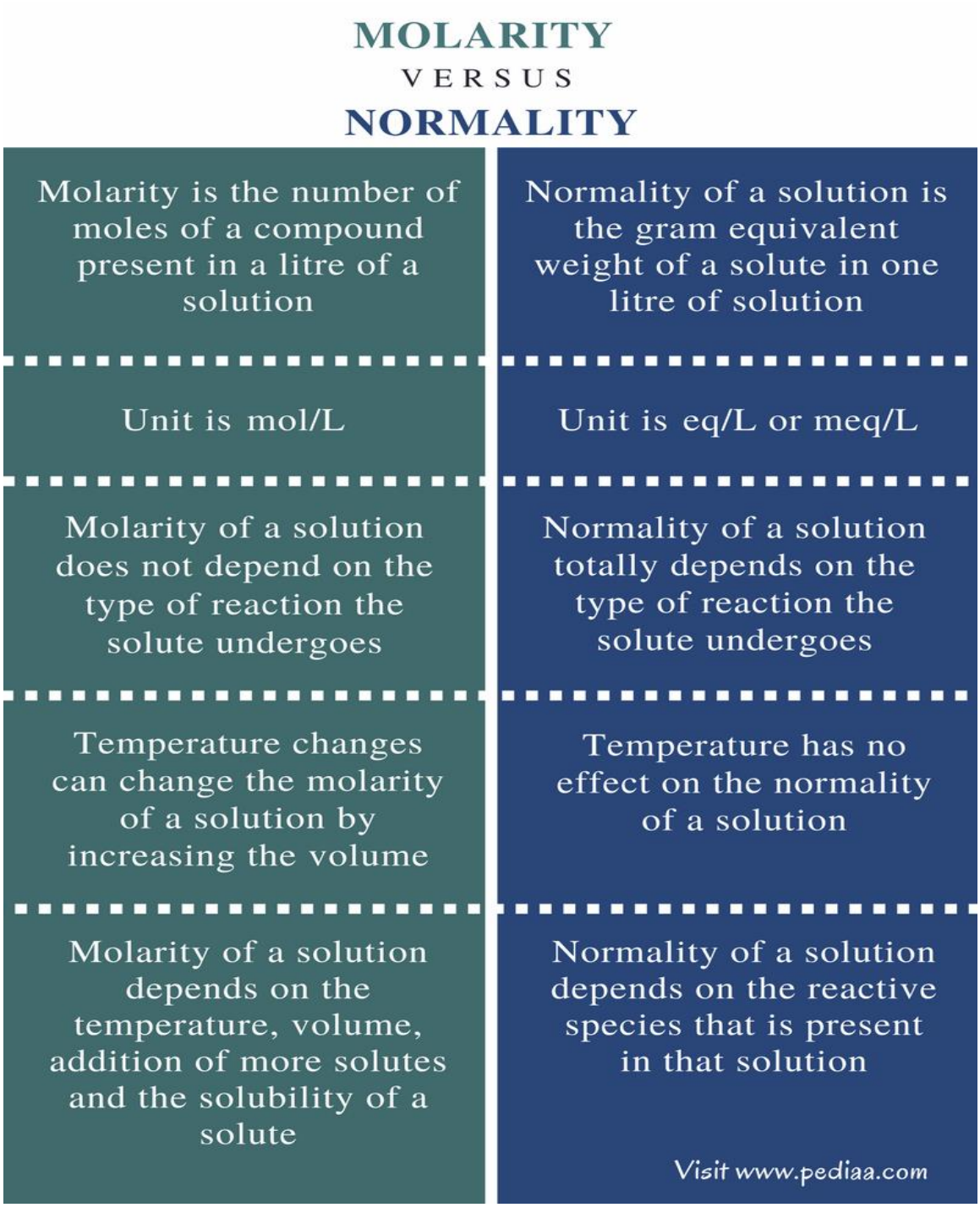
Molarity (M)= no. of moles/ liter of solution

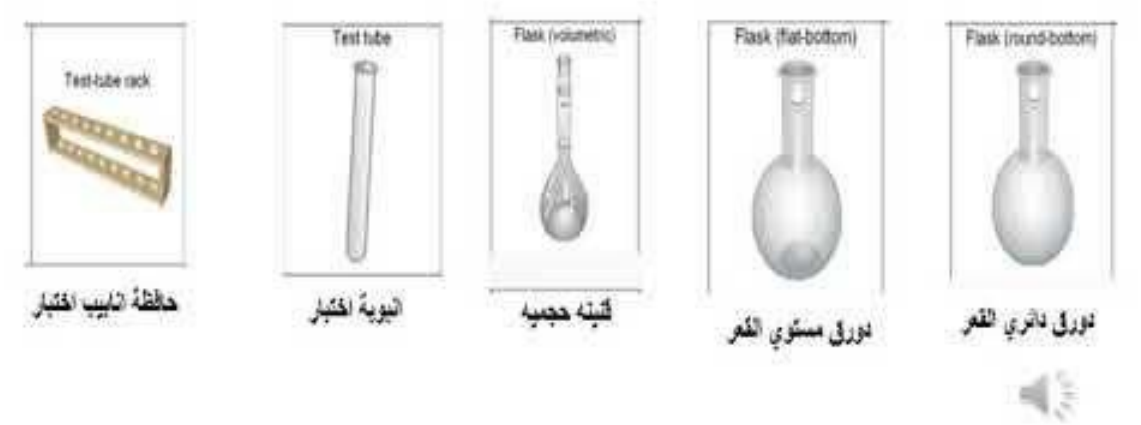
Number of moles= wt. / molecular weight

Normality (N)= no. of equivalent / liter of solution

Number of equivalent= wt. / equivalent wt.

COMPARISON BETWEEN NORMALITY AND MOLARITY




Test-tube rack
حافظة انابيب اختبار
Test tube
انبوبة اختبار
Flask (volumetric)
قنينه حجميه
Flask (flat-bottom)
دورق مستوي القعر
Flask (round-bottom)
دورق دائري القعر


سحاحة
Burette
ماصة مخبرية
Pipette
مدقة و هاون
Mortal & Pastle
كأس
Beaker
دورق حجمي
Volumetric Flask
موقد بنسن
Bunsen Burner
حامل
stand
كلاب اصبعي
Finger Clamp
دورق مدور القاعدة
Round Bottom Flask
دورق مستقيم القاعدة
Flat Bottom Flask
دورق مخروطي
Flask
دورق ترشيح
Filtering Flask
دورق تبخير
Evaporator Flask
مكثف
Condenser
مخبار مدرج
Graduated Cylinder
وعاء ماص للرطوبة
Desicator

Chemical (liquid) 	Chemical (solid) 	Clamp 	Clamp stand 
Clip (Hoffman) 	Clip (Mohr's) 	Evaporating basin 	Flask (conical) 
Flask (flat-bottom) 	Flask (round-bottom) 	Flask (volumetric) 	Funnel