كلية : التربية للعلوم الصرفة

القسم او الفرع : علوم الحياة

المرحلة: الاولى

أستاذ المادة : د.أسراء عبد الكريم معروف العاني

اسم المادة بالغة العربية : كيمياء تحليلية

اسم المادة باللغة الإنكليزية : Analytical Chemistry

اسم المحاضرة السادسة باللغة العربية : تنقية الراسب البلوري

اسم المحاضرة السادسة باللغة الإنكليزية : ***Purity of crystalline precipitates***

- **** Purity of crystalline precipitates***
- The specific area of crystalline precipitates is relatively small; consequently, coprecipitation by direct adsorption is negligible. However, other forms of coprecipitation, which involve incorporation of contamination within the interior of crystals, may cause serious errors.
- Two types of coprecipitation, *inclusion* and *occlusion*, are associated with crystalline precipitates. The two differ in the manner in which the contaminant is distributed throughout the interior of the solid. Included impurities are randomly distributed, in the form of individual ions or molecules, throughout the crystal. Occlusion, on the other hand, involves a nonhomogeneous distribution of impurities, consisting of numerous ions or molecules of the contaminant, within imperfections in the crystal lattice.
- Occlusion occur when whole droplets of solution containing impurities are trapped and surrounded by a rapidly growing crystal. Because the contaminants are located within the crystal, washing does little to decrease

their amount. A lower precipitation rate may significantly lessen the extent of a occlusion by providing time for the impurities to escape before they become entrapped. Digestion of the precipitate for as long as several hours is even more effective in eliminating contamination by occlusion.