

# [Microscopy; used for the separation of particles from](https://assignbuster.com/microscopy-used-for-the-separation-of-particles-from/)

MICROSCOPY;  Microscopyis a techniques that help to view microorganism clearly whichcant see by nakedeye, using microbes to view objects. Microscope is an optical instrument that uses alens or a combination of lenses to produce magnified images of small objects, especially of objects too small to be seen by the unaided eye. There is a manybranches of microscopy but the one of the compound microscope is commonly used. CENTRIFUGATION; Is atechnique which is frequently used for the separation of particles from thesolution according to their size, shape, density, viscosity of the medium androtor speed . Different speeds were used for different samples. The particles aresuspended in a liquid medium and placed in a centrifuge tube. Thetube is then placed in a rotor and spun at a define speed.

Separationthrough sedimentation could be done naturally with the earth gravity, nevertheless, it would take ages. Centrifugation is making that naturalprocess much faster. Rotation of the rotor about a central axis creates a centrifugalforce upon the particles in the suspensionGASCHROMOTGRAPHY; It is a techniqueto tell of the group of analytical separation techniques used to detect oridentify volatile substances in the gas phase. In gas chromatography, the constituentof a sample are dissolved in a solvent and vaporized in order to separate theanalytes by distributing the sample between two phases: a stationary phase anda mobile phase. ·        The mobilephase is a chemically inert gas that serves to take the molecules of theanalyte through the heated column.

Gas chromatography is one of the sole formsof chromatography that does not utilize the mobile phase for interacting withthe analyte.·        Thestationary phase is either a solid adsorbant, termed gas-solid chromatography (GSC), or a liquid on an inert support, termed gas-liquid chromatography (GLC). FLAME PHOTOMETRY; A branch of atomic spectroscopy , the oldest instrumental method for the identification of elements. This techniqueswas introduced in the mid of 19th Century during which Bunsen and Kirchhoffshowed that the radiation emitted from the flames depends on the characteristicelement present in the flame. In this technique the samples in solution are excited to develop a line emission spectra by introduction into a flame.

Aphotoelectric flame photometer is a device used for inorganic chemicalanalysis to determine the concentration of certain metal ions, example sodium, potassium, lithium, and calcium. Group 1 and Group 2 metals are sensitive to FlamePhotometry due to their low excitation energies