## Ataollahi Fakhradin, Estabragian Mohsen

## APPLICATION OF GRAVIMETRIC ANALYSIS IN PHARMACY Tutor – PhD in chemistry, associated professor Belyatsky Vladimir Nikolaevich

Department of bioorganic chemistry, Byelorussian state medical university, Minsk

Gravimetry is the set of analytical methods in which the analytical signal is a measurement of mass or change in mass. Gravimetric methods analysis include precipitation method, volatilization method, particulate method, electrogravimetric method and thermogravimetric method. The first three are classical chemical techniques. The latter two is the instrumental method of analysis fixing the change of sample mass.

The accuracy and sensitivity of gravimetry is limited by determination error of change mass. Analytical balance has sensitivity of  $\pm 0.1$  mg, consequently, a relative error determination of sample composition of 0.1 - 0.2% may be achieved. Gravimetry is used widely in pharmacy. In this review we discuss the application of different gravimetric methods in pharmacy. For example, both inorganic substances (sodium sulfate) and organic substances (quinine, phenobarbital, piperazine adipate, progesterone, ets.) can be detected by use precipitation method. Particulate method allows determining ash content. Volatilization method allows determining humidity of herbal material.