EXTRACTIVE –PHOTOMETRICAL DEFINITION OF NITROGENATED ORGANIC BASES.

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The extractive-photometrical method is based on the using of colored and well extractable ionic associates of organic bases with the acidic dyestuffs. In some cases the optimal extract’s density is measured, in other cases the optimal density of the reextracted dyestuffs. In the first case, the multiple extraction has been demanded for the full base extraction and in the second case the carrying out of the additional operation on reextraction, which complicates the analyses and makes it less exact.

In a given paper the possibility of extractive extraction and the concentration of nitrogenated organic bases-alkaloids in the form of ionic associates with acidic nitrodyestuffs-gallion and sulphonazo has been under examination. The conditions of the formation, extraction and the properties of the ionic associates have been studied. The associates have been mentioned as extracting only by polar extractants with maximum extraction in the sphere of pH from 4,0 till 6,0. In acidic medium the extraction is reduced because of the competing action of hydrogen ions and accordingly the dyestuffs have been extracted. The composition, solvate number have been determined, the mechanism of formation and structure of ionic associates has been discussed, the degree of extraction and the coefficient of distribution have been calculated. The equilibrium in the systems of extraction has been reached under moderate mixing during the period of 1-1,5 minutes. The degree of one extraction is 94-96 %.

Extractive-photometric methods of determination of papaverine, dimedrol, chinin, dibazol, ephedrine and other alkaloids have been worked out. Methodics have been inculcated under the analyses of the ready-made medicinal forms (pills, powders, solutions for injections, suppositories and ointments).

The essential advantage of the suggested methodics is the absence of the pure reagent extraction excluding their influence and determining the accuracy of results. The suggested methodics are sensible and interesting for the determination of medicinal substances in one doze, they have enough exactness and reproduction. The relative error of determination fluctuates from ± 1,3 till ± 2,0%.