

## Phase, element, amino acid, structural composition of nephroliths minerals

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### Abstract

Methods of X-ray analysis, IR-spectroscopy and raster electronic microscopy were used to analyze a representative collection of nephroliths. Morphological features of the minerals composing nephroliths were studied. Characteristic groupings of minerals are revealed at the formation of stones. The presence of 34 elements in nephroliths is established. Features of microelement structure of kidney stones were established on group belonging (oxalates, phosphates, uric acid). Significant correlations between amino acids, mineral and element structures of kidney stones are revealed, which showed the difference of amino acid composition of urine and organic-mineral aggregates formed it.