

## ANALYSIS OF RELEASING DYNAMICS FOR SOME METALS FROM KITCHEN UTENSILS TO THE ENVIRONMENTAL OBJECTS

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**Introduction.** Metals are the permanent components of drinking water and other foodstuffs, which we prepare using this water. It is possible even not to take into account the natural level of metals concentration in drinking water, it is enough only to remember that in everyday life we use metallic utensils contained such metals as aluminium, copper and zinc, except iron.

**Aim.** The aim of the work is determination of content of aluminium, copper (II), zinc and iron (II) in the samples of drinking water processed by boiling in the zinc-coated, aluminium, copper and cast-iron utensils.

**Materials and methods.** Quantitative determination of iron (II) was carried out by the method of chromatometric titration in the medium of sulphuric acid (direct way of titration, diphenylamine was used as an indicator).

Quantitative determination of copper (II) was carried out by the method of iodometric titration (displacement way of titration, starch was used as an indicator).

Quantitative determination of zinc was carried out by the method of complexometric titration in the medium of ammonia buffer solution (direct way of titration, eriochrom black T was used as an indicator).

Quantitative determination of aluminium and total amount of metals was carried out by the method complexometric titration in the medium of ammonia buffer solution (back way of titration, the standard solution of zinc sulphate was used as the second titrant, eriochrom black T was used as an indicator).

**Results and discussion.** It has been suggested to carry out determination of aluminium, copper (II), iron (II) and zinc in drinking water by simple titrimetric methods that do not require the special equipment and can be executed in any chemical laboratory.

Content of metals has been determined in model mixtures using the developed procedures and it has been demonstrated that metals do not interfere with quantitative determination of each other.

Determination of aluminium, copper (II), iron (II) and zinc content in the samples of drinking water processed by boiling in the zinc-coated, aluminium, copper and cast-iron utensils has become the last stage of our researches. The results are the evidence that content of the metals to be investigated exceeds the normative values.

**Conclusions.** Preparation of meal should be carried out in utensils with the special food coating.