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(12) **ABSTRACT OF INVENTION**

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(54) **METHOD TO DETERMINE THE CONTENT OF HARD METALS IN WHOLE BLOOD**

(57) Abstract:

FIELD: medicine. SUBSTANCE: the tested sample is treated with an acid followed by its ashing, the ash obtained is treated with a concentrated mineral acid followed by evaporation up to the state of a moist salt, then a background solution is conducted and the content of metals is determined by the instrumental method. As an acid to treat the sample tested and as a background solution one should use 0.5-5.0% aqueous solution of nitric acid at the sample: acid weight ratio being 1:1. Moreover, before ashing the

sample should be dried in two stages at 110 C and 250 C, correspondingly; ashing is conducted at 430 C. As a concentrated mineral acid to treat the obtained ash it is necessary to use a concentrated nitric acid and as an instrumental method one should use an atom-absorptive spectrophotometry. EFFECT: higher accuracy of determination, broadened spectrum of detected components within 1-6 samples at their mutual availability (manganese, lead, nickel, zinc, copper, chromium) and decreased volume of biomaterial necessary for an assay. 1 cl, 3 tbl

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