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Mail address:

614045, g.Perm', ul. Ordzhonikidze, 82, FGUN
"FNTs MPT URZN", ROSPOTREBNADZORA,
direktoru N.V. Zajtsevoj

(72) Inventor(s):

Zajtseva Nina Vladimirovna (RU),
Ulanova Tat'jana Sergeevna (RU),
Nurislamova Tat'jana Valentinovna (RU),
Popova Nina Anatol'evna (RU)

(73) Proprietor(s):

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"FNTs MPT URZN" ROSPOTREBNADZORA)
(RU)

(54) METHOD OF QUANTITATIVE EVALUATION OF BLOOD ACETIC, PROPIONIC, ISOBUTYRIC, BUTYRIC, VALERIC, ISOCAPRONIC AND CAPRONIC ACIDS BY GAS CHROMATOGRAPHY ANALYSIS

(57) Abstract:

FIELD: medicine.

SUBSTANCE: invention describes a method of quantitative evaluation of blood acetic, propionic, isobutyric, butyric, valeric, isocaproic and capronic acids by gas chromatography analysis wherein a blood sample is acidified with 1 % sulphuric acid to pH 2-3, evaluated acids are extracted with isobutyl alcohol volume of which is related to the blood sample volume as 1:1. The protein separation is enabled by centrifugation. 2-3 drops of 0.4 % alkali is added, and the extract is

evaporated dry, further the solid residue is added consistently with 1 % sulphuric acid and isobutyl alcohol that is followed with gas chromatography separation of the mixed acids in a capillary column with a flame ionisation detector, and the amount of each acid is evaluated by a calibration diagram.

EFFECT: higher sensitivity and accuracy of the method of quantitative evaluation of acetic, propionic, isobutyric, butyric, valeric, isocaproic and capronic acids if found in blood together.

5 cl, 1 ex, 4 tbl