TOSHKENT FARMATSEVTIKA INSTITUTINING
85 YILLIGIGA BAG'ISHLANGAN
"FARMATSEVTIKA SOHASINING BUGUNGI HOLATI: MUAMMOLAR VA ISTIQBOLLAR"
MAVZUSIDAGI III XALQARO ILMIY-AMALIY ANJUMANI
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МАТЕРИАЛЫ III МЕЖДУНАРОДНОЙ НАУЧНО-
ПРАКТИЧЕСКОЙ КОНФЕРЕНЦИИ,
ПОСВЯЩЁННОЙ 85-ЛЕТИЮ
ТАШКЕНТСКОГО ФАРМАЦЕВТИЧЕСКОГО ИНСТИТУТА
«СОВРЕМЕННОЕ СОСТОЯНИЕ ФАРМАЦЕВТИЧЕСКОЙ ОТРАСЛИ: ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ»

ABSTRACT BOOK OF THE 3RD INTERNATIONAL
SCIENTIFIC AND PRACTICAL CONFERENCE DEDICATED
TO THE 85TH ANNIVERSARY OF THE
TASHKENT PHARMACEUTICAL INSTITUTE
"MODERN PHARMACEUTICS:
ACTUAL PROBLEMS AND PROSPECTS"

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O'ZBEKISTON RESPUBLIKASI SOG'LIQNI SAQLASH VAZIRLIGI
TOSHKENT FARMATSEVTIKA INSTITUTI

THE MINISTRY OF HEALTH OF THE REPUBLIC OF UZBEKISTAN
TASHKENT PHARMACEUTICAL INSTITUTE

МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ РЕСПУБЛИКИ УЗБЕКИСТАН
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belgisigacha 95% etil spirti bilan etkazildi. Shu eritmadan levamizolning 100 mkg/ml ishchi standart eritmasi tayyorlanib, mikroshprits yordamida 1 mkl miqdorda PII-N-S "Iskovich-1" apparatining bug'latgich lentasidagi silindrik chuqurchaga solindi va levamizolning termodesorbsion sirt ionlashuv spektrlari olindi. Olingan termodesorbsion spektrlarni kompyuterning ma'lumotlar bankiga etalon spektr sifatida yozib qo'yildi.

Levamizolni biosuyuqliklardan ekstraksiyalash sharoitlari: 25 ml peshob va 5 ml qon namunalaridan olinib, levamizolni 0,1 M sulfat kislotasi eritmasi bilan pH=3,0-4,0 muhitga keltirildi. Ularning ustiga 10 ml xloroform qo'shib, 10 daqiqa davomida mexanik chayqatgichda chayqatildi. SHundan so'ng aralashmalardagi oqsil moddalarni cho'ktirish maqsadida 5 daqiqa (3000 ayl/daq) davomida sentrifugalandi. Sentrifugatdan organik erituvchilar qatlamlari ajratib olinib, qolgan suvli qatlamlari yana 5 ml organik erituvchilar bilan ekstraksiyalanib, ular quyib olindi va ekstraktlar birlashtirilib, 5 g suvsiz natriy sulfat tuzi saqlagan filtr qog'ozidan o'tkazildi. Filtratdan organik erituvchilar xona haroratida parlatilib, qoldiqlarni 5 ml etil spirtida eritildi va levamizolni yupqa qatlam xromatografiya usulida xloroform - etil spirti – chumoli kislota (4:2:1) nisbatdagi erituvchilar sistemasida yot moddalardan tozalanib, so'ngra ularni TDSIS usulida aniqlandi.

Natijalar: levamizolning termodesorbsion sirt ionlashuv spektroskopik tadqiqotlari, uning 95% etil spirtdagi eritmasi ~139 ± 10°C chiziqli cho'qqini hosil bo'lishi kuzatildi. Biologik suyuqliklardan ajratib olingan levamizolni spektri etalon spektrga solishtirilganda unga mos kelganligi kuzatildi.

Xulosalar: levamizolni termodesorbsion sirt ionlashuv spektroskopiya usulida tahlil sharoitlari ishlab chiqildi. Levamizolni TDSIS usulida tahlil uslubini ular bilan zaharlanish yuz berganda tez tibbiy yordam ko'rsatish maqsadida tezkor aniqlash uchun qo'llashga tavsiya etildi.

ANALYSIS BY GAS LIQUID CHROMATOGRAPHY OF THE SOLVENT USED FOR DISSOLVING VARNISH AND PAINTS

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Relevance: one of the toxic compounds that attract attention among the physical evidence submitted to the forensic examination today is varnish with various names such as "Rastvoritel 646", "Razbavitel universalnyy", "Razbavitel profi", "Razbavitel universal premium" used as a household appliance. Solvents used in dissolving paints. In many cases, the death of young children is observed due to non-observance of sanitary-hygiene rules and carelessness in their use and storage. Considering these circumstances, development of methods of chemical-toxicological analysis of solvents used as household appliances is one of the urgent tasks facing forensic chemists.

This year, fragments of internal organs (stomach, liver, kidney, small intestine, etc.) of a 4-year-old child named "K.S." were provided to Tashkent branch of..., blood and stomach contents and a 0.5 l plastic container was presented as physical evidence. The submitted internal organs and physical evidence were examined and a preliminary analysis was performed. In this case, the internal organs, the stomach and intestinal segments, were dark bluish in color and had a pungent, oily, suffocating smell. It was found that 5 ml of "Razbavitel universal premium" varnish and paint dissolving solution was found inside the plastic container.

Purpose of work: Development of methods of analysis of biological objects and biological fluids, as well as organic substances contained in material evidence, by gas liquid chromatography (GSX) method.

Methods and techniques: The composition of the solvent used for dissolving "Razbavitel universal premium" lacquers and paints consists of ethanol (65%), butanol (10%), butylacetate (30%), amylacetate (18%), ethylacetate (9%), acetone (3%).

Development of a method for determining volatile toxic substances in biological objects and material evidence by gas-liquid chromatography. For this, Kristallyuks-4000m chromatograph, size 2.0 m.x 2.0 mm No. 2905 Column-650 ⁰S, Detector-200.0, Isparitel -150.0, Gas transfer 2cm 3/min -20, Sample delivery 2 cm 3/min, Record scale, tape 10 mm/min, Air cm 3/min -500.0, Pressure-1,000,

Analysis duration 10 m in the analysis, a 0.4% solution of propyl alcohol was used as an internal standard. The analysis was carried out in the following steps.

Stage 1. Initially, a sample of 1 μl of vapor was taken from a container containing a solvent named "Razbavitel universal premium" for dissolving varnishes and paints" as a reference control solution and sent to the chromatograph dispenser. In the process of chromatography, retention times of organic substances in the solvent in the column were determined.

Stage 2. 2 ml of a 0.4% solution of propyl alcohol and 2 ml of tested biological fluids (blood and gastric juice) were added to clean and dry 2 vials with penicillin. 1 ml of the mixture was taken and 50% solution of trichloroacetic acid was added to vials containing 0.5 ml of penicillin. Vials were mounted on a special iron fixator. Then, 0.3 ml of freshly prepared 30% sodium nitrite solution was added using a syringe and stirred clockwise for 1 minute. 1 μl of the test sample in the vapor state was taken from the mixture and sent to the chromatograph dispenser, and the retention times of the samples were determined.

Stage 3. A 0.5 mL air sample was taken from the vapor portion of the flask containing the stomach and intestinal fragments using a 1.0 mL syringe and directly injected into the chromatograph dispenser, and the retention times of the samples were determined.

Results: a method was developed for the analysis of toxic substances contained in biological objects and biological fluids by the GSX method. Using the developed method, extracts from biological objects and liquids, as well as physical evidence, were chromatographed on organic solvents contained in solvents called "Razbavitel universal premium for dissolving varnishes and paints".The following substances in the tested samples: ethanol, retention time 1.03, acetone - 1.42, ethylacetate - 2.32, butanol - 1.94, amylacetate - 2.31, butylacetate - 2.55 minutes showed chromatographic peaks. As a result of the analysis, a witness was used as a sample the height and retention times of the chromatographic peaks of the substances contained in the "Razbavitel universal premium" solvent were compared with the height and retention times of the chromatographic peaks of samples taken from biological objects and liquids. The obtained results showed that the retention times of the chromatographic peaks in all three samples corresponded to each other.

Summary. As a result of the research, material evidence in the form of pieces of internal organs (stomach, liver, kidneys, small intestine, large intestine), blood and stomach contents, of a 4-year-old boy named "K.S." Forensic medical examination found that in a plastic container with a volume of 0.5 liters, there are organic solvents used in the dissolution of varnish and paints "Universal Premium Thinner". As a result of the conducted investigations, it was concluded that the 4-year-old boy named "K.S" was acutely poisoned by the solvent used for dissolving "Razbavitel universal premium" lacquers and paints.

БАКЛОСАН ПСИХОТРОП МОДДАСИНИ ИҚ-СПЕКТРОФОТОМЕТРИЯ УСУЛИ ЁРДАМИДА АНИҚЛАШ

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Долзарблиги: маълумки, бугунги кунда гиёҳванд воситалари билан бир қаторда, психотроп моддалар билан ҳам қонунга хилоф равишда муомала қилиш инсонларнинг соғлиги ва фаровон ҳаёт кечиришига жиддий хавф солмоқда. Психотроп моддаларни ноқонуний равишда

7-SEKSIYA. SUD VA KLINIK TOKSIKOLOGIYA.
СЕКЦИЯ-7. СУДЕБНАЯ И КЛИНИЧЕСКАЯ ТОКСИКОЛОГИЯ.
SECTION-7. FORENSIC AND CLINICAL TOXICOLOGY.