

## DETERMINATION OF THE QUALITY INDICATOR OF THE CALCIUM GLUCONATE DRUG USING INFRARED SPECTROSCOPY EQUIPMENT

*J.S.Karimov*

*Assistant teacher of Medical chemistry department of Bukhara State Medicine Institute.*

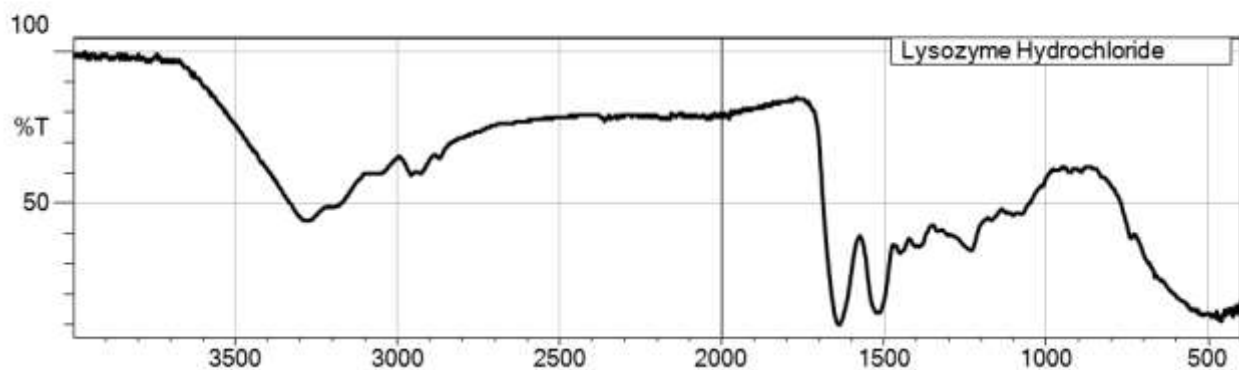
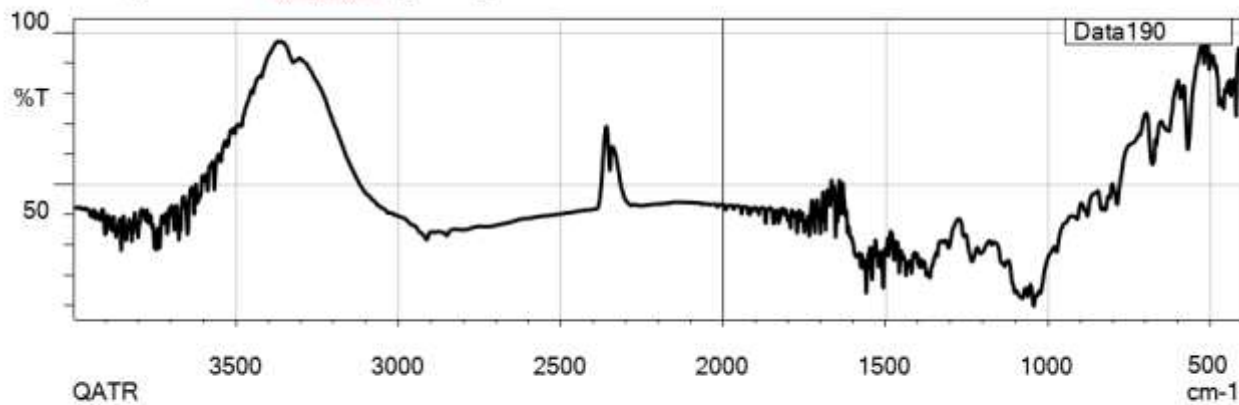
**Abstract:** Violation of the rules of storage of medicines, low-quality medicines can be sold illegally. In such cases, it is important to determine the authenticity and stability of the drug composition. The use of spectroscopic analysis methods can be an acceptable solution to solve these problems.

**Key words:** ika spectroscopy, qualitative analysis, chemical codes, mixtures, toxic, spectrum, spectral analysis.

Calcium gluconate - calcium D-sugar, the deficiency of calcium ions necessary for the implementation of nerve impulses, contraction of the skeleton and physical exercises, activity of the myocardium, bone tissue, blood coagulation. fills. After the administration of Pateral, with the use of the drug, it is distributed evenly in all organs. In the blood plasma, the product of the drug is in a complex with 45% water. It passes through the placental barrier and enters breast milk. Restoring the permeability of the main structures of the body. Hypocalcemia, restoring the permeability of cell membranes, changing the nerve impulses in the muscle tissue produces transients. Acidic patients with hyperphosphatemia. Poisoning with magnesium salts, fluoresceins and fluorides (non-dissociating and non-toxic calcium oxalate and fluoride are formed when interacting with calcium gluconate. Parenchymatous hepatitis, toxic poisoning of the liver, nephritis, proximal ). hyperkalemic form of myoplegia. Complex treatment of bleedings of various etiologies, diseases (serum disease, urticaria, febrile syndrome, itching, itchy dermatoses, reaction to taking products and taking products, Quincke's tumor, bronchial asthma, pulmonary tuberculosis, eclampsia); When administered intramuscularly and intravenously, nausea, vomiting, diarrhea, bradycardia may occur. Pain in the mouth, a feeling of heat during intravenous administration, arterial stress, arrhythmia, palpitations, and cardiac arrest may be observed during rapid intravenous administration. Intramuscular injection may occur. Hypersensitivity, hypercalcemia (calcium concentration  $12 \text{ mg}\% = 6 \text{ mEq/l}$ ), calcium neurourolithiasis, severe hypothyroidism, sarcoidosis, simultaneous reception of cardiac glycosides. Incompatible with carbonates, salicylates, sulfates, because they are insoluble. . or forms calcium salts that are difficult to dissolve. With antibiotics of the tetracycline series, the file reduces the antibacterial product and forms insoluble complexes. The composition of the drug may change due to the fact that it is not kept under standard controls for a long time, the expiry date and other reasons. In short, this X-series Fourier Transform infrared calculation is a very time- and investment-intensive process. It is possible to delay the transport of cargo from the

**IRSpirit-spectrophotometer. This can be proved by comparing the obtained result.**

Calcium gluconate IRSpirit-spectrophotometer:



Sc ore	L ibrary	N ame	C omment
616	177 - IRs Pharmaceuticals	Lysozyme Hydrochloride	Lysozyme Hydrochloride formula : C616H963N193O182S10.xHC l ATR/diamond molecular weight : unknown
608	26 - ATR-Organic2	D_n-ButylPhthalate	n-ButylPhthalate DuraSamplIR
605	69 - IRs Pharmaceuticals	DESOXYCORTONE ACETATE	DESOXYCORTONE ACETATE Formula; C23H32O4 MW;372.5 (INTERNATIONAL CHEMICALREFERENCE SUBSTANCE) CONTROL NO.167007
604	58 - IRs Pharmaceuticals	ENALAPRIL MALEATE	ENALAPRIL MALEATE Formula; C24H32N2O9 MW;492.5248 (ASEAN REFERENCE STANDARD) CONTROL
600	33 - ATR-Organic2	D_AcetylCellulose	AcetylCellulose DuraSamplIR
600	40 - ATR-Organic2	D_LactateCa	Ca DL- Lactate 5H2O DuraSamplIR
599	157 - IRs Pharmaceuticals	Aclarubicin Hydrochloride	Aclarubicin Hydrochloride formula : C42H53NO15.HCl ATR/diamond molecular weight : 848.33

9	598	27 - ATR-Organic2	D_Di-2-ethylhexylPhthalate	Di-2-ethylhexylPhthalate/Dioctyl Phthalate DuraSamplIR
10	595	5 - T-Organic2	Xylitol	Xylitol Transmission
11	595	23 - ATR-Organic2	D_butylAcrylate	n-Butyl Acrylate DuraSamplIR
12	592	24 - ATR-Organic2	D_DimethylPhthalate	DimethylPhthalate DuraSamplIR
13	590	8 - IRs Pharmaceuticals	PIRACETAM	PIRACETAM Formula; C6H10N2O2 MW; 142.15  (WORKING STANDARD)
14	590	44 - ATR-Organic2	D_Lecithin	Lecithin DuraSamplIR
15	589	31 - T-Organic2	Zn Stearate	Zn Stearate T ransmission
16	589	34 - ATR-Organic2	D_StearateNa	Na Stearate DuraSamplIR
17	589	35 - ATR-Organic2	D_StearateCa	Ca Stearate DuraSamplIR
18	589	36 - ATR-Organic2	D_StearateMg	Mg Stearate DuraSamplIR
19	589	22 - T_FoodAdditives2	T_Candelilla Wax-4	Candelilla Wax(Sales origin;MIKI CHEMICAL INDUSTRY & CO.,LTD.)@KBr Wafer
20	587	55 - T_FoodAdditives2	T_Microcrystalline Wax-4	Microcrystalline Wax(Product name;MW-0055CSales origin;MACHIDA CANDLE CO.,LTD.)@Film
21	587	39 - T_FoodAdditives2	T_Paraffin Wax-4	Paraffin Wax(Product name;PW-3501CSales origin;MACHIDA CANDLE CO.,LTD.)@Film
22	587	11 - T-Organic2	LauricAcid	LauricAcid Transmission
23	586	19 - T_FoodAdditives2	T_Carnauba wax-4	Carnauba wax(Sales origin;Wako Pure Chemical Industries, Ltd.)@KBr Wafer
24	586	30 - T-Organic2	Mg Stearate	Mg Stearate T ransmission
25	585	154 - IRs Pharmaceuticals	Benzylpenicilline Benzathine	Benzylpenicilline Benzathine formula : (C16H18N2O4S)C16H20N2.4H2O ATR/diamond molecular weight : 981.18
26	585	151 - IRs Pharmaceuticals	Bleomycin Sulfate	Bleomycin Sulfate formula : C55H84N17O21S3 ATR/diamond molecular weight
27	585	27 - IRs Pharmaceuticals	L-VALINE	L-VALINE Formula; C5H11NO2 MW; 117.14  (WORKING STANDARD)
28	585	10 - ATR-Organic2	D_Paraffin	Liquid Paraffin DuraSamplIR
29	585	62 - T_FoodAdditives2	T_Liquid Paraffin-4	Liquid Paraffin(Sales origin;Wako Pure Chemical Industries, Ltd.)@Between
30	585	13 - T-Organic2	StearicAcid	StearicAcid Transmission
31	585	34 - T-Organic2	Ca Lactate	Ca DL-Lactate 5H2O Transmission
32	584	25 - ATR-Organic2	D_DiethylPhthalate	DiethylPhthalate DuraSamplIR

33	583	75 - IRs Pharmaceuticals	CIPROFLOXACIN HYDROCHLORIDE	CIPROFLOXACIN HYDROCHLORIDE Formula; C <sub>17</sub> H <sub>18</sub> FN <sub>3</sub> O <sub>3</sub> .HCl MW; 367.8 (ASEAN REFERENCE STANDARD) CONTROL NO. T 197099 WATER (6.1%)(Karl Fischer Method ) ASSAY-99.62%
34	583	44 - T- Organic2	T_margarine	margarine Transmission(Microscope)

In conclusion, it can be said that using this method, it is possible to prove that mixtures with the same composition are qualitatively and quantitatively similar. For this, it is necessary to determine the mixture in different aggregate states or the mixture of drugs with qualitatively and quantitatively accurate composition analysis. we can compare.

#### REFERENCES:

1. Botirovich R. S., G'aybullayevna S. G. OLTI ATOMLI SPIRT-SORBITNING QANDLI DIABET KASSALIGINI DAVOLASHDAGI AHAMIYATI //ZAMONAVIY TA'LIMDA FAN VA INNOVATSION TADQIQOTLAR JURNALI. – 2023. – T. 1. – №. 2. – С. 74-82.
2. Niyazov L., Karimov J. THE SIGNIFICANCE OF SITUATION ISSUES IN TEACHING MEDICINAL CHEMISTRY STUDENTS OF MEDICAL UNIVERSITIES //" CANADA" INTERNATIONAL CONFERENCE ON DEVELOPMENTS IN EDUCATION, SCIENCESAND HUMANITIES. – 2023. – T. 9. – №. 1.
3. Karimov J.S.TRIPTOFAN BIOKIMYOVIY REAKSIYALARINI O'RGANISH UNIVOZIYATI VA ORGANIK SINTEZLARDA FOYDALANISHNI ANQLASH //OBRAZOVANIE NAUKA I INNOVATSIONNYE IDEI V MIRE. – 2023. – T. 34. – №. 6. – S. 120-124.
4. Karimov J. S. GIDROKSI BENZOY KISLOTALAR VA FLOVANOIDLARNING MERIGOLDLAR TARKIBIDA UCHRASHI VA AHAIYATI //JOURNAL OF INNOVATIONS IN SCIENTIFIC AND EDUCATIONAL RESEARCH. – 2023. – T. 6. – №. 11. – С. 100-104.
5. Karimov J. S. ИЗУЧЕНИЕ ЗНАЧЕНИЯ БАЛХОТКОВ В МЕДИЦИНЕ С ПОМОЩЬЮ ФИЗИКО-ХИМИЧЕСКИХ МЕТОДОВ //ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ. – 2023. – Т. 34. – №. 6. – С. 131-135.
6. Karimov J. S. ВЛИЯНИЕ НА ЧЕЛОВЕЧЕСКИЙ ОРГАНИЗМ БИОХИМИЧЕСКИЕ РЕАКЦИИ ДЛЯ ТРИПТОФАНА //ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ. – 2023. – Т. 34. – №. 6. – С. 125-130.
7. JS K. DETERMINATION OF TOXICITY LEVEL OF (2S)-2-AMINO-3-(1H-INDOL-3-YL) PROPANOIC ACID USING MOLECULAR MODELING FRAMEWORKS //Scientific Impulse. – 2023. – T. 1. – №. 9. – С. 1020-1023.
8. Obidovich M. S. THE USAGE OF MODERN TEST SYSTEMS WHILE TEACHING THE SUBJECT OF MEDICAL CHEMISTRY //Лучшие интеллектуальные исследования. – 2023. – Т. 11. – №. 2. – С. 194-197.
9. Каримов, Жавохир Собирзода. "Ниязов Лазиз Нурхонович ПРОИЗВОДНЫЕ ТИОМОЧЕВИНЫ С ГИДРОКСИБЕНЗОЙНЫМИ КИСЛОТАМИ Universum химия и биология. 2021. № 8 (86)." URL <http://cyberleninka.ru/article/view/proizvodnye-tiomocheviny-s-gidroksibenzoyny> (2021).