YELINSON, S.V.; NEZHNOVA, T.I.

Photometric determination of zirconium in niobium and other metals. Zav.lab. 30 no.4:396-399 '64. (MIRA 17:4)

S/0032/64/030/004/0396/0399

ACCESSION NR: AP4033607

AUTHORS: Yelinson, S. V.; Nezhnova, T. I.

TITLE: Photometric determination of zirconium in niobium and other metals

SOURCE: Zavodskaya laboratoriya, v. 30, no. 4, 1964, 396-399

TOPIC TAGS: zirconium analysis, photometric zirconium analysis, xylenol zirconium complex, optical density, niobium interference, vanadium interference

ABSTRACT: The proposed method for zirconium determination in an alloy is based on the formation by zirconium of a colored complex with xylenol orange. This method permits the determination of 0.02% zirconium in niobium and other metals (with a 10% error). A 100-300 mg sample of niobium was digested on a hot plate by a mixture of 0.3-1.0 gm ammonium sulfate with 3 ml of concentrated sulfuric acid. This was followed by the addition of 0.1-0.2 ml of 30% hydrogen peroxide, dilution with water, cooling, and bringing the volume to 100 ml. Of this, two aliquots containing not over 50 micrograms zirconium were placed in 50 ml volumetric flasks and diluted to the 20 ml mark with 1-normal sulfuric acid. To one of the flasks were then added 0.2 ml of a 0.05 molar solution of trilon to prevent

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ACCESSION NR: AP4033607

color formation by niobium upon the subsequent addition of 1 ml of a 0.1% solution of xylenol orange (the proper acidity of 0.4 normality is essential). The contents of the flask were next diluted with water to the mark and allowed to stand for 15-20 minutes. The optical density was determined on a FEK-N-57 spectrophotometer at a wavelength of 536. The color remained stable for a long time. The method was found to be suitable for the determination of zirconium in uranium, molybdenum, tungsten, titanium, and other metals. The interference of vanadium can be eliminated by substituting 8-10 gms of ammonium sulfate for the hydrogen peroxide. Orig. art. has: 3 tables and 3 charts.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 28Apr64

ENCL: 00

SUB CODE: CH

NO REF SOV: 005

OTHER: 003

Card 2/2

SHKREBEL', M.Ye.. Prinimali uchastiye: BLAGOVESHCHENSKAYA, K.A.; DZYUBENKO, G.F.; FRAGAYLOVA, V.I.; ZALESSKAYA, L.O.; KOTSERUBA, L.P.; KOVBASENKO, L.A.; LYAUDANSKAYA, B.Ye.; MILOVZOROV, P.Z. [deceased]; MEZHURBEDA, M.P.; SHITKO, K.I.; YANTSOVA, A.V.. KRESHCHENSKIY, Ye.S., tekhn.red.

[Economy of Kiev Province; a statistical manual] Narodnoe khoziaistvo Kievskoi oblasti; statisticheskii sbornik. Kiev, Gos. stat.izd-vo, 1959. 255 p. (MIRA 13:3)

1. Kiev (Province) Statisticheskoye upravleniye. 2. Nachal'nik statisticheskogo upravleniya Kiyevskoy oblasti (for Shkrebel').
(Kiev Province--Statistics)

NEZHURIN, I.P., inzh.

Simple calculation of the dimension by rollers for helical involute gears with an uneven number of teeth. Vest. mashinostr. 43 no.10:19-21 O '63. (MIRA 16:11)

NEZHURIN, I.P., inzh.

Using the method of rolls for calculating dimensions of involute spiral gears with an uneven tooth number. Vest.mash. 41 no.8:14-17 Ag '61. (MIRA 14:8)

(Gearing, Spiral)

LITVINOV, A.A., inzh.; MAKARENKO, L.P., inzh.; NEZHURKO, I.Ya., inzh.;
POVERSKIY, A.S., inzh.

Defining more accurately the ratio of overloading from the
weight of equipment. Shakht. stroi. 8 no.10:23 O '64.
(MIRA 17:12)

1. Donetskiy PromstroyNIIproyekt.

ZHDANOVICH, Ye.S.; PREOBRAZHENSKIY, N.A.; NEZHUTA, Ye.I.

Production of β-alanine in the synthesis of pantothenic acid. Trudy VNIVI 5:30-32 '54. (MLRA 9:3)

1. Sinteticheskaya laboratoriya.
(ALANINE) (PANTOTHENIC ACID)

MEZHUTA, Ye.I.; SAVITSKIY, A.V.

New method of p-nitroacetophenone synthesis. Med.prom. 10 no.4:9-10
O-D '56.
(MLRA 10:2)

1. Moskovskiy khimiko-farmatsevticheskiy zavod "Akrikhin"
(ACETOPHENONE)

NEZHYBA, Miroslav

Production of double-faced pattern plates with epoxy molds. Slevarenstvi 11 no.6:239-240 Je '63.

1. Prerovske strojirny, Prerov.

[illegible]

New [illegible] of defects in the [illegible] coalfield. [illegible]

1. Banska [illegible]

NEZIC, H.

Incorrectness in the common method of clauclating volums of earth masses. p. 184. (Ceste i mostovi, Vol. 5, No. 5, May 1957, Zagreb, Yugslevia)

SO: Monthly List of East European accessions (EEAL, Lc. Vol. 6, No. 8, Aug 1957. Uncl.

NEZIC, Herman, ing. (Split)

Development of commercial centers and parking. Tehnika Jug 17 no.1: 163-166 Ja '62.

(Shopping centers) (Automobile parking)

NEZIM, Yu.S. [Nezym, IU.S.], inzh.

New diesel locomotive. Nauka i zhyttia 9 no.3:25 Mr '59.
(MIRA 12:4)

1. Redaktor mnogotirazhnoy gazety "Teplovoznik" zavoda transportnogo mashinostroyeniya im. V.O. Malisheva, Khar'kov.
(Diesel locomotives)

NEZIM, Yu.S., inzh.

Powerful locomotives. Nauka i zhyttia 11 no.2:12-13 F '61.
(MIRA 14:3)
(Ukraine—Diesel locomotives)

SEMENTOVSKIY, Yu.V.; NEZIMOV, V.N.

Mineral resources for organization of a cement industry in the
Tatar A.S.S.R. Izv.Kazan.fil.AN SSSR Ser.geol.nauk no.3:3-39 '55.
(Tatar A.S.S.R.--Cement) (MLRA 9:7)

15-1957-3-2614

Translation from: Referativnyy zhurnal Geologiya, 1957, Nr 3, p 8 (USSR)

AUTHOR: Nezimov, V.N.

TITLE: The Stratigraphic Extent of the Lower Kazan' Subgroup in Eastern Tatariya (O stratigraficheskom ob"yeme nizhnekazanskogo pod yarusa v vostochnoy Tatarii)

PERIODICAL: Izv. Kazansk. fil. AN SSSR ser. geol. n., 1955, Nr 3, pp 80-84

ABSTRACT: The lower Kazan' deposits are subdivided into two horizons: the lower and upper Spiriferal. Rocks with Pseudomonotis garforthensis King. are found both in the floor rocks of the lower Spiriferal horizon (Elabuga-Izh River) and in the floor rocks of the upper Spiriferal horizon (near the mouth of the Vyatka River). By takin these distinct horizons as being of the same age, some investigators have produced incorrect stratigraphic diagrams in which the thickness of the lower Kazan' deposits has been shown to be less than it actually is

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15-1957-3-2614

The Stratigraphic Extent of the Lower Kazan' Subgroup in Eastern Tatary (Cont.)

in this area. Toward the east and north the limestone roof rocks of the lower Kazan' subgroup give way to clastic variegated rocks, which different geologists erroneously refer to the Belebeyevskaya svita (series). B. K. L.

Editor's note: The author uses the term "roof" rocks incorrectly, applying it to the upper part of a bed and not to the overlying deposit.

Card 2/2

NEZIMOV VN

NEZIMOV,V.N.

New deposits of cement raw material. Priroda 44 no.9:56-60 S'55.
(Cement) (MLRA 8:11)

NEZIMOV, V.N.

Possibility of obtaining plugging cement from raw materials in the Tatar A.S.S.R. Izv. Kazan. fil. AN SSSR. Ser. geol. nauk no.5:97-116 '56. (MIRA 10:4)
(Tatar A.S.S.R.--Oil well cementing)

NEZIMOV, V.N.

NEZIMOV, V.N., kandidat geologo-mineralogicheskikh nauk.

Local cement for construction in the Tatar A.S.S.R. Stroi.pred. neft.prom. 2 no.6:12-13 Je '57. (MLRA 10:7)
(Tatar A.S.S.R.--Cement)

NEZIMOV, V.N.

Industrial characteristics of Shugurovo cement. Izv.Kazan.fil.
AN SSSR. Ser.geol.nauk no.6:161-242 '57. (MIRA 12:1)
(Shugurovo District--Cement)

SEMENTOVSKIY, Yu.V.; NEZIMOV, V.N.

Lower Kazan formations in Kirov Province and possibilities of using them as cement raw materials. Izv. Kazan. fil. AN SSSR. Ser. geol. nauk no. 7:287-340 '59. (MIRA 14:4)
(Kirov Provine--Cement)

NEZIMOV, V.N.

Results of geological, economical, and technological studies looking toward the establishment of a cement industry in Tatarstan. Izv.Kazan.fil. AN SSSR. Ser.geol.nauk no.9:131-152 '60.
(MIRA 15:12)

(Tatar A.S.S.R.—Cement industries)

DISTANOV, U.G.; NEZIMOV, V.N.

Utilization of opoka of the Ul'yanovsk Province as hydraulic additives for the Shugurovo Cement Factory. Izv.Kazan.fil. AN SSSR. Ser.geol.nauk no.9:153-170 '60. (MIRA 15:12)
(Tatar A.S.S.R.—Cement industries)

NEZIMOV, V.N., kand.geologo-mineralogicheskikh nauk; SEMENTOVSKIY, Yu.V., kand.geologo-mineralogicheskikh nauk

Reef limestones. Priroda 49 no. 12:62-64 D '60. (MIRA 13:12)

1. Geologicheskiy institut Kazanskogo filiala Akademii nauk SSSR.

(Limestone)

KNOBLOCH, Ferdinand; NEZKUSIL, Jiri

The aid of psychiatry in control of crime. Cesk. psychiat. 57 no.6:373-378 '61.

1. Psychiatricka klinika KU v Praze -- Katedra trest prava prav. fak. KU v Praze.

(CRIMINAL PSYCHOLOGY)

NEZLIN M.V.

8

710 Narrow Atmospheric Showers of Particles in Cosmic Rays. M.V. Nezlin, I. L. Rosental, and S. A. Slavatinskii. Doklady Akad. Nauk S.S.S.R. 65, 641-4(1949)(in Russian).

N

The presence of electrons and photons in narrow showers has been observed in a previous work (Kuchai and Rosental, Doklady Akad. Nauk S.S.S.R. 60, 1523(1948)). However, since the conclusions were based mainly on a series of two-particle coincidences, several objections as to the adequacy of the method present themselves. Besides narrow showers, the effect observed could be produced by correlated pairs; on the basis of Berestetskii's calculations (J. Physics U.S.S.R. 9, 197(1945)), Alikhanian et al (J. Physics U.S.S.R. 9, 175 (1945)) have estimated that the possible role of pairs was vanishingly small, however, Berestetskii had assumed an equilibrium spectrum of the soft component, an assumption that the recent observations at 3,000-4,000 m altitude do not justify (Bernardini et al, Phys. Rev. 73, 328(1948), Azimov, Doklady Akad. Nauk S.S.S.R. 61, 1005(1948)). These considerations motivated a new investigation, (at 3,860 m altitude), using three-particle coincidences in three counters separated by lead partitions 7 cm thick. The dependence of the number of coincidences on the thickness of a Pb filter placed above the counters is shown in a curve exhibiting a well marked maximum at 1-2 cm Pb. This can be due, besides the electron-photon component of narrow showers, to either small-density extensive showers or "special" showers generated in Pb (Zhdanov et al, Doklady Akad. Nauk S.S.S.R. 55, 119(1947)). By using several modifications of the experiment, which also revealed the presence of penetrating particles, it was concluded that the observed electron-photonic effect was due to narrow showers.

Phys. Inst. im P.N. Lebedev
Acad Sci USSR

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

NESLIN, M.V.

2A

AS 3

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537.591.15

9525. Narrow atmospheric showers of cosmic ray particles. Neslin, M. V., Rosenthal, I. L. and Slavatinskii, S. A. *Dokl. Akad. Nauk. SSSR*, 55 (*No.* 5) 641-4 (1949) *In Russian.*—Results of triple and quadruple coincidence observations at 3 860 m altitude (Pamir) in 1948 may be interpreted thus: The narrow showers contain a large number of soft particles absorbed by 1 cm Pb and also in the walls of the boxes containing the counters; dense narrow meson formations were not observed; number of particles penetrating 20 cm Pb is small, though no quantitative estimation can be attempted owing to the unknown angular distribution of the narrow showers. The presence and essential influence of photons were ascertained, and the narrow showers certainly comprise electrons, photons and penetrating particles. From Wilson chamber pictures it is known that these constituents form the "special" showers where the soft component has marked directional character. It is very likely that narrow and special showers are due to the same processes. B. F. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

NESLIN, M. V. and MOROSOV, P. M.

"The Effects of the Ion Beam Electric Fields on the Stable Isotope Separation by the Electromagnetic Method."

paper to be presented at 2nd UN Intl.' Conf. on the peaceful uses of Atomic Energy, Geneva, 1 - 13 Sept 58.

NEZLIN, M.V.

D

(4) PHASE I BOOK EXPLOITATION SOV/2713

International Conference on the Peaceful Uses of Atomic Energy. 2nd, Geneva, 1958

Doklady sovetskikh uchenykh; polucheniye i primeneniye izotopov (Reports of Soviet Scientists; Production and Application of Isotopes) Moscow, Atomizdat, 1959. 388 p. (Series: Its: Trudy, vol. 6) 8,000 copies printed.

Eds. (Title page): G.V. Kurdyumov, Academician, and I.I. Novikov, Corresponding Member, USSR Academy of Sciences; Ed. (Inside book): Z.D. Andreyenko; Tech. Ed.: Z.D. Andreyenko.

PURPOSE: This book is intended for scientists, engineers, physicians, and biologists engaged in the production and application of atomic energy to peaceful uses; for professors and graduate and nongraduate students of higher technical schools where nuclear science is taught; and for the general public interested in atomic science and technology.

COVERAGE: This is volume 6 of a 6-volume set of reports delivered by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy held in Geneva from September 1 to 13, 1958. Volume 6 contains 32 reports on: 1) modern methods for the production of stable radioactive isotopes and their labeled compounds, 2) research results obtained with the aid of isotopes in the field of chemistry, metallurgy, machine building, and agriculture, and 3) dosimetry of ionizing radiation. Volume 6 was edited by: S.V. Levinskiy, Candidate of Medical Sciences; V.B. Prusakov, Candidate of Chemical Sciences; and V.V. Sedov, Candidate of Medical Sciences. See Sov/2081 for titles of volumes of the set. References appear at the end of the articles.

3. Yakovlev, G.N., and V.B. Dedov. Means of Developing Remote Control Methods in the Radiochemical Laboratories of the AN SSSR (Report No. 2025) 43
4. Malkov, M.P., A.G. Zel'dovich, A.B. Fradkov, and I.B. Danilov. Commercial Production of Deuterium by the Low-temperature Distillation Method (Report No. 2323) 54
5. Gverdtsiteli, I.G., R.Ya. Kucherov, and V.K. Tskhakaya. Separation of Isotopes by Diffusion in a Steam Flow (Report No. 2006) 69
6. Zolotarev, V.S., A.I. Il'in, and Ye.G. Komar. Separation of Isotopes on Electromagnetic Units in the Soviet Union (Report No. 2305) 87
7. Alekseyev, B.A., S.P. Dulygin, V.S. Zolotarev, B.V. Panin, Ye.S. Chernorotov, and G.Ya. Shchepkin. Separation of Isotopes of Rare-earth Elements by the Electromagnetic Method (Report No. 2217) 102
8. Morozov, P.M., B.N. Makov, M.S. Ioffe, B.G. Brezhnev, and G.M. Fradkin. Ion Source for the Separation of Stable Isotopes (Report No. 2303) 111
9. Nezlin, M.V., and P.M. Morozov. Electric Field Effect in Ion Beams on Stable Isotope Separation by the Electromagnetic Method (Report No. 2304) 117
10. Bogdanova, N.G., P.L. Gruzin, G.I. Yermolayev, and I.D. Nikulinskiy. Use of Radioactive Isotopes in Metallurgical Research (Report No. 2218) 124
11. Shumilovskiy, N.N., V.A. Yanushkovskiy, and I.M. Taksar. The Theory and Practice of Relay-type Instruments Based on Radioactive Isotopes (Report No. 2232) 135
12. Zaslavskiy, Yu.S., G.I. Shor, and R.N. Shneyerova. Studying the Mechanism of Protection of Rubbing Surfaces Against Wear Due to Corrosion (Report No. 2198) 148
13. Rumyantsev, S.V., and L.N. Mateyuk. The Tu^{170}, Eu^{155}, and Ce^{144} as Sources of Radiation for Checking Thin-walled Products (Report No. 2235) 160
14. Bruk, B.I., A.S. Zav'yalov, and G.I. Kapyrin. Studying the Redistribution of Elements in Metal Alloys and Weld Compounds by Autoradiographic and Radiometric Methods (Report No. 2236) 172
15. Gruzin, P.L., A.I. Yevstyukhin, V.S. Yemel'yanov, G.G. Ryabova, G.B. Fedorov. Studying the Diffusion and Distribution of Elements in Alloys of Zirconium and Titanium Base by the Radioactive Isotope Method (Report No. 2526) 189

9.3150,24.2120 SOV/[illegible]

AUTHOR: Nezlin, M. V.

TITLE: Volume Charge Oscillations in Quasi-Compensated Ion Beams

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1960, Vol. [illegible], Nr [illegible], pp 168-177 (USSR)

ABSTRACT: It is known that a strong beam of fast ions travelling through rarified gas compensated its space charge by electrons arising from the interaction between the ion beam and the gas molecules. [illegible] and others (Atomnaya energiya, III, Nr [illegible]) showed, however, that there exist oscillations in such a quasi-compensated state which cause a change in concentration of the positive ions which is faster than the speed of electron production. Inside the beam these oscillations cause a significant time-dependent noncompensated [illegible] positive space charge which is accompanied by a strong spreading of the beam. In the present paper the author investigates the oscillation mechanism producing the

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Volume Charge Oscillations in Quasi-
Compensated Ion Beams

[illegible]

decompensation of the space charge of the [illegible]
through a strong magnetic field. [illegible]
devised to measure the electric field [illegible]
inside the beam and whose [illegible]
of the decompensation of the space charge of the beam.
The beam consisted of Z^{+} ions [illegible] of energy,
being deflected through 180° by means of a magnetic
field of H = [illegible] $\cdot 10^{7}$ Oersted. The ion source [illegible]
stabilization system for the source and the magnetic
field were analogous to those used [illegible]
Morozov and others (Atomnaya energiya, [illegible], Nr 5, [illegible]).
The residual gas density was usually kept at a pressure
of 1 to 2 $\cdot 10^{-5}$ mm Hg. The potential variations inside
the ion beam were obtained by measuring the energies
acquired [illegible] slow secondary positive ions [illegible]
during ionizations of the fast primary ions [illegible]
residual gas molecules. Energies were measured by
means of decelerating fields as described [illegible]
(DAN SSSR, 85, Nr 4, [illegible]). The experimental [illegible]
(Fig. 1) contains [illegible]

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Volume Charge Oscillations in Quasi-
Compensated Ion Beams

diaphragms with 1 x 50 mm slits [illegible] tion of the beam, and also 100 x [illegible] Distance between the consecutive slits was [illegible].

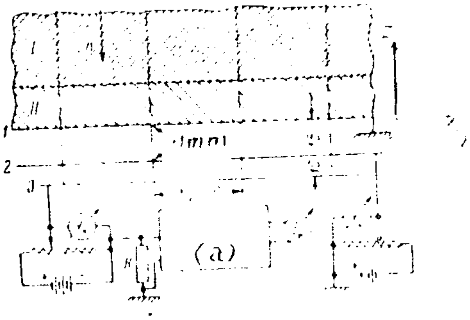

Fig. 1. Experimental setup. (I) ion beam; (II) secondary plasma; (1) and (2) diaphragms; (3) collector. All distances in millimeters. R = 500 [illegible]. (a) dc amplifier ($K = 5 \cdot 10^5$).

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77319
SOV/[illegible]

Volume Charge Oscillations in Quasi-Compensated Ion Beams

The V_2 negative potential [illegible] rated out the ion component which was [illegible] by putting a positive [illegible] results are on Fig. 3.

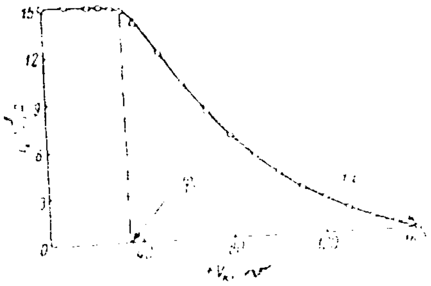

Fig. 3. Volt-ampere characteristic of the collector. V_2 -100 [illegible], I 100 ma, p [illegible] · 10 mm Hg.

Assuming that initial energies of [illegible] secondary ions are negligible compared [illegible] inside the ion beam and that [illegible] of the ions from their place [illegible] is small compared to the period of oscillation T, one can write

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Volume Charge Oscillations in Quasi-
Compensated Ion Beams

$$E_z \approx \frac{\varphi_2 - \varphi_1}{h}; \quad E_y \approx \frac{\Delta\varphi_2}{\Delta y} \qquad 2$$

where φ_1 and φ_2 are [illegible]
Fig. 1, h is the height of the beam, E [illegible]
component parallel to H and E [illegible]
beam. The [illegible]
components of the current density [illegible]
means of insulated cylinders [illegible]
the region of the beam; and [illegible]
$I_=$ and $I_\sim$ of the total ion current [illegible]
means of Faraday cylinders. [illegible]
ations in φ and the $J_\sim$ [illegible]
the variations in the total beam [illegible]
the width of the ion current, [illegible]

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Volume Charge Oscillations in Quasi-
Compensated Ion Beams

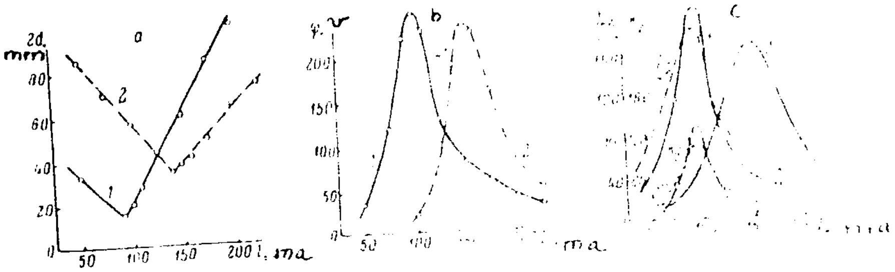

Fig. [illegible]. The [illegible]
of the beam φ; (1) [illegible]
density [illegible] j; ( ) [illegible]
oscillation [illegible]
beam current (I) [illegible]
intermediate [illegible] (1) [illegible]
= -1[illegible] kv. Fig. [illegible]
refers to the [illegible]

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- Volume Charge Oscillations in Quasi-Compensated Ion Beams

[illegible]

(Caption Fig. 6 Con't.) refer to the middle and dashed lines to the origin of the beam. p $1 \cdot 10^{-5}$ mm Hg.

This correlation is explained by the shape of the ion beam leaving the ion source for various values of I (Fig. 9).

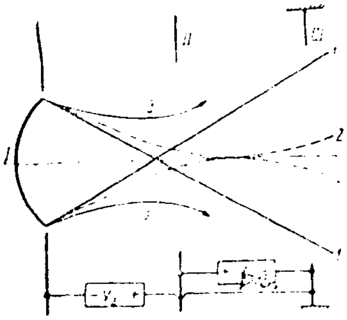

Fig. 9. Horizontal spreading of the ion beam in the source optics.

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Volume Charge Oscillations in Quasi-Compensated Ion Beams

[illegible]

For a particular value of the current I [illegible] of the beam are given by curves 2. [illegible] results the author states that oscillations [illegible] current intensities (i.e., for instance, [illegible] production in the source) pr[illegible] charged ions in the beam [illegible] trons in the other. D[illegible] present, the [illegible] the other but are [illegible] a noncompensated space charge [illegible] than the original variation in current [illegible] started the effect. It is [illegible] will be most pronounced in the [illegible] current intensity I_0 where the [illegible] depends very sharply on I ([illegible] also shows, using logical ded[illegible] that the amplitude of oscillation [illegible] path of the beam. A quantitative exp[illegible] describing the beam behavior can then be written [illegible]

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Volume Charge Oscillations in Quasi-Compensated Ion Beams

77310
SOV/57-30-2-7/15

$$\frac{\frac{q_{\sim}}{q_{=}}}{\frac{I_{\sim}}{I_{=}}} \simeq 1 + \frac{|\alpha| I_{=}}{d} \simeq \frac{|\alpha| I_{=}}{d},$$

where $q_{\sim}$ - oscillation amplitude of the noncompensated space charge along a unit path length of the beam, $c_{=}$ - total space charge of the primary ions per unit path length, d - half-width of the beam. α is obtained from Fig. 6a using the relation

$$d \simeq d_0 + \alpha (I - I_0).$$

Finally the author discusses the influence of the residual gas pressure on the degree of decompensation of the space charge and shows that it depends on the ratio of the rate of electron production in the beam to the rate of change of the concentration of fast ions in the beam. This relation

$$\frac{j_{=} n\sigma}{\frac{\omega I_{\sim}}{v}} = \frac{j_{=} n\sigma v}{\omega I_{\sim}}, \qquad (4)$$

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Volume Charge Oscillations in Quasi-Compensated Ion Beams

77310
SOV/57-30-2-7/18

depends on n - concentration of the gas molecules, σ - cross section for electron production by the ions of the beam, v - velocity of the ions in the beam, and ω the circular frequency of the ion density oscillations in the beam. The calculations show that for ions of 30 to 40 kev of energy the electric field intensities decrease with the increase of pressure, if the "starting" potentials in the beam (at $p \simeq$ $\simeq 1 \cdot 10^{-5}$ mm Hg) do not exceed 50 to 100 v. For $\varphi \geqslant 200$ v the fields turn out to be practically independent on pressure. M. S. Ioffe and A. V. Zharinov discussed the work in detail. There are 12 figures; and 8 references, 7 Soviet, 1 French.

SUBMITTED: August 18, 1958

Card 10/10

28918
S/056/61/041/004/001/019
B108/B102

9,3130 (1140, 1141, 1163)

AUTHOR: Nezlin, M. V.

TITLE: Electrostatic instability of an intense electron beam in plasma

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41, no. 4(10), 1961, 1015-1022

TEXT: The stability of a quasineutral fast electron beam in concentrated plasma was studied. The experimental arrangement is shown in Fig. 2. The "cold" plasma was produced by a d-c gas discharge in Li vapor (W-cathode) with a strong magnetic field. Filter 3 in this arrangement regulated the plasma concentration, acting like a cooling trap for the lithium vapor. Measurements showed that an electron beam passing through plasma is stable if the relative plasma concentration is above some "critical" value. The electron current recorded on the anode side is nearly independent of time. If this "critical" concentration is not reached, the electron beam will be unstable. This shows up in oscillations of the electron current, at the anode, between practically zero and an amplitude which is somewhat higher

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S/056/61/041/004/001/019
B108/B102

Electrostatic instability of an ...

than the average total electron current. These oscillations consist of relaxation oscillations with a period of about 10^{-3} - 10^{-4} sec, and of high-frequency oscillations with a period of $(1-3)\cdot 10^{-7}$ sec. This is explained as follows: If the plasma concentration is below a certain critical value, a virtual cathode, i. e., a self-consistent space charge will arise between discharge chamber and anode. This virtual cathode repels the electrons and causes them to fall upon the chamber walls or upon the filter. This process reoccurs at the high frequency observed. The electrons are "heated" by these quick oscillations and produce more ions. Consequently, the concentration in the plasma rises, and as soon as the critical value is reached, the high-frequency oscillations cease and the electrons start "cooling" again. In the short period during which the concentration in the plasma is higher than the critical value, the electron beam follows its natural stable course. It is easily seen that the cooling of the electrons induces a new period of instability. The frequency at which this process reoccurs, is about 10^{3} - 10^{4} $\sec^{-1}$, as has been mentioned above. The critical current density corresponding to the

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B108/B102

Electrostatic instability of an ...

critical concentration is given by $j_{crit} \approx 0.7\ j_e$, where j_e denotes the current density of the plasma electrons. The author thanks G. I. Budker for advice, A. M. Solntsev for assistance, as well as A. V. Zharinov, M. S. Ioffe, B. B. Kadomtsev, and A. A. Vedenov for discussions and advice. Mention is made of V. I. Volosov (ZhTF, in print). There are 10 figures and 3 references: 1 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: D. Bohm. The characteristics of electrical discharges in magnetic fields, N. Y., 1949.

SUBMITTED: April 24, 1961

Legend to Fig. 2: (1) cathode, (2) discharge chamber, (3) filter, (4) anode, (5) rectifier. $C_1 = C_2 = 100\ \mu f$, $R_1 = 40$ ohms, ДЭСО-1 (DESO-1) - oscilloscope, ВЛУ-2 (VLU-2)-amplifier, H - magnetic field.

Card 3/4

NEZLIN, M.V.; SOLNTSEV, A.M.

Acceleration of ions in plasma beams. Zhur. eksp. i teor. fiz.
45 no.4:840-849 O '63. (MIRA 16:11)

ACCESSION NR: AP4012520 S/0056/64/046/001/0036/0042

AUTHOR: Nezlin, M. V.

TITLE: Formation of a virtual cathode in an electron beam passing through a plasma

SOURCE: Zhurnal eksper. i teoret. fiz., v. 46, no. 1, 1964, 36-42

TOPIC TAGS: plasma, plasma beam, plasma instability, virtual cathode, cathode formation, electron energy, electron energy spectrum, electron beam

ABSTRACT: A hypothesis previously advanced by the author (ZhETF, v. 41, 1015, 1961)--that the instability observed in an intense plasma beam in a strong longitudinal magnetic field is due to formation of a virtual cathode in the fast-electron beam--is verified experimentally by attempting to observe the virtual cathode directly in an unstable plasma beam. The test method consists essentially of com-

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ACCESSION NR: AP4012520

paring the energy spectrum of the electrons reflected from the virtual cathode (if it exists) with the energy spectrum of the beam electrons that move from the cathode to the anode. The existence of such a cathode is proved experimentally. The virtual cathode produced is not steady but vanishes and reappears alternately, with a period of several fractions of a microsecond. During the instant of time when the virtual cathode exists, a considerable fraction of the fast electrons oscillates between the cathode and the virtual cathode and drifts under the influence of the electric field transversely to the magnetic field. Similar results are obtained if the anode is replaced by an electron reflector, so that the main arc is oscillating and not direct. It is concluded that the question of the mechanism of instability of the plasma beam relative to formation of the virtual cathode is still open. "The author is grateful to M. S. Ioffe and A. V. Zharinov for useful discussions and A. M. Solntsev for help with the experiments." Orig. art. has: 5 figures and 2 formulas.

Card 2/3

L 2341-66 EWT(1)/ETC/EPF(n)-2/EPA(w)-2/EWG(m) IJP(c) AT UR/3136/65/000/855/0001/0015
ACCESSION NR: AT5022111 52
46
B+1

AUTHORS: Neslin, M. V.; 44,55 Solntsev, A. M. 44,55 H 44,55

TITLE: On the discrete states of a plasma beam and transitions between them

SOURCE: Moscow. Institut atomnoy energii. /Doklady/, IAE-855, 1965. O diskretnykh sostoyaniyakh plazmennogo puchka i perekhodakh mezhdu nimi, 1-15

TOPIC TAGS: plasma magnetic field interaction, plasma beam instability, plasma concentration, plasma instability, plasma research

ABSTRACT: The present investigation is an extension of the work on plasma beam instability by the senior author (ZhETF, 46, 36, 1964). The behavior of a plasma beam permeated by a flux of primary electrons at conditions $\alpha \simeq \alpha_K$ was investigated. Here $\alpha = \frac{n_2}{n_1}$ and $\alpha_K = \frac{4v_1}{v_2}$ where n_1, v_1, n_2, v_2 are the density and velocity of primary and secondary electrons respectively. The effect of the primary electron velocity distribution on the plasma stability was also investigated. The experimental methods used were described previously (see above reference). The experimental results for the radial ion current density and the volt-ampere characteristics of plasma beams at different conditions are shown

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ACCESSION NR: AT5022111 6

graphically (see Fig. 1 on the Enclosure). It is concluded that the plasma is characterized by three different states: State I - $Q > Q_2$, II - $Q_1 > Q > Q_2$, III - $Q < Q_1$ where Q is the amount of argon used in the plasma source. It was found that changing the primary electron velocity distribution even to the point when the latter become completely random had no effect on the stability of the plasma beam. The authors thank A. B. Mikhaylovskiy for stimulating discussions. Orig. art. has: 5 graphs and 2 equations. 44,55

ASSOCIATION: Institut atomnoy energii im. I. V. Kurchatova (Institute for Atomic Energy) 14,65

SUBMITTED: 00 ENCL: 02 SUB CODE: NP

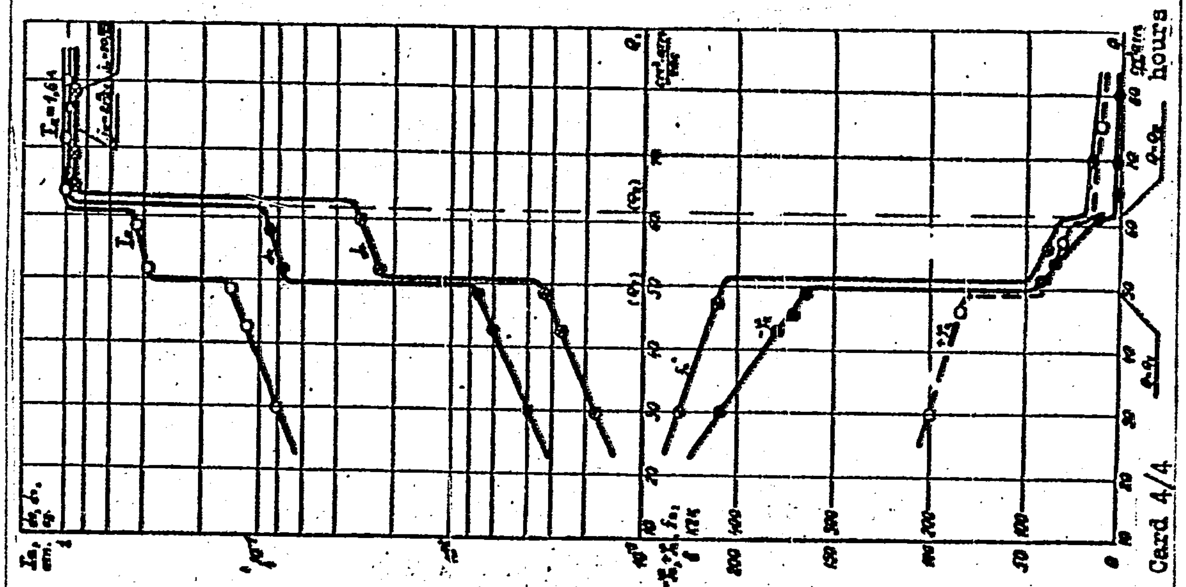
NO REF SOV: 009 OTHER: 001

Card 2/4

L 2341-66

ACCESSION NR: AT5022111

ENCLOSURE: 01



Card 3/4

To Card 4/4

L 2341-66
ACCESSION NR: AT5022111

ENCLOSURE: 02

O

From Card 3/4

Dependence of total anode electron current Ia, electron density Je, ion density J+, the floating potential of the ring electrode ϕ_k, the beam

potential in the median plane of the installation ϕ, and fo the first harmonic in the linear vibrational spectral region, on the amount of argon used in the plasma source (Q). Vp discharge potential = 200 v, discharge current Ip = Ia, H the magnetic field strength = 1400 oerst. P = (0.5 - 1) x 10^{-5} mm Hg, L length of beam 150 cm

Card 4/4

L 58445-65 EWT(1)/EPF(n)-2/EWG(m)/EPA(w)-2 Pz-6/Po-4/Pab-10/Pi-4 IJP(c)
WW/AT

ACCESSION NR: AP5013881 UR/0056/65/048/005/1237/1247

52
49
B

AUTHOR: Nezlin, M. V.; Solntsev, A. M.

TITLE: Unstable plasma beam 21

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 5, 1965, 1237-1247

TOPIC TAGS: plasma instability, plasma turbulence, plasma spectrum, plasma particle acceleration

ABSTRACT: This is a continuation of a systematic study of the properties of an unstable plasma beam, started by the authors earlier (ZhETF v. 45, 840, 1963 and elsewhere). The purpose of the work was to determine the conditions under which the plasma beam becomes unstable, as a function of such parameters as the energy of the fast electrons and the mass of the ions, and to study the electric fields and the

Card 1/2

L 58441-65
ACCESSION NR: AP5013881

charge modes, continuous and pulsed. The results show that the plasma turbulent state is characterized by: a) a broad electric-field oscillation spectrum, which includes the ion Larmor frequency and which makes it possible to carry out multiple (stochastic) acceleration of the ions to kilovolt energies, b) the formation of a strongly eccentric plasma torch rotating on the "ion" side with a frequency of several times 10 kcs, and c) acceleration of the ions not only in the transverse in some of the experiments

ASSOCIATION: None

SUBMITTED: 18Dec64 ENCL: 00 SUB CODE: ME

NR REF SOV: 011 OTHER: 003

28

Card 2/2

ACC NR: AT6001615 SOURCE CODE: UR/3136/65/000/932/0001/0029

AUTHOR: Nezlin, M. V.; Sapozhnikov, G. I.; Solntsev, A. M.

ORG: none

TITLE: Long-wave electron oscillations in a beam-plasma system

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-932, 1965. Dlinnovolnovyye elektronnyye kolebaniya v sisteme puchok-plazma, 1-29

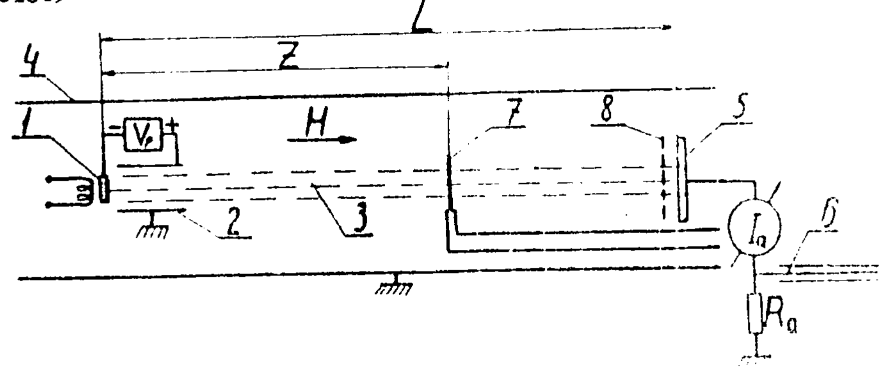
TOPIC TAGS: electron oscillation, plasma, electron beam

ABSTRACT: As previous experimental investigations (e.g., C. C. Cutler, Proc. IRE, 44, 61, 1956) of r-f oscillations in electron beams propagating [illegible] the present experiments have been conducted to obtain a systematic picture of the oscillations spectrum, nature, and excitation mechanism. A beam of electrons 3 emitted by W heater-type cathode 1 (see figure) was accelerated by electrode 2 to a few hundred ev and traveled along a strong

Card 1/3

L 396[illegible]-66

ACC NR: AT6001615



Experimental outfit

Card 2/3

L 39044-66

ACC NR: AT6001615

magnetic field, in an equipotential space, along the axis of metal-wall cylinder 4. A movable anode 5 permitted adjusting the beam length within 1t —150 cm; other components: 6 - measurement cable, 7 - needle probe, 8 - grid, R_a - measurement resistance; hydrogen pressure, 10^{-6} —10^{-4} torr; magnetic field, 1000—5000 oe. Spectra of electron-current oscillations at the anode and at the probe were measured. A plasma was formed as a result of gas ionization by the beam, the plasma density being commensurate with that of the beam. The spectrum of these non-Langmuirian oscillations consists of a number of harmonics whose wavelengths obey the formula: $\lambda_n = 2L/n$ (where n is the number of the harmonic and L is the beam length) and whose frequencies ω_n are determined by the beam-electron velocity V in this way: $\omega_n \approx K_n V$, where $K_n = 2\pi/\lambda_n$. The experiments corroborate the theory of longitudinal electron oscillations in a homogeneous beam-plasma system having limited longitudinal and transverse dimensions. Orig. art. has: 11 figures and 20 formulas.

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 008 / OTH REF: 009

Card 3/3

ACC NR: AP7004568 SOURCE CODE: UR/0056/65/049/005/1377/1388

AUTHOR: Nezlin, M. V.; Solntsev, A. M.

ORG: none

TITLE: Discrete states of a plasma beam and the transitions between them

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 5, 1965, 1377-1388

TOPIC TAGS: plasma beam, electron beam, fast electron

ABSTRACT: It was shown by the authors in earlier articles that a plasma beam consisting of a cold plasma column and a fast electron stream which permeates this column undergoes a transition from a macroscopically steady state to a virtual cathode state when there is a decrease in the ratio of the densities of these components. The purpose of the experiments described in the present article was to investigate the question of the state of the plasma beam in the region of intermediate values of α, as well as to investigate the frequency spectrum of the oscillations occurring in the beam in all its states and the question of the relationship between this spectrum and the form of the velocity distribution function of the beam electrons. Argon and hydrogen were used as the working gases in the experiments. An orificed electrode and three Langmuir probes were used to measure the frequency spectrum of the oscillations.

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ACC NR: AP7004568

The article shows that the transition occurs as the result of two jumps between three discrete states, during which there is a significant increase in the energies of the plasma particles and the radial dimensions of the beam and its potential. The oscillation spectrum is shown to consist of a line section and a continuous section, with an increase in oscillation frequencies during the transition jumps. It is found that there is no significant change in the oscillation spectrum in any of the three discrete plasma beam states, even if the fast electron velocity distribution function becomes disordered. This result is of interest in connection with the question as to whether and to what extent the plasma beam instability here under consideration is associated with the "ordinary" beam instability which occurs in the presence of "order" in electron motion in a velocity space. A definite answer to this question requires an investigation of high-frequency electronic ("Langmuir") oscillations in all three plasma beam states, and such an investigation is under way at the present time by the authors. The authors express their appreciation to A. B. MIKHAYLOVSKIY for "stimulating discussions" and to V. PIFFL for having taken part in some of the measurements. Orig. art. has: 9 figures and 3 formulas. /JPRS: 34,657/

SUB CODE: 20 / SUBM DATE: 21Jul65 / ORIG REF: 009 / OTH REF: 003

Card 2/2

L 16581-66 EWT(1)/ETC(f)/EPF(n)-2/EWG(m) IJP(c) AT

ACC NR: AP6007215 SOURCE CODE: UR/0056/66/050/002/0349/0363

AUTHOR: Nezlin, M. V.; Sapozhnikov, G. I.; Solntsev, A. M.

92
90
B

ORG: none

21,44,55 21,44,55

TITLE: Long wave electron oscillations in a beam-plasma system

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 2, 1966, 349-363

TOPIC TAGS: electron oscillation, electron beam, plasma beam, plasma beam interaction, longitudinal magnetic field, gas ionization, gas pressure, excitation spectrum

ABSTRACT: Long wave electron oscillations excited by an electron beam in a rarefied plasma in the presence of a strong longitudinal magnetic field are investigated experimentally. The plasma is produced as a result of ionization of the gas by the beam. The gas pressure $\sim 10^{-5}$ mm Hg and the plasma density is comparable with that of the beam. The oscillations observed are not Langmuir oscillations. Their spectrum consists of a number of harmonics, the wavelengths of which (λ_n) obey the relation $\lambda_n = 2L/\lambda_n$ (n is the harmonic number and L is

Card 1/2

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L 16581-66
ACC NR: AP6007215

2

the beam length). The frequencies ω_n are defined by the velocity of the beam electrons (v) and the wavelength: $\omega_n \sim k_n v$ where $k_n = 2\pi/2_n$. It is shown that the excitation conditions of the oscillations and their spectral characteristics are in good agreement with the theory of longitudinal electron oscillations in an homogeneous beam-plasma system with restricted longitudinal and transverse demensions. The authors take the opportunity to express their appreciation to Ya. B. Faynberg for his interest in this work and for his useful comments, and A. Ye. Bazhanova for providing the roots of dispersion equations with the aid of a computer. Orig. art. has: 11 figures and 6 formulas. [Based on author's abstract]

SUB CODE: 20/ SUBM DATE: 27Aug65/ ORIG REF: 008/ OTH REF: 010/

Card 2/2

GURVICH, A.Ye.; KAPNER, R.B.; NEZLIN, R.S.

Isolation of pure antibodies by the of antigens fixed on cellulose and the study of their properties [with summary in English]. Biokhimiia 24 no.1:144-156 Ja-F '59. (MIRA 12:4)

1. Institute of Biological and Medical Chemistry, Academy of Medical Sciences of the U.S.S.R., Moscow.

(ANTIGEN ANTIBODY REACTION
isolation of pure antibodies with antigens fixed on cellulose (Rus))

NEZLIN, [redacted]

Effect of various conditions on chemical fixation of proteins.
Biokhimiia 24 no.2:301-306 Mr-Ap '59 (MIRA 12:7)

1. Laboratory of Biochemistry of Viruses, Institute of Virology, Academy of Medical Sciences of the U.S.S.R., and Laboratory of Physiological Chemistry Institute, Institute of Biological and Medical Chemistry, Academy of Medical Sciences of the U.S.S.R., Moscow.
(BLOOD PROTEINS, determ.
paper fixation, eff. of various cond. (Rus))

NEZLIN, R.S.

Some problems in the isolation and fractionation of pure antibodies. Biokhimiia 24 no.3:521-527 My-Je '59. (MIRA 12:9)

1. Laboratory of Physiological Chemistry, Institute of Biological and Medical Chemistry, and Laboratory of Biochemistry, Institute of Virology, Academy of Medical Sciences of the U.S.S.R., Moscow.

(ANTIBODIES,
isolation & fractionation of pure antibodies
(Rus))

NEZLIN, R.S.

NEZLIN, R. S., GURVICH, A. L., [illegible]VA, N. N., [illegible], [illegible] .V. [illegible]

"The Isolation of Purified Antibodies and Study of their Properties."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 August 1961

NEZLIN, R. S., CAND MED SCI, "ISOLATION OF PURE ANTIBODIES AND STUDY OF THEIR PROPERTIES." MOSCOW, 1961. (ACAD MED SCI USSR). (KL, 3-61, 234).

445

MEZLIN, R.S.

Determination of small quantities of protein and amino acids
using photoelectrocolorimetry. Vop. med. khim. 8 no.3:316-319
My-Je '62. (MIRA 15:7)

1. Laboratoriya khimii virusov i kul'tur kletok, Institut
radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR, Moskva.
(AMINO ACIDS) (PROTEINS) (COLORIMETRY)

FRANEK, F.; NEZLIN, R.S.

Recovery of antibody combining activity by interaction of different peptide chains isolated from purified horse antitoxins. Folia microbiol. 8 no.2:128-130 '63.

1. Department of Immunology, Microbiological Institute, Czechoslovak Academy of Science, Prague 6, and Laboratory of Virus and Tissue Culture Chemistry, Institute of Radiation and Physico-Chemical Biology, Academy of Sciences of the U.S.S.R., Moscow.

(DIPHTHERIA ANTITOXIN) (TETANUS ANTITOXIN) (PEPTIDES) (ANTIBODIES) (TOXINS AND ANTITOXINS)

FRANEK, F.; NEZLIN, R.S.; SKVARIL, F.

Antibody Binding Capacity of Different Peptide Chains Isolated from Digested and Purified Horse Diphtheria Antitoxin.
Folia microbiol. 8 no. 4 Jl '63

1. Department of Immunology, Institute of Microbiology, Czechoslovak Academy of Sciences, Prague 6, and Institute of Sera and Vaccines, Prague 10
(DIPHTHERIA ANTITOXIN) (PEPTIDES) (ANTIBODIES)
(IMMUNOELECTROPHORESIS) (PEPSIN) (ELECTROPHORESIS)
(IMMUNE SERUMS)

NEZLIN, R. S.

"The change in the molecular weight of antibodies synthesized in tissue culture after second immunization."

report presented at the 2nd Symp, Molecular & Cellular Basis of Antibody Formation, Prague, 1-5 Jun 64.

Inst of Radiation & Physico-Chemical Biology, AS USSR, Moscow.

TSONEVA-MANEVA, M.G.; NEZLIN, R.S.

Study of the ability of a phytohemagglutinin from kidney bean seeds of the Saksa variety to stimulate mitosis of peripheral blood leucocytes in vitro. TSitologiia 5 no.4:458-460 Jl-Ag '63. (MIRA 17:8)

1. Laboratoriya obshchey i kosmicheskoy kariologii i laboratoriya khimii virusov i kul'tur kletok Instituta radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR, Moskva. Adres avtora: Vysshiy meditsinskiy institut, Varna, Bolgarskaya Narodnaya Respublika (for TSoneva-Maneva).

NEZLIN, R.S.

Synthesis of 19S- and 7S-antibodies in a cell culture of rabbit spleen and lymph nodes. Biokhimiia 29 no.3:548-555 My-Je '64. (MIRA 18:4)

1. Laboratoriya biokhimii virusov i kul'tur kletok Instituta radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR, Moskva.

NEZLIN, R.S., kand.med.nauk

Synthesis and structure of antibodies; symposium in Czechoslovakia.
Vest. AN SSSR 34 no.9:93-95 S '64. (MIRA 17:10)

NEZLIN, R.S.; KUL'PINA, L.M.

Separation of serum proteins according to their molecular weight using sephadex G-200 dextran gel. Vop. med. khim. 10 no.5:543-545 S-O '64. (MIRA 18:11)

1. Laboratoriya biokhimii virusov Instituta radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR, Moskva.

NEZLIN, R.S. (Moskva

Peptide chains of gamma globulins and antibodies. Usp. sovr. biol. 58 no. 2:201-220 S-O '64. (MIRA 17:12)

NEZLIN, R.S.

Molecular and cellular principles of the formation of antibodies.
Usp. sovr. biol. 58 no. 3:457-462 N-D '64. (MIRA 18:1)

GURVICH, A.Ye.; NEZLIN, R.S.

Nomenclature of immune globulins in man. Biokhimiia 30 no.2:443-446
Mr-Ap '65. (MIRA 18:7)

L 09040-67 JK

ACC NR: AT6033027 SOURCE CODE: CZ/0000/66/000/000/0595/0601

AUTHOR: Nezlin, R. S. /3

ORG: Institute of Radiation and Physico-Chemical Biology, Academy of Sciences, SSSR, Moscow

TITLE: Change in the molecular weight of antibodies synthesized in tissue culture after second immunization

SOURCE: Symposium on Molecular and Cellular Basis of Antibody Formation. Prague, 1964. Molecular and cellular basis of antibody formation; proceedings of the symposium. Prague, CSAV, 1965, 595-601

TOPIC TAGS: antibody, antigen, rabbit, immunology, immunization, cytology, molecular weight

ABSTRACT: Antibodies formed in spleen and lymph-node cells of hyperimmune rabbits during separate cultivation *in vitro* were studied. Antibodies from cells removed three days after a second immunization of rabbits with human serum albumin were compared with antibodies synthesized on the fifth day after immunization. Experiments showed that mostly high-molecular-weight (19 S) antibodies were produced on the third day and "lighter" (7 S) antibodies on the fifth day. Tentative

Card 1/2

L 09040-67

ACC NR: AT6033027

0

explanations for this phenomenon are suggested. Orig. art. has: 5 figures. [W.A. 50]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 007

Card 2/2 nst

NEZLIN, S. YE.

How a person affected by tuberculosis should live and how to treat tuberculosis.
Moskva, Medgiz, 1931. 47 p.

NEZLIN S. YE. PA 21/49T76

USSR/Medicine - Tuberculosis, Clinics Sep/Oct 48
Medicine - Tuberculosis, Diagnosis

"Fluorography in Dispensaries," S. Ye. Nezlin, M. M. Zakin, Dispensary Sector, Inst of Tuberculosis, Acad Med Sci USSR, 3 ¼ pp

"Problemy Tuberkuleza" No 5

Fluorographic work was begun in Molotov Rayon, Moscow, on initiative of Dispensary Sector, Inst of Tuberculosis, Acad Med Sci. Describes progress made. Table showing diagnosis of tuberculosis at "Elektroprovod" Plant.

LC 21/49T76

NEZLIN, S. Ye.

"Care of Patients Suffering from Pulmonary Tuberculosis," Med Sestra, No.8, 1948.

Head, Dispensary Sector, Inst. Tuberculosis, Dept. Clinical Medicine, AMS USSR

KEZLIN, S. YE

35497. O nekotorykh voprosakh metodiki raboty tuberkuleznogo dispansera. Soobshch. 5. Byulleten' In-ta tuberkuleza Akad. Med. Nauk SSSR, 1949, No. 3, c. 5-9.

Letopis' Zhurnal'nykh Statey, Vol. 48, Moskva, 1949

NEZLIN, S. Ye.

"Sanitation and Prophylactic Work of Tuberculosis Dispensary," Med. Sestra, No.5, 1949

NEZLIN, S. YE, Prof.

USSR/Medicine - Tuberculosis Sep/Oct 49
Industrial Hygiene

"Labor Arrangements for Pulmonary Tuberculosis Patients," M. M. Zakin, Dispensary Sector, Inst of Tuberculosis, Acad Med Sci USSR, 3 pp

"Prob Tuber" No 5

"Labor arrangements" includes state, trade union, and social activities to eliminate unsuitable working conditions, find optimum amount of work for the patient, promote family welfare, and enable the patient to work for the socialist state. To aid this program, Med Labor Examining Commissions (VTEK) have been created. Council of People's Commissars (10 Dec 34 and 5 Jan 43) made provision for suitable working conditions, transfers, rehabilitation, and unemployment insurance for tubercular workers. Besides individual care, large enterprises in Moscow, Leningrad, Khar'kov, etc., have established groups with a 6-hour day, special working conditions and diet. Cooperative artels with constant medical supervision have been created for those who cannot work in regular business enterprises. Gives statistics on work of Dispensary Sector, Inst of Tuberculosis, Acad Med Sci USSR, in one Moscow district. Chief, Dispensary Sec: Prof. S. Ye. Nezlin. Dir, Inst of Tuberculosis: Z. A. Lebedeva

[redacted] PA 152T68

NEZLIN S. Ye.

EYNIS, V.L., otvetstvennyy redaktor; LEVITIN, F.I., redaktor; NEZLIN, S.Ye., redaktor.

[Transactions [of the All-Union Congress of Physicians Specializing in Tuberculosis], September 21-25, 1948] Trudy, 21-25/IX 1948. Otvetstvennyi redaktor V.L.Einis. Redaktory: F.I.Levitin i S.E.Nezlin. Moskva, Medgiz, 1950. 397 p. (MLRA 7:11)

1. Vsesoyuznyy s"yezd vrachey-ftisiatrov. 5th, Moscow, 1948. (Tuberculosis--Congresses)

AKLEBANOV, M. (Prof.); MASSINO, S. V.; NEZLIN, S. L. (Prof.)
NEZLIN, S. L. (Prof.)

Tuberkulez- Rukovodstvo Dla Patronazhnich Sester Tuberkuleznich Dispanserov (Tuberculosis- Handbook for Nurses in Tuberculosis Dispensaries), Moscow, 1957.

NEZLIN, S. Ye.

Present day problems in control of tuberculosis in SSSR.
Med. sestra, Moskva no.8:8-13 Aug. 1950. (CLML 20:1)

NEZLIN, S. E.

Tuberculosis

"Specific chemiotherapy of tuberculosis." Collected papers of the Iakutsk Branch of the Tuberculosis Institute of Academy of Medicine of the U.S.S.R. Reviewed by S. E. Nezlin. Probl.tub. no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 195~~3~~2, Uncl.

NEZLIN, S. Ye.

NEZLIN, C. E., Prof.

USSR/Medicine - New Drugs, Tuberculosis Jun 52

"New Methods in the Treatment of Tuberculosis,"
Prof C. E. Nezlin

"Med Sestra" No 6, pp 13-19

Gives information on Soviet-produced drug (1946) PASK (para-aminosalicylic acid), and a newer drug (not described) - Tibon. Both drugs are toxic. In carefully rationed dosage both drugs have proved effective, especially when administered together or in conjunction with other drugs such as streptomycin. Author denounces US physicians for administration of large doses of streptomycin, claiming that Soviet physicians by careful use of this drug have obtained excellent results in treatment of tuberculosis. Mention is made of pneumoperitoneum gaining wide use in treatment of tubercular infections.

221T31

221T31

NEZLIN, S.Ye.; NESGOVOROVA, L.I., redaktor; BOBROVA, Ye.N., tekhnicheskiy redaktor.

[The diet and therapy of a patient with pulmonary tuberculosis] Rezhim i lechenie bol'nogo tuberkulezom legkikh. Moskva, Gos. izd-vo med. lit-ry, 1953. 102 p. (MLRA 7:8)
(Tuberculosis)

REZLIN, S.Ye.

Role of therapeutists in control of tuberculosis. Klin. med., Moskva 31 no.6:3-7 June 1953. (CIML 25:1)

1. Professor. 2. Moscow.

NEZLIN, S.Ye., professor.

Review of the monograph "Tuberculosis" edited by F.I.Levitin.
S.E.Nezlin. Klin.med. 31 no.12:82-83 D '53. (MLRA 7:1)
(Tuberculosis)

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