S/056/62/043/005/056/058
B125/B104

The curves representing...

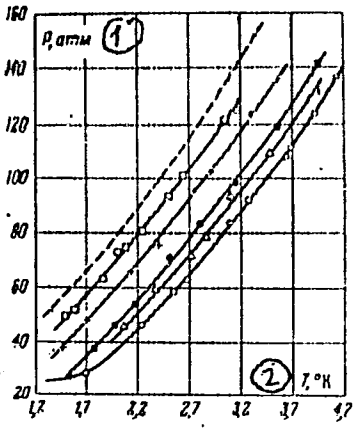

Fig. 1. Pressure at which the solutions begin to solidify as a function of temperature.

Legend: (o) 0% He^3, (Δ) 10.3% He^3; (•) 24.1% He^3; (+) 53.0% He^3; (□) 76.4% He^3; dotted line: Pure He^3; (1) pressure in atmospheres; (2) °K.

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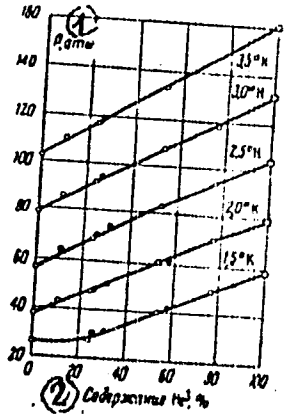
B/056/62/043/005/056/056
B125/B104

The curves representin...

Fig. 2: The dependence of the solidification pressure of helium isotope solutions on the composition of the liquid phase: (o) the results of the present work; (e) the results obtained by the method of blocking of the capillary tubes; (o) data obtained by Grilly and Mills for pure He^3.



Legend: (1) P, atm, (2) percentage of He^3, %.

Card 4/4

S/056/63/044/002/016/065
B102/B186

AUTHORS: Yesel'son, B. N., Ivantsov, V. G., Shvets, A. D.

TITLE: The surface tension of He^3-He^4 solutions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 2, 1963, 483-486

TEXT: The authors continue previous investigations (DAN SSSR, 99, 365, 1954) where they had measured the surface tension in an He^3-He^4 mixture up to 3% He^3; now they measured it up to 75% He^3. The experimental apparatus was the same as before, only some variations in size having been made. A temperature regulator kept the temperature constant with an accuracy of $5 \cdot 10^{-6}$ °K. The surface tension α was calculated with the relation $2\alpha(1/b_1 - 1/b_2) = (\varrho_1 - \varrho_v)gh$, where b_1 and b_2 are the radii of curvature of the lowest points of the menisci of the two capillaries (r_1 = 2.89 mm, r_2 = 0.12-0.22 mm), ϱ_1 and ϱ_v are the liquid vapor densities, g the gravity constant and h the distance between the lowest

Card 1/2

The surface tension of ...

points of the menisci. The errors in measurement were not above 4%, for He^3 concentrations up to 20% only about 1%. The $\alpha(T)$ curves were measured for 9.5, 15.0, 19.0, 50.0, and 75.7% He^3 between 1.3 and 4.2 °K; they lie lower, the higher the He^3 content, between the curves for the pure components. The results are compared with the theory of I. Prigogine (Nuovo Cim. Suppl., 9, 1, 347, 1958). Agreement is found only for He^3 concentrations up to about 10%. There are 4 figures.

SUBMITTED: September 12, 1962

Card 2/2

BEREZNYAK, N.G.; BOGOYAVLENSKIY, I.V.; YESEL'SON, B.N.

Equilibrium diagram for the liquid - crystal system He^3 - He^4.
Zhur. eksp. i teor. fiz. 45 no.3:486-495 S '63. (MIRA 16:10)

1. Fiziko-tekhnicheskiy institut AN Ukrainskoy SSR.
(Helium isotopes--Thermodynamic properties)

L 13836-63 EPF(c)/EWT(1)/EPF(n)-2/BDS AFFTC/ASD/SSD Pr-4 Pu-4

IJP(C)

ACCESSION NR: AP3003159 S/0056/63/044/006/2187/2189

AUTHOR: Yesel'son, B. N.; Kovdrya, Yu. Z.; Lazarev, B. G.

TITLE: Direct measurements of the linear flow velocity of a film of He II

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 2187-2189

TOPIC TAGS: liquid helium, flow rate, low temperatures

ABSTRACT: Experiments were set up for obtaining detailed information on the linear flow velocity and the formation of He II films. The experiments consisted essentially of measuring the temperature at two different points along the flow and determining the time dependence of the potential difference between the two resistance thermometers. The experiments were [illegible] the temperature interval 1.5 to 2.1 K. The temperature was [illegible] The resultant flow rate increased with temperature [illegible] Since this exceeds the critical velocity [illegible] these investigations, some explanation is advanced for this high rate. In particular, it is suggested that the vortices do not have time to form during the time of flow of the film, which is about 0.2 sec at 1.5°K. "We take the opportunity to thank V. D. Krasnikov for preparing the amplifier and [illegible] for providing the wire of lead brass."

Card 1/2

ACCESSION NR: AP4043620 S/0056/64/047/002/0480/0483

AUTHORS: Bogoyavlenskiy, I. V.; Bereznyak, N. G.; Yesel'son, B. N.

TITLE: Measurement of the liquid-crystal equilibrium diagram of helium isotope solutions

SOURCE: Zh. eksper. i teor. fiz., v. 47, no. 2, 1964, 480-483

TOPIC TAGS: liquid helium system, binary phase diagram, polymorphism, solid phase, liquid phase

ABSTRACT: Continuing earlier work (ZhETF, v. 45, 486, 1963) on the determination of the liquid-solid diagrams of state of the isotope system He^3-He^4, the authors measured the curves of the start and end of solidification of solutions with molar concentration 53.6 and 76.5% He^3 and determined the width of the stratification region over the entire concentration interval. The temperature range covered was 1.4--4.0K. The coordinates of the triple points, con-

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ACCESSION NR: AP4043620

nected with the polymorphic transition into the solid phase, were also determined for the investigated solutions. The equilibrium diagram between the solid and liquid phase of the system was constructed and was found to be of the peritectic type in the pressure range from 50 to 140 atm. "We thank B. G. Lazarev for interest in the work and I. A. Shapoval for help with the measurements, corresponding member AN SSSR N. Ye. Alekseyevskiy for providing the opportunity to carry out the mass-spectrometric analysis, and A. V. Dubrovin for participating in these measurements." Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk SSSR (Physicotechnical Institute, Academy of Sciences UkrSSR)

SUBMITTED: 21Mar64 ENCL: 00

SUB CODE: GP, TD NR REF SOV: 003 OTHER: 003

Card 2/2

L 22915-66 EWT(l)/EWT(m)/EPF(n)-2/ETC(m)-6 JD/WW/GG
ACC NR: AP6006798 SOURCE CODE: UR/0386/66/003/001/0032/0035

AUTHORS: Yesel'son, B. N.; Dyumin, N. Ye.; Rudavskiy, E. Ya.; Serbin, I. A.

ORG: Physicotechnical Institute of Low Temperatures, AN UkrSSR, Khar'kov (Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR)

TITLE: Experimental observation of fourth sound in He^3-He^4 solutions

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 1, 1966, 32-35

TOPIC TAGS: sound propagation, liquid helium, quantum liquid, superfluidity

ABSTRACT: The purpose of the investigation was to check experimentally the existence of fourth sound, a special type of wave propagating only through the superfluid component while the normal component remains immobile, which was observed experimentally in liquid He^4 and whose existence in He^3-He^4 solutions was recently considered theoretically by D. G. Sanikidze and D. M. Chernikova (ZhETF v. 46,

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1123, 1964). The main part of the apparatus was a cylindrical resonator, 20 mm in diameter and 10 mm long, filled with a rouge filter consisting of particles ~0.5 μ in size compressed to 40 kg/cm^2 (filter perosity ~60%). The sound transmitter and receiver were placed on opposite sides of the filter. The resonator was placed in a special vessel in which the investigated solution was condensed. The vessel itself was placed in a bath of He^4, the temperature of which was lowered by pumping on helium vapor. Pulses with rise time 0.1 μsec, repetition frequency 200 cps, duration 2 μsec, and amplitude 400 V were fed from the blocking generator to the transmitter, which was located in the lower part of the receiver. The speed of the fourth sound could be determined from measured time interval necessary for the pulse to traverse the length of the filter. Multiple scattering was allowed for by means of an empirical formula. The experimental results were found to be in fully satisfactory agreement with theory of D. G. Sanikidze and D. M. Chernikova. Tentative measurements of the absorption coefficient indicate that it increases rapidly with temperature, making measurements near λ point difficult. Work is now continuing in a broader temperature concentration range,

L 22915-66
ACC NR: AP6006798

with an aim at obtaining information on the behavior of He^3 and He^4 atoms in narrow channels. The authors thank D. G. Sanikidze for useful discussions conducted with the organization of the research. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 15Nov65/ ORIG REF: 003/ OTH REF: 008

Card 3/3

ACC NR: AP7003203 SOURCE CODE: UR/0056/66/051/006/1665/1668

AUTHOR: Yesel'son, B. N.; Dyumin, N. Ye.; Rudavskiy, E. Ya.; Serbin, I. A.

ORG: Physicotechnical Institute of Low Temperatures, Academy of Sciences, Ukrainian SSR (Fiziko-tekhnicheskiy institut nizkikh temperatur Akademii nauk Ukrainskoy SSR)

TITLE: Velocity of first sound in He^3 - He^4 solutions

SOURCE: Zh eksper i teor fiz, v. 51, no. 6, 1966, 1665-1668

TOPIC TAGS: liquid helium, sound propagation, acoustic speed, temperature dependence, superfluidity

ABSTRACT: The authors describe measurements of the velocity of first sound in solutions of helium isotopes with He^3 content up to 20% in the temperature range 1.6 - 4.0K. The purpose of the investigation was to determine various properties of the solutions, especially the velocity of fourth sound. A pulsed ultrasonic method was used for the velocity determination. The carrier frequency was 1 MHz, the pulse duration was 30 μsec, and the pulse repetition frequency was 200 Hz. The results show that at constant temperature the sound velocity varies linearly with the He^3 concentration. An explanation is proposed for this linearity. The temperature dependence of the velocity of first sound shows clearly the singularities corresponding to the transition of the solution into the superfluid state, and the values obtained for the λ-point temperatures from these temperature dependences agrees well with the published data. Orig. art. has: 2 figures, 5 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 18Jul66/ ORIG REF: 002/ OTH REF: 005

Card 1/1

SOV-120-58-1-1/43

AUTHORS: Mal'nev, A. F., Yesel'son, M. P., Kremenchugskiy, L. S.

TITLE: The Main Principles of Recording of Spectra, Using Infra-Red Spectro-Photometers (A Review) (Osnovnyye printsipy registratsii spektrov v infrakrasnykh spektrofotometrakh - Obzor)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 1, pp 3-16 (USSR)

ABSTRACT: In recent years infra-red spectroscopy has become important in connection with the solution of industrial and analytical problems. The possibility of application of infra-red spectroscopy to analytical problems was first established in 1881, when Ebney and Festing discovered that all the hydrocarbons absorb radiation of wavelength $\sim$3.4 μ . During the years 1905 to 1908 investigations of hydrocarbons have led to the discovery of other bands characteristic of the functional groups (c-H, OH etc). However, experimental difficulties prevented further development of the methods of infra-red analysis. The prototype of contemporary infra-red spectrometers and spectrophotometers is the "ultra-red spectrograph" constructed by P. N. Lebedev (Refs.1-3). Because of their sensitivity, speed and accuracy, the methods of infra-red analysis were applied from the very outset to the solution

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The Main Principles of Recording of Spectra, Using Infra-Red Spectra Photometers (A Review)

of chemical problems and were then widely used in industrial laboratories. At the same time infra-red analysers of the non-dispersive and dispersive types were developed for work in industry, where they were used for continuous control purposes and the control of the manufacturing cycle. Fast operating spectrometers and spectrophotometers were produced which were used to study reaction kinetics which recorded spectra over time intervals comparable with the time taken by the process (10^{-5} - 1 sec). Considerable attention was given to the construction of spectrophotometers. In these instruments the radiation from the source was divided into two beams, one of which (the "specimen beam") is passed through a vessel containing the specimen under investigation and the other (the "comparison beam") is passed through a comparison vessel containing a substance whose spectrum it is desired to exclude from the spectrum of the specimen. The ratio of the intensities of the two beams or their logarithms

The Main Principles of Recording of Spectra, Using Infra-Red Spectrophotometers (A Review)

are then recorded either by a pen recorder or on a CRO screen. The advantage of spectrophotometers as compared with spectrometers is their independence of changes in the intensity of the radiation emitted by the source, the sensitivity of the receiver and the measuring apparatus. In the present paper the main methods of recording of spectra using spectrophotometers are described and are classified as follows:
(1) The compensation method or "null method", as used by Hardy (Ref.37), White and Liston (Refs.8-11), Malyshev et al (Refs.20, 21, 27 and 55), Terenin et al (Ref.53), and others;
(2) The "two beam" method as used by Daniel and Brackett (Ref.72), Savitsky and Halford (Ref.65), and others;
(3) The phasometric method suggested by Bianov-Klyukov (Refs. 99-103), and also by Golay (Ref.104);
(4) The method using a memory-device, as used by Avery (Ref. 106), Donner (Ref.109), Mal'nev et al (Ref.107), and others.
The problem of accuracy and reproduceability has been considered by many authors (Refs.141-164) but there is a need for fundamental work on the comparison of different types of spectrophotometers. Generally speaking, spectrophotometers based on different principles give relatively the same results

The Main Principles of Recording of Spectra, Using Infra-Red Spectrophotometers (A Review)

(Refs.189 and 190). It is generally believed that the spectrophotometers using the "null" method are the most reliable. At the present time there is a noticeable tendency to replace mechanical parts in the measuring part of the spectrophotometer by the equivalent electrical circuits. However, this group is not very numerous as yet (Refs.77, 89, 97 and 99). There are 17 figures, no tables and 195 references, most of which are Western.

ASSOCIATION: Institut fiziki AN USSR (Institute of Physics of the Academy of Sciences USSR)

SUBMITTED: May 9, 1957.

1. Infrared spectrophotometers--Development 2. Infrared spectrophotometers--Applications 3. Infrared spectrophotometers--Performance 4. Infrared spectrophotometers--Equipment

7 (3), 24 (7) SOV/48-23-10-28/39

AUTHORS: Mal'nev, A. F., Yesel'son, M. P., Kremenchugskiy, L. S.

TITLE: A Measuring Device for the Infrared Spectrometer

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 10, pp 1246-1247 (USSR)

ABSTRACT: Infrared spectrometers are being used to an increasing extent in chemistry, petroleum refineries (automatic control of the technological cycle) and for research work in works laboratories. In the present paper a measuring system for such a device is briefly described. The device consists essentially of a bolometer bridge, a pre-amplifier, the main amplifier with synchronous detector, a modulator-generator with phase inverter and a feeding block. Radiation is first interrupted by a modulator (constructed together with S. Z. Shul'ga) (20 cycles), after which it passes through a monochromator and reaches the receiver. The latter is a nickel bolometer developed at the Institut fiziki AN SSSR (Institute of Physics of the AS USSR). The next stage is the preamplifier, from which the pulses reach the main amplifier block the elements of which are briefly discussed. The emerging signals may be

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transmitted either to a recorder or to an oscillograph. A block scheme of this measuring system is given. After half an hour's pre-heating the amplification coefficient of the system remains constant (variation ≤ 0.5%). For research work the measuring device is used together with a spectrometer of the type VIKS-M3, and for periodical controls in industry, together with a spectrometer of the type VIKS-M4 (both devices were constructed at the IFAN UkrSSR). There are 1 figure and 4 Soviet references.

MAL'NEV, A.F. [Mal'niev, A.F.]; YESEL'SON, M.P. [Iesel'son, M.P.]; KREMENCHUGSKIY, L.S. [Kremenchuhs'kyi, L.S.]

Measuring device for determination of small energies in spectral investigations. Ukr.fiz.zhur. 5 no.3:380-385 My-Je '60. (MIRA 13:8)

1. Institut fiziki AN USSR.
(Spectrum analysis)

MAL'NEV, A.F.; YESEL'SON, M.P.

New measuring device for IKS-11 and IKS-12 spectrometers. Ukr. fiz. zhur. 5 no.2:285-286 Mr-Ap '60. (MIRA 13:12)

1. Institut fiziki AN USSR.
(Spectrometer)

S/185/60/005/003/009/020
D274/D303

26594

24.3400

AUTHORS: Mal'nyev, A.F., Yesel'son, M.P. and Kremenchugs'kyy, L.S.

TITLE: A measuring device for spectral investigations of low energies

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 5, no. 3, 1960, 380-385

TEXT: A device is described which is used with spectrometers and other spectral instruments for the measurement of energies of the order of 10^{-9} watt. (Second part of the article). In the first part of the article, the most effective ratio is found for resistances of the bolometer bridge arms. This optimum ratio has not been dealt with in literature. An equivalent circuit is shown of a bolometer bridge with transformer. In the case of optimum matching, the amplification factor of the transformer increases with decreasing R_{out}. In choosing the ratio between the bridge arms,

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A measuring device... 26594

one ought to reduce R_{out} and increase the transfer constant K_t. R_{out} can be reduced, with fixed K_t, if R_2 is reduced (i.e. $R_2 \leq R_1$). A detailed study of this problem shows that the conditions for maximum amplification of a system bridge-transformer and a maximum transfer constant of the bridge circuit are given by the same relationships, viz. $R_2 \ll R_1$: $R_3 \gg R_1$ (i.e. $K_t \to 1$, $R_{out} \to R$); these conditions give the optimum connection of the bolometer (with resistance R_1) to the bridge circuit; R_2 and R_3 denote the resistances of the bridge arms. The total value of $R_1 + R_2$ should be chosen so as not to overload the current source; in practice, R_3 = (3 to 5) R_1 and R_2 = (0.1 to 0.3) R_1. Hence a bolometer with two equal arms does not lead to optimum performance of circuit. The measuring device is described then. A nickel bolometer of 20 Ohm resistance is placed at the focus of a monochromator mirror. The balancing resistors are in the same unit with the pre-amplifier and transformer. The total amplification of the input unit is 2.10^5. The natural noise-level of the device is several times below that of

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A measuring device... 86594

the bolometer. The main amplifier includes a synchronous rectifier and an oscillator. The device is supplied by a stabilizer with a two-stage d.c. amplifier. The spectrum of water vapor and carbon dioxide, as registered by the spectrometer VIKS-3 by means of the device, is shown in a figure. The device is used in laboratory investigations in conjunction with the spectrometer VIKS-3 and in plants with the spectrometer VIKS-4. It can be also used in the spectrometers IKS. There are 4 figures and 4 Soviet-bloc references.

ASSOCIATION: Instytut fizyky AN USSR (Physics Institute AS Ukr SSR)

SUBMITTED: November 12, 1959

Card 3/3

MAL'NEV, A.F. [Mal'niev, A.F.]; YESEL'SON, M.P. [IEsel'son, M.P.]

Recording device for a spectrophotometer. Ukr. fiz. zhur. 5 no. 5:640-644 S-O '60. (MIRA 14:4)

1. Institut fiziki AN USSR.
(Spectrometer)

9.4160 (also 2801)
11.8100

20704
S/120/61/000/001/042/062
E192/E382

AUTHORS: Dzhagatspanyan, R.V., Maksimov, M.P. (Deceased) and Yesel'son, M.P.

TITLE: A Device for Recording High-speed Processes

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No. 1, pp. 132 - 137

TEXT: Continuous recording of the changes of infra-red spectra during chemical reactions is of considerable practical importance but very often the speed of response of the infra-red receivers (wavelengths from 2 - 20 μ or more) is not fast enough to give a suitable resolving time. A faster device was proposed by Bonch-Bruyevich and Imas (Ref. 1) in 1955 but it resulted in the deterioration of the signal-noise ratio of the receiver. In the following a high-speed recording instrument with an amplifier furnished with a bolometer inertia-correcting circuit is described. The recording speed for a single spectrum can be as high as 10^{-2} or 10^{-3} sec, the resolving time being 10^{-4} to 10^{-5} sec. The instrument can work as a pyrometer (recording rapid changes of the incident

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A Device for Recording ....

thermal radiation) or it can perform measurements at a chosen point of the spectral range. When operating as a spectrometer the instrument can register infra-red spectra $I = f(\lambda)$ of various materials at speeds from 1 - 10^{-3} sec. The limiting resolving time of the instrument is 6 x 10^{-3} which is equivalent to 10^{-4} sec. Consequently, by recording a successive range of spectra it is possible to plot the spectrum $I = \varphi(\lambda, t)$ of a chemical reaction. When used as a pyrometer the instrument can register rapid changes of the radiation intensity as a function of time $(I = f(t))$ at speeds ranging from 1 - 10^{-3} sec, the limiting resolving time being of the order of 10^{-4} sec. This is necessary in solving various engineering problems such as the investigation of explosions, rapid combustion, etc. In both types of operation a calibrating voltage curve is recorded simultaneously with the curves representing the investigated processes; the calibration curve permits determination of the duration of the

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E192/E382

A Device for Recording ....

process and its significant sections. The spectra are recorded by means of a long-persistence cathode-ray tube (oscillograph ЭНО-1 (ENO-1)). The instrument consists of the following units: 1) a pre-amplifier which is situated in the immediate vicinity of the receiver; 2) the main amplifier, provided with an inertia-correction circuit; 3) an electronic switch having two inputs and operating at the frequency of 200 kc/s; 4) a calibration oscillator producing sinusoidal waveforms having frequencies of 10, 50, 100, 500 and 1 000 c.p.s; 5) a control pulse generator giving rectangular pulses repeated at a frequency of 50 c.p.s; 6) a synchronisation amplifier, permitting synchronisation of the time base by a positive or negative internal signal; 7) a triggered time base operating at frequencies 1, 3, 10, 30, 100, 300 and 1 000 c.p.s. and power supplies comprising high-voltage and low-voltage rectifiers and an electronic stabiliser having a stabilisation coefficient of 1200. The main amplifier consists of an input cathode follower, a two-stage amplifier furnished with high- and low-frequency correction circuits and an inertia-correcting circuit which is separated

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S/120/61/000/001/042/062
E192/E382

A Device for Recording ....

from the amplifier by means of a cathode follower. The bandwidth of the amplifier at 3 db extends from 1 c.p.s. to 0.8 Mc/s. The inertia-correction is achieved by means of an RC network. The range of the time constants of the receivers is divided into the following sub-ranges: 1-3, 3-8, 5-15, 10-30 and 30-100 μs. The desired sub-range is provided by switching-in a suitable capacitance, while the continuous control is achieved by varying the resistance. The electronic switch consists of a multivibrator operating at a frequency of 200 kc/s, a limiter and two controlled tubes. The switch is perhaps unusual in that a cathode-coupled feedback stage is used as the limiter. The calibration oscillator is based on the usual RC circuit. The synchronisation amplifier consists of two tubes, while the time-base generator comprises two multivibrators, a charging pentode and a cathode follower. The time constant of the correction network should be made equal to the time constant of the receiver before the instrument can be used in measurements. This is done by introducing a

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S/120/61/000/001/042/062
E192/E382

A Device for Recording ....

rotating (modulating) disc between the source and the receiver, the purpose of the disc being to produce light pulses having a sharp leading edge. The instrument was tested as a pyrometer, a photoresistor having a time constant of 40 μs being used as a receiver. There are 4 figures and 1 Soviet reference.

SUBMITTED: December 28, 1959

X

Card 5/5

YESEL'SON, M.P. [IEsel'son, M.P.]; KREMENCHUGSKIY, L.S. [Kremenchuhs'kyi, L.S.]; MAL'NEV, A.F. [Mal'niev, A.F.]

Temperature variations of the characteristics of input transformers of low-resistance thermal receivers. Ukr. fiz. zhur. 6 no.3:420-422 My-Je '61. (MIRA 14:8)
(Electric transformers--Thermal properties)

MAL'NEV, A.F. [Mal'niev, A.F.]; YESEL'SON, M.P. [IEsel'son, M.P.]; KREMENCHUGSKIY, L.S. [Kremenchuhs'kyi, L.S.]

Characteristics of measuring devices for IKS-11 and IKS-12 spectrometers with modulation of the radiation flux. Ukr. fiz. zhur. 6 no.6:881-883 N-D '61. (MIRA 16:5)

1. Institut fiziki AN UkrSSR, Kiyev.
(Spectrometer)

35096
S/185/62/007/001/006/014
D299/D302

9.2510 (1040,1159,1532)

AUTHORS: Yesel'son, M.P., Kremenchuhs'kyy, L.S., and Mal'nyev, A.F.

TITLE: Noise characteristics of signal pre-amplifiers of low-ohmic thermal receivers

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 1, 1962, 46 - 52

TEXT: Low-frequency noises were investigated of certain practical pre-amplifier circuits with an input tube operating under floating-grid conditions. The following types of tubes were studied: 6Ж1П (6ZhIZh), 6С4П (6S4P), 6Н14П (6N14P), and 6Н16Б (6N16B). The last 2 types were investigated in negative-feedback pre-amplifier circuits. A noise analyzer, operating at the fixed frequencies of 5, 9, 15 and 20 cycles, was used. The noise analyzer consisted of a pre-amplifier, selective amplifier, detector, low-frequency filter and millivoltmeter. Background noises of tubes were investigated as a function of the filament current and the value of the negative feed-

Card 1/3

Noise characteristics of signal...

back; by using negative feedback it is possible to reduce the noise level two- to threefold. If fairly large transformers are used, the noise of the input tubes can be easily covered (at frequencies of 15 - 20 cycles); if however, miniaturized input transformers, operating at very low frequencies, are used, this becomes much more difficult. A figure shows the gain factor of transformers with permalloy core. By comparing the obtained data, it was found that the tube 6S4P yielded lowest noise-level. The following graphs are given: Frequency dependence of the gain factor of a transformer, dependence of optimum gain of transformer on its output noise-level, dependence of background noise of transformer on the number of primary windings, and the frequency dependence of pre-amplifier noises (with one of the transformers). The deviation of the measured noise-values from the calculated ones, did not exceed 15 %. Conclusions: It is feasible to design a measuring device with background noise-level of the order of $1 - 2 \cdot 10^{-10}$v at a frequency of 9 - 20 cycles with $\Delta f = 1$ cycle. From the tabulated data and the graphs it is possible to estimate the noises in actual cases. There are 6 figures, 1 table and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-

Noise characteristics of signal ... S/185/62/007/001/008/01
D299/D302

language publication reads as follows: J.U. White, M.D. Liston, JOSA, 40, no. 1, 36, 1950.

ASSOCIATION: Instytut fizyky AN URSR (Institute of Physics of the AS UkrRSR), Kyyiv

SUBMITTED: March 14, 1961

X

Card 3/3

LIZOGUB, A.F., kand. khim. nauk; SKLYAR, V.T., kand. khim. nauk; YESELSON, M.P.

Analyzer of the lubricant content in paraffin. Neft. i gaz. prom. no.4:56-58 O-D '63. (MIRA 17:12)

1. UkrNIIgiproneft'.

MAL'NEV, A.F.; YESEL'SON, M.P.

Recording unit with low-resistance bolometers for spectroscopic instruments. Prib. i tekh. eksp. 6 no.1:137-140 Ja-F '61. (MIRA 14:9)

1. Institut fiziki AN USSR.
(Electronic instruments)

KHODZHIBAYEV, N.N.; YESENBEKOV, A.

Effect of irrigation from deepened canals on the regime of underground waters. Uzb. geol. zhur. 8 no.1:62-67 '64. (MIRA 18:5)

1. Institut gidrogeologii i inzhenernoy geologii AN UzSSR.

YESENBEKOV, Seil'bek; TURADILOV, Dosbol; IL'YASHENKO, L.V., redaktor; ZLOBIN, M.V., tekhnicheskiy redaktor

[Experience in increasing the fertility of sheep; the use of pregnant mar's serum] Opyt uvelicheniia mnogoplodiia ovets; primenenie SZhK. Alma-Ata, Kazakhskoe gos. izd-vo, 1956. 14 p. (MIRA 9:10)

1. Starshiy chaban kolkhoza imeni Lenina, Il'ichevskogo rayona, Yuzhno-Kazakhstanskoy oblasti. (for Yesenbekov, Turadilov)
(Sheep breeding)

AID P - 4291

Subject : USSR/Engineering

Card 1/1 Pub. 128 - 16/25

Author : Yesenberlin, R., Kand. Tech. Sci.

Title : Copper soldering in an atmosphere of nitrogen

Periodical : Vest. mash., #2, p. 56-57, F 1956

Abstract : Heating copper in the presence of hydrogen or other reducing gases has bad effect of reducing its strength and making it brittle. Satisfactory results of tests are reported in which copper was soldered in a stream of nitrogen. Diagram. 5 references, 1946-1955.

Institution : None

Submitted : No date

YESENBERLIN, R.Ye., kandidat tekhnicheskikh nauk.

Using dunite for thorough removal of oxygen from inert gases.
Khim.prom. no.4:244-245 Je '56. (MLRA 9:10)
(Dunite) (Oxygen) (Gases, Rare)

PHASE I BOOK EXPLOITATION 1248

Yesenberlin, Ravnak Yesenberlinovich

Payka metallov v pechakh s gazovoy sredoy (Controlled-atmosphere Furnace Brazing of Metals) Moscow, Mashgiz, 1958. 93 p. 7,000 copies printed.

Reviewer: Petran', K.V., Candidate of Technical Sciences; Ed.: Vologdin, V.V., Engineer; Ed. of Publishing House: Borodunina, I.A.; Tech. Ed.: Pol'skaya, R.; Managing Ed. for Literature on Machine-building Technology (Leningrad Division, Mashgiz): Naumov, Ye.P., Engineer.

PURPOSE: The book is intended for engineers and technicians of the machine-building industry interested in brazing.

COVERAGE: The physical and chemical principles and technological characteristics of brazing metals and alloys in controlled atmospheres are presented. The author describes equipment used in controlled atmosphere brazing, filler metals and gases used in this process. There are 31 references, 26 of which are Soviet and 5 English.

Card 1/4

Controlled-atmosphere (Cont.)

TABLE OF CONTENTS:

Card 2/4

Controlled-atmosphere (Cont.) 1248

AVAILABLE: Library of Congress

GO/sfm
2-24-59

Card 4/4

PHASE I BOOK EXPLOITATION SOV/3417

Yesenberlin, Ravnak Yesenberlinovich

Payka metallov (Soldering and Brazing of Metals) Moscow, Mashgiz, 1959. 179 p. 14,000 copies printed.

Ed.: S.V. Lashko-Avakyan, Candidate of Technical Sciences; Ed. of Publishing House: N.S. Stepanchenko; Tech. Ed.: V.D. El'kind; Managing Ed. for Literature on Heavy Machine Building: S.Ya. Golovin, Engineer.

PURPOSE: This book is intended for process engineers, foremen, and skilled workers in the soldering and brazing of metals.

COVERAGE: The book deals with modern methods and equipment for the soldering and brazing of metals. Solders, fluxes, and gaseous media used in soldering and brazing operations are discussed. Basic information is given on the factors affecting the quality of soldered and brazed joints. Fields of application for the methods discusses are indicated. No personalities are mentioned. There are 38 references, all Soviet.

Card 1/4

TABLE OF CONTENTS:

Soldering and Brazing (Cont.)

AVAILABLE: Library of Congress (TT 267 .E79)

PHASE I BOOK EXPLOITATION SOV/6307

Yesenberlin, Ravnak Yesenberlinovich

Payka metallov v pechakh s gazovoy sredoy (Brazing of Metals in Furnaces With Controlled Atmosphere). 2d ed., rev. and enl. Moscow, Mashgiz, 1962. 127 p. Errata slip inserted. 7000 copies printed.

Reviewer: I. A. Zaks, Engineer; Ed.: Z. M. Ryzhik, Engineer; Ed. of Publishing House: I. A. Denina; Tech. Ed.: A. A. Bardina; Managing Ed. for Literature on Machine-Building Technology (Leningrad Department, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This booklet is intended for engineering and scientific personnel.

COVERAGE: The book reviews the physicochemical fundamentals and technological features of brazing metals and alloys in gaseous media and describes the equipment used for this purpose. The most frequently used

Card ~~1/5~~ 1/2

Brazing of Metals (Cont.) SOV/6307

brazing alloys and gases employed in nonoxidizing brazing processes are discussed. No personalities are mentioned. There are 19 references: 12 Soviet, 5 English, 1 German, and 1 Czech.

TABLE OF CONTENTS:

Card ~~2/5~~ 2/2

MARGULIS, Ye.M., insh.; GUBIN, V.I., insh.; YESENGULOV, T.Ye.

Achievements of mine builders in shaft sinking in Dzhezkazgan. Shakht.stroi. 4 no.9:18-20 S '60. (MIRA 13:8)

1. Dzhezkazganskoye shakhtoprokhodcheskoye upravleniye tresta Stalinshakhtoprokhodka (for Margulis). 2. Institut gornogo dela Akademii nauk KazSSR (for Gubin, Yesengulov).
(Dzhezkazgan--Shaft sinking)

YESENIN, K.S.; BOGOMOLOV, M.D., nauchnyy red.; PAKHOMOVA, M.A., red.izd-va; TEYYERMAN, T.M., tekhn.red.

[Mechanic I.D.Voropaev] Slesar' I.D.Voropaev. Moskva, Gos. izd-vo lit-ry po stroit.i arkhit., 1958. 25 p. (MIRA 12:9)
(Mechanics (Persons))

ANTIPIN, Ye.B., gornyy inzhener-elektromekhanik; YESENIN, N.I., gornyy inzhener-elektromekhanik.

New automatic control to limit the speed of hoisting machines. Gor.zhur. no.10:61-63 O '56. (MLRA 9:12)
(Mine hoisting) (Automatic control)

L 23189-66 EWT(m)/EWP(t) IJP(c) JD/JG
ACC NR: AP6006944 SOURCE CODE: UR/0075/66/021/002/0239/0241

AUTHOR: Goryushina, V. G.; Yesenina, N. V.

ORG: State Scientific Research and Planning Institute of the Rare Metal Industry, Moscow (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskoy promyshlennosti)

TITLE: Determination of phosphorus in arsenic and arsenic trioxide

SOURCE: Zhurnal analiticheskoy khimii, v. 21, no. 2, 1966, 239-241

TOPIC TAGS: phosphorus, arsenic, trace analysis

ABSTRACT: To determine trace amounts of phosphorus in arsenic, after the arsenic sample has been dissolved in acid, it is necessary first of all to remove the arsenic from the solution. A procedure is proposed in which the arsenic sample is dissolved in hydrochloric acid containing bromine; As is thus converted to the trivalent state (not to the pentavalent state, as when an HCl-HNO_3 mixture is used), and most of it is readily driven off by boiling. The remaining arsenic is removed by extracting once with carbon tetrachloride from a 9 N HCl solution containing 0.1

UDC: 543.70

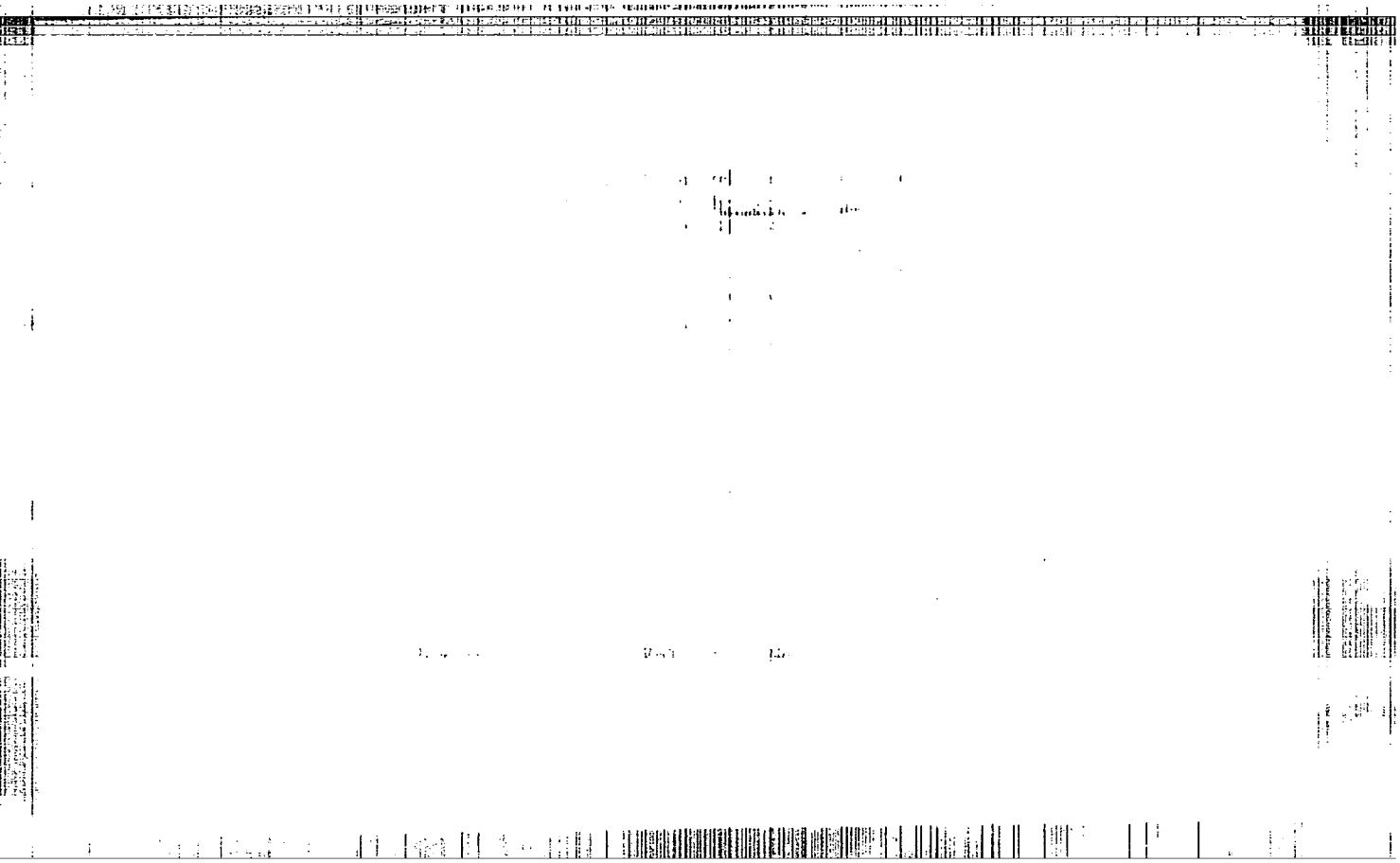
Card 1/2

L 23189-66
ACC NR: AP6006944

mol KI per liter. Experiments with arsenic and arsenic trioxide showed that after this treatment there always remains less than 1 μg of arsenic in the solution, this amount having no effect on the determination of phosphorus. They also showed that no phosphorus is lost in the course of the analysis. The sensitivity of the determination is 0.05 μg P, which for a 1 g sample permits the determination of amounts as low as $1 \cdot 10^{-5}$% P. The apparatus used for distilling off the arsenic is described. Orig. art. has: 1 figure, 1 table.

SUB CODE: 07/ SUBM DATE: 08Feb65/ ORIG REF: 004/ OTH REF: 000

Card 2/2



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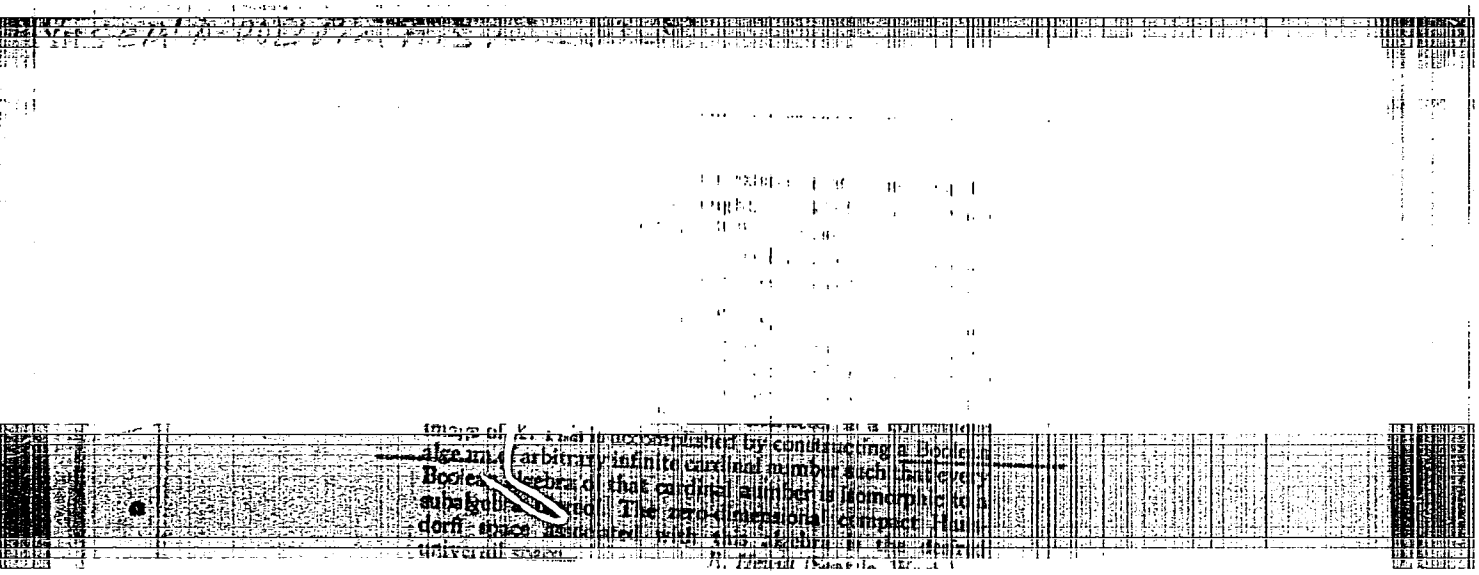
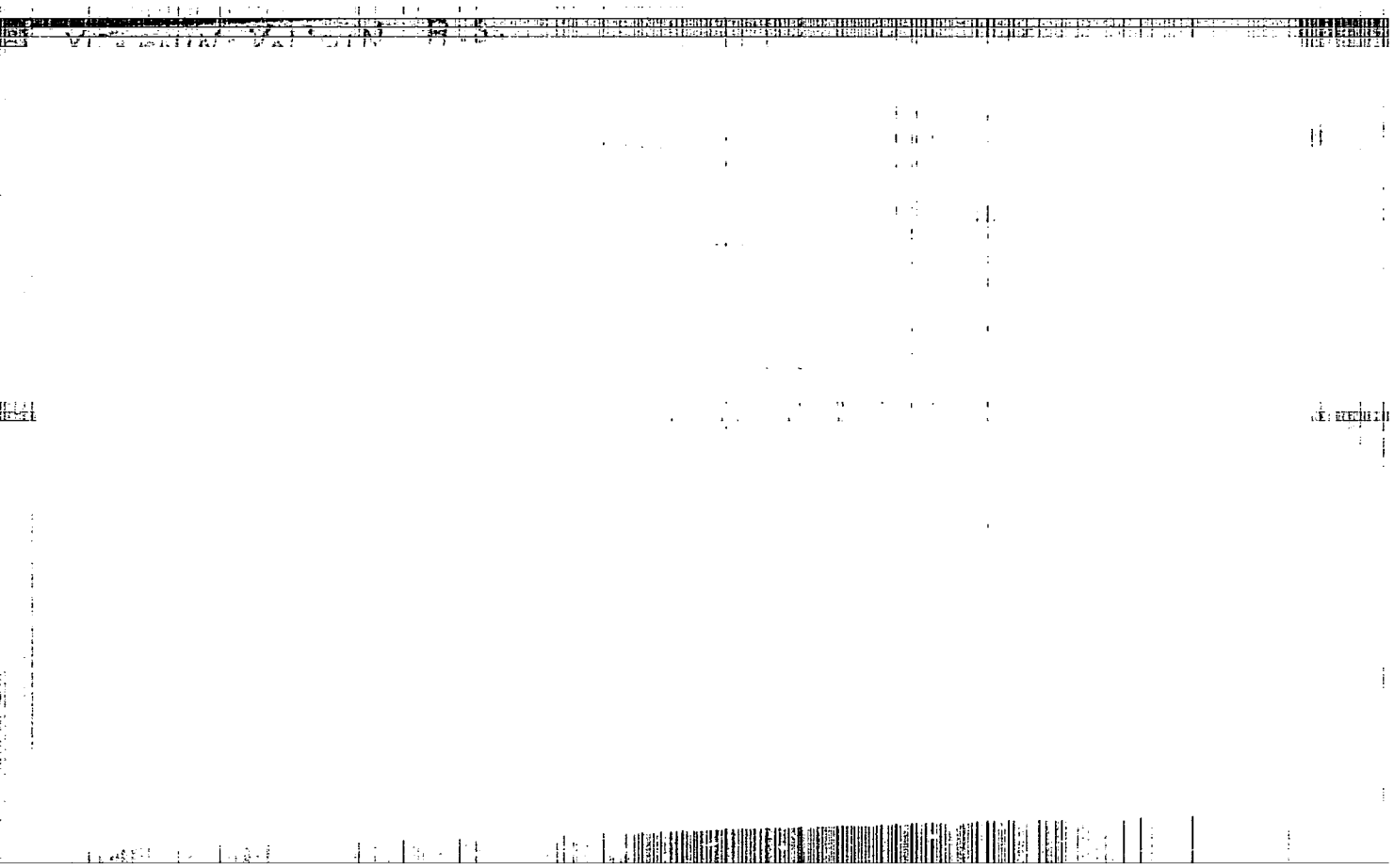
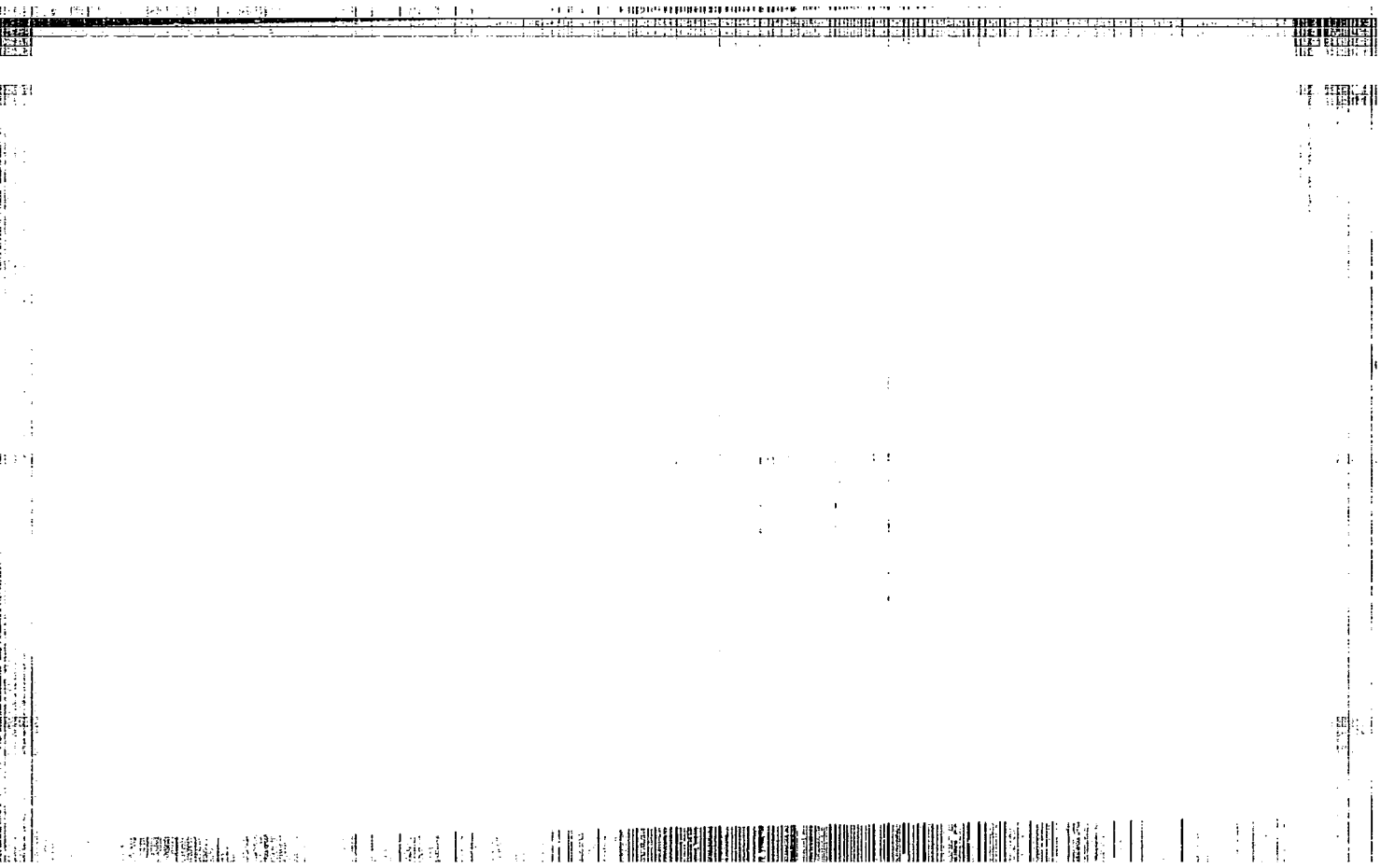




APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001962920005-7"



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001962920005-7"

16(1) PHASE I BOOK EXPLOITATION SOV/2660

Vsesoyuznyy matematicheskiy s"yezd. 3rd, Moscow, 1956

Trudy. t. 4; Kratkiye soderzhaniya sektsionnykh dokladov. Doklady inostrannykh uchenykh (Transactions of the 3rd All-Union Mathematical Congress, vol. 4: Summary of Sectional Reports. Foreign Scientists' Reports) Moscow, Izd-vo AN SSSR, 1956.
247 p. 2,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Matematicheskiy institut.

Eds.: S.N. Chernikov; Editorial Board: A.A. Abramov, V.G. Boltyanskiy, A.M. Vasil'yev, B.V. Gnedenko, A.P. Yershov, P.K. Rashevskiy (Resp. Ed.), A.G. Postnikov, Yu. V. Prokhorov, K.A. Rybnikov, P. L. Ul'yanov, V.A. Uspenskiy, N.G. Chetayev, G. Ye. Shilov, and A.I. Shirshov.

PURPOSE: This book is intended for mathematicians and physicists.

COVERAGE: The book is Volume IV of the Transactions of the Third All-Union Mathematical Conference, held in June and July 1956. The book is divided into two main parts. The first part contains summaries of the papers presented by Soviet scientists at the Conference that were not included in the first two volumes. The second part contains the text of reports submitted to the editor by non-Soviet scientists. In those cases when the non-Soviet scientist did not submit a copy of his paper to the editor, the title of the paper is cited and, if the paper was printed in a previous volume, reference is made to the appropriate topic in number theory, both Soviet and non-Soviet, cover various topics in number theory, algebra, differential and integral equations, function theory, functional analysis, probability theory, topology, mathematical problems of mechanics and physics, computational mathematics, mathematical logic and the foundations of mathematics, and the history of mathematics.

Card 16/33

YESENIN-VOL'PIN, Aleksandr Sergeyevich

A leaf of spring. New York, Praeger (1961)
173 p.
Added t. -p. in Russian: Vesennyy list.
"With the text appearing both in the original Russian and in the English translation by Geoge Reavey."

L 04936-67 EWT(d)/EWT(l)/EWT(m)/EWP(w) IJP(c) EM/WW

ACC NR: AP6028359 SOURCE CODE: UR/0043/66/000/003/0055/0063

AUTHOR: Buravtsev, A. I.; Yesenina, N. A.

ORG: none

TITLE: Interaction between rarefaction waves and shock waves

SOURCE: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 3, 1966, 55-63

TOPIC TAGS: shock wave interaction, shock wave propagation, shock wave, rarefaction wave structure, mechanical stress

ABSTRACT: The elastic-plastic behavior of a rod is investigated. One end of the rod is subjected to a constant load which is suddenly removed according to a linear law. The stress-strain curve consists of two connected sections, one straight and the other parabolic. Specific attention is given to the collision between the rarefaction wave and a shock wave which causes a discontinuity within the rod. The secondary loading wave propagates to the left of the rod, and the shock wave to the right. An elastic wave radiation is possible. In conclusion,

Card 1/2 UDC: 539.38

L 04936-67
ACC NR: AP6028359

the authors express their deep gratitude to A. A. Grib for valuable advice in the course of this work. Orig. art. has: 51 formulas and 9 figures.

SUB CODE: 20/ SUBM DATE: 03Feb65/ ORIG REF: 005/ OTH REF: 002

kh

Card 2/2

L 23189-66 EWT(m)/EWP(t) IJP(c) JD/JG

ACC NR: AP6006944 SOURCE CODE: UR/0075/66/021/002/0239/0241

AUTHOR: Goryushina, V. G.; Yesenina, N. V.

ORG: State Scientific Research and Planning Institute of the Rare Metal Industry, Moscow (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskoy promyshlennosti)

TITLE: Determination of phosphorus in arsenic and arsenic trioxide

SOURCE: Zhurnal analiticheskoy khimii, v. 21, no. 2, 1966, 239-241

TOPIC TAGS: phosphorus, arsenic, trace analysis

ABSTRACT: To determine trace amounts of phosphorus in arsenic, after the arsenic sample has been dissolved in acid, it is necessary first of all to remove the arsenic from the solution. A procedure is proposed in which the arsenic sample is dissolved in hydrochloric acid containing bromine; As is thus converted to the trivalent state (not to the pentavalent state, as when an HCl-HIO_3 mixture is used), and most of it is readily driven off by boiling. The remaining arsenic is removed by extracting once with carbon tetrachloride from a 9 N HCl solution containing 0.1

UDC: 543.70

Card 1/2

L 23189-66

ACC NR: AP6006944

mol KI per liter. Experiments with arsenic and arsenic trioxide showed that after this treatment there always remains less than 1 µg of arsenic in the solution, this amount having no effect on the determination of phosphorus. They also showed that no phosphorus is lost in the course of the analysis. The sensitivity of the determination is 0.05 µg P, which for a 1 g sample permits the determination of amounts as low as $1 \cdot 10^{-5}$% P. The apparatus used for distilling off the arsenic is described. Orig. art. has: 1 figure, 1 table.

SUB CODE: 07/ SUBM DATE: 08Feb65/ ORIG REF: 004/ OTH REF: 000

Card 2/2

YESENINA, Ye.P.

Treatment of eczema with plegomazine. Vest.derm.i ven. 34 no.6:65-66 '60. (MIRA 13:12)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - prof. N.N. Chumakov) Yaroslavskogo meditsinskogo instituta.
(ECZEMA) (PHENOTHIAZINE)

YESENIN-VOLPIN, A.S.

PHASE I BOOK EXPLOITATION SOV/5088

Akademiya nauk SSSR

Primeneniye logiki v nauke i tekhnike (Application of Logic in Science and Technology) [Moscow] Izd-vo AN SSSR [1960] 357 p. Errata slip inserted. 10,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR.

Editorial Board: Resp. Ed.: I. V. Tavanets, E. Ya. Kol'man, G. N. Povarov and S. A. Yanovskaya; Ed. of Publishing House: R. Yu. Rozenberg; Tech. Ed.: S. T. Markovich.

PURPOSE: This book is intended for scientists interested in mathematical and symbolic logic.

COVERAGE: The book is a collection of 16 articles in which the authors discuss problems of mathematical logic and its application to computers, linguistics, zoology, methodology and various fields of technology. No personalities are mentioned. References follow all but one article.

Card 1/4

YESENKIN, V.

The trade-union group as a united and harmonious group. Sov. profsoiuzy 4 no.1:53-54 Ja '56. (MIRA 9:4)

1.Profgrupporg slesarno-mekhanicheskoy masterskoy 4-go stroyuchastka tresta "Sevkavtransstroy".
(Rostov--Trade unions)

[redacted], V.M., [redacted]

Optimal value of the productive capacity of [redacted]
39 no.12:25-26 D '61. (MIRA 15:2)

1. Trest Prunaugol'.

KOSAREV, M.K.; YESENKOV, V.M.

Wear of the sections and chains of the SKR-20 conveyor in transporting anthracite. Ugol' 38 no.6:35-37 Je '63. (MIRA 16:8)

1. Trest Frunzeugol'.
(Conveying machinery) (Mechanical wear)

YESENKOV, V.M.

Breaking of coal during its transportation within a mining section. Ugol' 38 no.8:45-47 Ag '63. (MIRA 17:11)

1. Nachal'nik tekhnicheskogo otdela tresta Frunzeugol'.

KOSAREV, M.K.; YESENKOV, V.M.

Work practices of the Frunzeugol' Trust mines in rapid mining of development workings. Ugol' 40 no.6:18-19 Je '65. (MIRA 18:7)

1. Trest Frunzeugol'.

SARSENBAYEV, R.; YESENOV, K.

Scientific syntax of the Kazakh language [in Kazakh]. Vest.AN Kazakh.SSR 18 no.3:90-92 Mr '62. (MIRA 15:3)
(Kazakh language—Syntax)

YESENOV, M

PHASE I BOOK EXPLOITATION 760

Promyshlennost' Kazakhstana za 40 let; sbornik statey (The Industry of Kazakhstan During the Last Forty Years; Collection of Articles) Alma-Ata, Kazgosizdat, 1957. 150 p. 13,000 copies printed.

Gen. Eds.: Brover, I.M., Professor and Yerofeyev, N.A., Docent; Eds.: Spivak, F.L. and Il'yashenko, L.V.; Tech. Ed.: Zlobin, M.V.

PURPOSE: This is a popular book for the general reader.

COVERAGE: This collection of articles, compiled by 12 contributors, relates the story of industrial Kazakhstan under Soviet rule. The introductory chapter surveys the Kazakh economy in its entirety, whereas the other chapters deal with individual industries. The book contains data and figures on almost every aspect of Kazakh industrial endeavor. There are 14 photographs, 1 map, 26 tables, and 5 diagrams. No personalities are mentioned and there are no references.

Card 1/6

TABLE OF CONTENTS:

Kazakhstan occupies the first place in the world in vanadium and chrome iron ore reserves. However, the location of vanadium ore deposits is not given. Furthermore, the data on molybdenum are confusing. The chapter gives figures on the planned Karaganda Iron and Steel Combine.

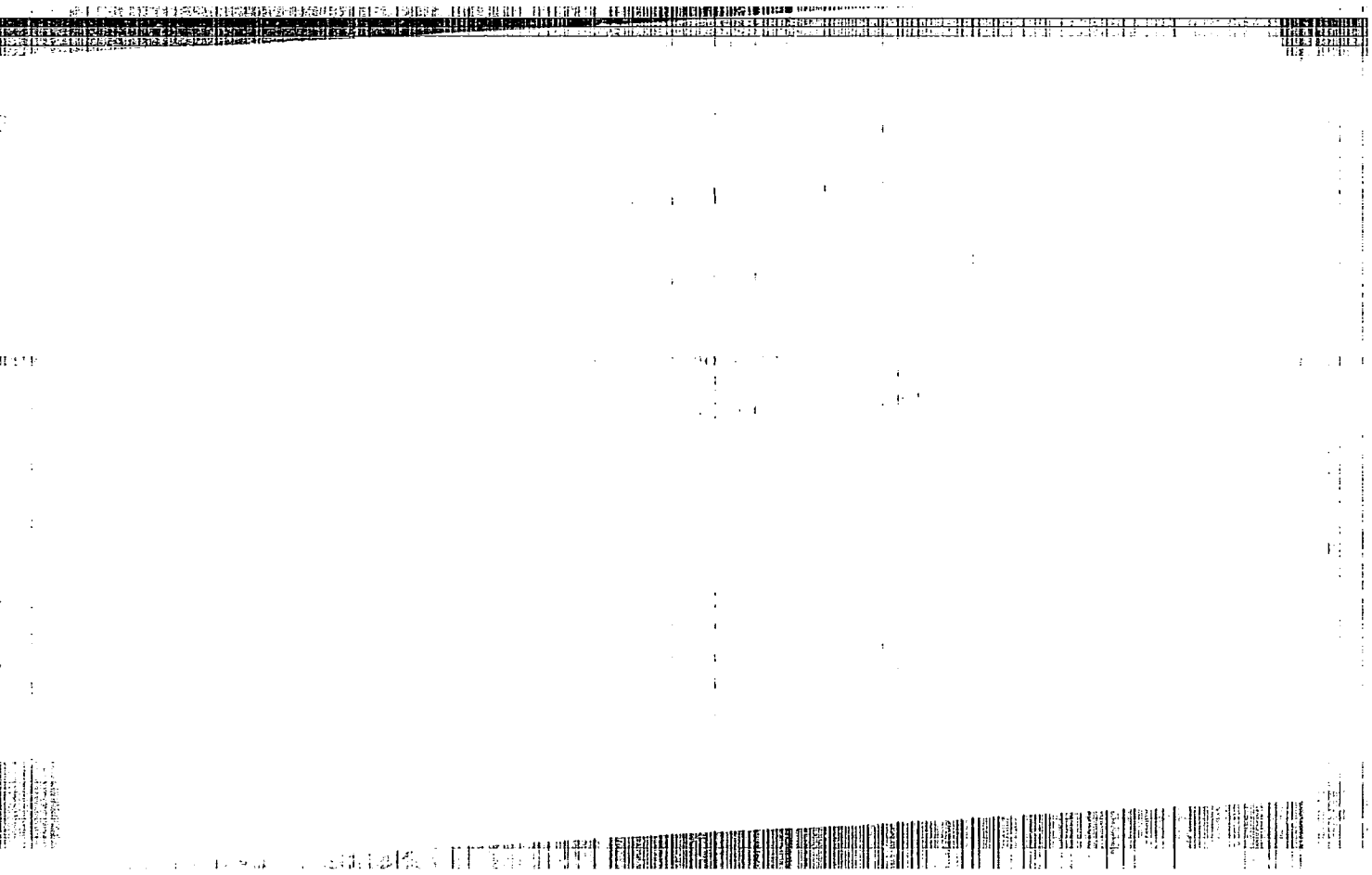
Kozhakhmetov, K., Yesenov, M., and Shaukenbayev, T. (Candidate of Economic Sciences). The Kazakh Coal Industry 37
The description of coal deposits is limited to the fields of Karaganda. Ekibastuz coal is being used by power plants. The authors give some data on equipment used. Future plans are discussed at some length.

Kozhakhmetov, Kh., Yesenov, M., and Shaukenbayev, T. The Kazakh Petroleum Industry 56
The article contains data on total oil reserves, but production figures are outdated. The problem of refining is treated superficially.

AVAILABLE: Library of Congress

Card 6/6

MM/jmr
11-24-58



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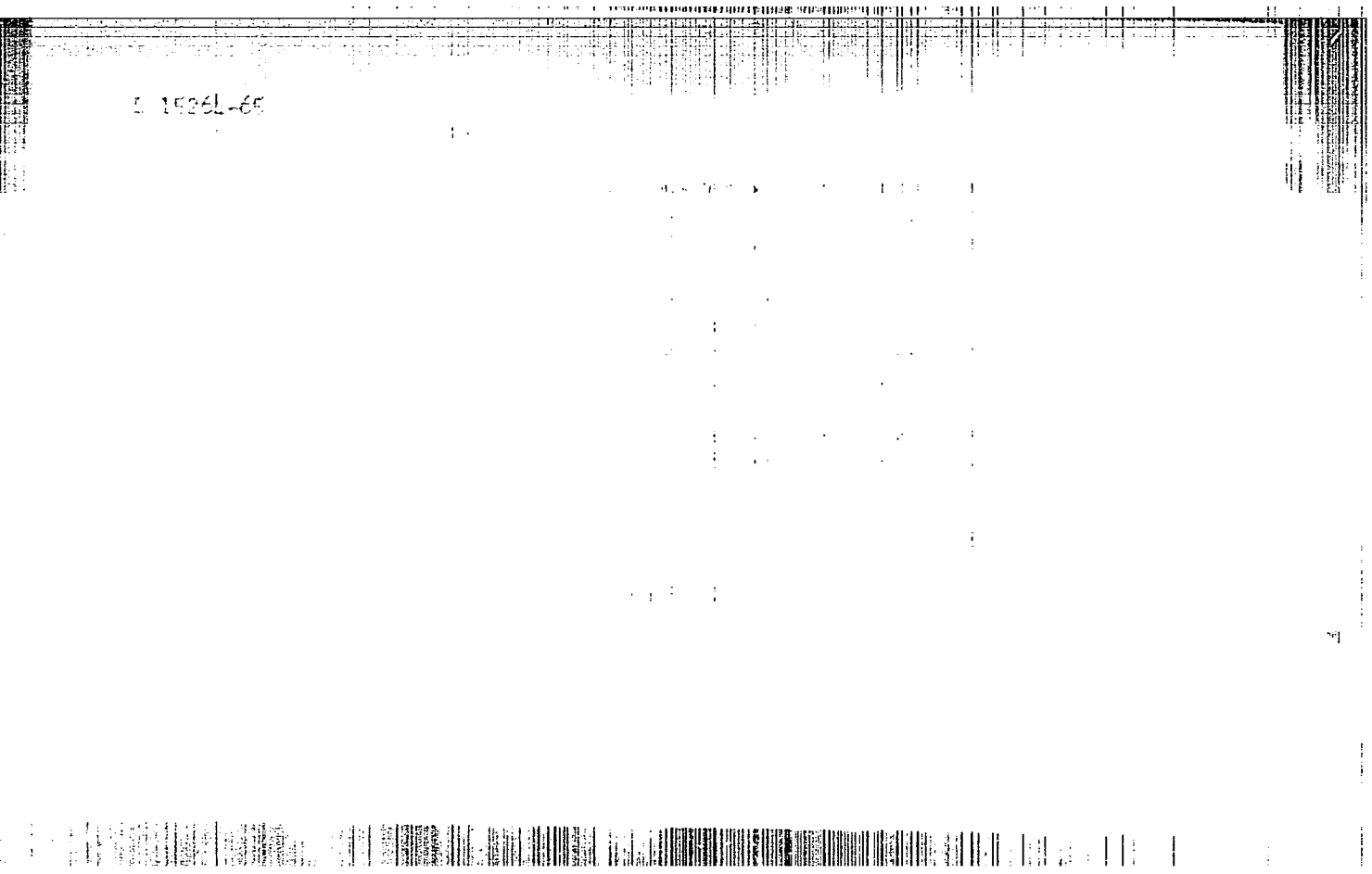

YESENOV, M. E.

ALI-ZADE, A.; MASHRYKOV, K.; ESENOV, M.

Origin and conditions under which petroleum occurs. Izv.AN Turk.SSR no.2:43-52 '51. (MLRA 6:8)

1. Institut geologii Akademii nauk Turkmenskoy SSR.
(Soviet Central Asia--Petroleum--Geology) (Geology--Petroleum--Soviet Central Asia)

YESENOV, M.E.

Lithology of Pliocene deposits in the Balkhan region. Izv.AN Turk. SSR.Ser.fiz.-tekh., khim.i geol.nauk no.1:88-93 '61. (MIRA 14:8)

1. Institut geologii AN Turkmenskoy SSR.
(Balkhan region--Petrology)

YESENOV, Shakhmardan

The minister of geology of Kazakhstan Sh. Esenov talks about the wealth of virgin deposits. IUn. tekh. 7 no.8:15-18 Ag '63. (MIRA 16:10)

1. Ministr geologii i okhrany nedr Kazakhstana.

VEDERNIKOV, N.N.; YESENOV, Sh.Ye.

Manifestations of amphibole mineralization in Dzhezkazgan District and geological criteria to be used in exploring for them. Vest.Kazakh.SSR 16 no.9:49-56 S '60. (MIRA 13:9)
(Dzhezkazgan District--Amphibole)

YESENOV, Rakhim Makhtumovich

[Journey under the eternal sun; story about my republic] Puteshestvie pod vechnym solntsem; rasskaz o moei respublike. Ashkhabad, Turkmenskoe gos.izd-vo, 1962. 56 p. (MIRA 16:7)

(Turkmenistan--Description and travel)

ANTROPOV, P.Ya.; BOGATYREV, A.S.; YESENOV, Sh.Yo.; SATPAYEVA, T.A.; SATPAYEV, K.I.; SEYFULLIN, S.Sh.

Outstanding geologists and Dzhezkazgan prospector. Vest.AN Kazakh. SSR 16 no.10:81-82 O '60. (MIRA 13:10)
(Shtifanov, Vasilii Ivanovich, 1910-)

S/169/63/000/002/058/127
D263/D307

AUTHOR: Yesenov, Sh. Ye.

TITLE: Towards a more rapid exploration of the mineral riches of Kazakhstan

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1963, 2, abstract 2D13 (Izv. AN KazSSR, Ser. geol., 1962, no. 1, (46), 3-7 (summary in Kaz.))

TEXT: According to surveyed amounts of copper, zinc, lead, cadmium, silver, bauxites, tungsten, chromites, phosphorites and coal, KazSSR occupies a leading position. Results of geological and [illegible] sical investigations, and of deep boring at Mangyshlak show [illegible] within the South Mangyshlak depression there exists real promi[illegible] of discovering large scale oil and gas deposits. In [illegible] with the perspectives for oil and gas, shown by the [illegible] [illegible] Arys'-Syrdar'inskiy [illegible] [illegible] depression [illegible] [illegible] that new regions of Kazakhstan will be surveyed [illegible]

Card 1/2

Towards a more ...

next few years, ensuring the establishment of a third major gas- and oil-producing area of the country. The known reserves of Kazakhstan iron ore may produce 120 - 130 million tons of ore per year. The output of the Sokolovsko-Sarbayskiy mine should first of all be raised to 50 million tons/year, as compared with the projected 26.5 million tons/year. An important task is the establishment of nonferrous metallurgy with high quality ores. New deposits of lead-zinc ores have been found in Altay, large scale deposits of nonferrous and rare metals in Central Kazakhstan, bauxites in the Kustanayskaya and nickel in the Aktyubinskaya regions, but the potential of the republic is far from exhausted, particularly in the Dzhezkazganskiy region. The overall coal reserves in Central Kazakhstan are in excess of 100 milliard tons, of which 20 milliard tons have been explored. Exploratory surveys should be directed at deposits of coking and low-ash high energy coals, suitable for working by the open-pit method. It is necessary to obtain greater knowledge regarding the disposition and nature of underground waters. More rapid familiarization with the [illegible] agronomic [illegible] requires urgent resolution. [Abstracter's note: Complete translation.]

Card 2/2

YESENOV, Sh.Ye.; YEREMIN, V.K.

Study of closed areas in the Kazakh S.S.R. Izv. AN Kazakh. SSR. Ser.geol. no.3:3-17 '62. (MIRA 15:7)
(Kazakhstan--Geology, Economic)

YESENOV, Sh.Ye.

Principal prospecting results and the outlook for finding oil and gas in Western Kazakhstan. Izv.AN Kazakh.SSR. Ser.geol. no.5:7-15 '62.
(MIRA 15:10)
(Kazakhstan—Petroleum geology) (Kazakhstan—Gas, Natural—Geology)

YESENOV, Sh Ye.

"Experience of geological survey in Kazakhstan"

report to be submitted for the United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas - Geneva, Switzerland, 4-20 Feb 63

YESENOV, Sh.Ye.

Basic problems of the geology in the Kazakh S.S.R. Izv. AN Kazakh.SSR. Ser.geol. no.4:XVIII-XXVI '61. (MIRA 15:3)

1. Ministr geologii i okhrany nedr Kazakhskoy SSR.
(Kazakhstan--Geology, Economic)

YESENOV, Shakhmardin Yesenovich; KUZIN, Mikhail Fedorovich; YERDZHANOV, Kariboz Nagayevich; IVKIN, N.M., otv. red.; SAGUNOV, P.G., red.izd-va

[Prospecting for pegmatite deposits, piezooptic and ceramic mineral resources in Kazakhstan] Poiski i razvedka pegmatitovykh mestorozhdenii p'ezoopticheskogo i keramicheskogo mineral'nogo syr'ia na territorii Kazakhstana. Alma-Ata, Kazakhskii nauchno-issl. in-t mineral'nogo syr'ia MG i ON KazSSR, 1963. 109 p. (MIRA 17:1)

YESENOV, Sh.Ye.

Mineral resources of Kazakhstan and the problems of the Geologists of the Republic. Izv.AN Kazakh.SSR. Ser.geol.nauk no.1:3-16 '63. (MIRA 16:8)

1. Ministerstvo geologii i okhrany nedr Kazakhskoy SSR, Alma-Ata.
(Kazakhstan--Mines and mineral resources)

YESENOV, Sh.Ye.

Geological organizations of Kazakhstan in the struggle for the fulfillment of the seven-year plan. Razved. i okh. nedr 29 no.10: 1-6 O '63. (MIRA 17:12)

1. Ministr geologii i okhrany nedr Kazakhskoy SSR.

YESENOV, S.A. Ye.; VEDERNIKOV, N.N.; BUDAY, M.M.

Methods of prospecting for asbestos deposits. Razved. i okh. nedr. 30 no.3:10-13 Mr '64 (MIRA 18:1)

1. Ministerstvo geologii i okhrany nedr Kazakhskoy SSR.

YESENOV, Sh.; MAKHAMBETOV, Kh.

Oil and gas potentials and the quality of the oil and gas of the Uzen' oil field. Izv. AN Kazakh. SSR. Ser. geol. 22 no.4:3-10 Jl-Ag '65. (MIRA 18:9)

BORUKAYEV, R.A.; YESENOV, Sh. Ye.; KAYUPOV, A.K.; ABDULIN, A.A.

Problems of geological science and practice in Kazakhstan. Izv. AN Kazakh. SSSR Ser. geol. 22 no.6:3-11 N-D '65 (MIRA 19:1)

1. Institut geologicheskikh nauk imeni K.I. Satpayeva AN KazSSR, Alma-Ata, i Ministerstvo geologii KazSSR, Alma-Ata.

YESENOVSKIY-LASHKOV, Yu.K.; LEBEDEV, Ye.I.

Stand for testing steel surfaces in the pinion-shaft pair of a motor-vehicle gearbox. Avt.prom. 28 no.8:32-33 Ag '62. (MIRA 16:3)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy institut.
(Motor vehicles--Transmission devices) (Testing machines)