GIGAURI, V.S.; OVCHINNIKOV, G.S.; MURDASOVA, I.V.

Clinical and experimental experience in the use of the RN-59 respiratory apparatus. Trudy 1-go MMI 33:226-231 '64. (MIRA 18:3)

OVCHINNIKOV, G.S.

Clinical use of [illegible]N-59 apparatus for artificial pulmonary ventilation. Nov. med. tekh. no.3:[illegible]-80 [illegible].

(MIRA [illegible])

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123[illegible]

TIKHVINSKIY, I.N.; PAVLOV, P.D.; OVCHINNIKOV, G.V.

Stratigraphy of Artian and Kungur deposits in their tapering-out zone (northeastern Tatarstan). Dokl. AN SSSR 140 no.1:207-210 S-O '61. (MIRA 14:9)

1. Geologo-poiskovaya kontora tresta "Tatneftegazrazvedka". Predstavleno akademikom D.V.Nalivkinym.
(Tatar A.S.S.R.--Geology, Stratigraphic)

VARFOLOMEYEV, I.A.; SUL'KIN, I.G.; OVCHINNIKOV, G.Ye.

Hoisting block with a rod. Rats. i izobr.predl.v strei.ne.124:24-27
'55. (Hoisting machinery) (MLRA 9:7)

GONCHAREVSKIY, Ya.A.; ANTIPIN, V.G.; OVCHINNIKOV, G.Ye.; KOZHANOV, M.G.

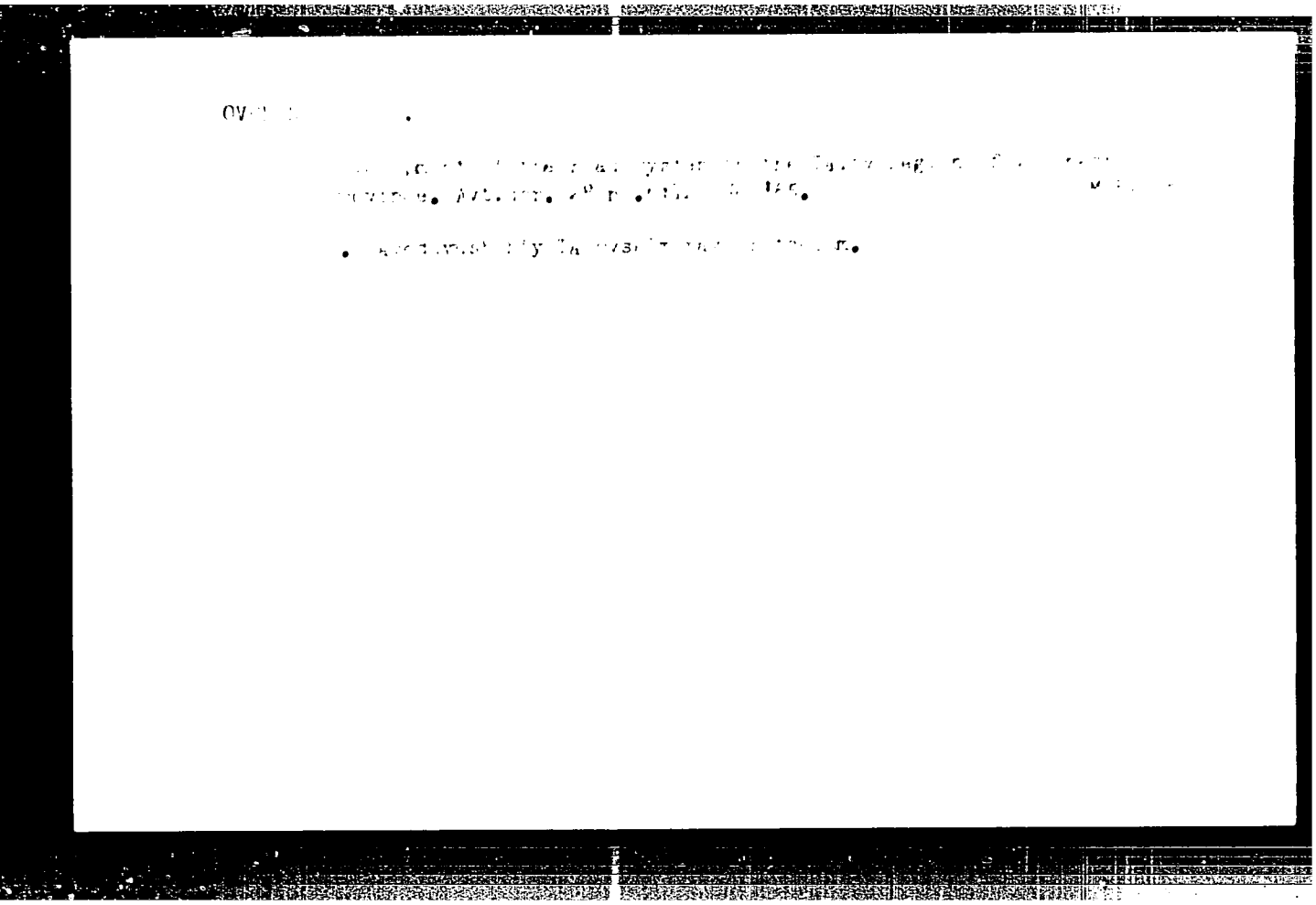
Operation of high-capacity open-hearth furnaces with single-channel ports. Stal' 22 no.8:705-709 Ag '62. (MIRA 15:7)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Open-hearth furnaces)

OVCHINNIKOV, G.Ye.

Some characteristics of steel smelting in open-hearth furnaces.
Metallurg no.5:11-13 My '56. (MLRA 9:9)

1.Nachal'nik smeny martenovskogo tsekha No.3 Magnitogorskogo metallurgicheskogo kombinata.
(Magnitogorsk--Open-hearth process)



OVCHINNIKOV, I.

Let us carry out the seven-year plan of road construction in five years. Avt.dor. 25 no.3:4 Mr '62. (MIRA 15:3)

1. Zaveduyushchiy rayonnym dorozhnym otdelom Talovskogo rayona, Voronezhskoy oblasti.
(Talovaya region--Road construction)

KOMMODOV, V.V., kand.sel'skokhoz. nauk; PETRENKO, A.T.; OVCHINNIKOV, I.A.

Components of grass mixtures for slopes. Zemledelie 25 no.12: 26-30 D '63. (MIRA 17:4)

1. Institut sel'skogo khozyaystva TSentral'no-chernozemnoy polosy imeni V.V.Dokuchayeva.

KOTOV, [illegible].F., kand. sel'khoz. nauk, [illegible]; [illegible]NIKOV, I.A.; kand. sel'khoz. nauk, nauchn. [illegible]; [illegible] KOV, [illegible], BOGDANOV, [illegible], [illegible]; kand. sel'khoz. nauk; [illegible]BY[illegible] [illegible] sel'khoz. nauk; [illegible], [illegible].G., red.

[Improvement of natural pastures [illegible] Uluchshenie estestvennykh pastbishch na sklonakh. [illegible] TSentral'no-chernozemnoe knizhnoe [illegible] 65 p. [illegible])

1. Institut sel'skogo khozyaystva [illegible] chernozemnoy polosy im. V.V.Dokuchayeva (for K[illegible], Kozmo[illegible]). 2. Nauchnyy rukovoditel' [illegible] opytnogo lugovogo polya (for Nenarokov). 3. Zaveduyushchiy [illegible] opytnym punktom Instituta sel'skogo khozyaystva [illegible] Tsentral'no-Chernozemnoy polosy im. V.V.Dokuchayeva [illegible] "Rassvet" Ostrogozhskogo rayona Voronezhskoy [illegible] (for [illegible]nikov). 4. [illegible] sel'skokhozyaystvennyy [illegible] (for [illegible]).

MECHEV, V.V.; OVCHINNIKOV, I.F.; NIKOLAYENKO, V.N.

Service life of converter linings during the smelting of high-grade copper-nickel mattes. TSvet. met. 38 no.11:75-77 N '65. (MIRA 18:11)

1. OVCHINNIKOV, I. I.

2. USSR 600

4. Poultry Houses and Equipment

7. Lighting chicken houses at night, Ptitsevodstvo, No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

OVCHINNIKOV, I.P.

Piston water sampler and results of its use in studying the gas cycle of the bottom layer of water in Rybinsk Reservoir. Trudy probl. i tem. sov. no.7:140-143 '57. (MLRA 10:4)
(Rybinsk Reservoir--Water--Analysis) (Gases)

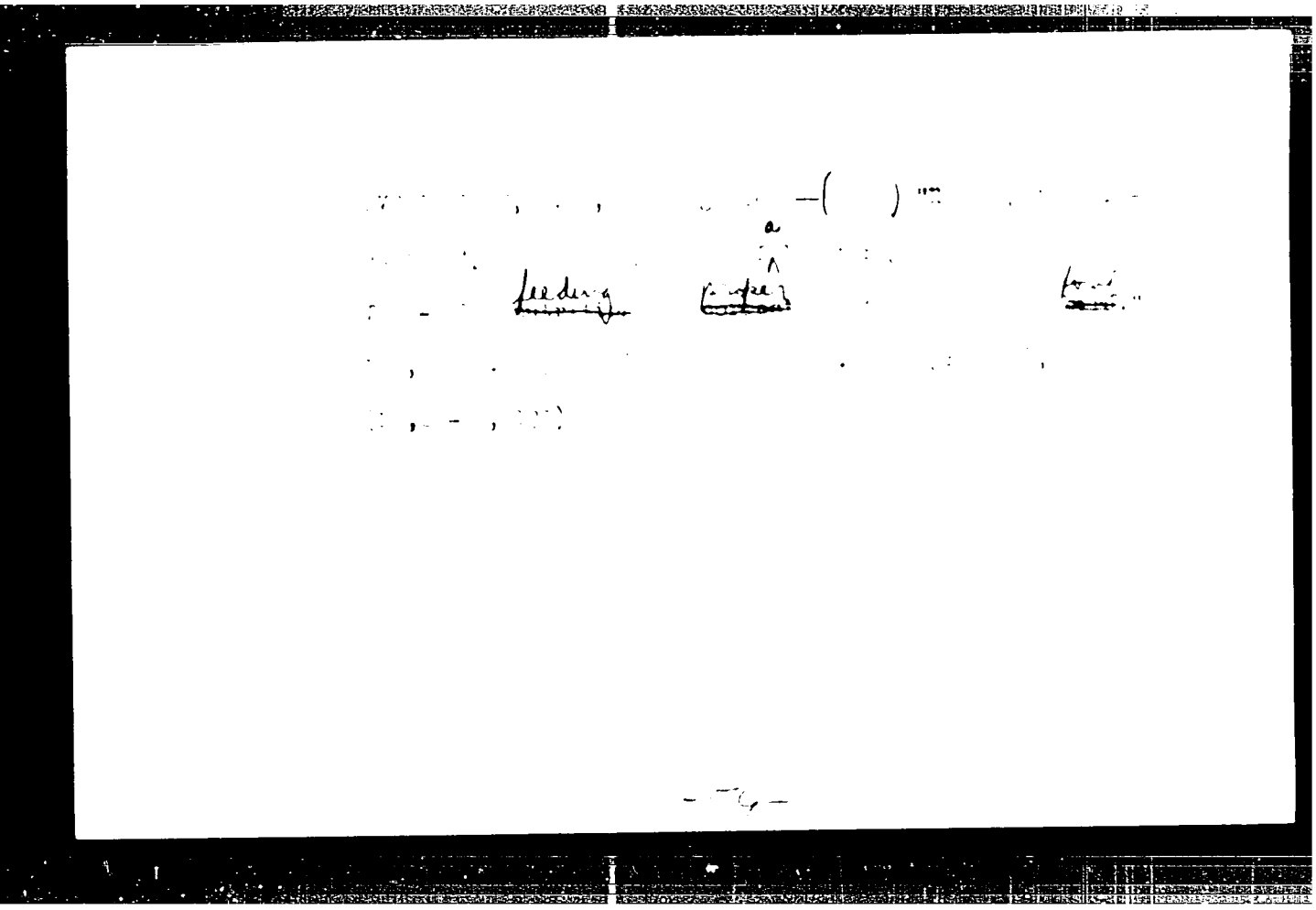
OVCHINNIKOV, I.I.

Device for the fixation and traction of the testis in its forced descent into the scrotum. Urologiia no.5:67-68 '62. (MIRA 15:12)

(TESTICLE—ABNORMITIES AND DEFORMITIES)

OVCHINNIKOV, I.I.

Useful poster on poultry farming. Ptitsevodstvo 9 no.2:42 F '59. (MIRA 12:3)
(Ducks)



1. OVCHINNIKOV, I. K.

2. USSR 600

4. Prospecting - Geophysical Methods

7. Disturbance of a field of constant current by conductors located in a non-homogeneous seimispace, Izv. AN SSSR. Ser. geofiz, No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

FD-1706

USSR/Geophysics - Electrical conductivity OVCHINNIKOV, I.K.

Card 1/1 : Pub. 45-6/12

Author : Ovchinnikov, I. K., and Kilyukova, G. G.

Title : Effective electrical conductivity of medium with inclusions

Periodical : Izv. AN SSSR, Ser. geofiz., 57-59, Jan-Feb 1955

Abstract : The authors describe an experimental verification of the theoretical formulas for the electrical conductivity of a medium with inclusions in the form of ellipsoids. The results of the experiments agree with the theoretical computations. Three references; e.g. I. K. Ovchinnikov, "Theory of the effective electrical conductivity, magnetic permeability, dielectric constant of a medium possessing foreign inclusions," Trudy Vsesoyuzn. in-ta razvedochnoy geofiziki, No 3, 1950.

Institution : Sverdlovsk Mining Institute im. V. V. Vakhrushev

Submitted : June 27, 1953

15-57-5-6852D

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5, p 161 (USSR)

AUTHOR: Ovchinnikov, I. K.

TITLE: Shielding Influence of the Outer Layer of Earth's Crust in Electrical Exploration for Ore Deposits (Ekraniruyushcheye vliyaniye poverkhnostnogo sloya zemnoy kory pri elektrorazvedke rudnykh mestorozhdeniy)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Doctor of Physical and Mathematical Sciences, presented to the Geofiz. in-t AN SSSR (Geophysical Institute of the AS USSR), Moscow-Sverdlovsk, 1956.

ASSOCIATION: Geofiz. in-t AN SSSR (Geophysical Institute of the AS USSR)

Card 1/1

OVCHINNIKOV, I. K.

AUTHOR: Ovchinnikov, I. K. 49-4-6/23

TITLE: Electric prospecting of pyrite deposits located under an absorbing surface layer. (Elektrorazvedka kolchedannykh zalezhey pod pogloshchayushchim poverkhnostnym sloyem)

PERIODICAL: Izvestiya Akademii Nauk, Seriya Geofizicheskaya, 1957, No.4, pp.471-478 (USSR)

ABSTRACT: Analysis of curves of vertical sounding and of other observations enables conclusions on the presence of a surface layer of a certain thickness above the entire paleozoic rocks of the Eastern slopes of the Urals, which contain pyrite deposits. In recent years new seams of paleozoic ore bearing rocks were detected which are parallel to and east of the earlier known seam. The new deposits are covered by mezo-cainozoic deposits of a thickness of several tens of metres which represent a considerable screen, making prospecting for ores underneath them difficult. In this paper the screening effect of the surface layer of ore deposits is investigated and an effective method is described for locating deposits hidden underneath the screening layer and results of field measurements with the new method are described.

Card 1/6 The non-uniformity of the surface layer in the vertical

Electric prospecting of pyrite deposits located under an absorbing surface layer.

of the potential of the secondary field to that of the primary field, is influenced by anomalies which depend on the relative gradient in the epicentre of the anomalies and can be measured. The relative gradient produced by a conductor in the field of a linear electrode will change as a function of the depth and dimensions of the conductor and the thickness and electric conductivity of the surface layer. Data on the relative gradient show that for each method of electric prospecting there is a threshold value at which the anomalies cannot be detected satisfactorily by the given method and this enables evaluation of the prospecting potentialities of the individual methods. The threshold value can be determined for any type of field but it was considered more convenient to determine it in the field of a linear electrode. On the basis of earlier obtained solutions (Ref.2), the potential of the primary and of the secondary fields are calculated for a linear electrode of the length $2\ell = 20$ with an ideally conducting sphere and disc as disturbing bodies. The relative gradient in the epicentre

 of the anomaly proved to be twice as high for the sphere

Electric prospecting of pyrite deposits located under an absorbing surface layer.

being measured along the profile which was perpendicular to the electrodes and passing through the epicentre of the disc. At one half of the profile the field was normal, whilst at the other half it was anomalous. From the measurements in points symmetrical relative to the centre of the profile the gradient of the secondary field can be calculated and then the relative gradient determined. The thus obtained data are given in Table 3, p.474. The errors were of the order of 10%. The threshold value for the method of isolines is assumed at 28% (Ref.2). The extensive use and the relative effectiveness of the method of isolines in prospecting for pyrite deposits in the Urals is attributed to the large threshold values; only intensive anomalies from large and shallow conducting substances are detected and under favourable geological conditions ore deposits can be detected with a high degree of probability. For detecting localised conducting bodies located under a screening layer, it is necessary to use methods which are characterised by a low sensitivity to surface non-

Card 5/6 uniformities and a high sensitivity to conducting bodies

SOV/169-59-2-1[illegible]

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 2, p 32 (USSR)

AUTHOR: Ovchinnikov, I. K.

TITLE: The Disturbance of a Magnetic Field of Low Frequency by an Ideally Conducting Ellipsoid

PERIODICAL: Tr. Sverdl. gorn. in-ta, 1957, Nr 30, pp 4 - 8

ABSTRACT: The solution of the problem on the disturbance of an alternating magnetic field by an ideally conducting ellipsoid is not suitable for calculations. this solution is cited in the literature. The author puts a more simple problem of finding the disturbance at a low frequency of the field. The theory of the magnetic field of direct current is applied for its solution. The solution is given in the form of a table of the components of intensity of the secondary magnetic field for the special case of a conducting ellipsoid, - a very thin disk. The solutions obtained are utilized for the comparison of the anomalies from the insulator and the conductor when they are excited galvanically. Hereat the inductive excitation of the leader becomes like to the galvanic excitation of the insulator. The conclusion is obtained that the anomaly for bodies of isometric form is greater for

Card 1/2

Ovchinnikov, I.K.

AUTHOR: Ovchinnikov, I.K.

TITLE: A Theory of Single Electrode Pot
odnoelektrodnogo karottazha.

PERIODICAL: Izvestiya Akademii Nauk SSSR,
1956, Nr 5, [illegible] (USSR)

ABSTRACT: [illegible]

Card 1/2

A Theory of Single Electron [illegible] Logging.

latter for a range of values of radii. [illegible],
1 table and 6 references, of which 5 are Russian and [illegible]
English.

ASSOCIATION: Sverdlov Mining Institute im. V.V.Vakhrushev
(Sverdlovskiy gornyy institut im. V.V.Vakhrushev)

SUBMITTED: March 23, 1959.

AVAILABLE: Library of Congress.

Card 2/2

[illegible] / K

49-5-4-17/1

AUTHOR: Kiril[illegible] F

TITLE: Dissertations Defended at the Scientific Council of the Institute of Physics of the Earth, Academy of Sciences [illegible] (D[illegible]rtatsii zashchishchennyye v uchenom sovete in[illegible] fiziki zemli AN SSSR)

PERIODICAL: Izvestiya Akademii Nauk SSSR Seriya Geofizicheskaya, 195[illegible] Nr [illegible] 566 567 (USSR)

ABSTRACT: The f[illegible] dissertation was presented for the degree of Doct[illegible] I K [illegible]ovchinnik[illegible] "Screening Influence of the Surface L[illegible] of the Earth [illegible] during Electric Pr[illegible] [illegible]ts" (Ekran[illegible]yushcheye vliyaniye poverkh[illegible] [illegible] kory pri elektr[illegible]razvedke rudnykh m[illegible] [illegible]) O[illegible]ents Dr.Phys Mat Sc.Yu P. Bulashevich, Dr.T[illegible]S[illegible] I. M Al pin Dr.Phys Mat.Sc.B. M. Yanovs[illegible] [illegible] The dissertation is based on [illegible] electric methods of pyrite deposits along [illegible] Eastern [illegible] of the Urals. The deposits are located [illegible] medium which influences the [illegible] and particularly its ran[illegible] [illegible] the fundamental

Card [illegible]

Dissertations Defended at the Scientific Council of the Institute of Physics of the Earth Academy of Sciences USSR.

influences of the nonuniformities is investigated namely, the screening influence of the surface layer of the Earth's crust. He seeks a new solution of the problem by evolving methods which have a low sensitivity to the surface nonuniformities and a high sensitivity to conducting bodies located at great depths. These methods are materialised by using special current feeding circuits to the semispace which permit increasing the concentration of the current in the lower horizons and reducing it at the surface where the field observations are carried out. The reduction in the concentration of the current is achieved by compensating the field of one of the grounding electrodes with the field of other grounding electrodes (compensation method). Field investigations have shown that by means of this method ore bodies are discovered which cannot be detected by the "isolation" method.

L.M. Malinovskaya "Technique of Analysis of the Dynamic Properties of Some Seismic Waves" (Metodika analiza dinamicheskikh svoystv nekotorykh seysmicheskikh voln). Candidate Dissertation. Opponents: Dr.Phys-Mat.Sc. Yu. V. Riznichenko, Cand.Fiz-Mat.Sc. K. I. Ogurtsov, January 10.

Card 2/5

Dissertations Defended at the Scientific Council of the Institute of Physics of the Earth Academy of Sciences USSR

1958. In interpreting seismic observations, methods are frequently utilised which are based on the theoretical relation between the dynamic characteristics of oscillations and the properties of the medium or of the source (for instance determination of the energy the characteristic of the medium on the basis of the damping of seismic waves, etc.) The author investigated the asymptotic representation of the displacements of the reflected, refracted and of the main waves for a multilayer medium obtained by G. I. Petrashen which are created at a distance from the source and outside the neighbourhood of the initial exit point of the main waves. These relations have been transformed in such ways as to allow a simple physical interpretation. The influence of the following factors is investigated separately: directional diagram of the radiation, geometrical divergence of the front, refraction and reflection at the different boundaries. The influence is investigated of total internal reflection, the shape of elastic oscillations. All possible changes in the shape of the displacements are considered as a family of "standard curves". It is

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49-58-4-17/18

Dissertat[illegible] Council of the Institute of Physics of the Earth A[illegible] USSR

shown that in the case of full internal reflection the intensity [illegible] "[illegible]tries" depends on the modulus and [illegible] argument [illegible] reflection and refraction coefficients. A technique was developed of plotting theoretical seismograms of reflected, refracted and main waves. Assumptions are proposed which will permit investigating certain dynamic features of elastic waves without plotting theoretical seismograms but directly analysing standard curves. The dynamic features are investigated of longitudinal waves which are reflected beyond critical angles. The calculations were effected for a wide range of the ratios of the speed and the incidence [illegible] at the reflecting boundary. It was established that for incidence angles above the critical, the intensity increases and additional phase shifts occur which are not related to the difference in the time of passage. For large speed ratios the shape of the displacements changes [illegible] the profile that a disturbance of the correlation [illegible]sible. The theoretical results are in [illegible] with experimental data of A. M. [illegible]t'yeva [illegible] in field seismic prospecting work in 195[illegible]. The influence was investigated of the free sur-

Card 4/5

Dissertations Defended at the Scientific Council of the Institute of Physics of the Earth Academy of Sciences USSR

face on type SV transverse waves (i.e., the influence on their shape, polarization and the ratio of the displacement components for various incidence angles). It was found that this layer influences strongly the observed fluctuations, particularly in the case of nearby earthquakes. A technique of calculation by means of an electronic computer was evolved of the interference of 3-dimensional waves which are repeatedly reflected and refracted in the layered medium. Interference oscillations have been calculated which occur during incidence of a plane longitudinal wave on to the bottom of one and two surface layers. About 450 theoretical seismograms were calculated. The resolving power of the layers is evaluated and the possibilities indicated of characterizing the structure of the surface layers by measuring [illegible] frequencies.

1. Scientific reports--USSR 2. Geophysics--USSR

Card 5/5

OVCHINNIKOV, I.K. [Ovchynnykov, I.K.]; ZINCHENKO, N.S. [Zinchenko, M.S.]

Vibrating sound method for investigating axisymmetrical electron beams. Ukr. fiz. zhur. 4 no.2:219-228 Mr-Ap '59.

(MIRA 13:1)

1. Institut radiofiziki i elektroniki AN USSR i Khar'kovskiy gosudarstvennyy universitet im. Gor'kogo.

(Electron beams)

81115
S/142/60/000/01/007/022
E140/E463

9.3140

AUTHORS: Zinchenko, N.S. and Ovchinnikov, I.K.

TITLE: Experimental Study of the Passage of an Electron Beam Through a Magnetic Undulator

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, Nr 1, pp 69-76 (USSR)

ABSTRACT: This study was undertaken for three reasons. Firstly, the nonrelativistic electron beam in passage through the magnetic undulator may be a model for a relativistic beam. Secondly, radiation of very short waves may be obtained. Thirdly, periodic magnetic fields permit increasing the stability of electron motion with beam focusing. The principal difficulty in obtaining appreciable radiation powers in such systems is the difficulty of passing the beam through the magnetic undulator. In previous experiments, the beam transmission factor was less than 10%. Since the power is proportional to the square of the current, the radiated power was only 1% of the maximum possible. The work described in this article was carried out in 1956 and 1957 in the Institute of Radio Engineering and Electronics of the Ukrainian

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S/142/60/000/01/007/022
E140/E463

Experimental Study of the Passage of an Electron Beam Through a Magnetic Undulator

Academy of Sciences. The electron optical system is fairly evident from the figures. The system consisted of an electron gun, accelerating diaphragm, magnetic focus coil, magnetic undulator and collector. The cathode gave a current density of 180 A/cm^2 in pulse conditions. Armco iron was used for the undulator. The collector was water-cooled. The field distribution of the undulator was first found approximately by an electrolytic tank. The actual distribution was measured in the final undulator using a laboratory magnetometer with a needle 1 mm long and 0.4 mm thick. The field distribution is shown in Fig 5. The projection of the beam on the plane of symmetry has almost a sinusoidal character. Further, an analysis of the beam stability is given employing the theory of Mathieu equations. Experiments were carried out using a tube with glass envelope. The total beam length was 200 to 230 mm. Three undulators of length 12 mm, 7.6 mm and 6.8 mm were used. Beam currents up to 30 mA were used with almost

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Experimental Study of the Passage of an Electron Beam Through a Magnetic Undulator

100% transmission. This was maintained for relatively long periods (up to three hours) without requiring voltage entry angle or other adjustment. The only critical factor was the exact location of the tube with respect to the plane of symmetry of the undulator magnetic field. There are 7 figures and 10 references, 5 of which are Soviet, 3 English and 2 French.

SUBMITTED: June 20, 1959

Card 3/3

OVCHINNIKOV, I.K., prof.; KALKIN, V.A., inzh.; TSAPLIN, A.A., inzh
[deceased]

Investigating the wetting by mercury of platinum and its alloys.
Izv.vys.ucheb.zav.; gor.zhur. no.1:144-148 '60.
(MIRA 13:6)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva.
Rekomendovana kafedroy fiziki.
(Platinum) (Surface chemistry)

L 34414-66
ACC NR: AT6022229 SOURCE CODE: UR/0000/66/000/000/0007/0013

AUTHOR: Kukush, V. D.; Oychinnikov, I. K.; Tsar, Ya. P.; Zhilkov, V. S.; Pasechnik, V. P.; Sobol', N. K.; Volkov, V. N.

22
BH

ORG: none

TITLE: Device for measuring deviations in the power level

9M

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio, 224, 1966. Sektsiya radioizmereniy. Doklady. Moscow, 1966, 7-13

TOPIC TAGS: power meter, electric measuring measurement, generator

ABSTRACT: A device for measuring the output power of uhf generators is described. The device operates on the principle of a balanced static calorimeter used for precise power measurements in the centimeter and millimeter ranges. The system incorporates a balanced static calorimeter and a measuring block. The balanced calorimeter consists of two identical coaxial loads, i.e., an hf load and a compensated load. D-c heaters are incorporated directly in the loads. The measuring block consists of three basic sections: a d-c amplifier, a measuring circuit, and stabilized power supply sources. The following data were obtained in experiments with the device which characterize its efficiency: voltage standing wave ratio of the terminal section is practically

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OVCHINNIKOV, I.K.

[Lectures for a course in "Field theory" for geophysicists-prospectors] Lektsii po kursu "Teoriia polia" dlia geofizikov-razvedchikov. Sverdlovsk, Sverdlovskii gornyi in-t im. V.V. Vakhrusheva. Pt.2. 1963. 133 p. (MIRA 17:9)

BURKOV, V.A.; OVCHINNIKOV, I.M.

Structural characteristics of zonal currents and meridional circulation of waters in the central part of the Pacific Ocean during the winter of the Northern Hemisphere. Trudy Inst.okean. 40:93-107 '60. (MIRA 14:8)

(Pacific Ocean--Ocean currents)

BURKOV, V.A.; ARSEN'YEV, V.S.; OVCHINNIKOV, I.M.

The concept of northern and southern tropical fronts in the ocean. Trudy Inst.okean. 40:108-120 '60. (MIRA 14:8)
(Pacific Ocean—Oceanography)

BURKOV, V.A.; OVCHINNIKOV, I.M.

Investigation of equatorial currents north of New Guinea. Trudy Inst.okean. 40:121-134 '60. (MIRA 14:8)
(Pacific Ocean--Ocean currents)

KOZLYANINOV, M.V.; OVCHINNIKOV, I.M.

Relationship between the transparency of water and currents in the northeastern part of the Pacific Ocean. Trudy Inst.okean. 45:102-112 '61. (MIRA 15:2)
(Pacific Ocean--Ocean currents) (Sea water--Optical properties)

OVCHINNIKOV, I.M.; PLAKHIN, Ye.A.

Distribution of the Atlantic and Levantine waters in the Mediterranean Sea. Okeanologiia 3 no.4:642-652 '63. (MIRA 16:11)

1. Institut okeanologii AN SSSR.

4

ACCESSION NR: AP5009498 S/0030/65/000/003/0128/0150

AUTHORS: Vinogradov, A. P. (Academician); Gerasimov, I. P. (Academician); Yanshin, A. L. (Academician); Shcherbakov, D. I. (Academician); Fayvs, A. V. (Academician); Sadovskiy, M. A. (Corresponding member AN SSSR); Akhmedsafin, U. M. (Academician AN KazSSR); Zaytsev, L. P. (Candidate of physico-mathematical sciences); Ovchinnikov, L. M.

TITLE: Development of earth sciences in Central Asia and in Kazakhstan (Results of a field trip of the Department of Earth Sciences)

SOURCE: AN SSSR. Vestnik, no. 3, 1965, 128-150

TOPIC TAGS: geoactivity, geochemistry, geochronological problem, geochronology, geodesy, geography, geological survey, geology, geomagnetism, geophysical prospecting, geophysical research, geophysics

ABSTRACT: The Presidium of the Academy of Sciences, SSSR heard the report of academician A. P. Vinogradov, secretary of the Department of Earth Sciences, at the session held on January 15. The speaker presented the results of the department's trip (Oct. 1-11, 1964), organized by the Academies of Sciences of Kazakhstan, Kirghiziya, Tadzhikistan, Turkmenistan, and Uzbekistan, and the

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L 49340-65

ACCESSION NR: AP5009498

State Geological Committee SSSR. Establishing direct relations with the above academies was the immediate goal of the trip. The symposium on seismology (held in Tashkent) was reported on by M. A. Sadovskiy. The problems in this field were divided into three groups: 1) internal structure of the earth's crust and sedimentary mantle revealed by data obtained by different branches of the geosciences; 2) relation among different earthquake sources; 3) protection of the population and national economy from earthquake damage. It was recommended that a special service dealing with the earthquake forecasts be organized. Achievements of the symposium on hydrology were reported by U. M. Akhmedsafin. B. I. Kudelin (Moscow University) presented a paper on the drainage and renewal of ground water. U. M. Akhmedsafin spoke on the study of artesian basins in Kazakhstan. N. A. Konenarin (Uzbek Institute of Hydrology and Engineering Geology) discussed the principal problems of theoretical hydrology. Zh. S. Sadykov (Academy of Sciences, Kazakh SSR) spoke on the seepage effect of underground brines and its meaning in the interpretation of ore-formation processes. O. A. Mavlyanov presented an engineering-geological map of the arid Uzbekistan. V. G. Gafurov discussed irrigation principles and the forecast of hydrogeodynamic processes taking place in the irrigated areas. A. L. Yanshin spoke on utilization of artesian waters. N. A. Tsytovich recommended the organization of a specialized service for the problems of ground waters. The geographical problems in

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L 40340-65
ACCESSION NR: AP5009498

Central Asia were discussed at three interrelated geographic symposia held in Tashkent, Ashkhabad, and at Alma-Ata. The first dealt with the geographical aspects of irrigation in Central Asia; the second with the problems of desert conquest and the building of the Kara Kum canal; the third with the regulation of glacier melting in the mountains of Central Asia. Of special interest was the discussion of the future fate of the Aral Sea. Two opposite opinions were presented: V. L. Shul'ts stated that increased use of river waters for irrigation will cause a complete drying up of the sea. L. V. Dunin-Barkovskiy drew attention to the recent rise of the water level in the sea, explaining it by the peculiarities of water transpiration by different types of vegetation. F. F. Davitaya however, explained the paradox by the water supply at the river sources at the Tamir-Altai and Tyan'-Shan' divide. The results of the three sessions were summarized by Academician I. P. Gerasimov. Academician A. L. Yanshin reported on the main session of the Earth Sciences Department in Alma-Ata. R. A. Borukayev, A. K. Kayupov, G. P. Lyapichev, and L. A. Miroshnichenko reported on the structural and metallogenic mapping of eastern Kazakhstan. G. B. Zhilinskiy discussed problems in theoretical and experimental mineralogy. A. K. Kayupov spoke on the relation of endogene metallogeny to the deep structure of the crust. I. P. Novokhatskiy reported on iron and manganese deposits in Kazakhstan. Zh. S. Sadykov made a quantitative evaluation of artesian waters in the artesian basins,

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ACCESSION NR: AP5009498

eolian sands, and deltaic deposits of this region. M. I. Varentsov described oil prospects in southeastern Kazakhstan. This topic was discussed in greater detail in the paper by P. Ya. Avrov, M. I. Varentsov, V. I. Ditmar and A. B. Li. Geophysical research in Kazakhstan was described by A. T. Andreyev, M. D. Morozov, V. V. Prodava, and V. I. Gol'dshmit. The session on the problems of ore genesis was held in Frunze, and its results were reported by Academician D. I. Shcherbakov, F. N. Shakhov and A. I. Tugarinov discussed the application of new precise methods in geology. V. T. Surnin reported on his study of regional geochemistry in the accumulation and localization of mercury ore. M. N. Al'tgauzen criticized the paper of F. I. Vol'fson on the theory of formation and distribution of endogene ore deposits. V. I. Knauf and Ye. I. Zubtsov presented a structural map of northern Kirghiziya. A. B. Ronov spoke on the origin of ores in sedimentary and extrusive rocks of Tyan'-Shan'. A. U. Abdullayev formulated principal conditions for bauxite formation. G. I. Pavydov discussed the polymetallic region of Moldo-tau. A Dzhumaliyev spoke on the structure of ores in Dzhergalan. Academician A. V. Peyve reported the results of the Dushanbe session at which Academician D. S. Korzhinskiy discussed post-magmatic processes. Yu. V. Riznichenko spoke on seismic activity and the energy of earthquakes. B. P. Baratov and S. A. Zakharov discussed the possible connection between geochemical processes and rousing Zakharov spoke on seismic phenomena. V. M. Goldshiy discussed problems

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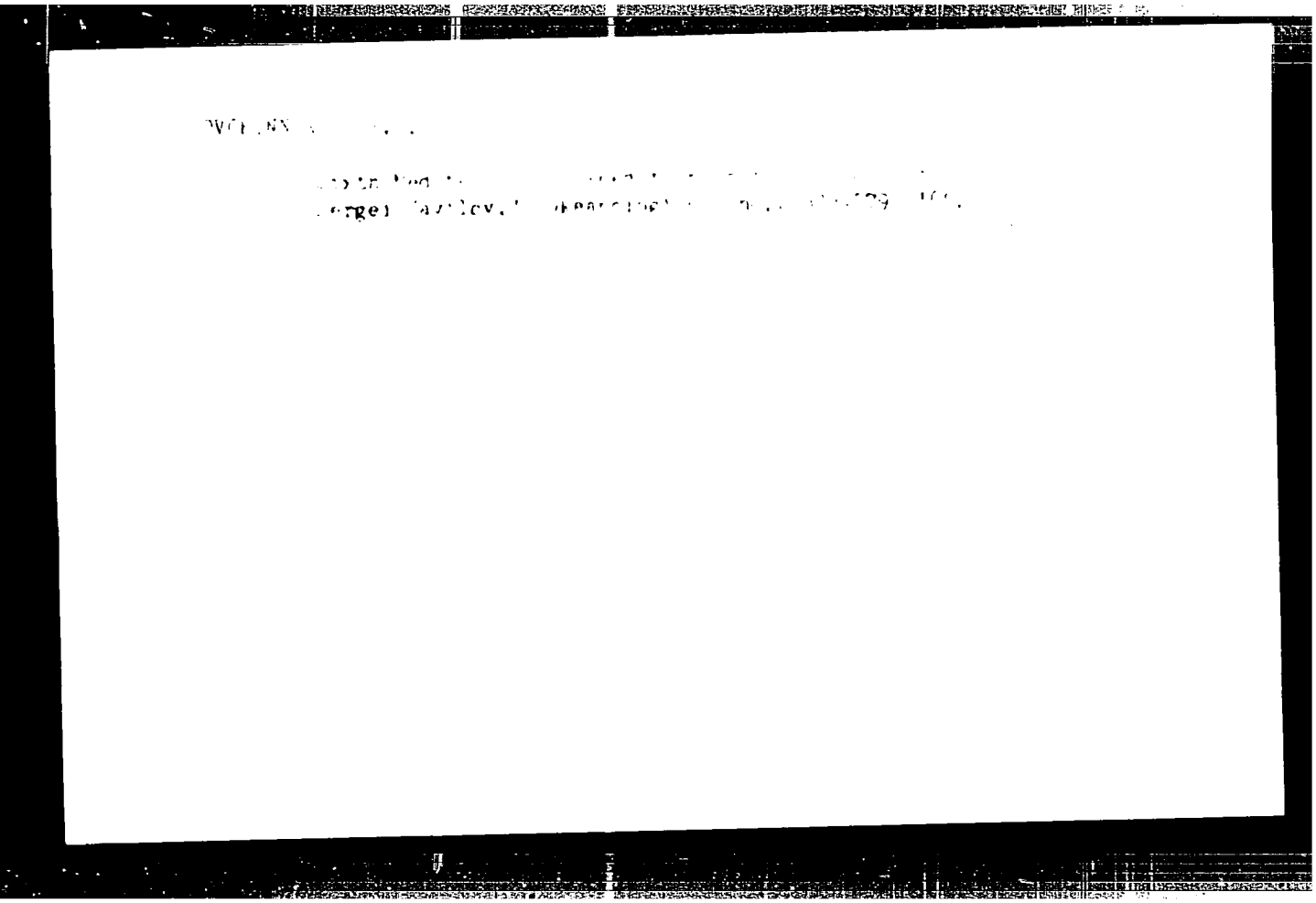
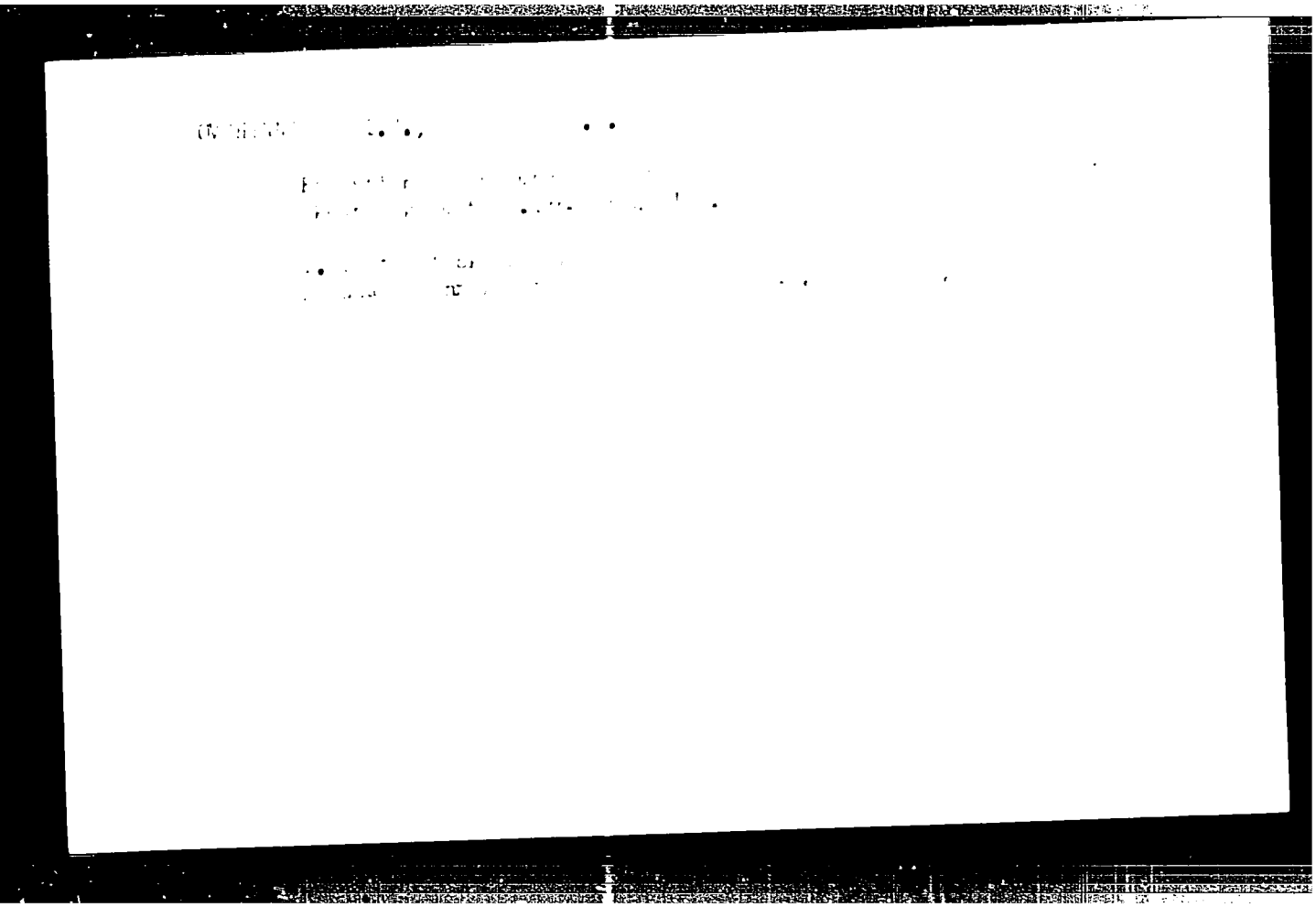
related to the study of seismic processes. The session in Ashkhabad was reported by L. P. Zaitsev, candidate of physico-mathematical sciences. It started with the paper of M. A. Sadovskiy who described the problems of earthquake forecasting. K. K. Markarykov and A. A. Dzabayev presented new information on the deep structure of Western Turkmenistan. L. N. Smirnov described the general structural history of the Alpian-Himalayan mobile belt and the adjacent transition zone. I. M. Orchinnikov reported to the Presidium the results of the Tashkent session at which V. V. Belousov presented the paper "Earth crust and the upper mantle of continents." A. S. Uklonskiy discussed the origin of natural sulfur. A. A. Malakhov described the metallogenic peculiarities and types of the Uzbek ores. N. B. Vol'fson, V. G. Gar'kovets, and A. G. Khvalovskiy analyzed the application of geochemical and geophysical methods to exploration. The Presidium of the Academy of Sciences USSR approved the work of the Department of Earth Sciences, presented its resolutions, and expressed its gratitude to Academician A. P. Vinogradov, the secretary of the Department, and to the members of the organization committee.

ASSOCIATION: none

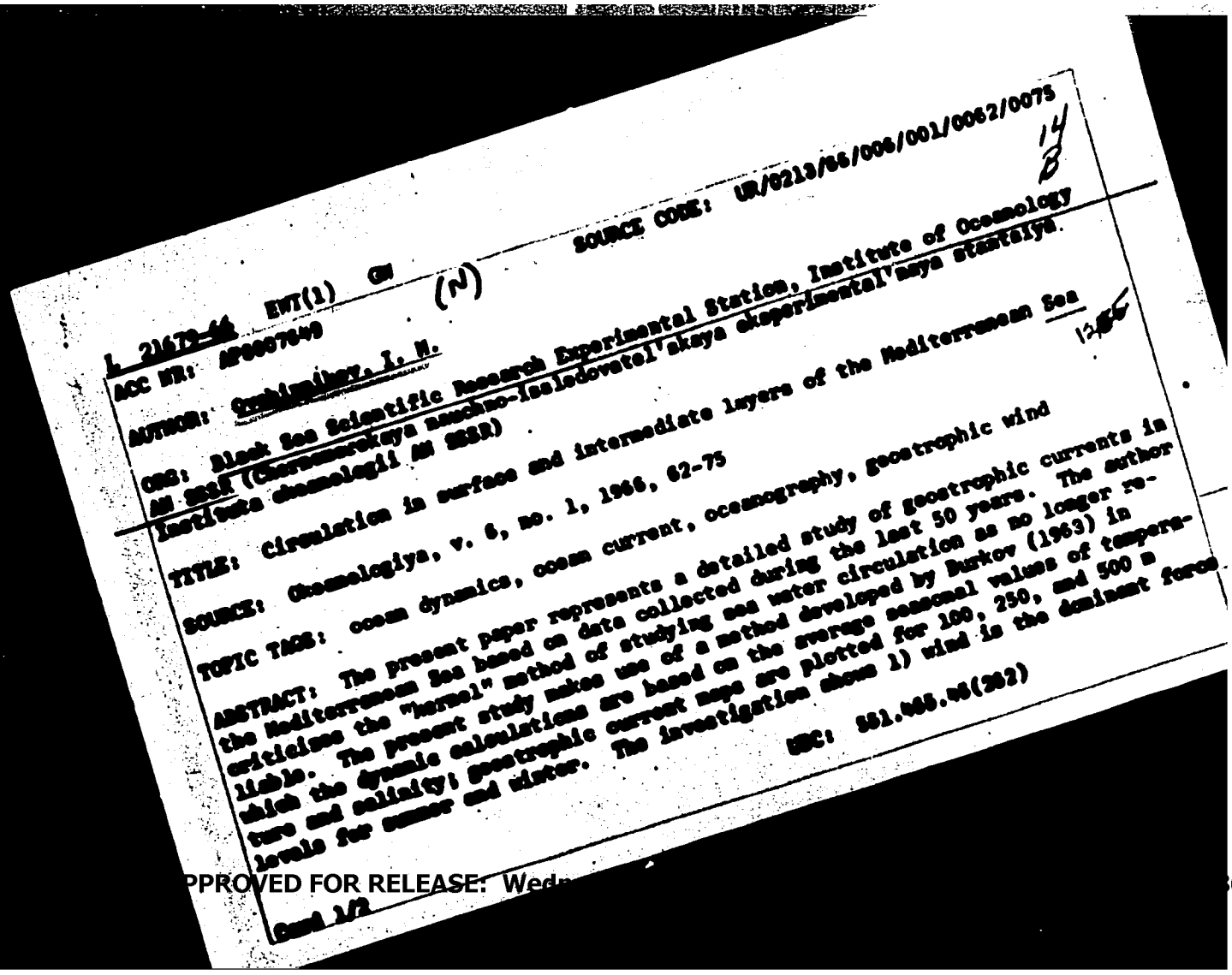
SUBMITTED: 00 ENCL: 00 SUB CODE: ES
NO REF SOV: 000 OTHER: 000
Card 3/3





OVCHINNIKOV, L.M.

Problems in complex dressing of ores; scientific out-of-town session in Apatity. Vest.AN SSSR 35 no.8:90-93 Ag '65. (MIRA 18:8)



L 21679-66 EWT(1) GW (N) SOURCE CODE: UR/0213/66/006/001/0062/0075

ACC NR: AP6007649

AUTHOR: Ovchinnikov, I. M.

ORG: Black Sea Scientific Research Experimental Station, Institute of Oceanology AN SSSR (Chernomorskaya nauchno-issledovatel'skaya eksperimental'naya stantsiya Instituta okeanologii AN SSSR)

TITLE: Circulation in surface and intermediate layers of the Mediterranean Sea

SOURCE: Okeanologiya, v. 6, no. 1, 1966, 62-75

TOPIC TAGS: ocean dynamics, ocean current, oceanography, geostrophic wind

ABSTRACT: The present paper represents a detailed study of geostrophic currents in the Mediterranean Sea based on data collected during the last 50 years. The author criticizes the "kernel" method of studying sea water circulation as no longer reliable. The present study makes use of a method developed by Burkov (1963) in which the dynamic calculations are based on the average seasonal values of temperature and salinity; geostrophic current maps are plotted for 100, 250, and 500 m levels for summer and winter. The investigation shows 1) wind is the dominant force

UDC: 551.465.46(262)

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L 21679-66
ACC NR: AP6007849

in transporting water masses in the Mediterranean Sea; 2) the transport of water masses to and from the Mediterranean is equal to $8 \cdot 10^6$ to $10 \cdot 10^6$ m^3/sec and 0.8 · $\cdot 10^6$ to $1.65 \cdot 10^6$ m^3/sec, respectively. 3) The intermediate layer circulation between Gibraltar and the Tunis Straits is affected by wind and temperature; 4) one-directional motion of surface and intermediate water masses prevails in the Mediterranean; 5) the general circulation is ascribed to the predominance of northwesterly winds throughout the year. Orig. art. has: 4 figures.

SUB CODE: 08/ SUBM DATE: 16Feb65/ ORIG REF: 006/ OTH REF: 010

Card 2/2 dda

ACC NR. AR7004094 (N) SOURCE CODE: UR/0169/66/000/012/V007/V007

AUTHOR: Ovchinnikov, I. M.

TITLE: Comparative evaluation of several methods of studying sea currents (using the Mediterranean as an example)

SOURCE: Ref. zh. Geofizika, Abs. 12V45

REF SOURCE: Sb. 2-y Mezhdunar. okeanogr. kongress, 1966. Tezisy dokl. M., Nauka, 1966, 294-295

TOPIC TAGS: ocean dynamics, ocean current, hydrographic survey / Mediterranean Sea

ABSTRACT: A study was made of data obtained instrumentally in the fall of 1963 at 22 buoy stations located in the eastern part of the Mediterranean Sea. Weak mass transport in the abyssal layers made it possible to identify a slow-moving layer (1000 m), from which sufficiently reliable data were obtained at 32 drift stations on the current in the baroclinal layer, by using the Markarov-Nansen dissimilarity method. Two methods used to make the determinations showed satisfactory accord. Other methods used showed that when the proper

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UDC: 551.46.085

ACC NR: AR7004094

zero or cutoff surface near the lower boundary of the thermocline is selected, the dynamic method will satisfactorily reflect actual water circulation and give a correct representation of the vertical structure of the current (129 hydrological stations). The "nucleus" method provides only a very general picture of horizontal water transport and greatly distorts the picture of the vertical structure of the current. Isolines showing the location of water mass "nuclei" are a better index of circulation. The isopicnal method and current charts, based on ship drift, yield and equally rough approximation. The conclusion is reached that in the Mediterranean, the almost stable circulation is well reflected in the calculations of geostrophic currents.]Translation of abstract]

SUB CODE: 08/ [DW]

Card 2/2

GUREVICH, M.G.; KRAVTSOV, S.S.; OVCHINNIKOV, I.M.; SURKOV, V.N.

Recent data on the concentration of some trace elements in natural gases and waters of the Northern Caucasus. Trudy IGEM no.46:92-97 '60. (MIRA 14:1)

(Caucasus, Northern—Mineral waters)
(Caucasus, Northern—Gas, Natural) (Trace elements)

AUTHORS: Gurevich, M. G., Ovchinnikov, I. M. 20-118-5-49/59

TITLE: A Short Description of Natural Waters in the Region of the Tyrnyauzskoye Ore Deposit (Kratkaya kharakteristika prirodnykh vod rayona Tyrnyauzskogo rudnogo mestorozhdeniya)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 5, pp. 1021-1024 (USSR)

ABSTRACT: This ore deposit is located on the upper Baksan river in the depression area of the Tyrnyauz-Tau chain in the region of the El'brus mountain at an altitude of from 2000 to 3058 m. The ore deposit, being of a scarn - type is linked with a regional tectonic zone, which is represented by a narrow strip of metamorphosed and strongly dislocated Palaeozoic and Lower Jurassic rocks, which are wedged in between old crystalline slates in the shape of tectonic fragements. In the near vicinity of the El'brus aerated water springs are very frequent. The springs in the vicinity of the mentioned ore deposit are interesting in various aspects. The rock around the ore deposit hardly contains ground water down to great depths because they are drained by the Baksan river and several brooks to a deep level. Fissure water was only

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found to a considerable extent at the horizon 2312 m (from the zone of the central disruption). Later on from 5 to 6 wells of such water in the granite and the greatest water supply in drill holes in scarns of ore and marble were found. Gas escape has never before been observed here. The here discovered springs appertain to the bicarbonate-sodium or potassium type with a mineralization below 1 g/liter. Table 1 gives analyses of several fresh water springs, of water from the mines and of the mineral waters of the said district. The mineral water from the structural drill hole no. 104 (at a depth of 1200 m) is especially interesting from the chemical point of view. Within the range of from zero to 764,3 m neither water nor gas were met with. Between 764,3 and 834 m gas and mineral water appeared. Clay solution was ejected to a height of 0,5 m. The gas separated from the solution in form of numerous small bubbles, which burst on the surface. Gas separation and the ejection of the solution were irregular and occurred by jerks, as if pulsating. Up to 83,8°/o of Hydrogen were found in a gas sample. After 18 days this content dropped to 1°/o. The initially low content of CO_2(6,8°/o) later on increased to 95,55°/o

Card 2/3 and above. A sample of absolutely clear water was analyzed and

the results were compiled in table 2. The content of the following specific components is increased in the drill hole no. 104: CO_2, H_2S, Li, Fe, J, F, HBO_2 and H_2SiO_3. The mineralization is relatively high = 13,1 g/liter. The water is carbonic, containing chloride, hydrocarbonate and sodium, and contains an excessively high amount of lithium (280,8 mg/liter) which constitutes rare case.
There are 2 tables, and 1 reference, 1 of which is Soviet.

ASSOCIATION: Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii Akademii nauk SSSR (Institute for the Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry AS USSR)

PRESENTED: June 20, 1957, by D. I. Shcherbakov, Academician.

SUBMITTED: June 15, 1957.

S/054/60/000/004/014/015
B004/B056

AUTHORS: Grechishkin, V. S., Ovchinnikov, I. M.

TITLE: Device for Studying Nuclear Quadrupole Resonance in Nitrogen Compounds

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1960, No. 4, pp. 126-129

TEXT: A simple device for studying the nuclear quadrupole resonance lines of N^{14} is described. The circuit of the Franklin generator is shown in Fig. 2. The sample is introduced into the well-screened coil L_2 (volume, 2.3 cm^3; inductivity, 20 microhenries). The total capacitance of the circuit at 3.3 Mc/sec is 140 micromicrofarads. The capacitor C_2 serves for the rough adjustment of the generator frequency between 2 - 4 Mc/sec. The rotor of C_3 is driven by a Warren motor (frequency change, 1.5 kc/sec·min). Resonance is studied by means of Zeeman modulation (40 cps). Other parts of the device are a ЗГ-10 (ZG-10) audio-frequency generator, a low-frequency amplifier (1 : 1000) with 6Ж1П (6Zh1P) tubes, a phase detector,

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S/054/60/000/004/014/015
B004/B056

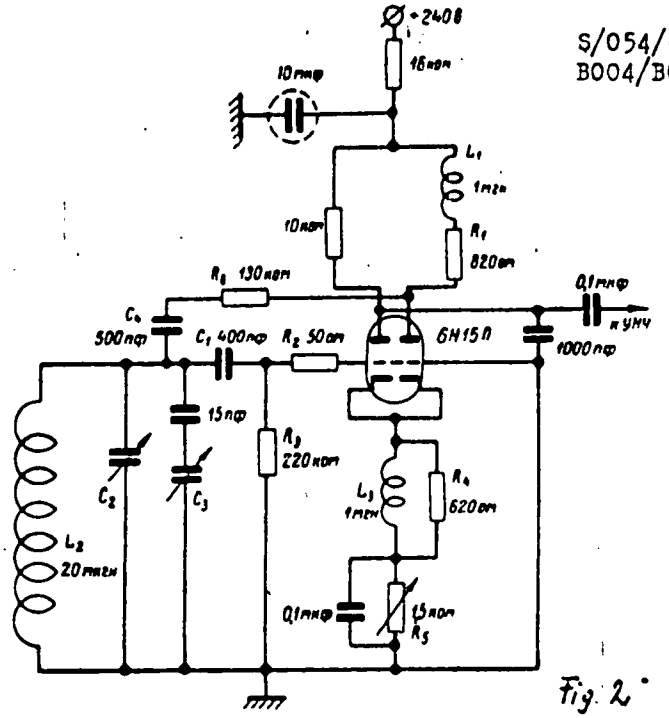

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Fig. 2

GUREVICH, M.G.; OVCHINNIKOV

Helium in the natural gas streams of the Urup copper-pyrite beds.
Dokl. AN SSSR. 118 no.4:771-773 F '58. (MIRA 11:4)

1.Predstavleno akademikom D.I. Shcherbakovym.
(Urup--Gas, Natural)
(Gases, Rare)

GUREVICH, M.G.; OVCHINNIKOV, I.M.

Brief characteristics of natural waters in the region of the Tyrny-Auz ore deposit. Dokl.AN SSSR 118 no.5:1021-1024 F '58. (MIRA 12:1)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR. Predstavleno akademikom D.I. Shcherbakovym.

(Tyrny-Auz Range--Mineral waters)

GUREVICH, M.G.; KATS, G.V.; OVCHINNIKOV, I.M.; SAUKOV, A.A.

Materials on geochemical characteristics of natural gases associated with ore deposits of the Caucasus. Trudy IGEM no.46:83-91 '60. (MIRA 14:1)

(Ore deposits) (Caucasus—Gas, Natural)

GRECHISKIN, V.S.; OVCHINNIKOV, I.M.

Instrument for the investigation of nuclear quadrupole resonance in nitrogen compounds [with summary in English]. Vest. LGU 15 no.22:126-129 '60. (MIRA 13:11)
(Nitrogen magnetic resonance) (Nitrogen compounds--Spectra)

AUTHORS: Gurevich, M. G., Ovchinnikov, I. M. 20-118-4-40/[illegible]

TITLE: On Helium in the Natural Gas Jets of the Urup Copper-Pyrite Beds (O gelii v prirodnykh gazovykh struyakh Urupskogo medno-kolchedannogo mestorozhdeniya)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 4, pp. 771-773 (USSR)

ABSTRACT: These gas jets in the ore regions of Kavkaz have never been investigated. The gas occurrence mentioned in the title was discovered in 1955 - 1956 together with compressed water in the boreholes. The above mentioned ore bed is in the upper part of the drainage area of the Urup river in the foothills of the main ridge of Kavkaz. 3 complexes of sedimentary and sedimentary-volcanogenic rocks take part in the geological structure i: 1) the oldest middle-paleozoic, mostly green rocks which are to a great extent dislocated and only in small sections exposed by erosions; 2) a mass of red lower-Permian sediments, dislocated to a small extent, in a vast area; 3) almost horizontal, normally sedimented Jurassic rocks which are stratified in the middle part of the region with a distinct stratigraphic discordance on 1) and 2). The tectonics of the

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On Helium in the Natural Gas Jets of the Urup Copper-Pyrite Beds

freely escaping gases and those solved in water. The gases of Urup are chemically to be counted among the hydrocarbon- and mixed nitrogen-hydrocarbon-gases. Carbonic acid either lacks completely or is present in very small quantities. Hydrogen sulfide is assumed to have been present in great quantities at the beginning, in the samples taken from sources flowing for longer time, however, hydrogen sulfide was detected only in quantities below 0,01%. The solved gases show approximately the same composition, except oxygen which might have been dragged from the air. Heavy hydrocarbons almost lack completely in freely liberated gases (table 2). The hydrocarbons are here connected with the metamorphism of the rocks, not with the oil formation processes. Table 3 shows the analysis of rare gases in the freely escaping gases. The helium content is high (0,4%). The distribution area of helium is perhaps greater here. The age of the gases with reference to helium and argon was determined as middle-Paleozoic which corresponds to the formation time of the chalcopyrite bed. These latter are assumed to be in connection with the hydrothermal activity and with the magnetic cycles of the Sudetskaya (Sudetic) phase of the Gertsinskaya (Hercynian) folding period which took place between lower- and middle-

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OVCHINNIKOV, I. M.

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Helium in natural-gas wells of the Urup chalcopyrite deposits. M. G. Gurevich and I. M. Ovchinnikov. *Doklady Akad. Nauk S.S.S.R.* 118, 771-3(1958).—The deposits in question belong to the large Caucasian geosyncline, which is rich in economically important minerals and natural oil and gas occurrences. The special gas spout described is connected with abundant water outburst in the valley R Urup from a Cu-ore mine in partly volcanogenic Middle-Paleozoic sediments overlain by Lower Permian and Jurassic horizons, with moderate tectonic displacements. The occurrence of NaCl waters is intimately connected with the gas wells; they have a const. temp. of 20° and stand under high pressure. The chem. analyses of the gases show CH_4 and light hydrocarbons varying from 5 to 79 vol. % and N and rare gases from 21 to 76.5%; CO_2 is subordinate, from 0 to 1.6%; H_2S is in negligible amts., but large amts. of H_2S occur in the open gas-water wells. Propane, butane, and heavy hydrocarbons are absent; it is concluded, therefore, that the gases are exclusively correlated to metamorphic rocks and not to petroleum. The analyses of the rare gases show a high content in He + Ne (0.59-1.59 vol. %), whereas A + Kr + Xe are low (0.127-0.434%). A re-examn. of one gas well in 1957 showed its origin in 127-m. depth in Jurassic sandstones; the gas contains 2.6% CO_2, 58.2% CH_4, etc., and 38.8% N + rare gases. In the latter is He + Ne = 0.443%, A + Kr + Xe = 0.198%. The He/A ratio dets. the age to be the Middle Paleozoic, coinciding with the age of the Cu ores of the region. W. Eitel

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Distr: 4E4j/4E3d

SOKOLOV, V.A., otv.red.; SAUKOV, A.A., red.; OVCHINNIKOV, I.M., red.; KUZNETSOV, S.I., prof., red.; ALEKSEYEV, F.A., prof., red.; GZOIEKYAN, A.A., kand.geol.-mineralog.nauk, red.; MOGILEVSKIY, G.A., kand. geologo-mineralog.nauk, red.

[Geochemical methods of oil and gas prospecting; studies of the conference on geochemical methods] Geokhimicheskie metody poiskov neftianykh i gazovykh mestorozhdenii; trudy soveshchaniia po geokhimicheskim metodam, Moskva, aprel' 1958 g. (MIRA 12:12)

1. Akademiya nauk SSSR. Institut geologii i razrabotki goryuchikh iskopayemykh. 2. Chlen-korrespondent AN SSSR (for Saukov).
(Geochemical prospecting) (Oil fields) (Gas, Natural)

LIVSHITS, Ya.M., inzh.; OVCHINNIKOV, I.N., inzh.; PINSON, I.I., inzh.

Pneumoelectromagnetic loader of sheet steel. Sudostroenie 29 no.5:49-51 My '63. (MIRA 16:9)
(Sheet steel) (Materials handling)

OVCHINNIKOV, I.M., inzhener; PETROV, N.I., inzhener.

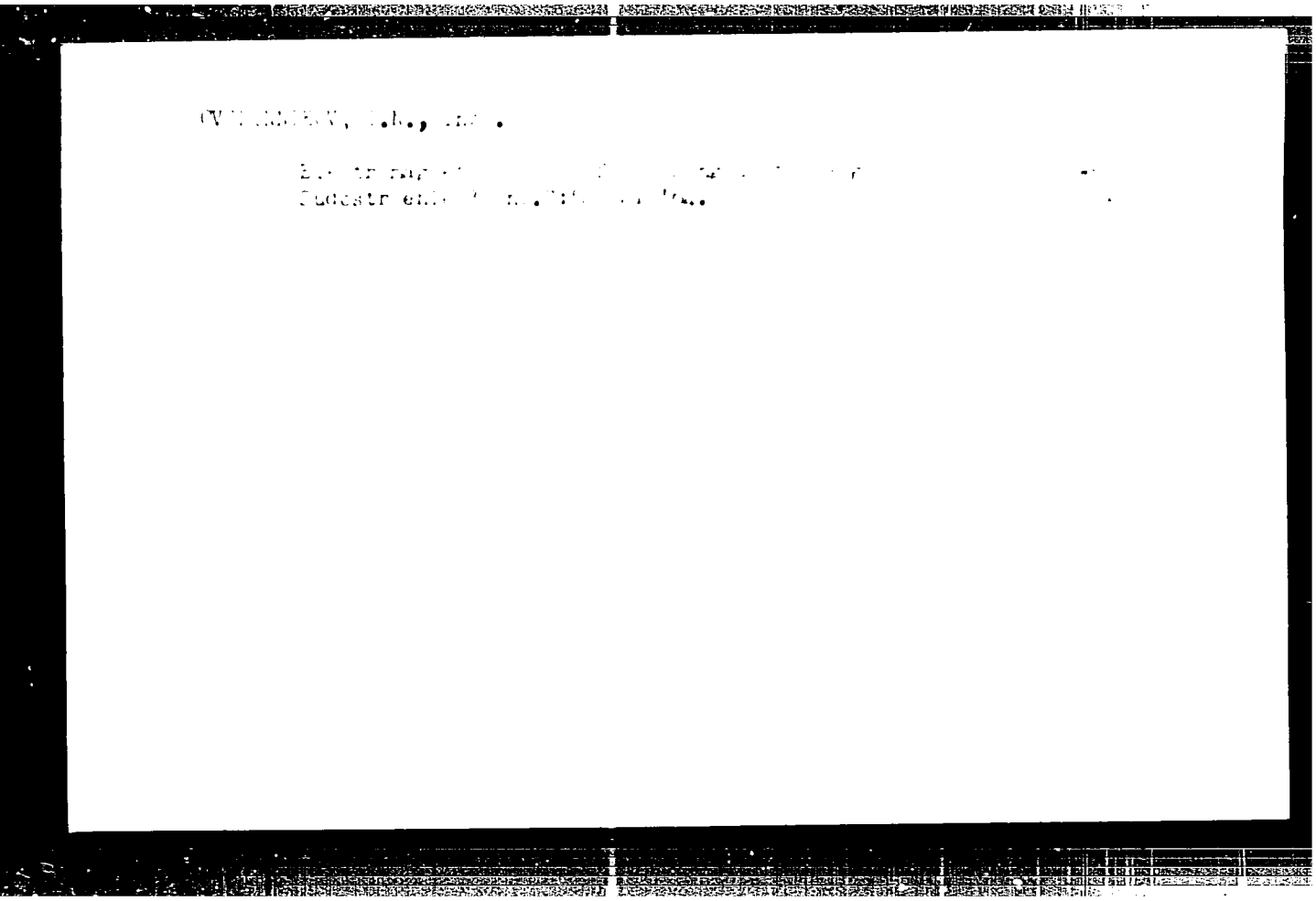
Installing the steering gear of a tanker afloat. Sudostroenie 22 no.4:29-32 Ap '56. (MLRA 9:9)
(Steering gear) (Tank vessels)

BRZHEZYAK, Yuriy Davydovich; [illegible], I.N., inzh., retsenzent; IVANOV, I.I., inzh., retsenzent; ALEK[illegible]EYEV, N.I., nauchn. red.; OZEROVA, Z.[illegible], red.

[Continuous flow line in the manufacture of flanges and rings] Potochnaia liniia izgotovleniia flantsev i k[illegible]. Leningra[illegible], Sudo[illegible]troenie, 19[illegible]. [illegible] p. [illegible]

OVCHINNIKOV, Ivan Nikolayevich. Prinimal uchastiye YAKUSHIN, I.A., inzh.; OBRAZTSOV, B.M., kand. tekhn. nauk, retsenzent; RUBASHKIN, R.A., inzh., retsenzent; TISHKOVETS, I.V., nauchn. red.; NIKITINA, A.I., red.; ALEKSANDROV, A.V., kand. tekhn. nauk, red.

[Ship systems and pipelines; arrangement, manufacture and installation] Sudovye sistemy i truboprovody; ustroistvo, izgotovlenie i montazh. Leningrad, Sudostroenie, 1964. 310 p. (MIRA 18:3)



KORNEYEV, V.M., OVCHINNIKOV, I.P. (Leningrad)

Hisotry of the origin of the individual first-aid-kit. Fel'd. i akush. 23 no.10:27-30 O '58 (MIRA 11:11)
(BANDAGES AND BANDAGING)

YEDIGAROV, S.G.; RASHCHEPKIN, K.Ye.; OVCHINNIKOV, I.S.

Complete mechanization of major repairs of pipelines. Neft. khoz. 40 no.10:55-62 O '62. (MIRA 16:7)

(Pipelines—Maintenance and repair)

ACCESSION NR: AP4013319 S/0020/64/154/003/0523/0526

AUTHORS: Ovchinnikov, I.S.; Suvorov, G.D.

TITLE: Transformation of the Direchlet integral and space mapping

SOURCE: AN SSSR. Doklady*, v. 154, no. 3, 1964, 523-526

TOPIC TAGS: Direchlet integral, Direchlet integral transformation, space mapping, three dimensional mapping, conformal mapping, topology, fundamental sequence, Cauchy sequence

ABSTRACT: The inequality expressing the length and area principle has found wide application in the theory of plane mappings (conformal, quasi-conformal and the more general ones). This inequality, as well as a number of its modifications, can be obtained by simple transformations of the Direchlet integral for a plane representation. If the problem is to find a class of representations, a class of admissible domains and the relative distances introduced by compatibility, then the problem of boundary agreement with the topological representation $y = T(x)$, $x \in A$, $y \in B$ can be reduced to

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ACCESSION NR: AP4013319

prove that, with a direct and inverse representation T and T^{-1} Cauchy sequence will turn into the fundamental. This problem is automatically solved if it is possible to find the functions $\varphi_1(\alpha)$ and $\varphi_2(\alpha)$ so that $\varphi_i(\alpha) \to 0$ with $\alpha \to 0$, and such that

$$\varphi_1 [\rho_A(x', x'')] \leq r_B [T(x'), T(x'')] \leq \varphi_2 [\rho_A(x', x'')] \quad (1)$$

for any points x', $x'' \in A$ which are sufficiently close with respect to ρ_A. This was expanded to apply to three dimensional mapping. The examined classes of representations include the class of Q-quasiconformal mappings, translating the domains into domains with a bounded volume. The classes of the D and Δ domains can be expanded by means of introducing a spherical metric, defining the relative distances by this metric and examining the spherical analogy of the Direchlet integral. This method can permit simplification even in an n-dimensional case. Orig. art. has: 8 equations.

ASSOCIATION: Tomskiy gosudarstvenny*y universitet im. V.V.

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ACCESSION NR: AP4013319

Kuyby*sheva (Towak State University)

SUBMITTED: 30Aug63 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: MM NO REF SOV: 002 OTHER: 001

Card 3/3

YEDIGAROV, S.G.; LEVENTSOV, A.N.; KRUGLOV, A.N.; RASHCHEPKIN, K.Ye.; OVCHINNIKOV, I.S.

Mechanization of the packaging of solid petroleum bitumens. Neft. khoz. 40 no.4:60-65 Ap '62. (MIRA 15:5)
(Bitumen)
(Packaging machinery)

RAS[illegible], K.Ye.; BU[illegible]HINSKIY, V.L.; [illegible], I.[illegible]

(MS-1 combined high-speed [illegible] device. Neft. khoz. [illegible] no.[illegible]:51-55 F '63. (MIRA [illegible])

OVCHINNIKOV, I.S.

Metric properties of mappings [illegible]. Dokl. [illegible]
161 no.3:526-529 Mr '65.

1. Tomskiy gosudarstvennyy [illegible] im. V.V.Kuybyshева.
Submitted October [illegible], 1964.

OVCHINNIKOV, I.S.; SUVOROV, G.D.

Transformations of the Dirichlet integral and mappings in space. Sib. mat. zhur. 6 no.6:1292-1314 N-D '65. (MIRA 18:12)

L 37753-66 EWT(d)/T IJP(c)

ACC NR: AP6014527 SOURCE CODE: UR/0199/65/006/006/1292/1314

AUTHORS: Ovchinnikov, I. S.; Suvorov, G. D.

ORG: none

TITLE: Dirichlet-integral transforms and three-dimensional mappings

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 6, no. 6, 1965, 1292-1314

TOPIC TAGS: integral transform, mapping, conformal mapping, partial derivative, bounded function, Euclidean space, vector function, continuous function, DIRICHLET PROBLEM

ABSTRACT: Proofs of theorems announced earlier (I. S. Ovchinnikov and G. D. Suvorov. Preobrazovaniya integrala Dirikhle i prostranstvennyye otobrazheniya, Doklady Ak. nauk SSSR, 154, No. 3 (1964), 523-526) are given. The principal theorem of the method is expressed by the inequality

$$\int_{r_1}^{r_2} \frac{\Omega^2(r)}{r}\,dr \leqslant M_0 J(f, D_{r_1; r_2}) \leqslant M_0 J(f, D),$$

where $M_0 = \frac{(8\pi)^3}{\Gamma^4(3/4)}$ and $D_{r_1; r_2} = \bigcup_{r \in [r_1, r_2]} S_r'$. It is shown that for all values of r, the integral

$$\int_{S_r'} \Lambda(f, x)\,ds$$

UDC: 517.54

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L 21798-65 EWT(1)/EEC(t)/ Peb SSD/AFWL/AFETR/RAEM(i)/ESD(gs)/ESD(t)/ IJP(c)

ACCESSION NR: AP5000653 S/0181/64/006/012/3569/3576

AUTHOR: Kessel', A. R ; Ovchinnikov, I. V.

TITLE: Electric dipole echo in paramagnetic spin systems 21

SOURCE: Fizika tverdogo tela, v. 6, no. 12, 1964, 3569-3576

TOPIC TAGS: electric dipole echo, relaxation, paramagnetism, paramagnetic ion, paramagnetic resonance

ABSTRACT: It is shown that it is possible to excite electric dipole (ED) echo in substances in which paramagnetic impurity atoms occupy a position in the lattice which is not an inversion center for the immediate surrounding. The ED echo is due to the coherent motion of the effect of ED moments of the paramagnetic atoms and is the electric analog of magnetic dipole (spin) echo. The calculation of the ED echo signals is carried out by a procedure similar to that used by the authors earlier (FTT, v. 5, 2364, 1963) for the study of the effect of ED induction. Expressions are derived for the ED echo signal from harmonic ions with electron configuration d^6 in a tetrahedral crystal field. Unlike spin

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echo, in this case two resonant electromagnetic pulses give rise to three echo signals at instants $3\tau/2$, 2τ, and 3τ (τ -- interval between pulses), reckoned from the start of the first pulse. The spin Hamiltonian describing the interaction between the paramagnetic particles and the electromagnetic field is calculated in analogy with the authors' earlier work, and the parameters contained in the spin Hamiltonian are determined from experiments with static fields. The echo signals are calculated by a procedure described by M. Bloom et al. (Phys. Rev. v. 97, 1699, 1955) and by others. Preliminary calculations show that the effects can be readily measured in Mn^{+} and Cr^{0} ions in the interstices of a silicon lattice, since the field experienced by these particles is several orders of magnitude larger than the maximum sensitivity of present day equipment. Orig. art. has: 12 formulas.

ASSOCIATION: Kazanskiy fiziko-tekhnicheskiy institut AN SSSR (Kazan' Physicotechnical Institute, AN SSSR); Institut organicheskoy khimii AN SSSR, Kazan' (Institute of Organic Chemistry, AN SSSR)

SUBMITTED: 26May64 ENCL: 00 SUB CODE: EM, NP
NR REF SOV: 002 OTHER: 010 ATD PRESS: 3166

OVCHINNIKOV, I.V.

Nature of the magnetic development of the hydrogen bond in aqueous solutions of vanadyl salts. Zhur.strukt.khim. 4 no.3:448-449 My-Je '63. (MIRA 16:6)

1. Institut organicheskoy khimii Kazanskogo filiala AN SSSR, Kazan'.

(Hydrogen bonding) (Vanadium salts)
(Electron paramagnetic resonance and relaxation)

L 15555-63 EWT(1)/EWT(m)/BDS/EEC(b)-2 AFFTC/ASD/ESD-3 P1-4 GG/RM

ACCESSION NR: AP3003884 S/0181/63/005/007/1887/1893

AUTHOR: Ovchinnikov, I. V.

TITLE: Effect of degree of covalence (bond) on spin-lattice relaxation of an octahedral group with one magnetic electron

SOURCE: Fizika tverdogo tela, v. 5, no. 7, 1963, 1887-1893

TOPIC TAGS: covalent bond, spin-lattice relaxation, spin-phonon transition, adiabatic wave function, Hamiltonian, orbit-lattice interaction

ABSTRACT: The author starts from the idea of a basic mechanism of relaxation in groups of transition elements: the modulation of orbits of electrons belonging to metal ions by thermal vibrations of the surrounding ions. Assuming that the modulation of orbital movement of an electron by thermal vibrations in the lattice is a basic mechanism also in covalent compounds, he considers it necessary to redetermine the operator of orbit-spin interaction, since the electron now belongs not to the central ion but to the group as a whole. As a consequence of the change in operator and in the character of the wave function, the matrix elements of the orbit-lattice interaction, of the angular moment, and of the spin-orbit interaction (contained in the general expressions for probability of spin-lattice transitions) also change.

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L 15555-63

ACCESSION NR: AP3003884

2

The author used the molecular orbits with approximate adiabatic wave function of a closed shell to compute the probability of spin-phonon transitions for an octahedral group with one magnetic electron. His general conclusion is that the transition from ionic to covalent bond is accompanied by an increase in time of spin-lattice relaxation. "The author thanks S. A. Al'tshuler for setting up the problem and for his attention to the work." Orig. art. has: 9 formulas.

ASSOCIATION: Institut organicheskoy khimii AN SSSR, Kazan (Institute of Organic Chemistry, Academy of Sciences, SSSR)

SUBMITTED: 08Feb63 DATE ACQ: 19Aug63 ENCL: 00

SUB CODE: PH NO REF SOV: 001 OTHER: 010

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KESSEL', A.R.; OVCHINNIKOV, I.V.

Effect of electric dipole induction in electron resonance. Fiz. tver. tela 5 no.8:2364-2365 Ag '63. (MIRA 16:9)

1. Fiziko-tekhnicheskiy institut AN SSSR, Kazan'.
(Dipole moments)
(Paramagnetic resonance and relaxation)

OVCHINNIKOV, I.V.

Effect of the type of covalent bond on the spin-lattice relaxation of an octahedral complex with one magnetic electron. Fiz. tver. tela 5 no.7:1887-1893 Jl '63. (MIRA 16:9)

1. Institut organicheskoy khimii AN SSSR, Kazan'.
(Chemical bonds)

OVCHINNIKOV, I.V.

Stark effect and spin-phonon interaction in paramagnetic crystals.
Fiz. tver. tela 4 no.6:1597-1600 Je '62. (MIRA 16:5)

1. Institut organicheskoy khimii AN SSSR, Kazan'.
(Stark effect) (Nuclear spin) (Paramagnetism)

OVCHINNIKOV, I.V.

Spin-lattice relaxation in $K_3(Co, Fe)(CN)_6$. Fiz.tver.tela 4 no.10:2750-2754 O '62. (MIRA 15:12)

1. Institut organicheskoy khimii AN SSSR, Kazan'.
(Potassium ferricyanide)
(Paramagnetic resonance and relaxation)

S/181/62/004/010/017/063
B108/B104

AUTHOR: Ovchinnikov, I. V.

TITLE: Spin-lattice relaxation in $K_3(Co,Fe)(CN)_6$

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2750 - 2754

TEXT: $K_3(Co,Fe)(CN)_6$ crystals can be used in paramagnetic amplifiers (masers). The abnormal magnetic properties of the iron in the compound $K_3Fe(CN)_6$ are therefore of interest. According to B. Bleaney and M. C. M. O'Brien (Proc. Phys. Soc., B69, 1216, 1956), the sixfold degenerate molecular orbit splits up into three Kramers doublets under the action of a strong crystal field. A magnetic field splits up the doublets into two levels. With the aid of perturbation theory, the transition probabilities within one pair of levels are calculated from relaxation parameters, both for direct processes and for Raman scattering of phonons. The resulting expressions

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...ation time calculated

... This result is greater than that

indicated by the experimental data, either because the approximation of the strong crystal fields cannot be applied to compounds with covalent bonds, or because the group $Fe(CN)_6^{3-}$ forms a stable complex which interacts weakly with the remaining lattice.

ASSOCIATION: Institut organicheskoy khimii AN SSSR Kazan' (Institute of Organic Chemistry AS USSR, Kazan')

SUBMITTED: May 11, 1962

S/181/62/004/010/017/063
B108/B104

AUTHOR: Ovchinnikov, I. V.

TITLE: Spin-lattice relaxation in $K_3(Co,Fe)(CN)_6$

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2750 - 2754

TEXT: $K_3(Co,Fe)(CN)_6$ crystals can be used in paramagnetic amplifiers (masers). The abnormal magnetic properties of the iron in the compound $K_3Fe(CN)_6$ are therefore of interest. According to B. Bleaney and M. C. M. O'Brien (Proc. Phys. Soc., B69, 1216, 1956), the sixfold degenerate molecular orbit splits up into three Kramers doublets under the action of a strong crystal field. A magnetic field splits up the doublets into two levels. With the aid of perturbation theory, the transition probabilities within one pair of levels are calculated from relaxation parameters, both for direct processes and for Raman scattering of phonons. The resulting expressions

Spin-lattice relaxation...

$$A^{(1)}_{+,-} = \frac{2\pi^3 R^2 v^4 kT}{5d\zeta^2\omega^5}\left[\frac{(1+\sqrt{2})^2}{2}(9a^2\gamma_z^2 + b^2\gamma_y^2) + 2b^2(\gamma_x^2-\gamma_y^2)^2 + \right.$$
$$\left. + 2(a^2+27a^2)\gamma_z^2\gamma_y^2\right],$$
$$A^{(2)}_{+,-} = \frac{36\pi^4\hbar^2R^4}{25d^2\zeta^2\omega^{10}}(3a^2+b^2)(9a^2+b^2)I_0, \qquad (2)$$
$$I_0 = \int_0^{\frac{k\Theta}{\hbar}} \nu^8 \frac{\exp\frac{h\nu}{kT}}{\left[\exp\frac{h\nu}{kT}-1\right]^2}d\nu.$$

are determined only by the properties of symmetry of the system. Here R is the equilibrium distance Fe-C, d is the crystal density, v the sound velocity in the crystal; the parameters a and b are determined according to Van Vleck (J. Chem. Phys., 7, 72, 1939) Q_3 and Q_6 are the normal vibrations of the octahedral complex. The spin-lattice relaxation time calculated therefrom is $T_1^{-1} = 230OT + 630T^9$ for $T \ll \Theta$. This result is greater than that

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indicated by the experimental data, either because the approximation of the strong crystal fields cannot be applied to compounds with covalent bonds, or because the group $Fe(CN)_6^{3-}$ forms a stable complex which interacts weakly with the remaining lattice.

ASSOCIATION: Institut organicheskoy khimii AN SSSR Kazan' (Institute of Organic Chemistry AS USSR, Kazan')

SUBMITTED: May 11, 1962

S/181/62/004/006/032/051
B108/B138

AUTHOR: Ovchinnikov, I. V.

TITLE: Stark effect and spin-phonon interaction in paramagnetic crystals

PERIODICAL: Fizika tverdogo tela, v. 4, no. 6, 1962, 1597-1600

TEXT: The operator of electrical interaction between electrons and lattice ions can be expanded into a series with respect to the amplitudes of the thermal vibrations of the ions. The matrix elements of this operator are calculated for an arbitrary number and position of the ions. With this operator, the matrix elements characterizing the spectrum (Stark splitting) and the relaxation can be calculated. First, interaction is calculated for one ion only. Then, summation is performed over all ions. The purpose is the transition from the complex single-center integrals to the simpler two-center integrals. Thus a relation is found for nd-electrons between relaxation parameters and the Stark splitting parameters.

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Stark effect and spin-phonon ... S/181/62/004/006/032/05: B108/B138

ASSOCIATION: Institut organicheskoy khimii AN SSSR, Kazan' (Institute of Organic Chemistry AS USSR, Kazan')

SUBMITTED: February 10, 1962

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KESSEL', A.R.; OVCHINNIKOV, I.V.

Electric dipole echo in paramagnetic spin systems. Fiz. tver. tela 6 no.12:3569-3576 D '64. (MIRA 18:2)

1. Kazanskiy fiziko-tekhnicheskiy institut AN SSSR i Institut organicheskoy khimii AN SSSR, Kazan'.

L 20826-66 EWT(1) GS

ACCESSION NR: AT5013557 UR/0000/64/000/000/0096/0101

AUTHOR: Lebedev, N. I.; Ovchinnikov, I. Ye.

TITLE: Electromagnetic torque of a two-winding contactless d-c motor

SOURCE: AN SSSR. Institut elektromekhaniki. Avtomatika, telemekhanika i priborostroyeniye (Automatic control, remote control, and instrument manufacture). Moscow, Izd-vo Nauka, 1964, 96-101

TOPIC TAGS: dc motor, contactless dc motor, micromotor

ABSTRACT: A new contactless d-c micromotor with two series-connected windings whose currents are switched by transistors (see Enclosure 1) are described. The motor is excited by a permanent-magnet-type armature. The transistors are controlled by four 3-core differential transformers whose magnetic circuits are switched by a rotating (on a motor-shaft extension) asymmetrical unwound armature. A formula (7) is developed for the torque of

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