

102. Cardiovascular Changes in Brucellosis

"Changes in the Cardiovascular System in Brucellosis," by Ya. L. Lur'ye and Ye. P. Tarkhanova, Trudy Kuybishevskogo Meditsinskogo Instituta (Works of the Kuybishev Medical Institute), Vol 5, 1954, pp 296-303 (from Sovetskoye Meditsinskoye Referativnoye Obozreniye, No 20, 1956, p 54, abstracted by K. Gorbunova)

"Thirty-eight patients suffering from brucellosis, principally the chronic and subacute forms, were examined. All patients were subjected to detailed clinical and serological investigations. The Burnet test was positive in the majority of the patients. Analysis of the data obtained led to the conclusion that subjective disturbance of the cardiovascular system and physical heart disorders were observed in a considerable number of the patients. Upon electrocardiographic investigation, changes in the electrocardiogram which indicated diffuse dystrophic changes in the myocardium were evidenced in the majority of cases, and variations which reflected focal changes in the myocardium occurred in a number of cases. The blood flow rate was retarded somewhat which bore witness to reflected affection of vascular tonus. Capillaroscopic investigations which were conducted in a number of cases revealed pronounced disturbances in the peripheral blood circulation of brucellosis patients." (U)

KARAPETYAN, N.G.; TARKHANYAN, A.S.; LYUBIMOVA, A.N.

Hydration of vinylacetylene to methyl vinyl ketone by means of sulfuric acid solutions of cuprous oxide. Part 1: Solubility of vinylacetylene in sulfuric acid solutions of cuprous oxide. Izv. AN Arm.SSR.Khim.nauki 17 no.4:398-406 '64.

(MIRA 18:6)

1. Yerevanskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta sinteticheskogo kauchuka im. akad. S.V.Lebedeva.

KARAPETIAN, N.G.; TARKHANYAN, A.S.; LYUBIMOVA, A.N.

Hydration of vinylacetylene to methylvinylketone by sulfuric acid solutions of cuprous oxide. Part 2: Reaction of vinylacetylene with sulfuric acid solution of cuprous oxide. Izv. AN Arm. SSR. Khim. nauki 18 no.4:360-365 '65. (MIRA 18:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proizvodnyy institut polimerov i produktov. Submitted June 17, 1964.

TARKHANYAN, G. Kh.

A new silage crop. Izv. AN Arm. SSR. Biol. i sel'khoz. nauki. 5 no. 9:
91 '52. (MLBA 9:8)

1. Zaveduyushchiy Stepanavanskiy gossortouchastkom.
(Stepanavan District--Rye) (Ensilage)

A. I. Gol'dman, I. I. Irinchanov, et al.

TITLE: The change of potential in the atom influenced by the optical transition.

PERIODICAL: Optika i spektroskopiya, v.14, no.4, 1963, 571-573

TEXT: In some quantum-mechanical problems the deformation of atoms due to optical transitions of the valency electrons must be taken into account. In this paper the spherically-symmetrical part of this change in potential is examined. For atoms with a not too small Z an approximate calculation can be carried out using quasi-classical motion of the majority of electrons in the atom. Starting from Poisson's equation the following expressions are derived for the change in potential in atoms due to removal of valency electrons.

$$\Delta V = \frac{4\pi e^2}{3} \int_0^R \rho(r) r^2 dr - \frac{2\pi e^2}{3} \int_0^R \rho(r) r dr \quad (6)$$

$$\int_0^R \delta \rho(r) r^2 dr = 0 \quad (8)$$

4551/03/014/004/020/025

The smallness of the parameter ϵ in the case of Thomas and Fermi's equation is determined by the smallness of the parameter ϵ . The results are expressed in terms of the smallness of ϵ in the case of the Thomas and Fermi's equation.

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Thursday, September 26, 2002
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001755010014-7
CIA-RDP86-00513R001755010014-7"

art. nas: 14 formulae.

L 9263-66 EWT(1)/I/EVA(h) IJP(c) AT

ACC NR: AP5022706

SOURCE CODE: UR/0181/65/007/009/2688/2697/11

^{44,55}
AUTHOR: Tarkhanyan, R. G.

68
B

^{44,55}
ORG: Institute of Semiconductors AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

^{21,44,55} ^{21,44,55}
TITLE: Magnetoresistance and thermomagnetism in a longitudinal quantizing magnetic field in semiconductors of the n-InSb type

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2688-2697

^{21,44,55}
TOPIC TAGS: semiconductor theory, theoretic physics, indium compound, antimonide, longitudinal magnetic field, thermomagnetic effect, magnetoresistance

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ABSTRACT: The author studies the changes in thermoelectromotive force and resistance in semiconductors of the n-InSb type with regard to the deviation from parabolic form in the conduction band and electron spin in an arbitrary longitudinal quantizing magnetic field. It is assumed that acoustic scattering predominates. It is further assumed that the electrons are non-degenerate and that their concentration is constant, i. e. that it is independent of the magnetic field and temperature. The thermoelectromotive force is determined by calculating the heat flux transferred by electrons in the electric field and then applying Onsager's equations. The relaxation time for electron-phonon scattering and the longitudinal kinetic coefficients are determined.

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L 9263-66

ACC NR: AP5022706

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44.55
In conclusion, I thank A. I. Ansel'm for guidance in this work, and participants in a theoretical seminar at IPAN SSSR for discussion. Orig. art. has: 51 formulas.

SUB CODE: 20/ SUBM DATE: 26Mar65/ ORIG REF: 005/ OTH REF: 008



Card 2/2

L 8845-66 EWT(1) IJP(c) GG

SOURCE CODE: UR/0181/55/007/009/2837/2842

ACC NR: AP5022733

AUTHOR: Ansel'm, A. I.; ^{44,55}Obraztsov, Yu. N.; ^{44,55}Tarkhanyan, R. G.

ORG: ^{44,55}Institute of Semiconductors AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

TITLE: Quantum theory for thermomagnetic currents in semiconductors and metals

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2837-2842

TOPIC TAGS: theoretic physics, quantum physics, thermomagnetic effect²¹

ABSTRACT: The authors consider the problem of determining kinetic coefficients in equations for thermomagnetic phenomena in the quantum case when there is a temperature gradient. It is shown that solutions of the motion equations for the density matrix assuming local thermodynamic equilibrium lead to expressions for the current density which were proposed by Ansel'm and Askerov in 1960 (A. I. Ansel'm, B. M. Askerov, PTT, 2, 2310, 1960). The results coincide with data in recent papers on the quantum theory of thermomagnetic phenomena in semiconductors and metals. Orig. art. has: 28 formulas.

SUB CODE: 20/

SUBM DATE: 03May65/

ORIG REF: 005/

OTH REF: 003

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5

ANSEL'M, A.I.; OBRAZTSOV, Yu.N.; TARKHANYAN, R.G.

Quantum theory of thermomagnetic currents in semiconductors and metals. Fiz. tver, tela 7 no.9:2837-2842 S '65.

(MIRA 18:10)

1. Institut poluprovodnikov AN SSSR, Leningrad.

MNDZHOYAN, A.L.; TARKHANYAN, Z.K.

5-Methylfurfural acetone. Sint. geterotsikl. soed. no.3:50-52 '58
(Butenone) (MIRA 13:3)

MNDZHOYAN, A.L.; TARKHANYAN, Z.K.

5-Methylfurfuryl acetone. Sint. geterotsikl. soed. no.3:53-54 '58.
(Butanone) (MIRA 13:3)

KOLOMIYETS, B.T.; LYUBIN, V.M.; TARKHIN, D.V.

Conductivity and photoconductivity in antimony triselenide films.
Fiz. tver. tela 1 no.6:899-902 Ja '59. (MIRA 12:10)
(Antimony selenide --Electric properties)

RYVKIN, S.M.; KONOPLEVA, R.F.; MASLOVA, L.V.; MATVEYEV, O.A.; STROKAN, N.B.;
TARKHIN, D.V.; KHOZOV, G.V.

Germanium photodiodes with small inertia. Fiz. tver. tela 2 no.9:2199-
2201 S '60. (MIRA 13:10)

1. Leningradskiy fiziko-tekhnicheskij institut AN SSSR.
(Germanium diodes)

TARKHIN, D. V.

21401

S/120/61/000/002/012/042
E210/E594

9.61.50 (incl. 2705)
24.6810

AUTHORS: Vitovskiy, N. A., Maleyev, P. I., Matveyev, O. A.,
Rykin, S. M. and Terkhin, D. V.

TITLE: Silicon N-P Counters of Heavy Charged Particles
Operating Without an External Power Supply

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No. 2, pp. 82-83

TEXT: Fused silicon diodes having an n-p junction area of about 1 mm² have been studied in order to determine their counting properties when operated as short-circuited rectifiers. The saturation current in the counters studied was not over 0.1 μ A; the leakage resistance was several megohms. Under such conditions, short-circuit current rectification can be realized by using a 350 kilohm load. In counters irradiated with α -particles under the above conditions and tested at room temperature, pulse amplitudes reached 2-3 mV with practically no noise. This performance equals that of counters operating as photodiodes, but the noise in the latter case increases rapidly with increasing cut-off voltage. In both cases (operating as rectifiers or photodiodes) pulse rise time varies from 1 to 3 μ sec. The decay time is determined by the R-C of the circuit. This is shown in the oscillograms, Fig. 1. In
Case 1/3

Silicon N-P Counters of ...

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Fig.1a the duration of the markers is 1 μ sec. Fig.1b - leading edge of the pulse; marker duration 0.2 μ sec. Trigger delay 0.5 μ sec. With decreasing temperature the pulse amplitude and duration remain unchanged. Silicon n-p counters are regarded as highly promising since even at room temperature they can operate as photovoltaic cells without an external power supply. Comments made during the proof-reading: The here described counters show considerable variance in the amplitudes of the pulses during the counting of monochromatic particles, i.e. they are not suitable for spectrometry. At present, the laboratory of the authors manufactures surface-barrier silicon counters which are suitable for spectrometry (amplitude resolution less than 1% for α -particles with energies of 5.5 MeV). The considerations presented in the paper are in principle applicable also for such spectrometric n-p counters. There are 1 figure and 3 Soviet references.

ASSOCIATION: Fiziko-tekhnichekiy institut AN SSSR (Physico-technical Institute AS USSR)

SUBMITTED: February 20, 1960

Card 2/3

27401
S/089/61/011/003/002/013
B102/B138

21.6000

AUTHORS: Ryvkin, S. M., Maslova, L. V., Matveyev, O. A., Strokan, N. B.,
Tarkhin, D. V.

TITLE: Silicon counters in nuclear spectrometry

PERIODICAL: Atomnaya energiya, v. 11, no. 3, 1961, 217 - 220

TEXT: Silicon counters were developed at the Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN USSR (Physicotechnical Institute imeni A. F. Ioffe AS USSR) in 1960. The counters were small (active area: 2.2, 5.5, and 10.10 mm²). Their pulse height was ~ 1 mv/Mev, and resolution less than 1% for E_α = 5.5 Mev. They were produced by sputtering gold to n-type silicon and diffusing phosphorus into the p-type silicon. The following characteristics were investigated: (1) Volt-ampere characteristics. They were the usual shape for p-n junctions. Reverse current was 0.5 - 0.05 μa (at 40 v) for the small-sized counters, and increased proportionally with area; breakdown voltage was between 50 and 60 v. (2) Capacitance-barrier voltage dependence. The capacitance of the sensitive layer (the volume-charge domain) was in accordance with the usual capacitor formula $d = \epsilon_0 S / 4\pi C$

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(S - area, ϵ_0 - dielectric constant); since the thickness d of the sensitive layer is proportional to $\sqrt{V+V_0}$, the capacitance decreases as $(V+V_0)^{-1/2}$ with increasing voltage. (3) Pulse height-voltage dependence.

Pulse height was determined by $Q = eN$ (N - number of pairs formed in ionization); the mean pair formation energy, ϵ , was measured for Pu^{238}

alpha particles ($Q = 2.5 \cdot 10^{-13}$ k): $\epsilon = 3.53 \pm 0.15$ ev; this value agrees with that found in Ref. 4 (see below). (4) Pulse height-energy dependence. Pulse height ϕ as a function of voltage V was measured for the alpha energy groups 8.78 and 6.05 Mev. For the short-range group, pulse height reached saturation at ~ 15 v, for the long-range group at ~ 35 v. $\phi(E_\alpha)$

was found to be a straight line. It is predicted that at $V = 60$ v linearity will also be maintained for alpha particles of up to 10 Mev or for any other particles with ranges of up to 60μ . (5) Amplitude resolution. This was determined on a 100-channel analyzer using Pu^{238} alpha emission. After correction for noise background, resolution was found to be 27 kev or 0.5% for the small counter, 1% for the medium, and 10% for the large one. The spread is attributed to inhomogeneities of the silicon. In the OIYAI at Card 2/3

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Silicon counter in nuclear ...

Dubna the 10·10-mm² counter has been used for U²³³-fission-fragment recording with high alpha background; G. N. Flerov, Corresponding Member of the AS USSR, has submitted a spectrum recorded with this counter to the authors of the present article. These junction counters may be used not only for recording of α -particles and fission fragments but also for fast and slow neutrons. The authors thank G. V. Khozov, Engineer. I. A. Lebedeva and G. D. Gusarina, laboratory assistants, and P. I. Gorshkov, mechanic, for assistance. There are 7 figures and 4 non-Soviet references. They read as follows: Ref. 1: J. Blankenship, C. Borkowski. Bull. Amer. Phys. Soc., ser. II, 5, No. 1, 38 (1960). Ref. 2: S. Friedland, L. Mauer, J. Wiggins. Nucleonics, 18, No. 2, 54 (1960). Ref. 3: J. Mc Kenzie, J. Waugh. Bull. Amer. Phys. Soc., ser. II, 5, No. 5, 355 (1960). Ref. 4: M. Halbert, J. Blankenship. Nucl. Instrum. and Methods, 8, No. 1, 106 (1960).

SUBMITTED: March 18, 1961

Card 3/3

KAZARINOV, N.M.; MATVEYEV, O.A.; RYVKIN, S.M.; SOLOV'YEV, S.M.; STROKAN,
N.B.; TARKHIN, D.V.

Use of semiconductor spectrometric counters for measuring the energy
of fragments. Atom. energ. 12 no.2:153-154 F '62. (MIRA 15:1)
(Nuclear fission) (Nuclear counters)

MASLOVA, L. V.; MATVEYEV, O. A.; RYVKIN, S. M.; STROKAN, N. B.;
TARKHIN, D. V.; KHOZOV, V. G.

Possibilities for using silicon counters in nuclear research.
Izv. AN SSSR. Ser. fiz. 16 no.12:1498-1505 D '62.
(MIRA 16:1)

(Nuclear counters—Design and construction)

ACCESSION NR: AP4041057 S/0120/64/000/003/0217/0218

AUTHOR: Matveyev, O. A.; Tarkhin, D. V.

TITLE: Etching p-n junctions by strong chemical etchants

SOURCE: Pribery* i tekhnika eksperimenta, no. 3, 1964, 217-218

TOPIC TAGS: semiconductor, semiconductor material, pn junction, etched crystal

ABSTRACT: Pincers with fluoroplastic jaws are suggested for holding a semiconductor billet in an etchant. After 2--3 minutes, water is poured into the etchant, and the washed billet is taken out. Ge-based (2 ohm-cm) specimens with a diffusion 1-2 cm² p-n junction had a breakdown voltage of 200 v and a resistance of 10 Mohms; Si-based (300 ohm-cm) up to 5 cm² specimens had a breakdown voltage of 600 v and a few tens Mohms resistance. Orig. art. has: 1 figure.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR (Physico-Technical Institute, AN SSSR)

SUBMITTED: 06Jul63

ENCL: 00

SUB CODE: EC

NO REF SOV: 000

OTHER: 000

APPROVED FOR RELEASE: Thursday, September 26, 2002

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CIA-RDP86-00513R001755010014-7
CIA-RDP86-00513R001755010014-7"

ACCESSION NR: AP4029703

8/0089/64/016/004/0363/0365

AUTHOR: Matveyev, O. A.; Ry*vkin, S. M.; Tarkhin, D. V.

TITLE: Quick response silicon detectors of pulsed X-radiation

SOURCE: Atomnaya energiya, v. 16, no. 4, 1964, 363-365

TOPIC TAGS: semiconductor detector, n p junction, n i p junction, penetrating radiation, hard X radiation, quick response detector, hole type conductivity, intrinsic conductivity, spectral sensitivity

ABSTRACT: This report discusses semiconductor n-p and n-i-p silicon detectors suitable for recording short pulses (about 10^{-7} sec.) of hard X-radiation having an energy up to 1 Mev. One of the two experimental quick-response detectors of pulse X-radiation was based on an n-p silicon junction which was achieved through the diffusion of phosphorus into silicon with a hole-type conductivity and a resistivity of about 1000 to 3000 ohm.cm. The second type was with n-i-p silicon junction. The region of intrinsic conductivity was

Card. 1/2

ACCESSION NR: AP4029703

found by compensating the initial hole-type conductivity by the lithium ion drift in the n-p junction field. The nature of the detectors' spectral sensitivity to X-radiation of various energies was investigated by the use of filters made of St-3 iron. Thus; operating on the principle of collecting non-equilibrium current carriers in an n-p junction electric field, the n-p and n-i-p detectors represent quick-response X-radiation sensing elements with a sensitivity close to the maximum possible for silicon and a response time of about 10^{-7} to 10^{-8} sec. Although silicon has a relatively low X-radiation absorption factor, the mentioned detectors with a response time of about 10^{-7} sec. are in a number of ways more suitable for the recording of pulse X-radiation than other instruments. Orig. art. has: 3 figures and 5 formulas.

ASSOCIATION: None

SUBMITTED: 02Aug63

ATD PRESS: 3047

ENCL: 00

SUB CODE: EC, NP

NO REF SOV: 002

OTHER: 001

Card 2/2

TARKHNISHVILI, A.A.; MIRIMANOVA, D., red.; SAGARADZE, Sh., tekhn.
red.

[Oriental confectionery] Vostochnye konditerskie izdelia.
Tbilisi, Izd-vo Gruzinskogo polit. in-ta im. V.I. Lenina,
1961. 93 p. (MIRA 15:8)
(Confectionery)

TARKHOV, A. G.

Tarkhov, A. G. "A New Method of Determining the Elements of a Vertical Deposit by Means of Magnetometric Data." *Razvedka Nedr*, Moscow, No. 19, 1934, pp. 35-38.

TARKHOV, A. G.

"Geoelectrical Field of Filtration". Iz AN SSSR, Ser Geograf i Geofiz, No 5, 1940 (403-408).
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

USSR/Geological Prospecting
Dielectrics - Constants
Mar 1947

"Relation of the Dielectric Constants of Rocks to
Their Mineralogical Composition," A. G. Tarikhov,
All-Union Inst Geol Prospecting, Leningrad, 7 pp

"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XI,
No 2

Previous papers on subject have very important
shortcomings, i. e., moisture of samples investigated
was not taken into consideration. Experiments will
give same results as calculations if carried out
correctly. Notes that value of the dielectric

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USSR/Geological Prospecting (Contd) Mar 1947

constant of acid rocks less than that of the basic
rocks. Submitted by Academician L. S. Leybenzon.

50738

TARKHOV, A. G.

Jul/Aug 53

USSR/Geophysics - Geophysical Prospecting

"Modeling of Variable Electromagnetic Fields for purposes of Geophysical Prospecting,"

A. G. Tarkhov, Moscow Geol-prospecting Inst im S. Ordzhonikidze

Iz Ak Nauk SSSR, Ser Geofiz, No 4, pp 318-323

Discusses the possibility of modeling processes that govern the propagation of variable electromagnetic fields in mineral rocks. Briefly describes a modeling apparatus employed in lab expts. Gives the results of observations with conducting plates; also gives results of submerging plates in water. Establishes that the induction current excited by the external field in massive conductors is of a vortical character. Remarks that for this reason the data obtained in electroprospecting by means of alternating currents must be interpreted in order to make receivers accurate.

265 T21

TARKHOV, A. G.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 674 - I

BOOK Call No.: AF660087

Author: TARKHOV, A. G.

Full Title: Geophysical Exploration by the Induction Method

Transliterated Title: Geofizicheskaya razvedka metodom induktsii

PUBLISHING DATA

Originating Agency: None

Publishing House: State Scientific and Technical Publishing House
of Literature on Geology and Mineral Resources

Date: 1954 No. pp.: 95 No. of copies: 5,000

Editorial Staff

Editor: Prof. A. I. Zaborovskiy

PURPOSE: A textbook to satisfy the requirements for a book on the
contemporary scientific level

TEXT DATA

Coverage: The book is divided into an introduction, four chapters,
a conclusion, and a bibliography. The introduction gives a brief
historical review of the method of induction started in 1927 and
developed by I. G. Mikhaylov, A. M. Pylayev and A. V. Khoromskiy,
who introduced methods of observation and apparatus. The method
of resistance gave way to the method of induction by alternating
electrical currents which since 1946 has been in the process
of further research by a group of members of the Geophysical
Institute of the Academy of Sciences under A. N. Tikhonov,

Geofizicheskaya razvedka metodom induktsii

AID 674 - I

corr. mem. Chapter I covers the physical fundamentals of the induction method; Chapter II, field work with the application of the method; Chapter III, sources of handicaps of non-geological origin; Chapter IV, application of the induction method to the solution of geological exploration problems, enumerates in abstract form the conditions and results obtained in the application of this method in nine regions of Russia. In the conclusion, the author mentions the future development of this method with emphasis on the modeling, the study of the phase structure of the fields, etc., and discusses, for example, the method of exploring the electrically conductive sulfide deposits. In view of the complicated structures of the deposits, the author attributes much importance to a minute geochemical exploration. But this is impractical because of the time necessary for the work and the high expenses, and may be substituted for by the geophysical induction method. The text is illustrated by many formulae and 60 diagrams, graphs, photoplates of instruments.

No. of References: 15 Russian (1933-1953) and 2 American

Facilities: None

TARKHOV, A.G.

Determining the depth of underground conduction bodies by
the induction method. Razved.i okh.nedr 20 no.1:33-36 Ja-F
'54. (MLRA 9:12)

(Prospecting--Geophysical methods)
(Induction (Electricity))

ARASHKEVICH, V.M., dotsent; VESELOV, A.I., professor; VOLOTKOVSKIY, S.A., professor; ZHUKOV, L.I., dotsent; IPPOLITOV, M.D., dotsent; KUTYUKHIN, P.I., dotsent; KOMPANEYETS, V.P., dotsent; MALAKHOV, A.Ye., professor; NEUDACHIN, G.I., dotsent; RYABUKHIN, G.Ye., professor; SAKOVITSEV, G.P., dotsent; STOYLOV, B.A., dotsent; TROP, A.Ye., dotsent; FEDOROV, S.A., professor; YAROSH, A.Ye., dotsent, redaktor; TARKHOV, A.G., redaktor; GAMBURTSEVA, Ye.Ye., redaktor; GUROVA, O.A., tekhnicheskii redaktor.

[Collection of articles on geophysical methods of prospecting]
Sbornik statei po geofizicheskim metodam razvedki. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1955. 109 p.
(MLRA 8:11)

1. Sverdlovsk. Gornyy institut.
(Prospecting--Geophysical methods)

USER/Geophysics

FD-2578

Card 1/1 Pub. 44 8/19

Author : Tarkhov, A. G.

Title : ~~Waveguide properties of mining operations~~
 : Waveguide properties of mining operations

Periodical : Izv. AN SSSR, Ser. geofiz, Jul-Aug 55, 358-363

Abstract : The basic theories of radio waveguides can be used to study the propagation of radiowaves in mine tunnels. The use of comparatively long waves gives greater effects. It is found that the presence of transverse shafts and variable shaft cross section cause changes in the field intensity. Artificial conductors in mines sharply distort the field and thus make separate sections difficult to study. Four references.

Institution : Moscow Geological Prospecting Institute imeni S. Ordzhonikidze

Submitted : February 1, 1954

TARKHOV, A.G.; VANTSYAN, G.M.

Prospecting hydroelectrometry. Razved.i okh.nedr ZI no.5:
37-45 S-O '55.

(MLRA 9:12)

(Geochemical prospecting)
(Electrometer)

TARKHOV, A.G.

Using radio wave attenuation for determining the electric properties of rocks. Izv.AN SSSR,Ser.geofiz. no.5:599-608 My '56. (MLRA 9:8)

1. Tsentral'nyy geofizicheskiy trest, Moskovskiy geologo-razvedochnyy institut.

(Radio waves)

(Rocks--Electric properties)

(Prospecting--Geophysical methods)

TARKHOV, A.G.

Using magnetic prospecting methods in mining areas. Izv. AN SSSR, Ser.
geofiz. no.8:1005-1007 Ag '56. (MLRA 10:1)
(Prospecting—Geophysical methods)

TARKHOV, A.G., doktor fiziko-matematicheskikh nauk.

"Using the natural electrical field in electrical prospecting" by
A.S. Semenov. Reviewed by A.G. Tarkhov. Izv. AN SSSR. Ser. geofiz.
no. 11: 1364-1366 N '56. (MIRA 10:1)
(Prospecting--Geophysical methods)(Terrestrial electricity)
(Semenov, A.S.)

TARKHOV, A.G.

Review of collected articles of "Geophysical prospecting methods."
Rasved. 1 okh. nedr 22 no.9:60-63 S '56. (MIRA 9:11)

1. Moskovskiy Geologorazvedochnyy institut.
(Prospecting--Geophysical methods)

TARKHOV, A.G.

Dispersion of electrical properties of rocks. Trudy MGRI 29:234-242

'56.

(MLRA 10:4)

(Rocks--Electrical properties)

CHERNYSHEV, G.B.; BRITAYEV, M.D.; TARKHOV, A.G.; SHCHERBAKOV, A.V.; KRUYTER,
V.M., glavnyy red.; SHATALOV, Ye.T. zamestitel' glavnogo red.;
YEROFMEYEV, B.N., red.; ZENKOV, D.A., red.; KRASHNIKOV, V.I., red.;
NIFONTOV, P.V., red.; SMIRNOV, V.I., red.; KHRUSHCHOV, N.A., red.;
YAKZHIN, A.A., red.; MUKHIN, S.S., red.; AVNERKIYEVA, T.A., tekhn.
red.

[Prospecting for ferrous metal deposits] Razvedka mestorozhdenii
chernykh metallov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po
geol. i okhrane neдр. 1957. 102 p. (Metodicheskie ukazaniya po
proizvodstvu geologo-razvedochnykh работ, no.11). (MIRA 11:1)
(Iron ores) (Prospecting)

KHRUSHCHOV, N.A.; KOSOV, B.M.; POLIKARPOCHKIN, V.V.; BRITAYEV, M.D.; TARKHOV,
A.G.; SHCHERBAKOV, A.V.; KRNYTER, V.M., glavnyy red.; SHATALOV, Ye.T.,
zamestitel' glavnogo red.; YEROFYEV, B.N., red.; ZENKOV, D.A., red.;
KRASNIKOV, V.I., red.; NIFONTOV, R.V., red.; SMIRNOV, V.I., red.,
YAKZHIN, A.A., red.; VERSTAK, I.V., red. izd-va; AVERKIYVA, T.A.,
tekhn. red.

[Prospecting for molybdenum, tungsten, tin, bismuth, antimony,
and mercury deposits] Razvedka mestorozhdenii molibdena, vol'frama,
olova, vismuta, sur'my i rtuti. Moskva, Gos. nauchno-tekhn. izd-vo
lit-ry po geol. i okhrane neдр, 1957. 130 p. (Metodicheskie ukazaniya
po proizvodstvu geologo-razvedochnykh rabot, no.6). (MIRA 11:1)
(Ore deposits) (Prospecting)

AMIRASIANOV, A.A.; BRITAYEV, M.D.; BYBOCHKIN, A.M.; ZENKOV, D.A.; TARKHOV,
A.G.; TSYGANKO, N.I.; SHCHEMBAKOV, A.V.; KREYTER, V.M., glavnyy
red.; SHATALOV, Ye.T., zamestitel' glavnogo red.; YEROFYEV, B.N.,
red.; ZENKOV, D.A., red.; KRASNIKOV, V.I., red.; NIFONTOV, R.V.,
red.; SMIRNOV, V.I., red.; KHRUSHCHOV, N.A., red.; YAKZHIN, A.A.,
red.; VERSTAK, G.V. red. izd-va; AVERKIYEVA, T.A., tekhn. red.

[Prospecting for copper, lead, and zinc deposits] Razvedka mesto-
rozhdenii medi, svintsa i tsinka. Moskva, Gos. nauchno-tekhn. izd-vo
lit-ry po geol. i okhrane neдр, 1957. 135 p. (Metodicheskie ukaza-
niia po proizvodstvu geolog-razvedochnykh rabot, no.10).

(Ore deposits) (Prospecting)

(MIRA 11:4)

SOV/169-59-2-1231

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 2, p 31 (USSR)

AUTHORS: Tarkhov, A.G., Barkov, V.S.

TITLE: On the Method of Electric Profiling in the Case of Nonuniform Overburden

PERIODICAL: Byul. nauchno-tekhn. inform. M-vo geol. i okhrany nedr USSR, 1957, Nr 7 (12), pp 34 - 37

ABSTRACT: It is presumed that the apparent resistivity ρ'_k obtained by the little device will be indicating the influence of the overburden, while the great device AB makes it possible to determine the value of ρ_k depending on the deep-seated rocks, when one carries out the investigations by the method of symmetrical electric profiling according to the AA'MNB'B scheme. Sharp distorting influences occur, when the overburden is non-uniform and variable in its thickness. It was attempted to represent the results of the electric profiling in the form of the graphs ρ_k/ρ'_k , showing a considerable simplicity, for the purpose of the elimination of the influences mentioned. A similar method of treatment was applied to engineering geological prospecting in the Far East and in the Perm' region. The graphs of the curves ρ'_k , ρ_k , and ρ_k/ρ'_k obtained in the Perm' region for A'B' = 100 m and

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30V/169-59-2-1231

On the Method of Electric Profiling in the Case of Non-Uniform Overburden

AB = 400 m and recorded in the region of karst limestones, are presented. The curves φ_k and φ'_k mark the karst zones by maxima in the curve, but similar extrema, are observed also in other points out of the karst zones. The curve, of the φ_k/φ'_k ratio marks the karst zone by a very distinct minimum. The curves φ_k , φ'_k and φ_k/φ'_k obtained in limestones without karst formation are also given. It is noted that the curve of the φ_k/φ'_k ratio has a smooth character, but the curves φ_k and φ'_k are very jagged. The author summarizes that the practice confirms some advantages of the relation method. An analytic explanation of the relation method is given. The author recommends the testing of this method in geological mapping and in prospecting for mineral resources.

E.N. Kuz'mina

TARENCOV, A.G.

Electric reconnaissance techniques for detecting pure anomalies.
Izv. AN SSSR. Ser. geofiz. no. 8: 979-989 Pg '57. (MLRA 10:8)

1. Soyuznyy tsentral'nyy geofizicheskiy trest.
(Prospecting--Geophysical methods)
(Magnetism, Terrestrial)

TARKHOV, A.G.
TARKHOV, A.G.

Method for determining the capacity of pumps. Rasved. i okh. nedr 23
no.9:34-35 S '57. (MIRA 10:11)

1. Moskovskiy geologorazvedochnyy institut im. S. Ordzhonikidze.
(Pumping machinery)

DAKHOV, V.N., prof., doktor geol.-miner. nauk; SHIMELVICH, Yu.S., kand.
tekhn.nauk; ~~TARKHOV, A.G.~~, prof., doktor fiz.-mat.nauk, red.;
KALANTAROV, A.P., vedushchiy red.; FEJOTOVA, I.G., tekhn.red.

[Exploration and working of mineral deposits; proceedings]
Razvedka i razrabotka poleznykh iskopaemykh. Moskva, Gos. nauchno-
tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1958. 250 p.
(MIRA 12:1)

1. Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po pri-
meneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniya v
narodnom khozyaystve i nauke, Moscow, 1957. 2. Moskovskiy
neftyanoy institut im. I.M. Gubkina (for Dakhov). 3. Institut
nefti AN SSSR (for Shimelevich).

(Radioisotopes--Industrial application)
(Mines and mineral resources) (Oil wells)

TARKHOV, H.G.

BARSUKOV, Oleg Aleksandrovich; BLINOVA, Nina Mikhaylovna; VYBORNYYKH, Sergey Fedorovich; GULIN, Yuriy Aleksandrovich; DAKHNOV, Vladimir Nikolayevich; LARIONOV, Vyacheslav Vasil'yevich; KHOLIN, Arkadiy Ivanovich; TARKHOV, H.G., doktro fiz.-mat.nauk.prof., retsenzent; SHOROKHOVA, L.I., vedushchiy red.; PLOSINA, A.S., tekhn.red.

[Radioactive methods of research in oil and gas wells] Radioaktivnye metody issledovaniia neftiannykh i gazovykh skvazhin. Moskva, Gos. nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1958. 314 p. (MIRA 11:6)
(Oil well logging, Radiation)

TARKHOV, A. G.

"Statistical Treatment of Findings in Mass Determination of
Physical Properties of Samples of Rocks."

n. 259 in book Applied Geophysics; Collection of Articles, No. 40, Moscow
Geotekhnichesk, 1958, 257p.

These articles are concerned with the methodology of interpreting the results of gravimetric, seismic and electrical surveys. Review the collecting properties of soils on the basis of data obtained from resistometers and the application of charged particle accelerators in well logging.

TARKHOV, A.G.

Underground geophysical prospecting. Izv. vys. ucheb. zav.; geol.
1 razv. no.1:107-123 Ja '58. (MIRA 11:6)

1. Moskovskiy geologo-razvedochnyy institut, Geofizicheskiy fakul'-
tet.

(Prospecting--Geophysical methods)

TAR KHov, A. G.

132-58-3-12/15

AUTHORS: Authors of VIRG Symposium on "Geophysical Methods of Prospecting"

TITLE: Remarks on the Review by A.G. Tarkhov of the VIRG Symposium "Geophysical Methods of Prospecting", Gosgeol-tekhizdat, 1955 (Zamechaniya po retsenzii A.G. Tarkhova na sbornik VIRG "Geofizicheskiye metody razvedki" - Gosgeol-tekhizdat, 1955)

PERIODICAL: Razvedka i Okhrana Nedr, 1958, Nr 3, pp 57-59 (USSR)

ABSTRACT: The above mentioned book was published in 1955; the review of the book by A.G. Tarkhanov was published in this periodical (1956 - Nr 9). This article is an answer by various authors of the articles included in this book to the reviewer's criticism. The authors' names are not mentioned.

AVAILABLE: Library of Congress
Card 1/1 1. Geophysical prospecting-USSR

TARKHOV, A.G.

Underground observations of the natural electric field in ore-bearing provinces. Izv. vys. ucheb. zav.; geol. i razv. 1 no.12:114-122 (MIRA 12:12)
D. '58.

I. Moskovskiy geologorazvedochnyy institut im. S. Ordzhonikidze.
(Electric fields)

TARHOV, A.G.

Statistical methods of working up mass measurement data on the
physical properties of rock specimens. Prikl.geofiz. no.20:259-268
'58. (MIRA 11:11)

(Prospecting—Geophysical methods)

DAKHNOV, Vladimir Nikolayevich, professor; TARKHOV, A.G., prof., doktor fiziko-mat.nauk; PERSHINA, Ye.G., vedushchiy red.; FEDOTOVA, I.G., tekhn.red.

[Industrial geophysics; methods of industrial geophysics, apparatus and equipment, electrical methods in oil well logging]. Promyslovaia geofizika; metody promyslovoi geofiziki, apparatura i oborudovanie, elektricheskie metody issledovaniia skvazhin. Moskva, Gos. nauchno-tekhn.isd-vo neft. i gorno-toplivnoi lit-ry, 1959. 692 p.

(MIRA 12:2)

(Prospecting--Geophysical methods) (Oil well logging)

SOV/49-59-4-19/20

AUTHOR: Tarkhov, A. G.

TITLE: On the Relationship of the Geophysical Fields (O vzaimnykh svyazyakh geofizicheskikh poley)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 4, pp 635-637 (USSR)

ABSTRACT: The author gives a short account of 4 books on the above subject. The books, which are listed in the 4 references, are as follows:

- (1) On the determination of electric characteristics of the Earth's crust, by A. N. Tikhonov.
- (2) A method of investigation of the seismic phenomena, by G.A. Ivanov.
- (3) The relationship between the potential anomalies of the geophysical fields and their complex interpretation, by A. A. Nepomnyashchikh.
- (4) The relationship between the electric and gravity anomalies, by Yu. P. Bulashevich. There are 4 Soviet references.

SUBMITTED: May 12, 1958.

AL'PIN, L.M.; TARKHOV, A.G.

Geophysical Department of the Moscow Geological Prospecting
Institute. Trudy MGRI 36:3-6 '59. (MIRA 15:5)
(Prospecting—Geophysical methods)

TARKHOV, A.G.

Geothermal methods in the petroleum geology; review of
D.I.D'iakonov's book. Izv.vys.ucheb.zav.; geol.i razv. 2
no.9:135-141 § '59. (MIRA 13:4)

1. Moskovskiy geologorazvedochnyy institut imeni S.Ordzhonikidze.
(Earth temperature) (Prospecting--Geophysical methods)
(D'iakonov, D.I.)

TARKHOV, A.G.; SIDOROV, A.A.

Working up geophysical data by mathematical methods. Izv. AN
SSSR. Ser. geofiz. no.10:1452-1457 0 '60. (MIRA 13:9)

1. Moskovskiy geologorazvedochnyy institut.
(Prospecting--Geophysical methods)

S/169/61/000/012/027/089
D228/D305

AUTHOR: Tarkhov, A. G.

TITLE: Present state and prospects of the development
of high-frequency electrical prospecting

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 12, 1961,
37, abstract 12A357 (Izv. vyssh. uchebn.
zavedeniy. Geol. i razvedka, 1960, no. 9,
98-113)

TEXT: The expansion of the geological possibilities of
electrical prospecting can be expected during the subsequent
extension of research on the processes of the passing and for-
mation of electromagnetic fields, especially those of a high-
frequency. The author cites theoretical graphs, computed by
V. N. Nikitina, for the horizontal and vertical components of
the anomalous constituent of a magnetic field created by a
flat electromagnetic wave above an inclined conducting vein;

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S/169/61/000/012/027/089
D228/D305

Present state and...

these are coincident in their character with the relationships established by modeling. Recent advances in the creation of apparatus for radiowave X-raying and induction are described. The need is emphasized for the quickest compilation and publication of handbooks and manuals of high-frequency electrical prospecting, as is the desirability for the further expansion of scientific research work in this field. [Abstracter's note: Complete translation.]

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Card 2/2

VARLAMOV, A.S.; MIKHAYLOV, I.N.; NIKITIN, A.A.; PUCHKOV, Ye.P.;
TARKHOV, A.G.

Some features of the method of processing the results of geo-
physical research in direct prospecting for diamonds in the
Yakut A.S.S.R. Izv. vys. ucheb. zav.; geol. i razv. 3 no.12:88-
97 D '60. (MIRA 14:5)

I. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze.
(Yakutia—Diamonds)
(Prospecting—Geophysical methods)

S/169/62/000/003/020/098
D228/D301

AUTHORS: Bogdanov, A. Sh. and Tarkhov, A. G.
TITLE: Development of ore prospecting by electrical methods
in the next few years
PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1962, 24, ab-
stract 3A207 (Razvedka i okhrana neдр, no. 7, 1961,
31-37)

TEXT: It is noted that electrical prospecting can be expediently applied not only for direct orebody searches but also for closely studying a mineralized area's geologic structure. The replacement of the current methods of lateral electrical sounding and d.c. electrical profiling by more mobile and productive techniques is of great significance. In this respect frequency electromagnetic sounding, whose apparatus weighs ~200 kg, is promising; the method's depth potential extends down to 400 m. The method of potential sounding is progressing. The customary equipment of the resistivity method is used in this technique which is distinguished

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Development of ore ...

S/169/62/000/003/020/098
D228/D301

by its high productivity and simplicity of interpreting the observational results. The new methods of d.c. profiling and magnetic and phase-amplitude measurement, for which the AFI-2 (AFI-2) apparatus that has been successfully proved in different areas of the USSR, has been created, are promising. Aerial methods of electrical prospecting which have successfully replaced surface operations in some districts, are acquiring especial significance. New equipment has been developed for the method of induced polarization, VP-59 (VP-59), which, on being somewhat modernized, can also be applied for operations according to the method of field formation. The methods of high-frequency ground and aerial electrical-prospecting -- radiopiles -- are being practised widely. The well and shaft versions of the technique of radiowave X-raying are extremely promising. [Abstracter's note: Complete translation.]

Card 2/2

BONDARENKO, V.M.; DEMIDOVICH, O.A.; TARKHOV, A.G.

First results of the combined use of geophysical methods of direct prospecting for diamond deposits in the Yakut A.S.S.R. *Izv.vys. ucheb.zav.; geol.i razv.* 4 no.2:118-132 F '61. (MIRA 14:6)

1. Moskovskiy geologorazvedochnyy institut imeni S.Ordzhonikidze.
(Yakutia—Diamonds) (Prospecting—Geophysical methods)

TARKHOV, A.G.; VANTSYAN, G.M.

Determination of the electric conductivity of rocks and ores
based on the transient grounding resistance. Razved i okh
nedr 27 no.2:53-56 F '61. (MIRA 14:5)

1. Moskovskiy geologorazvedochnyy institut (for Tarkhov).
2. Institut geologicheskikh nauk Armyanskoy SSR (for Vantsyan).
(Ores--Electric properties)

44588

S/169/62/000/012/029/095
D228/D307

9.9700

AUTHOR:

Tarkhov, A.G.

TITLE:

Electric prospecting by the radio comparing and direction finding ('radiokip!') method

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 12, 1962, 44, abstract 12A358 (Razvedka i okhrana nedr. no. 1, 1962, 29-34)

TEXT:

The radiokip method is based on the fact that it studies the electromagnetic field in the distant wave zone of radio station emission. When the dimensions of areas under investigation are limited, the electromagnetic wave spreading along the ground surface can be regarded as flat, and the intensity of the normal field can be taken as constant. Complex radiowave diffraction processes, which distort the normal field and create anomalies, arise if discontinuities, tectonic dislocations, orebodies, etc are present beneath the ground. Data are given on the technique and procedure of field operations, and the equipment is described. The

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Electric prospecting ...

scope of the investigation is considered. In the author's opinion, provided the conditions are favorable, the radiokip method can be expediently used in solving a number of problems, for example in geological mapping, prospecting for ore deposits, approximately estimating the thickness of deposits and solving engineering geological and hydrological problems (finding pockets of fresh water among salt water).

[Abstracter's note: Complete translation] ;

S/169/62/000/011/013/077
D228/D307

AUTHORS: Bondarenko, V.M., Kovalenko, N.D. and Tarkhov, A.G.

TITLE: Geophysical investigations of uranium deposits by the method of radio wave translucence

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 11, 1962, 56, abstract 11A337 (Izv. vyssh. uchebn. zavedeniy, Geol. i razvedka, no. 2, 1962, 71-82)

TEXT: The Kafedra razvedochnoy geofiziki MGRI (Exploration Geophysics Department of the MGRI) undertook an attempt to apply the radio-wave translucence method in two uranium deposits and also carried out modeling on models of finite conductance. The usual shaft-type equipment, including a wide-band (from 0.37 to 20 Mc/s) generator with 20 fixed frequencies working off a rod antenna, was used in the field investigations, as was a standard $\text{M}\bar{\text{R}}-12-2\text{M}$ (IP-12-2M) receiver. In the latter the output was changed from the pin to the screened operating antenna. The modeling work aimed at exposing the possibilities of a new electromagnetic profiling method, allowing

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Geophysical investigations ...

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operations to be conducted from one mine working. The model had the form of a box of organic glass plates. In the observations the box was filled with mineralized water having a variable NaCl concentration. The results of the modeling confirmed that the radio-wave transluence method can be applied on objects with low conductance. In the field work the absorption factors of an orebody and its host-rocks were determined at many points of the deposit. Within the same horizon the magnitudes of the absorption factor appeared to remain practically constant; for the deposit as a whole, however, they are characterized by a rather high scatter. Ore zones differ in comparison with host-rocks in their reduced resistivity; this is evidently explained by their jointing, hydrothermal alteration, and sulfidization. Observations by the radio-wave transluence method were made on a known ore zone, exposed by a drift and a crosscut. The ore zone was displayed on the observed curve. The electromagnetic profiling method was also tested in drifts. The possibility of mapping fault zones is shown.

[Abstracter's note: Complete translation]

Card 2/2

S/169/62/000/009/021/120
D228/D307

AUTHORS: Tarkhov, A. G. and Sidorov, A. A.

TITLE: Some applications of the information theory to exploration geophysics

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 25, abstract 9A161 (In collection: Sostoyaniye i perspektivy razvitiya geofiz. metodov poiskov i razvedki pol-ezn. iskopayemykh, M., Gostoptekhizdat, 1961, 135-141)

TEXT: An account is given of the question of using mathematical statistical means in geophysical methods. All the ways of mathematically processing geophysical data aim at distinguishing an anomaly against the background of obstacles. The volume of useful information is not thereby increased, but the anomaly/impediment ratio grows in consequence of the suppression of harmful information. This position is illustrated in examples. The set problem is solved by means of using different methods of the information theory. One of these methods -- the technique of inverse probability -- is

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Some applications of ...

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stated. The effectiveness of this method's application is shown in the example of the processing of the ΔZ curve for one of Armenia's polymetal deposits. The characteristics of the methods of successive averaging and of successive differences are given. In conclusion it is noted that the creation of specialized computers will further the successful application of methods of statistically processing geophysical data. [Abstracter's note: Complete translation.]

Card 2/2

KOVALENKO, N.D.; TARKHOV, A.G.

Prospecting by the use of radio waves in mine workings. Uch.
zap. SAIGIMSa no.8:145-157 '62. (MIRA 17:1)

1. Moskovskiy geologorazvedochnyy institut.

TARKHOV, A.G., doktor fiziko-matem. nauk, prof., red.; KUZ'MINA,
N.N., ved. red.; POLOSINA, A.S., tekhn. red.

[Handbook of geophysics] Spravochnik geofizika. Moskva,
Gostoptekhizdat. Vol.3. [Electric prospecting] Elektro-
razvedka. Pod red. A.G.Tarkhova. 1963. 582 p.

(MIRA 16:5)

(Electric prospecting)

DAYEV, D.S.; SERDINOV, A.I.; TARKHOV, A.G.

Modeling problems in the method of radio wave probing. *Izv. AN
SSSR. Ser. geofiz. no.6:936-945 Je '63.* (MIRA 16:7)

1. Moskovskiy geologorazvedochnyy institut imeni S.Ordzhonikidze.
(Electromagnetic prospecting)

PROBLEMS USSR

Blokh, Ya. I., V. M. Bondarenko, and A. G. Tarkhov. *Geomagnetizm i aeronomiya*, v. 3, no. 2, 1963, 390-392. S 203-63,003/002,025-027

A recent Soviet experiment using underground measurements of cosmic rays to detect and delineate an ore body was carried out in the Central Urals with a narrow-direction, 3-way recording counter telescope. The resolution time of the counter circuit was about 5 μ sec and the effective area of the telescope was 0.1 m². Both the counter and the electronic circuits were powered by dry cell batteries. Unique features of the experiment were that: 1) the telescope had different dimensions in 3 directions and; 2) this was the first Soviet attempt with this method to distinguish between ore bodies — copper pyrite (density $\rho = 4.58$ g/cm³) — and country rocks — quartz-sericite schists ($\rho = 3.27$ g/cm³) and quartz-albite porphyries ($\rho = 2.74$ g/cm³).

Card 1/2

UNDERGROUND COSMIC RAY RECORDINGS (Cont'd)

S/203/63/003/002/025/027

The cover rock along the 600-m section was 315-350 m thick. Radiation was measured at 3 points under the ore body and at 2 in the country rock. The results demonstrated that actual rock densities compared favorably with their theoretically computed values and that underground cosmic ray measurements can be used successfully to determine rock densities, depths of observation points, and the thicknesses of overlying masses. [E]

Card 2/2

ISAYENKO, M.P.; RUSINOV, L.A.; SAAKYAN, P.S.; SERDYUKOVA, A.S.;
TARKHOV, A.G.

Review of [prof., deceased] A.A. Iakzhin's book "Prospecting
for uranium deposits." Izv. vys. ucheb. zav.; geol. i razv. 6
no.2:127-130 F '63. (MIRA 16:6)

1. Moskovskiy geologorazvedochnyy institut im. S. Ordzhonikidze.
(Uranium ores)
(Iakzhin, A.A.)

DYUKOV, A.I.; TARKHOV, A.G.

"Geophysical methods in areal structural geology" by B.A.Andreev.
Reviewed by A.I.Diukov, A.G.Tarkhov. Izv.vys.ucheb.zav.; geol.i
razv. 6 no.3:133-135 Mr '63. (MIRA 16:5)

1. Moskovskiy geologorazvedochnyy institut imeni S.Ordzhonikidze.
(Prospecting--Geophysical methods)
(Andreev, B.A.)

TARKHOV, A.G.; YAKUBOVSKIY, Yu.V.

Review of V. Fritsch's book "Electrical measurements in large
conductors as used in applied terrestrial electricity work."
Izv. vys. ucheb. zav.; geol. i razv. 6 no.9:149-150 S '63.

(MIRA 17:10)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.

TARKHOV, A.G.

Effect of rocks on the propagation of radio waves. Radiotekh. i elektron. 8 no.7:1282-1286 J1 '63. (MIRA 16:8)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.
(Radio waves)

AL'FIN, L.M., prof., otv. red.; TARKHOV, A.G., prof., zam. otv.
red.; YAKUBOVSKIY, Yu.V., dots., zam. otv. rec.

[Transactions of the All-Union Interuniversity Scientific
Conference on Inductive Methods for Ore Geophysics] Trudy
Mezhvuzovskoi nauchnoi konferentsii po induktivnym metodam
rudnoi geofiziki. Moskva, Izd-vo "Nedra," 1964. 233 p.
(MIRA 17:7)

1. Vsesoyuznaya mezhvuzovskaya nauchnaya konferentsiya po
induktivnym metodam rudnoy geofiziki, Moscow, 1961.
2. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze
(for Tarkhov).

MURONTSEVA, Z.G.; TARKHOV, A.G.; LIU SHU-DUN' [Liu Shu-tun], aspirant
(Kitsayskaya Narodnaya Res. Ra.)

Practice in the statistical processing of geothermal obser-
vation data in the holes of the Krivoy Rog Basin. Izv. vys.
ucheb. zav.; geol. i razv. 6 no.12:117-122 D '63
(MIRA 1963)

1. Moskovskiy geologorazvedochnyy institut im. S. Ordzhonikidze.

BONDAKLENKO, V.M.; TARKHOV, A.G.,

Using penetrating cosmic radiation to determine the mean density of
rocks. Razved. i okh. nedr 30 no.4:30-34 Ap '64.

(MIRA 17:12)

1. Moskovskiy geologorazvedochnyy Institut imeni Sergo Ordzhonikidze.

BLOKH, Ya.L.; BONDARENKO, V.M.; KOVALENKO, N.D.; TARKHOV, A.G.

Use of cosmic radiation for the purposes of underground
geophysical prospecting. Prikl. geofiz. no.38:142-157 '64.
(MIRA 18:11)

ACC NR: AT6028388

(N)

SOURCE CODE: UR/0000/65/000/000/0275/0288

AUTHOR: Bondarenko, V. M.; Kovalenko, N. D.; Mudretsova, Ye. A.; Tarkhov, A. G.

ORG: non?

TITLE: Underground geophysical exploration

SOURCE: International Geological Congress, 22d, New Delhi, 1964. Geologicheskkiye rezul'taty prikladnoy geofiziki (Geological results of applied geophysics); doklady sovetskikh geologov, problema 2. Moscow, Izd-vo Nedra, 1965, 275-288

TOPIC TAGS: borehole, tellurometry, radio field, ore prospecting, anomaly, gradient, geophysical prospecting, *GEOPHYSIC EXPEDITION, RADIO WAVE, GEOLOGIC SURVEY*

ABSTRACT: Field geophysical measurements conducted at the surface are not always sufficiently deep. An important contribution to this problem can be made by conducting underground observations in the available or specially provided mines (boreholes). Radio-wave surveying, which detects differences in rock conductivities is one of the best available methods. It measures intensity and phase structure of radio-frequency fields. Different modifications have been developed for single mines (boreholes). At present the method is used for ore prospecting (massive, impregnated, sulphide, and even uranium ores, the latter generally slightly mineralized). The method may be recommended for locating zones of high water content which may be dangerous for exploration.

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tion. The specific character of underground gravity measurements depends upon the low intensity of the anomalies. This method requires high accuracy of measurements and allowance for interference (relief, walls of the mine, empty cavities, collapse zones). Three-dimensional templates have been prepared for small objects. Complex measurements include general gravity surveys and gradient meter observations. The method helps to locate the position and to determine the thickness and extension of the ore bodies which have been missed during mining (copper and iron). Intensity of cosmic rays decreases with the increase of the rock mass through which muons penetrate. Underground measurements provide the data on the average density of the overlying rocks (for making corrections of gravity data) and located overlying geological objects. Tests operations (for copper, iron, and complex metal ores and tunnels) have been successful. To raise the effectiveness of underground prospecting and mining, it is necessary to apply other geophysical methods such as magnetometry, seismic prospecting, thermometry, and various modifications of electric prospecting. Particularly interesting in combination of surface and underground geophysical investigations. Orig. art. has: 8 figures.

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Card 2/2

TARKHOV, A.I., inzh. (Stalinabad)

Automation in cotton watering. Gidr.1 mel. 12 no.3:20-23 Mr
'60. (MIRA 13:6)
(Tajikistan--Irrigation)

TARKHOV, A.I., inzh. (g.Stalinagad)

Shortcomings in the design and construction of irrigation systems.
Gidr. 1 mel. 12 no. 12:15-19 D '60. (MIRA 14:1)
(Tajikistan--Irrigation)

TARKHOV, A.I., inzh.; GUSHCHIN, G.I., red.; MIRONOV, N., tekhn. red.

[Pneumatics and automation of irrigation] Pnevmatika i avtomatizatsiia polivov. Stalinabad, Izd-vo M-va sel'khoz. Tadzhikskoi SSR, 1961. 42 p. (MIRA 15:1)

(Irrigation farming)

3 (5)

AUTHORS:

Musatov, D. I., Tarkov, A. P.

SOV/20-126-6-49/67

TITLE:

On the Problem of the Tectonic Structure of the Central Part of the Sayano-Altayskaya Folded Region (K voprosu o tektonicheskom stroenii tsentral'noy chasti Sayano-Altayskoy skladshatoy oblasti)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 6, pp 1323 - 1325 (USSR)

ABSTRACT:

The tectonic division into districts of the Caledonian formations of the Kuznetskiy Alatau, of the northern part of West Sayan, of the western part of East Sayan and of the foundation of the Minusinsk-inter-mountain-basins is based on a formation analysis and aeromagnetic knowledge. The authors separated the following types of main structure elements (see Scheme Fig 1): A. Projections of the foundation of the Caledonian geosyncline (gneiss, amphibolites etc.) a) which are reaching the surface, b) hidden under a layer of Middle- and Upper Paleozoic sediments. a. are characterized by negative magnetic anomalies (potential - napryazhennost' up to 700 gamma). Sections of a weakly positive magnetic field correspond to the case b. The age of

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the rocks is here Proterozoic. B. The fractures in depth accompany the geosynclinal troughs which consist mainly of terrigenous masses and volcanogenic formations of a basic or middle composition. The troughs have a distinctly marked linear shape. The troughs are distinctly distinguished in the magnetic field: linear bands of an abruptly varying positive field correspond to them, limited by zones of great horizontal gradients of the ΔT_a -values. V. Geosynclinal downwarpings have a reduced thickness of the cross section. Differentiated acid intrusions are widely distributed here beside basic ones. The magnetic field varies here considerably and has a changing sign (more often positive). G. Geosynclinal elevations have also a reduced thickness, carbonate formations prevail here. Intrusive activity is inconsiderably developed. Great zones of negative magnetic anomalies occur here. The scheme (Fig 1) shows moreover, intrusive complexes of different age as well as the main structure elements of the Upper Paleozoic inter-mountain-basins of Minusinsk. The following rules governing the tectonic structure of the said district are found on the basis of the totality of the geological and geophysical knowledge: I. The cross section of

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the Caledonian geosyncline begins with a terrigenous-volcanogenic formation of a Riffian age (Kuvayskaya series in East Sayan, Iyusskaya and Portal'skaya suites of the Kuznetskiy Alatau; Dzhebashskaya series in West Sayan). II. The Caledonian geosyncline developed in the places of the trough downwarpings (Ref 2). III. The oldest Caledonian structures are orientated in the Kuznetskiy Alatau in north-western direction parallelly to the trough zone. Structures of the north-eastern- and sub-parallel direction are younger. IV. 3 downwarpings of the Kuznetskiy Alatau are the most conservative ones. Others were reconstructed. V. The geosynclinal intrusive complexes are bound in the whole district to downwarping zones with the exception of the great homogeneous granitic complexes (Ref 3). VI. The joint of the Lower Paleozoic fold structures of the Kuznetskiy Alatau and of the East Sayan is a series of nearly parallel arcs the vaulted side of which is orientated to the north. West- and East Sayan are attached to one another in a similar way. VII. The system of the Minusinsk inter-mountain-basins is bound to belong in its totality to the category of the overlain structures. VIII. 5 rules governing the interrelation of

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individual types of the Upper Paleozoic and of the Caledonian fold structures were found. IX. The Devonian intrusions of the alkaline and subalkaline type are bound according to certain rules either to intra-geosynclinal elevations or to downwarping sections. A brachy-like shape of the folds of the Lower Paleozoic masses is characteristic of them. There are 1 figure and 3 Soviet references.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut
(All-Union Scientific Geological Research Institute)

PRESENTED: November 10, 1958, by A. L. Yanshin, Academician

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