

TEMNIKOVA, T.I.; KOVALEVSKAYA, R.N.

Interaction of 1-bromo-2,3-epoxy-3-methylbutane with α -cyano ketones. Zhur. org. khim. 1 no.9:1706 S '65.

(MIRA 18:12)

1. Leningradskiy gosudarstvennyy universitet. Submitted April 6, 1965.

Card 1/1

UDC: 551.464.7(26)

09270869

OSTA, S.M.; KONALEVSKAYA, R.Z.

Content of suspended organic matter in the surface layer of sea waters. Okeanologiya 5 no.4:649-652 '65. (MIRA 18:9)

L. Beloruskiy gosudarstvennyy universitat imeni V.I.Lenina, Minsk.

KOVALEVSKAYA, S.S.

KOVALEVSKAYA, S.S. "Liguliflorae of Uzbekistan." Published by the Acad Sci Uzbek SSR. Min Higher Education USSR. Central Asia State U imeni V.I. Lenin. Tashkent, 1956.
(Dissertation for the Degree of Candidate in Biological Science)

So: Knizhnaya Letopis', No. 18, 1956,

BONDARENKO, O.N.; BUTKOV, A.Ya.; VVEDENSKIY, A.I.; DROBOV, V.P.
[deceased]; ZAKIROV, K.Z.; KOVALEVSKAYA, S.S.; LINCHEVSKIY,
I.A.; NABIYEV, M.M.; PAZIY, V.K.; ROZHKOVA, O.I.; CHERNEVA, O.V.;
KOROVIN, Ye.P., akad., red.; MUZAFAROV, A.M., akad., red.;
EYDEL'MAN, A.S., red.; RAKHMANOVA, M.D., red.; GOR'KOVAYA, Z.P.,
tekhn. red.

[Flora of Uzbekistan] Flora Uzbekistana. Tashkent, Izd-vo Akad.
nauk Uzbekiskoi SSR. Vol.5. 1961. 666 p. (MIRA 15:3)
(Uzbekistan--Dicotyledons)

BONDARENKO, O.N.; BUTKOV, A.Ya.; VVEDENSKIY, A.I.; KOVALEVSKAYA, S.S.;
NABIYEV, M.M.; CHERNEVA, O.V.; NURATDINOVA, M.R., red.;
GOR'KOVAYA, Z.P., tekhn. red.

[Flora of Uzbekistan] Flora Uzbekistana. Tashkent, Izd-vo
Akad. nauk UzSSR. Vol.6. 1962. 629 p. (MIRA 16:5)
(Uzbekistan--Compositae)

KOVALEVSKAYA, S. V.

176T72

USSR/Medicine - Typhoid Fever

Aug 50

Literature, Medical

"Recommended Bibliography of Russian Literature on the Treatment of Typhoid Fever and Paratyphoid," S. V. Kovalevskaya, N. S. Korsakova

"Feld'sher i Akusher" No 8, pp 61-64

Lists 21 books and articles of recent years on subject including: "Typhoid Fever and the Feeding of Patients," by S. Ya. Bakhmutskaya, "Typhoid Fever and Paratyphoid," by A. F. Bilibin, and L. Ya. Kats-Chernokhvostova, "Typhoid Fever and Paratyphoid," by I. V. Viskovskiy, and "Differential Diagnosis and Treatment of Typhoid Fever," by V. A. Vyatkin. Brief summaries of each book and article.

176T72

KOVALEVSKAYA, T. M.

L'vivs'ka oblast'; heohrafichnyy narys. Kyyiv, "Radyans'ka Shkola", 1961.
122 [1] p. illus., graphs (Oblasti Ukrayins'koyi RSR)

Russian title: L'vovskaya oblast.

Bibliography: p. 122 - [123]

KOVALEVSKAYA, Tat'yana Nikolayevna [Kovalevs'ka, T.M.]; SHPORTYUK, V.I.
[translator]; NEZHNIYAPA, V.Ya. [Nezhnyypapa, V.IA.], red.;
LEBEDEV, I.P. [Lebediev, I.P.], red. kart; GORBUNOVA, N.M.,
[Horbunova, N.M.], tekhn. red.

[Lvov Province; geographical study] L'vivs'ka oblast'; geografichnyi
narys. Kyiv, Derzh. uchbovo-pedagogo. vyd-vo "Radians'ka shkola,"
1961. 122 p. (MIRA 15:3)

(Lvov Province--Geography)

GLUKHOVSKIY, S.; KOVALEVSKAYA, T.P., redaktor; KAZAKOVA, V.Ye., tekhnicheskiy redaktor.

[Hero of the Soviet Union V.A.Lynnik] Geroi Sovetskogo soiuza V.A.Lynnik
Moskva, Voennoe izd-vo Ministerstva oborony soiuza SSR, 1954. 57 p.
(Lynnik, Vasilii A.) (MLRA 8:5)

DRUZHININ, Vladimir Nikolayevich; KOVALEVSKAYA, T.P., redaktor; NYASNIKOVA,
T.F., tekhnicheskij redaktor

[With Czechoslovak friends] U chekhoslovatskikh družei. Moskva,
Voen. izd-vo Ministerstva obor. SSSR, 1956. 115 p. (MLRA 9:8)
(Czechoslovakia--Description and travel)

KOVALEVSKAYA, T. P.

KARMEN, Roman Lazarevich; KOVALEVSKAYA, T. P., red.; ANIKINA, P. F., tekhn. red.

[Vietnam fights; a Soviet cameraman's notebook] V'etnam srazhaetsia; zapiski sovetskogo kinooperatora. Moskva, Voen. izd-vo M-va obr. SSSR, 1958. 262 p. (MIRA 11:7)
(Vietnam, North--Description and travel)

IVANOV, S.K.; KOVALEVSKAYA, V.I.; KRUT'KO, V.T.; RUDENSKIY, I.M.

The VKM-200 pneumatic fan. Bezop.truda v prom. 5 no.1:21-22 Ja '61.
(MIRA 14'2)

1. Dongiprouglesh. (Mine ventilation)

DULIN, V.S., kand.tekhn.nauk; KOVALEVSKAYA, V.I., inzh.

Centrifugal mine fans with a two-way intake. Sbor. trud. Inst. gor.
dela AN URSR no.12:47-58 '61. (MIRA 15:11)
(Fans, Mechanical)

28(1) SOV/119-58-11-7/15
AUTHORS: ~~Kovalevskaya, V. V.,~~ Candidate of Technical Sciences,
Molandt, O. N., Engineer, Khlistunov, V. N., Engineer

TITLE: Building Principles for Digital Computers (Printsipy
postroyeniya tsifrovyykh priborov)

PERIODICAL: Priborostroyeniye, 1958, Nr 11, pp 19-28 (USSR)

ABSTRACT: If the attempt is made to systemize digital computers the
following result is obtained:
I. Voltage- or resistance measurement is referred to a standard.
A) Electromechanical group.
a) Voltmeter
b) Ammeter
c) Ohmmeter
B) Group equipped with tubes.
a) Voltmeter
II. Measurement of time is referred to a standard
A) Tube line-up group.
a) Frequency meter
b) Phasemeter

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Building Principles for Digital Computers

SOV/119-58-11-7/15

c) Voltmeter

The basic mode of operation of the devices belonging to groups I.Aa), II.Aa), II.Ab) and II.Ac) is described in short. The work of developing digital computers in the USSR began in 1955. F. Ye. Temnikov developed a two-digit compensator with digital report (tsifrovym otschetom).

14 foreign and Soviet devices are tabularized together with their most important data. The following originated from the Eastern Block:

a) Voltmeters

Producer: Penza Industrial Institute

Measuring order: direct-current voltage

Measuring sensitivity: 0.001 V

Measuring errors in %: ± 0.1

Measuring time: 1.5 s

Electromagnetic device with static compensation (steep selector). Determination of polarity is automatized.

b) Producer: NII. Autocompensator AK-4D connected with a strain gauge (tenzodatchik)

Sensitivity: $9 \cdot 10^{-6}$

Measuring errors: ± 0.02 %

Measuring time: 70 s

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Building Principles for Digital Computers

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Electromagnetic device with static compensation. The device consists of a decade-magazine resistance, an amplifier for a two-phase tachogenerator, a balanced indicator, and a recording device.

- c) Voltmeter: **ETSVP-1**
Produced at Penza
Measuring order: direct current voltage
Measuring range: 0,5 to 100 V
Measuring errors: $\pm 0,5\%$
Measuring time: 1 s
- d) Frequency meter
Producer: Akademiya nauk Rumynskoy nar.respubliki (Romanian Academy of Sciences)
Measuring range: 10, 100 kilocycles
Measuring errors: $\pm 10^{-6}$
Measuring time: 1 and 10 s. respectively
- e) Phase-frequency meter **NF-2**
Produced at Penza
Measuring orders: Frequency, phase shift and number of pulses
Measuring range: 0,01 - 50 cycles, 0,02 - 100 s. (up to

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Building Principles for Digital Computers

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200 kilocycles)

Measuring errors: 0.5 %

There are 5 figures, 1 table, and 7 references, 2 of which are Soviet.

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8(2)

SOV/119-59-2-6/17

AUTHORS: Kovalevskaya, V. V., Popov, V. S., Candidates of Technical Sciences

TITLE: On a Method of Measuring the Phase Displacement of Two Tensions (Ob odnom metode izmereniya sdviga faz dvukh napryazheniy)

PERIODICAL: Priborostroyeniye, 1959, Nr 2, pp 16-18 (USSR)

ABSTRACT: The tensions to be investigated were stabilized at first. Then their sum or difference is measured depending on the phase angle between the tensions to be investigated, by means of an a. c. instrument. The newly developed apparatus employs a special thermistorized amplifier stabilizer which permits to stabilize the tensions to be investigated within a large range without affecting the shape of the tension. The device serves for measuring the phase displacements of small input tensions which are therefore amplified initially by the valve 6N8 and stabilized in the first stage by a thermistor, type TP2/0.5 and in the second stage by a thermistor of the type TP6/2. For measuring the current a magnetoelectrical microammeter with a measuring range up to 100 μ A is used which is put in series to the rectifier DGTs-5 and an additional resistance $R = 40000\Omega$. In order to protect the thermistors against over-

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On a Method of Measuring the Phase Displacement of Two Tensions SOV/119-59-2-6/17

loading in case of a steep voltage increase ballast resistors of $10\text{ k}\Omega$ are put in series to the thermistors type TP2/0.5. The load capacity of thermistors type TP6/2 is four times that of type TP2/0.5. Therefore they need no ballast resistor in the end cascade.

Experiments showed that the measuring error, at a change of the voltages to be measured of 0.5 to 4.0 V does not exceed 1.5%. By means of a high-resistance voltage divider the voltage measuring range can be extended. The capacitors used in the phasemeter are liberally dimensioned. By experiments the additional error caused by a frequency change from 5 to 10000 cycles was found to amount only to 1.5% of the nominal test value. The measuring error of the phase meter due to changing the valves lies below 0.2%. Variations in the supply voltage of 20% result in a measuring error of less than 0.5%. Phase displacements in the range of from $0-120^\circ$ can be measured. By an auxiliary device consisting of an ohmic resistance and an impedance the phasemeter can within a wide range also be used as frequency meters. The frequency meter sensitivity can be increased by using a resonance circuit as impedance.

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On a Method of Measuring the Phase Displacement of Two Tensions

SOV/119-59-2-6/17

There are 3 figures and 1 Soviet reference.

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KOVALEVSKAYA, V. V.

PLATE I BOOK EXTRACTS 80/4105

Abstracts from USSR Institute of Electrical Engineering, 1960. This collection of works is intended for specialists in electro-
mechanics.

CONTENTS: The collection contains 29 works divided into three sections: 1) Electric Machines, 2) Electric Drive and Electric Traction, 3) Automatic Elec-
tric Drive and Automatic Regulation and Instruments. No personal files
are included. References accompany most of the articles.

APPROVED ELECTRIC DRIVE—AUTOMATIC REGULATION
AND INSTRUMENTS

Abstracts of Publications of the Electric Drive of
Machines

Leonov, V. B. Symmetrical With a Converter of Spherical Coordinates RFD Application to Astromy Problems	174
Kholodny, P. V. Rotational System of Automatic Guidance of Machines	189
Trakler, B. L. Digital Analysis	202
Melnyko, A. E. Method of Solving the Order of Code Rings	213
Plitov, V. I. and A. E. Melnyko. Method of Data from Self- Excited With a Digital Receiver	226
Khramov, I. I., V. V. Shumov, and B. E. Jankov. Utilization of Electric Receivers for Investigating the Dynamics of Regulating the Speed of a Waterwheel Set	235
Shkharov, A. V., V. V. Shumov, and B. E. Jankov. The Utilization Part of a Mechanical Electrodynamical Governor Regulated With Magnetic Amplifiers	245
Ignat'ev, N. N. A Method of Optimal Programming of Second-Order Curves	248
Myshakov, V. A. Application of the Null Effect for Measuring Electro- magnetic Moments of Electric Machines	254
Kovalyukhina, V. I., and B. E. Jankov. Measuring Phase Shift Using Magnetic Method	270
Vladimirov, A. G., I. B. Babakov, and L. B. Zhukovskaya. Dynamic Analysis of Frequency Spectra of Resonant Electric Oscillations	276

S/194/61/000/008/009/092
D201/D304

AUTHORS: Kovalevskaya, V.V. and Belen'kiy, B.Z.

TITLE: A discrete method of phase-shift measurement

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1961, 16, abstract 8 A100 (Sb. rabot po vopr. elektromekhan. In-t elektromekhan, AN SSSR, 1960, no. 4, 270-276)

TEXT: The existing methods of measurements of the angle of phase-shift between two voltages of disturbed waveform are discussed. The block-diagram of a digital phase-meter based on the conversion of the phase-shift into a corresponding number of pulses is described. The phasemeter is useful in measurements of the phase-shift between the harmonic and non-harmonic oscillations, in particular between the pulses. Each of the oscillations, the phase shift between which is being measured, is converted into a sequence of short pulses, produced at instants where the respective waveform

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A discrete method...

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crosses the zero level. The pulse sequences trigger a trigger circuit, so that the positive going rectangular pulses at its output have a duration proportional to the phase shift being measured and inversely proportional to the frequency f_x . The rectangular pulses are applied to the input of the coincidence circuit, no. 1, with pulses of reference frequency f_0 being applied to the other input. At the output of coincidence circuit no. 1 groups of pulses appear having frequency f_0 . These are applied to the first input of coincidence circuit no. 2, to the second input of which a pulse of duration T is applied, the duration being a known multiple of the repetition period of pulses of frequency f_0 . Groups of pulses thus appear at the output of coincidence circuit no. 2, at the repetition frequency f_0 and group duration T . The overall number of pulses in the group is proportional to the phase shift being measured and is independent of both f_x and f_0 . The range of measurement is $0 - 360^\circ$. The frequency range of input voltages $25 \div 5000$ c/s. The indication error is 0.5° at $f_x = 25 \div 2500$ c/s and 1° at f_x up to 5 kc/s. The

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A discrete method...

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input voltage range is 5 : 80 V. Allowable mains voltage changes
± 15%. Input resistance : 750 kΩ. 2 figures. 4 references.
[Abstracter's note: Complete translation]

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S/573/61/000/005/016/023
D201/D305

3,5400 (1395)

AUTHORS: Kovalevskaya, V.V., Radchenko, A.N., and Sidel'nikov, V.V.

TITLE: Prospects for the automation of hydro-meteorological services

SOURCE: Akademiya nauk SSSR. Institut elektromekhaniki. Sbornik rabot po voprosam elektromekhaniki. no. 5, Moscow, 1961. Avtomatizatsiya, telemekhanizatsiya i priborostroyeniye, 189 - 201

TEXT: The basic-hydro meteorological Soviet- grid has more than 11,000 stations and posts, with a personnel exceeding 50,000 operators. More than 3,000 observation posts (synoptic stations) produce synoptic information on telephony-telegraphy and radio networks which is the basis of weather forecasts. The rest -- climatological stations -- about 8,000 observation posts, compile their information montly in the form of tables and graphs of geophysical processes. All synoptical stations carry out climatological observations. The short time information is processed at the weather bureau
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Prospects for the automation ...

ous of local hydrometeorological service headquarters, at the hydro-meteorological bureau and at the Central Weather forecasts Institute. At present there are 35 local weather bureaus. The long-range information is processed at the headquarters of local hydrometeorological services, from which it is sent to the computer section of the Scientific and Research Institute of Aero-climatology (NIIAk). There are 53 hydrometeorological units. The analysis of block diagrams of the overall processing of meteorological information is given. This analysis leads to the required technological processes if the complex systems of telecontrol, remote signalling and automatic data processing were to be installed. The main problems thus arising would be as follows: The development of automatic telemetering meteorological stations, automatic processing of data leading to automatic weather forecasting and automatic processing of climatological information. The latter is to some extent automatically processed at the computer center. The automation in this respect follows at present two main trends: 1) Application of computing methods for forecasting; 2) Automatic processing of synoptic charts. The most difficult from the point of view of effectiveness

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Prospects for the automation ...

is stated to be the problem of developing automatic hydrometeorological stations. Analysis is given of the operation of an automatic synoptic station of the weather grid type. The analysis shows that the accuracy required of measurements and the existing methods of attaining them would necessitate complicated equipment and the introduction of various correction factors. At the same time a considerable latitude exists with respect to choosing a unified output parameter of measuring instruments. The most effective would be the conversion of information into a telegraph code, consisting of a standard number of pulses per unit time. The read-out of stored information should be made in accordance with the availability of communication channels. Thus the operation of an automatic telemeasuring meteo-station would be determined by a timing unit, periodically producing information on measurements which through a commutator and coder are introduced into the storage device. A comparative table is given of structural diagrams, channels used, and of other technical details of Soviet- and non-Soviet automatic meteorological stations. The following conclusions are made: 1) In developing new methods of measurements applied to meteorology, the

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AUTHOR: Brodskiy, A. D., and Kovalevskaya, V. V.

S/263/62/000/003/009/015
1004/1204

TITLE: Accoustical thermometer for telemetric measurements

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. Izmeritel'naya tekhnika, no. 3, 1962, 40, abstract 32.3.247. "Collection rabot po voprosam elektromekhan. Institut elektromekhan. AN SSSR", 1961, no. 5, 281-287

TEXT: An electroacoustical thermometer developed and studied by the authors is described. It consists of a cylindrical resonator and a head unit containing the elements of the electrical systems which is composed of two microphones, an electrodynamic system and a transistor amplifier. Acoustical vibrations created in the resonator by means of one of the microphones are received by the second microphone. It is reported that the thermometer was thoroughly tested and that it was calibrated according to the bench marks. Maximum discrepancy between the experimental and calculated data at calibration points does not exceed 0.58°C while at other points the deviations remain within the ± 0.2 to 0.3°C limit. The thermometer is suitable for temperature telemetry. The device possesses the following drawbacks: first of all it calls for an air tight resonator tube and secondly it requires a good phase characteristic of the entire electroacoustical amplification chain. There are 2 figures.

[Abstracter's note: Complete translation.]

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D201/D305

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98200

AUTHORS: Brodskiy, A.D., and Kovalevskaya, V.V.

TITLE: Acoustic thermometer for telemetry

SOURCE: Akademiya nauk SSSR. Institut elektromekhaniki.
Sbornic rabot po voprosam elektromekhaniki.no. 5,
Moscow, 1961. Avtomatizatsiya, telemekhanizatsiya
i priborostroyeniye, 281 - 287

TEXT: In the present article a description is given of the construction and operation of a telemetering temperature to frequency converter designed by the authors, in the form of a cylindrical resonator and a head with the associated circuitry. The electric circuit consists of two microphones, an electrodynamic system and a transistorized amplifier (the transistorized amplifier has been designed by V.K. Potapkin). Audio oscillations are induced in the resonator by one microphone and received by the other. The resonant frequency of the thermometer is given by the resonant frequency of the resonator

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Acoustic thermometer for telemetry

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$$f = \frac{c}{\lambda} = \frac{c}{2L}, \quad (1)$$

where c - velocity of sound, L - length of the resonator. From the laws of thermodynamics and taking into account the linear expansion coefficient of the resonator and the second virial coefficient B, the temperature is related to frequency by

$$T = \frac{\gamma(1 + \alpha t)^2}{\gamma} \cdot \left[\frac{f}{f_0} \left(T_0 + \frac{2B_0 p_0}{R} \right) - \frac{2B_p}{R} \right],$$

in which T - the absolute temperature, R - universal gas constant, γ - ratio of gas thermal capacities, M - molecular weight of the gas, p - gas pressure. The practically obtained $f = F(t)$ is very linear from -40 to +40°C owing to mutual cancellation of some of the non-linearity factors. The microphones are connected to the input and output of the amplifier forming with it an acoustic feedback oscillator. If there is an additional phase shift between the frequency of the oscillator (f_0) and that of resonator (f_{res}), an

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Acoustic thermometer for telemetry

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error arises given by

$$\frac{\Delta f}{f_0} = \frac{\Delta \varphi}{2Q} \cdot \frac{1}{\cos^2 \Delta \varphi} \approx \frac{\Delta \varphi}{2Q} \quad (5)$$

where Q - the quality factor of the resonator and $\Delta \varphi$ the additional phase shift. The resonator of the model No. 1 thermometer was filled with dry air. The calculated frequency from formula (1) was 1000 c/s. Using amplifier No. 5 the frequency determined experimentally was $f_0 = 1030.12 \pm 0.02$ c/s sensitivity at T_0 and f_0 was $S_f \approx 1.9$ c/s. The maximum difference between theoretical and experimentally obtained values of temperature was 0.51° . The analytical expression for temperature against frequency curve (found in practice to be nearly linear) has been found to be $t_p = 0.572f_x - 589.16^\circ$. At present some additional evaluation of the instrument is proceeding to determine the measurement errors. It is stated in conclusion that the acoustic thermometer as applied for telemetering has the following advantages: 1) The temperature is measured by frequency measurement methods; 2) It is calibrated at two points

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Acoustic thermometer for telemetry

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only; 3) It can be used for long distance temperature data transmission. Its main disadvantages are the need for very good resonator hermetic sealing and the requirement of phase characteristics of the electro acoustic circuit. It is thought that in future it would be possible to produce acoustic thermometers using electrodynamic transducers type MTA-1-59 (MTD-1-59) instead of the previous MTD-1 systems used by the authors. There are 3 figures and 1 table. +

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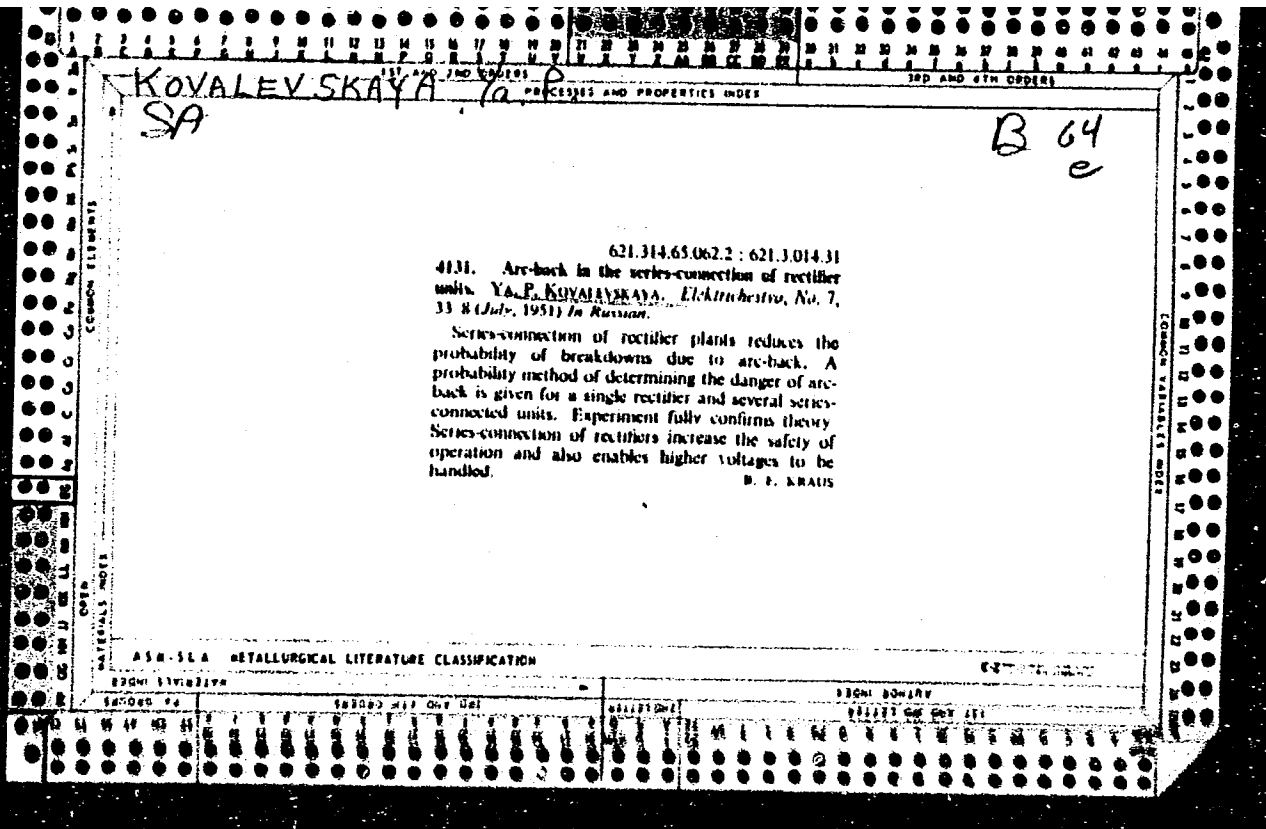
KOVALEVSKAYA, Vera Vladimirovna, kand. tekhn. nauk; BARTNER, Aleksandr
Yevgen'yevich, inzh.; KUTAKOVA, L.I., red.; GRIGOR'YEVA, I.S.,
red. izd-va; BELOGUROVA, I.A., tekhn. red.

[The TsCh-1 digital discrete frequency meter]TSifrovoi diskret-
nyi chastotomer TsCh-1. Leningrad, 1962. 22 p. (Leningradskii
dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom.
Seria: Pribory i elementy avtomatiki, no.5) (MIRA 15:11)
(Frequency measurements)

KOVALEVSKAYA, V.V.; POTAPKIN, V.K.

Electroacoustic temperature-to-frequency converter. Priborostroenie
no.2:11-13 F '63. (MIRA 16:5)

(Converters)



KOVALEVSKAYA, Ya.P.

GLUKHANOV, N.P.; KOVALEVSKAYA, Ya.P.; KRYLOV, K.I., prof.; MURAV'YEVA, G.Ya.;
RUDAKOV, V.N.; SMIRNOV, P.S., tekhn.red.

[Laboratory work on electromagnetic fields] Laboratornye raboty
po elektromagnitnomu poliu. Pod obshchei red. K.I.Krylova. Lenin-
grad, Lenigr. elektrotekhnicheskii in-t im. V.I.Ul'ianova (Lenina),
1957. 246 p. (MIRA 11:7)

1. Zaveduyushchiy kafedroy "Teorii elektrichestva, magnetizma i
stroyeniya materii" (for Krylov)
(Electromagnetic theory)

KOVALEVSKAYA, Yanina Petrovna; YEVSEYEV, V.I., red.

[Exercises in electromagnetic field theory; steady-current magnetic fields; a textbook] Uprazhneniia po teorii elektromagnitnogo polia: magnitnoe pole statsionarnogo toka; uchebnoe posobie. Leningrad, Leningr. elektrotekh. in-t, 1964. 69 p. (MIRA 18:3)

KOVALEVSKAYA, Ye.I.; KURILENKO, O.D.

Structural and mechanical properties of starch glues. *Izv.vys.*
ucheb.zav.; pishch.tekh. no.1:40-42 '64. (MIRA 17:4)

1. Kiyevskiy tekhnologicheskij institut pishchevoy promyshlennosti,
kafedra fizicheskoy i kolloidnoy khimii.

KOVALEVSKAYA, Ye.I., vrach

Multiple retention of teeth. Stomatologiya 42 no.4:92-93
Jl-Ag'63 (MIRA 17:4)

1. Iz Zheleznodorozhnoy bol'nitsy stantsii Isil'-Kul' Omskoy
oblasti i Kiyevskogo meditsinskogo instituta.

KABAN, A.P., inzh.; KOVALEVSKAYA, Ye.I., inzh.; KURILENKO, O.D.,
doktor khim. nauk

Electron microscope analysis of starch fractions in the
presence of polyelectrolytes. Pishch. prom. no.2:26-31
'65. (MIRA 18:11)

1. Kiyevskiy tekhnologicheskij institut pishchevoy promyshlen-
nosti.

KOVALEVSKAYA, Ye.I. [Kovalevs'ka, IE.I.]; KABAN, A.P. [Kaban, O.P.];
KURILENKO, O.D. [Kurylenko, O.D.]

Electron microscope studies of carboxymethylcellulose. Dop.
AN URSR no.11:1490-1493 '65.

(MIRA 18:12)

1. Kiyevskiy tekhnologicheskiy institut pishchevoy promyshlen-
nosti.

KOVALEVSKAYA, Ye.M.

PHASE I BOOK EXPLOITATION SOV/5743

- Akademiya nauk SSSR. Mezhdovedomstvennyy komitet po provedeniyu Mezhdunarodnogo geofizicheskogo goda. V. razdel programmy MGG: Ionosfera.

Issledovaniya ionosfery; sbornik stat'ey (Ionospheric Researches; Collected Articles. No. 3) Moscow, Izd-vo AN USSR, 1960. 100 p. 2,000 copies printed.

Resp. Ed.: N. V. Mednikov, Candidate of Physics and Mathematics;
Ed.: L. A. Trofimova; Tech. Ed.: T. V. Polyakova.

PURPOSE : This IGY publication is intended for geophysicists, astrophysicists, and other scientists concerned with the ionosphere and radio atmospherics.

COVERAGE: The collection of articles contains the results of investigations on the ionosphere and radio atmospherics, based chiefly on IGY observational data from USSR stations. The articles may be grouped into the three following categories:

Card 1/5

Ionospheric Researches; Collected (Cont.)

SOV/5743

1) studies of the morphology and physics of both quiet and perturbed ionospheres; 2) methodology of evaluating absorption and drifts in the ionosphere; and 3) questions on the use of ionospheric observations for practical purposes. No personalities are mentioned. English abstracts and references follow each article.

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Ionospheric Researches; Collected (Cont.) SOV/5743

Coefficient in the Ionosphere According to Observations
at Dikson Island Observatory

100

AVAILABLE: Library of Congress

Card 5/5

JA/dwm/jw
11-7-61

29500

S/035/61/000/009/034/036

A001/A101

9.9130 (1046)

AUTHORS: Kerblay, T.S., Kovalevskaya, Ye.M.

TITLE: Correlation of f_oF_o with indices of solar activity

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 9, 1961, 64, abstract 9A554 (V sb. "Issled. ionosfery", no. 3, Moscow, AN SSSR, 1960, 22 - 26, Engl. summary)

TEXT: The authors analyzed the correlation of f_oF_o with the number of sunspots R and intensity of solar radio emission on decimeter wavelengths I. Correlation coefficients and correlation ratios were calculated. Analysis was performed separately for the epochs of high and low solar activities. It was established that a period of high solar activity is characterized not only by the change of the regression coefficient, but also by a reduced degree of relation between f_oF_o and solar indices. The conclusion is drawn that index I has no advantages in comparison with index R for estimating median values of f_oF_o .

T. Kerblay

[Abstracter's note: Complete translation]

Card 1/1

40256

S/169/62/000/007/142/149
D228/D307

9.9810

AUTHOR: Kovalevskaya, Ye. M.

TITLE: Communication on frequencies exceeding the maximum applicable frequencies during diffusion in the E layer

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 28, abstract 7G181 (Tr. In-ta zemn. magn., ionosfery i rasprostr. radiovoln, AN SSSR, no. 19 (29), 1961, 85-95)

TEXT: It is shown that in the F2 layer the maximum applicable frequencies increase as a result of both diffusion in the E layer and the appearance of rays with angles of incidence higher than those at the time of direct incidence into the F2 layer. The percentage increase in the maximum applicable frequencies and the resultant field intensities were calculated for cases of single and double diffusion in the E layer. A 5 - 10% increase in the maximum applicable frequencies can occur during single diffusion in the E layer, when the field intensity thereby falls by a factor of about 2 in comparison with the reflected wave field (in the absence of diffu-

Card 1/2

Communication on frequencies ...

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D228/D307

X

sion). The increase in the maximum applicable frequencies may reach 25 - 40% during double diffusion; in this case, however, the field intensity falls by about 4-fold. [Abstracter's note: Complete translation.]

T

Card 2/2

KOVALEVSKAYA, Ye. M.

Use of electronic digital computers in calculating the maximum
usable frequencies for communication between two points. Geomag.
Ser. 3 no.5:991-994 3-0 '63. (MIRA 16:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR.

L-2853-66 ENT(d)/FBD/FSS-2/ENT(1)/EPA(sp)-2/EEC(k)-2 AST/RB/GS/GW/WS-4

ACCESSION NR: AT5023588

UR/0000/65/000/000/0220/0227

AUTHOR: Berbasov, F. I.; Kerblay, T. S.; Kovalevskaya, Ye. M.; Lyakhova, L. I.

TITLE: Characteristics of short-wave radio communication with spaceships. 8 4/1 BH

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow, 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 220-227

TOPIC TAGS: radio communication, spacecraft communication, radio wave propagation

ABSTRACT: Optimum frequencies for communication between distant points in space are studied under the assumption of an ionosphere of a spherically stratified structure with parameters that are uniform within the limits of a single discontinuity. The F2 layer is considered the basic reflecting layer. Data on the reception of signals from transmitters carried by the Vostok spaceships operating at about 20 Mc are analyzed. In most cases, communication was possible at 20 Mc, even though it was in excess of the standard MUF. To determine signal paths under real conditions, an analysis was made of the deviation of calculated MUF values from the actual radio communication frequencies. It was found that the deviation is essentially dependent on the hour of the day. When the receiving point was in the illuminated hemisphere-

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ACCESSION NR: AT5023588

i.e., when the MUF at a control point nearest the receiving point was ≥ 20 Mc but lower near the spaceship — the probability of communication was considerably higher than when the receiving point was not illuminated. The ability to communicate with the Vostok spaceships at a frequency exceeding the standard MUF was attributed to anomalous propagation of radio waves. Signal paths, including reflection from the Es layer, play a significant role in spaceship communication. Reflections from the Es layer in the region nearest the receiving point and propagation along ricocheting paths can appreciably increase the upper limit of short-wave communication with spaceships located near the maximum of the F2 layer. It is concluded that when a spaceship is located below the maximum of the F2 layer, in addition to radio waves reflected from the F2 layer, waves of higher frequency can propagate along ordinary paths at the expense of other propagation paths. An important role in the propagation of frequencies higher than the standard MUF is played by the sporadic ionization in the F2 layer and by the presence of horizontal ionization gradients. Orig. art. has: 6 figures and 2 tables. [JR]

ASSOCIATION: none

SUBMITTED: 02Sep65

ENCL: 00

SUB CODE: ESEC

NO REF SOV: 005

OTHER: 005

ATD. PRESS: 4109

Card 2/2

KOVALEVSKAYA, Ye. F.

~~AKC~~
KRYLOV, K. I.

"Experimental Study of Electrical Fields in Nonhomogeneous Mediums,"
pp 75-90, ill

Abst: A method is developed for studying the electric field in non-homogeneous mediums in a sand or electrolytic bath. A description is given of the apparatus used. It is shown that the method may have wide application in obtaining field patterns in insulators, arresters, and other devices in which the electrical field cannot be found by analytical means; the significant degree of accuracy in the use of this method is pointed out.

SOURCE: Izvestiya Leningr. Elektrotekhn. In-ta im. V. I. Ul'yanova
(Lenina) (News of the Leningrad Electrical Engineering Institute imeni
V. I. Ul'yanov /Lenin/), No 30, Leningrad, 1956

Sum 1854

AGEYEVA, A.P.; AKSENOVA-CHEKASOVA, A.S., aspiranka; VELIKANOV, L.N., bibliotekar'; GAVVA, F.M.; GIRENKO, P.D., Geroy Sots. truda; GUBANOV, M.M., pensioner; GUS'KOVA, T.K., nauchnyy sotr.; DAVYDOV, A.G., prepodavatel'; DANILEVSKIY, V.V., prof., dvazhdy laureat Stalinskoy premii; DOVGOPOL, V.I., laureat Stalinskoy premii; YELOKHIN, M.F.; YERMAKOV, A.D.; IVANOV, V.G., prepodavatel'; KOVALEVICH, V.K.; KOVALEVSKAYA, Ye.S., zhurnalistka; PANKRATOV, A.G.; POPOVA, F.M.; URYASHOV, A.V.; FEDORIN, I.M., kand. ist. nauk; FILIPPOV, F.R.; CHUMAKOV, N.P.; SHEPTAYEV, K.T., zhurnalist; VAS'KOVSKIY, O.A., kand. ist. nauk, retsenzent; KULAGINA, G.A., kand. ist. nauk, retsenzent; GORCHAKOVSKIY, P.L., prof., doktor biol. nauk, retsenzent; BAKHMUTOVA, V., red.; SAKNYN', Yu., tekhn. red.

[Nizhniy Tagil]Nizhniy Tagil. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 294 p. (MIRA 16:1)

1. Nizhne-Tagil'skiy krayevedcheskiy muzey (for Ageyeva, Gus'kova).
 2. Zaveduyushchiy gorodskim otделom narodnogo zdravookhraneniya, Nizhniy Tagil (for Velikanov).
 3. Zaveduyushchiy gorodskim sel'skokhozyaystvennym otделom goroda Nizhniy Tagil (for Gavva).
 4. Nachal'nik upravleniya stroitel'stvom Sverdlovskogo sovmarkhoza (for Girenko).
 5. Deystvitel'nyy chlen Akademii nauk Ukr. SSR, Leningradskiy politekhnicheskii institut (for Danilevskiy).
- (Continued on next card)

I 30197-66 EWI(1)/EWI(m)/FWP(t)/ETI LJP(c) JD
ACC NR: AP6012515 SOURCE CODE: UR/0181/66/008/004/1302/1304

AUTHORS: Kovalevskaya, Yu. A.; Strelkov, P. G. 60
B

ORG: Siberian Branch, All-Union Scientific Research Institute of
Physicotechnical and Radiotechnical Measurements, Novosibirsk (Sibirskiy
filial Vsesoyuznogo nauchno-issledovatel'skogo institut fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy)

TITLE: Thermal expansion of cadmium iodide at low temperatures 10

SOURCE: Fizika tverdogo tela, v. 8, no. 4, 1966, 1302-1304

TOPIC TAGS: cadmium alloy, iodide, thermal expansion, crystal structure, elastic modulus

ABSTRACT: In view of recent interest in the thermal properties of crystals with stratified structure, the authors have measured at low temperature the thermal expansion of a typical stratified crystal, $^{112}\text{CdI}_2$, which crystallizes in hexagonal stratified lattice with a layer of Cd surrounded by two layers of I atoms. The temperature dependence of the coefficient of linear expansion was investigated in the interval from 20 to 270K by means of a dilatometer described by one of the authors elsewhere (Strelkov, with S. I. Novikova, PTE no. 5, 105, 1957). The

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measurements were made along the z axis (perpendicular to the layers) and in the plane of the layers. The CdI_2 single crystals were grown by the Stockbarger method. The plots of the two thermal expansion coefficients were monotonic curves. The perpendicular coefficient exceeded the parallel coefficient by a factor 1.5 at 270K, 1.6 at 80K, and 3.0 near 20K. The results show that the thermal properties of CdI_2 do not agree with the theory developed by I. M. Lifshits (ZhETF v. 22, 475, 1952). In the interval from 18 to 270K, the exponent n in the relation $\alpha \sim T^n$ never exceeded unity, and was close to 0.36 near 20K. It is pointed out that the Lifshits theory is based on the assumption that the elastic properties of a stratified crystal are highly anisotropic, but there are no published data regarding the elastic constants of CdI_2 or similar stratified crystals. Orig. art. has: 2 figures and 4 formulas.

SUB CODE: 20/ SUBM DATE: 17Nov65/ ORIG REF: 005/ OTH REF: 003

Card

2/2 CC

S/133/60/000/011/020/023
A054/A029

AUTHORS: Koyalevskaya, Z.V., Candidate of Technical Science, Karandashov,
P.I., Kachanov, V.P., Engineers

TITLE: Cooling Rate of Thick-Walled Cylindrical Billets

PERIODICAL: Stal', 1960, No. 11, pp. 1038-1041

TEXT: The billets for large-sized thick-walled cylindrical products can have sufficiently uniform properties crosswise and lengthwise only if they are hardened thoroughly which depends primarily on the composition of the metal and on its cooling rate. In order to determine the cooling rate of billets made of 38XН4МФ(38 KhN4MF) type steel, the test products were first heated up to 850-860°C in a vertical oil furnace and kept there until the temperature was uniform in the whole cross section of the wall. Cooling was effected by water, oil and air. Six thermocouples were arranged at 20, 110, 30 and 125 mm from the external surface and two at 20 and 30 mm from the inner channel. By reference to the test results the cooling rates for billets with 250 mm inside diameter and 170 mm and 200 mm wall-thickness, respectively, in the temperature ranges (in °C) 400-375, 375-350, 350-325, 325-300, 300-275 and 275-250 were determined for cooling in water, oil and air. The cooling rate
Card 1/3

S/133/60/000/011/020/023
A054/A029

Cooling Rate of Thick-Walled Cylindrical Billets

is, of course, highest in water. In the 325-300°C range for 170 mm wall-thickness, for instance, the cooling rate in water is 0.21°C/sec, in oil 0.066°C/sec and in air 0.0095°C/sec. By comparing the cooling curves plotted for the thick-walled billets in various cooling media with the results of dilatometric and magnetometric analyses it was possible to determine the temperature, at which the austenite transformation in the middle of the wall started. The results for 170 mm and 200 mm thick walls were as follows: (in °C)

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	Air	Oil	Water
170 mm wall-thickness	380	320	285
200 mm wall-thickness	390	340	325

With the aid of the corrected version of K.K.Klaptsov's nomogram (Ref.1) it is possible to define the time required for cooling in water to a given temperature the middle part of the wall (170-200 mm thick) of cylindrical billets made of 38 KhN3MF and 38KhN4MF type steels. For a wall-thickness of 200 mm it takes 37 minutes, for 170 mm 27.5 minutes to cool down to 300°C, according to the Klaptsov nomogram. The cooling time in oil and air can be defined only

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Cooling Rate of Thick-Walled Cylindrical Billets S/133/60/000/011/020/023
A054/A029

experimentally. The great difference in temperature between the external surface and the middle part of the wall at tempering indicates that in order to obtain a temperature of about 300°C in the middle part of the wall required for the decomposition of austenite in the 38KhN4MF type steels, a very thorough re-cooling of the surface zone to about 200°C is necessary. In addition to the above-mentioned factors allowance should be made for the weight of the charge in calculating the duration of heat treatment. The Klaptsov nomogram is discussed in Metallurg, 1932, No. 10-11. There are 8 figures, 1 table and 1 Soviet reference.

Card 3/3

SEMENTIN, N.; TEREFT'YEVA, T., doverenny vrach; GONTAR', I., pomoshchnik stalevara; BUKHALO, I., slesar', strakhovoy delegat; KOVALEVSKAYA, Z., portnikha po remontu spetsodezhdy, strakhovoy delegat; SHITUNOV, L., kontroler; CHAYKA, M., inzh., strakhovoy delegat; KOZHEMYAKIN, P., normirovshchik; ALAKOZOVA, L., fel'dsher; TSOLOLO, F., slesar'

Let's have more of active initiative and interest. Okhr. truda i sots. strakh. no.2:9-10 Ag '58. (MIRA 12:1)

- 1.Strakhovoy aktiv Zhdanovskogo metallurgicheskogo zavoda "Azovstal'" (for all).
 - 2.Predsedatel' zavkoma profsoyuza zavoda "Azovstal'" (for Sementin).
 3. Chlen komiteta martenovskogo tsekha zavoda "Azovstal'" (for Gontar').
 - 4.Mekhanicheskij tsekh zavoda "Azovstal'" (for Bukhalo).
 - 5.Predsedatel' mestnogo komiteta medsanchasti zavoda "Azovstal'" (for Kovalevskaya).
 - 6.Rel'so-balochnyy tsekh zavoda "Azovstal'" (for Kutsevale).
 - 7.Utdel tekhnicheskogo kontrolya litaynogo tsekha i chlen komissii zavkoma pe sotsial'nomu strakhovaniyu zavoda "Azovstal'" (for Shitunov)
 - 8.Domennyy tsekh zavoda "Azovstal'" (for Chayka).
 - 9.Zamestitel' predsedatelya tsekhovogo komiteta mekhanicheskogo tsekha No.1 zavoda "Azovstal'" (for Kezhemyakin).
 - 10.Medsanchast' zavoda "Azovstal'" i chlen komiteta zavodskoy organizatsii Krasnogo Kresta (for Alakezeva).
 - 11.Predsedatel' komissii pe sotsial'nomu strakhovaniyu tsekha blyuming zavoda "Azovstal'" (for TSOLOLO).
- (INDUSTRIAL HYGIENE)

YERYKHOV, B.P.; KOVAL'SKAYA, Z.Ye.; KRICHEVSKIY, I.Ye.

Use of organic binders in electrochemical packing of soils.
Sbor. dokl. po gidr. VNIIG no.4.107-110 '62.

(MIRA 18:7)

GUREVICH, A.M.; KOVALEVSKAYA-YASHCHENKO, M.L.

Electrolytic method for isolating uranium from alkaline solutions of peroxyuranates. Trudy Radiov.inst.AN SSSR. 8:53-57 '58. (MIRA 12:2)

(Uranium--Electrometallurgy)

KOVALEVSKIY, A., mayor administrativnoy sluzhby, chlen sudeyskoy komissii.

Eliminate finally all deficiencies in the training of radiotelegraph operators. Voen. sviaz. 16 no.1:20-21 Ja '58. (MIRA 11:2)
(Radio operators--Study and teaching)

KOVALEVSKIY, A.

Izbrannye Raboty - Istorlia Razvitiia Amphioxus Lanceolatus (History of the
Development of Amphioxus Lanceolatus)

674 p. 3.50

SO: Four Continent Book List, April 1954

KOVALEVSKIY, A. A.

37588. Fibrinogen krovi, ego eroiskhozhdeniye, sposoby kolichestvennogo opredeleniya. Sostoyaniye pri ryade vnutrennikh zabolevaniy trudy Lomskogo med. in-ta im. Molotova, T. XV, 1949, S. 287-98.

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

KOVALEVSKIY, Aleksandr Antonovich, prof.; YABLOKOV, D.D., prof.,
red. OSOVSKIY, A.T., tekhn. red.

[Percussion and auscultation; a short course for students and
doctors] Perkussia i auskul'tatsia; kratkii kurs dlia studentov
i vrachei. 5. izd. Tomsk, Izd-vo Tomskogo univ., 1961. 169 p.
(MIRA 15:6)

1. Zaveduyushchiy kafedroy gospital'noy terapevticheskoy kliniki
Tomskogo gosudarstvennogo meditsinskogo instituta (for Kovalevskiy).
2. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Yablokov).
(PERCUSSION) (AUSCULTATION)

YABLOKOV, Dmitriy Dmitriyevich; KOVALEVSKIY, I.A., prof., red.
toma; VOLKOVA, M.I., st. red. izd-va

[Clinical aspects of silicosis and silicotuberculosis]
Klinika silikoza i silikotuberkuleza. Tomsk, Izd-vo
Tomskogo univ. 1962. 394 p. (MIRA 16:7)
(LUNGS--DUST DISEASES) (TUBERCULOSIS)

KOVALEVSKIY, A.F.
KOVALEVSKIY, A.F.

Technical improvements at the Yefremov industrial alcohol plant.
Spir. prom. 23 no. 8:1-4 '57. (MIRA 11:1)
(Yefremov--Alcohol)

S/169/61/000/001/002/011
A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1961, No. 1, p. 1, # 1G1

AUTHOR: Kovalevskiy, A. F.

TITLE: The Magnetic Station at Tomsk

PERIODICAL: "Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te", 1959, No. 37,
pp. 382-383

TEXT: The author describes briefly the variation and absolute pavilions of the magnetic station at Tomsk (the layout and sized of the pavilions, the equipment, the values of the variometer graduations) and the preliminary values of the magnetic elements.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

PLEKHANOV, G.F.; KOVALEVSKIY, A.F.; ZHURAVLEV, V.K.; VASIL'YEV, N.V.

Geomagnetic effect of the burst of the Tunguska meteorite. Izv.
vys.ucheb.zav.;fiz. no.2:236-237 '60. (MIRA 13:8)

1. Tomskiy gosuniversitet im. V.V.Kuybysheva i Betatronnaya laboratoriya
Tomskogo Medinstituta.
(Tunguska Valley--Meteorites) (Magnetism, Terrestrial)

41189

S/169/62/000/009/119/120
D228/D307

3.9/10

AUTHORS: Kovalevskiy, A. F. and Gordeyev, O. K.

TITLE: Coil-like magnetic field disturbances at Tomsk

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 32, abstract 9G234 (Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, no. 38, 1960, 30-33)

TEXT: Coil-like disturbances, recorded by the Tomsk Magnetic Observatory in the period from July 1958 to February 1960, are considered. In all there were 57 coils in D (they were positive on 32 occasions and negative on 25). Coils were observed, too, in H on 49 occasions (38 were positive and 11 were negative) and in Z on 33 occasions (17 positive, 16 negative). The diurnal variation of the coils is analogous to that observed at other stations, positive coils being observed principally in the evening and night, and negative ones in the early morning. The seasonal variation of the coils is characterized by a decrease in their number in summer months. [Abstracter's note: Complete translation.]

Card 1/1

S/169/62/000/009/118/120
D228/D307

3,9110

AUTHORS: Gordeyev, O. K., Kovalevskiy, A. F. and Likhachev, A. I.

TITLE: Relation of solar diurnal variations on quiet days to the sun's zenith angle

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 32, abstract 9G232 (Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, no. 38, 1960, 57-60)

TEXT: The authors consider the changes in the amplitudes of the geomagnetic field elements H, D, and Z in relation to the variation of the sun's zenith angle during the year. They state their views on the daily magnetic declination curve and on the differential curve of the square of the cosine of the sun's zenith angle. [Abstracter's note: Complete translation.] ✓B

Card 1/1

39329

S/035/62/000/007/054/083
A001/A101

3.9110

AUTHORS: Plekhanov, G. F., Kovalevskiy, A. F., Zhuravlev, V. K., Vasil'yev, N.V.

TITLE: On the effect of Tunguska meteorite explosion on geomagnetic field

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 7, 1962, 81 - 82,
abstract 7A585 ("Geologiya i geofizika", 1961, no. 6, 94 - 96)

TEXT: On June 30, 1908, at 0 hr 20.0 1.2 min UT, i.e., 2.8 min after the explosion, the H-component at Irkutsk rose by 23.5 γ during 1 hr 20 min, then decreased by 67 γ and restored during 2-3 hours. A negative bay of the Z-component, up to 25.5 γ deep, lasted from 0 hr 18.6 \pm 1.5 min until 2 hr. The phenomenon was nowhere more noted, according to 18 world observatories. Magnetic disturbance is similar to effects observed during air explosions of nuclear bombs on August 1 and 12, 1958, over the Johnston Island recorded at Honolulu, Palmyra, etc. A sudden commencement, H-variation form, and local character are similar features. However, there is no delay at nuclear explosions, and duration of disturbances is less (1 - 1 1/2 hr). The Tunguska disturbance can be explained by a magnetohydrodynamic wave which arose due to an air shock wave in the E layer of the ionosphere and subsequent dynamo currents. I. Zotkin

[Abstracter's note: Complete translation]
Card 1/1

5/210/63/000/001/003/003
E032/E314

AUTHORS: Plekhanov, G.F., Vasil'yev, N.V., Demin, D.V.,
Zhuravlev, V.K., Zenkin, G.M., ~~Kovalevskiy, A.F.~~,
L'vov, Yu.A., Tul'skiy, A.S. (Deceased) and
Fast, V.G.

TITLE: Some results of studies of the problem of the
Tunguska meteorite

PERIODICAL: Geologiya i geofizika, no. 1, 1963, 111 - 123

TEXT: A Composite Independent Expedition (CIE) was organized
in 1959 and a number of scientific workers and engineers from
institutions of Tomsk, Moscow, Novosibirsk and other towns
participated in it. The aim of this expedition was to carry out
a composite study of the region of the fall of the meteorite.
Field work was carried out in 1960 together with a Moscow
expedition directed by V.A. Koshelev. There was an expedition
in the summer of 1961 organized by the Komitet po meteoritam
AN SSSR (Committee for Meteorites of the AS USSR) under the
direction of K.P. Florenskiy. The CIE was a part of the latter
expedition. Parallel field work was carried out during 1959-1961
Card 1/4

Some results of

S/210/63/000/001/003/003
E032/E314

by the Committee for Meteorites (B.I. Vronskiy - 1959-1960 and A.V. Zolotov - 1959-1961). The present paper reviews briefly the results obtained by the CIE and compares them with those obtained by other workers. A chart is reproduced showing the marsh and woodland distribution and magnetometric profiles in the neighbourhood of the epicentre. It was found that the marshes were apparently natural formations, unaffected by the fall but there were some arboreal features indicating the effect of the fall on trees. A study was made in 1960 of the felling of trees as a result of the fall of the meteorite. Analysis of these data showed that the height at which the meteorite exploded was 10.5 ± 3.5 km. Magnetometric searches revealed the absence of major magnetic losses. Other studies revealed a region with enhanced concentration of Ni, Co and Mo in the soil and Ce, La, Y and Yb in the wood ash. This region was 2-6 km N.W. of the epicentre. A further series of measurements was concerned with the residual radioactivity in the region. Previous conclusions regarding the increase in radioactivity near the epicentre, as compared with greater distances, were not confirmed. It is suggested that the
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earlier measurements revealed traces of fall-out due to American nuclear tests in 1958. Analysis of these and other published data leads the authors to suggest the following working hypothesis. In the middle of June, 1908, the Earth passed through a cosmic-dust cloud which entered the atmosphere and sedimented between 55 and 65° N. On reaching the lower layers of the atmosphere, dust particles gave rise to anomalous airglow and development of noctil-
luscant clouds at isolated points in Europe between June 22 and 29. The amount of dust was not, however, too great and hence the optical anomalies associated with it were localized and there was no change in the polarization of the day sky. In the morning of June 30, the Earth entered the part of the cloud containing large dust-particle clusters and the penetration of these clusters into the lower layers gave rise to a change in the polarization and the appearance of a solar halo and noctiluscant clouds. At the same time, a major meteoritic body entered the atmosphere. The resistance experienced by the body (dense swarm of particles) increased rapidly at the boundary of the troposphere with the result that the body was decelerated and the available magnetic

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energy was converted into the energy of the explosion. This hypothesis is not fundamentally different from that put forward by V.G. Fesenkov (cometary hypothesis). It is suggested that the differences may be of terminological origin. This must be investigated further. There are 1 figure and 1 table.

ASSOCIATIONS: Tomskiy meditsinskiy institut (Tomsk Medical Institute)
NII Tomskogo politechnicheskogo instituta (NII of Tomsk Polytechnical Institute)
Institut geologii i geofiziki Sibirskogo otdeleniye AN SSSR (Institute of Geology and Geophysics of the Siberian Division of the AS USSR)

SUBMITTED: April 9, 1962

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45209

S/203/63/003/001/006/022
A061/A126

3.7470

AUTHOR: Kovalevskiy, A. F.

TITLE: Characteristics of the motion of charged particles in the geomagnetic field

PERIODICAL: Geomagnetizm i aeronomiya, v. 3, no. 1, 1963, 50 - 58

TEXT: The equations of motion for a charged particle in the geomagnetic field conceived as a magnetic trap, that had been set up by C. Störmer (Arch. Sci. Physiques et Naturelles, 1907; Problema polyarnykh siyaniy [Problem of aurora polaris], Gostekhteoritizdat, M.-L., 1933), and the equations obtained by Alfvén with the perturbation method for the trajectory of the leading center of charged particles (Kosmicheskaya elektrodinamika [Cosmic electrodynamics], IL, 1952) were used to obtain a number of motion characteristics of protons and electrons by numerical integration. The purpose was to investigate the radiation belt of the Earth more closely. The latitudes of the reflection points for charged particles are shown not to depend on the charge, nor on the mass, nor on

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Characteristics of the motion

S/203/63/003/001/006/022
A061/A126

the energy of the particles, but on the angle of particle incidence only. The altitude of reflection points above the Earth's surface likewise depends on the angle of incidence only. The cyclotron radii of protons and electrons are investigated, and the angular frequencies of particle revolution about the lines of force are derived: $\omega_c = eH/mc$. Thus the angular frequency is energy-dependent only by way of the relativistic mass effect. The path length of the particles between the reflection points depends only little on the latitude of reflection within the radiation belt. Outside of the radiation belt, the path decreases by 30 - 60%. The period of motion between the reflection points depends little on the latitudes. There are 7 figures and 9 tables.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskii institut pri Tomskom gosudarstvennom universitete (Siberian Physicotechnical Institute, Tomsk State University)

SUBMITTED: June 12, 1962

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ACCESSION NR: AR4039242

S/0269/64/000/004/0073/0073

SOURCE: Ref. zh. Astronomiya, Abs. 4.51.491

AUTHOR: Kovalevskiy, A. F.; Reznikov, I. V.; Snopov, N. G.; Osharov, A.; Zhuravlev, V. K.

TITLE: Certain data on the distribution of chemical elements in the soils and plants of the area of falling of the Tunguska meteorite

CITED SOURCE: Tr. Tomskogo otd. Geogr. o-va SSSR, Betatron. labor. Tomskogo med. in-ta, v. 5, 1963, 125-133

TOPIC TAGS: meteorite, Tunguska meteorite, astronomy, geochemical anomaly, geobotany

TRANSLATION: The spectral analysis method was used to determine the concentration of a number of elements in order to determine geochemical anomalies in the distribution of certain chemical elements in the soils and vegetation at the site of falling of the Tunguska meteorite which could be associated with

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ACCESSION NR: AR4039242

the composition of the meteorite. The article describes in detail the methods of sampling and the techniques used for determining the content of each element. A comparison is made with known abundances and the distribution of elements was determined along radii from the center of falling and also along zones having an accelerated rate of vegetation growth. The Ni, Cr and V in trees was determined by means of layer-by-layer burning of the cross sections of individual species of trees and an analysis of the resulting ash. No sharp variations in the content of these elements were discovered. On the basis of consideration of all the results the conclusion is drawn that in the region of falling of the meteorite there is an increased content of a number of chemical elements both in the soils and in the vegetation; these can be regarded as anomalies of various origin. Ni and possibly Co anomalies tend to be found toward the center of the forest flattening and in essence can be associated with the composition of the meteorite. Bibliography of 8 items. M. D'yakonova.

DATE ACQ: 12May64

SUB CODE: AS

ENCL: 00

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PLEKAHNOV, G.F.; VASIL'YEV, N.V.; ZHURAVLEV, V.K.; KOVALEVSKIY, A.F.

Polarization effect caused by the fall of the Tunguska meteorite.
Izv. vys. ucheb. zav.; fiz. no.5:177-179 '63. (MIRA 16:12)

1. Nauchno-issledovatel'skiy institut pri Tomskom politekhnichesk-
kom institute imeni S.M.Kirova, Sibirskiy fiziko-tekhnicheskii in-
stitut pri Tomskom gosudarstvennom universitete imeni V.V.Kuyby-
sheva i Tomskiy meditsinskiy institut.

KESSENIKH, V.N.; KOVALEVSKIY, A.F.

Ionization of the night ionosphere. Izv. vys. ucheb. zav.; fiz. no.
5:181-182 '63.

(MIRA 16:12)

1. Sibirskiy fiziko-tekhnicheskii institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

ACCESSION NR: AR4036334

S/0169/64/000/003/A045/A045

SOURCE: Referativnyy zhurnal. Geofizika, Abs. 3A264

AUTHOR: Kovalevskiy, A. F.

TITLE: Magnetic effect of explosion of the Tunguska meteorite

CITED SOURCE: Tr. Tomskiy otd. Geogr. o-va SSSR, Betatron: labor. Tomskogo med. in-ta, v. 5, 1963, 187-194

TOPIC TAGS: meteorite, Tunguska meteorite, geophysics, geophysical phenomenon, magnetic effect, magnetic field, atmospheric magnetic field, nuclear explosion, magnetic effect, shock wave, hydromagnetic wave, ionosphere, ionospheric phenomenon

TRANSLATION: The falling of the Tunguska meteorite on 30 June 1908 was accompanied by various geophysical phenomena, including magnetic. At the Irkutsk Observatory, 2.8 minutes following the explosion of the meteorite, the records of the horizontal and vertical components of the magnetic field indicated an unusual disturbance which on the basis of a number of criteria cannot be

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ACCESSION NR: AR4036334

attributed to the propagation of baylike disturbances of the geomagnetic field. It can be asserted that this disturbance, in some ways similar to a magnetic storm with sudden commencement, but of unusually short duration and with a small mobility of the magnetic field elements, was caused by explosion of the meteorite. A comparison of data on the magnetic effects of nuclear explosions and the effect of the explosion of the Tunguska meteorite leads to detection of a number of common features, but also to certain differences, making it possible to postulate conceivable mechanisms of formation of the magnetic effect of both nuclear explosions and explosion of the meteorite. In contrast to the effect of nuclear explosions, the principal role in the explosive effect of the meteorite is from a shock wave attaining the E region of the ionosphere and causing the movement of ionized gas and also the formation of a hydromagnetic wave in the E region. Bibliography of 15 items. K. Zytin.

DATE ACQ: 17Apr64

SUB CODE: AS

ENCL: 00

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ACCESSION NR: ARL021622

S/0269/64/000/002/0069/0069

SOURCE: RZh. Astronomiya, Abs. 2.51.511

AUTHOR: Kovalevskiy, A. F.; Vasil'yev, N. V.

TITLE: The problem of night sky luminescence in the summer of 1908

CITED SOURCE: Tr. Tomskogo otd. Geogr. o-va SSSR, Betatron. labor. Tomskogo med. in-ta, v. 5, 1963, 198-202

TOPIC TAGS: meteorological phenomenon, noctilucent cloud, night sky luminescence, meteorite, Tunguska meteorite, comet, atmospheric contamination, volcanic eruption, meteorology

TRANSLATION: Extensive meteorological data concerning anomalous optical phenomena in the atmosphere on 30 June-1 July 1908 are discussed. These phenomena can be divided into three groups: noctilucent clouds, varicolored sunsets and sunrises and night sky luminescence. The intensification of these phenomena during the mentioned period usually is associated with the falling of the Tunguska meteorite

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ACCESSION NR: AR4021622

and the scattering of meteor matter into the atmosphere or with the entry into the atmosphere of the tail of a small comet whose head was the Tunguska meteorite. However, numerous observations at different places in the world indicate that the first two groups of phenomena were present prior to 30 June and merely attained culmination on that day and therefore could not be a result of falling of the meteorite. With respect to the third group of phenomena, they were not observed prior to 30 June. It is an unusual circumstance that the mentioned anomalous phenomena disappeared suddenly several days after 30 June. These phenomena possibly were caused by a number of other factors, such as contamination of the earth's atmosphere by volcanic dust as a result of Aleutian volcanic eruptions late in 1907. However, the coincidence of the maximum of activity of the optical phenomena and the falling of the Tunguska meteorite cannot be considered random. All the phenomena mentioned apparently have a common cause. Bibliography of 43 titles. L. Fishkova.

DATE ACQ: 09Mar64

SUB CODE: AS

ENCL: 00

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ACC NR: AT7000585

sible to conclude that many features of the two events are of the same nature. This similarity is additional evidence that the Tungus meteorite exploded and did not merely break apart as some theories claim.

SUB CODE: 03,08/ SUBM DATE: 23Feb63/ ORIG REF: 007/ OTH REF: 008

KOVALEVSKIY, A.G.; TRET'YAKOV, N.P.

System of remote and centralized control of telpher cableways.

Gor.zhur. no.8:59-62 Ag '65.

(MIRA 18:10)

1. Severo-Kavkazskiy filial Konstruktorskogo byuro TSvetmetavtomatika.

SOV/137-59-1-1499

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 199 (USSR)

AUTHORS: Vdovin, F. V., Pishchik, N. S., Kovalevskiy, A. I.

TITLE: Determination of Notch Toughness of Wedge-shaped Specimens After Rolling (Opredeleniye udarnoy vyazkosti v klinovykh obraztsakh posle prokatki)

PERIODICAL: Byul. nauchno-tekhn. inform. Vses. n.-i. trubnyy in-t, 1958, Nr 4-5, pp 183-186

ABSTRACT: A description of a method whereby the a_k value of allowed steels may be determined as a function of the degree of reduction and of the temperature of rolling with the aid of a small number of specimens (S). Wedge-shaped S's, 105-115 mm long, 20 mm wide, and with ends 16 and 10 mm high, were cut from the pipe being investigated. The S's were notched on both sides at 10-mm intervals, their thickness being measured at the same time. They were then rolled at a given temperature in a two-high rolling mill to a thickness of 10 mm. The degree of reduction of one S was increased in consecutive steps from 0 to 50%. Longitudinal S's, 4.5 x 6.0-mm in cross section, were cut from the wedge-shaped S's after the latter had

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SOV/137-59-1-1499

Determination of Notch Toughness of Wedge-shaped Specimens (cont.)

been rolled into strips. 10 staggered cuts, each 1 mm deep, were made on the narrow faces of the S's at points where the notches had been previously located. S's thus prepared were mounted in a vertical position in the vise of a pendulum impact-testing machine, the cut being on the same level as the top surfaces of the jaws and on the side which would be subjected to tension. The pendulum strikes the free end of the S; the amount of energy corresponding to the rise of the pendulum after fracture of the S was marked off on an Izod scale. The results of the test are presented in the form of curves on triaxial diagrams. The results of tests carried out on EI-531 steel are presented as a function of the temperatures of rolling, from 800 to 1200° in increments of 100°, and of the degree of reduction of the steel (in the untempered state and after tempering at 850°) ranging from 0 to 50%. The method described is recommended for laboratory applications in studying novel grades of steels and alloys.

L. G.

Card 2/2

VDOVIN, F.V., kand.tekhn.nauk; PISHCHIK, N.S., inzh.; KOVALEVSKIY, A.I., inzh.

Determining the toughness of rolled taper specimen. Biul.nauch.-
tekh.inform.VNITI no.4/5:183-186 '58. (MIRA 15:1)
(Steel--Testing)

LAVRINENKO, D. D., KOVALEVSKIY, A. K.

Forestry Research

Participation of the Institute of Forestry of the Academy of Sciences of the U.S.S.R.
in the reforestation of the irrigated zone of southern Ukraine. Les. khoz. *tr.* no. 12, 1951

Monthly List of Russian Accessions. Library of Congress, April 1952. UNCLASSIFIED.

KOVALEVS'KYI, A.K.; POGREBNIYAK, P.S., diisnyi ohlen Akademiya nauk URSR.

Interrelation of various species of trees in deciduous forests. Dop. AN
URSRS no.4:255-258 '53. (MLRA 6:8)

1. Instytut lisivnytstva Akademiya nauk URSR. 2. Akademiya nauk URSR (for
Pogrebnyak). (Forest ecology)

LAVRINENKO, Dmitriy Danilovich; FLOROVSKIY, Anatoliy Mikhaylovich; KOVALEY-
SKIY, Anton Konstantinovich; POGREBNIYAK, P.S., otvetstvennyy
redaktor; GRUDZINSKAYA, O.S., redaktor izdatel'stva; SIVACHENKO,
Ye.K., tekhnicheskiy redaktor

[Forest types for the Ukraine] Tipy lesnykh kul'tur dlia Ukrainy.
Kiev, Izd-vo Akademii nauk USSR, 1956. 286 p. (MLRA 9:12)

1. Deystvitel'nyy chlen AN USSR (for Pogrebnyak)
(Ukraine--Forests and forestry)

KOVALEVSKIY, A.L.

"Helicopter in the service of geology" by A.A. Mel'nik. Reviewed by A.L. Kovalevskii. Razved. i okh. nedr 27 no.5:63 My '61. (MIRA 14:9)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya.
(Helicopters) (Geology)
(Mel'nik, A.A.)

KOVALEVSKIY, A.L.

Practice of using metallometric samples in searching for
radioactive elements. Razved. i okh. nedr 26 no.7:15-17
Jl '60. (MIRA 15:7)

1. Ministerstvo geologii i okhrany nedr SSSR.
(Radioactive prospecting)

KOVALEVSKIY, A.I.

Biogenic accumulation of chemical elements in soils. Izv.
Sib. otd. AN SSSR no.9:112-115 '62. (MIRA 17:8)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii,
geofiziki i mineral'nogo syr'ya, Novosibirsk.

KOVALEVSKIY, A.L.

Some characteristics of the acculation of elements of the second group of D.I.Mendeleev's periodic table by plants. Izv. SO AN SSSR no.4. Ser. biol.-med. nauk no.1:53-61'63. (MIRA 16:8)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya, Novosibirsk.

KOVALEVSKIY, A.I.

Application of small-size beta counters for mineralogical studies of radioactive specimens and small samples. Geol. i geofiz. no.10:158-160 '63. (MIRA 17:1)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya, Novosibirsk.