KOLOSNIKOV, G. N.

Plastic Deformation of Aluminum Monocrystals in the first Moment after the Application of Load.

Leningrad Physico-Technical Institute, 1946.

So: U-1837, 14 April 52.

10.2000 A

69502

AUTHORS: Kiselev, M. I., Kolosnitsyn, N. I.

S/020/60/131/04/016/073
B013/B007

TITLE: Calculation of Inclined Shock Waves in Magnetic Gas Dynamics

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 4, pp 773-775 (USSR)

TEXT: The tangential component of the magnetic field behind the front of an inclined shock wave can be calculated from the cubic equation (1):

$$h_{2y}^3 + h_{1y}\left[1-(2-k)\left(1-\frac{u_{1x}^2}{V_{1x}^2}\right)\right]h_{2y}^2 + \varrho_1\left(1-\frac{u_{1x}^2}{V_{1x}^2}\right)\left(V_{1x}^2 - a_{1Mx}^2\right)(k+1)h_{2y} -$$

$$- (k+1)V_{1x}^2 h_{1y}\varrho_1\left(1-\frac{u_{1x}^2}{V_{1x}^2}\right) = 0 \quad .$$ The intensity of the compression shock is determined by the Mach number $M_{Mach} = u_x/V_x$ and by the parameter $V_x^2 - a_{Mach}^2$. The amount of the velocity component u_{1y} which is parallel to the front has no influence on the compression shock of the field. By means of linear and broken, linear substitutions it is possible to obtain cubic equations from equation (1),

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Calculation of Inclined Shock Waves in Magnetic Gas Dynamics

S/020/60/131/04/016/073
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which are used to determine the velocities u_{2x}, u_{2y} and the density ϱ_2. The accelerated shock waves are described by that branch of the roots of these cubic equations which has a positive real part. These shock waves pass over into the inclined shock waves of non-magnetic gas dynamics if the field strength tends to zero. The delayed shock waves (which vanish in perpendicular fields) are described by the branch of roots having a negative real part. With $M_{Mach} = 1$ the afore-mentioned equation (1) is solved by the rotational discontinuity $h_{2y} = -h_{1y}$. Figure 1 shows u_{2y} as a function of u_{2x}. The energy of the magnetic field is higher than or equal to the internal and kinetic energy of the gas. Whereas the field strength behind the front varies in a monotone manner, the dependence of u_{2y} on u_{2x} has the character of a hump the peak of which corresponds to a certain "resonant slope" of the magnetic field. In solving the problem of a piston, the collisions between the inclined shock waves and their reflections from the wall are the most interesting kinds of behavior in the neighborhood of the "resonant slope" of field strength. These considerations also permit an explanation of the prominences in the neighborhood of sunspots. By means of the results obtained here it is also possible to

KOLOSNITSYN, N.I.

Some evaluations of a pulse plasma accelerator. Vest. Mosk. un.Ser.3:Fiz,astron. 17 no.4:18-23 Jl-Ag '62. (MIRA 15:9)

1. Kafedra statisticheskoy fiziki i mekhaniki Moskovskogo universiteta.

(Plasma (Ionized gases))
(Magnetic fields)

L 06562-67 EWP(m)/EWT(1) IJP(c)

ACC NR: AP6029777 SOURCE CODE: UR/0294/66/004/004/0524/0530 63 67 B

AUTHOR: Kolosnitsyn, N. I.

ORG: All-Union Institute of Electromechanics (Vsesoyuznyy institut elektromekhniki)

TITLE: Theory of magnetogasdynamic flows

SOURCE: Teplofizika vysokikh temperatur, v. 4, no. 4, 1966, 524-530

TOPIC TAGS: magnetogasdynamics, MHD flow, conductive fluid, plasma physics

ABSTRACT: The author simplifies the method proposed by Stanyukovich and Kiselev (Stanyukovich, K. P., Kiselev, M. I., "Collection of Works of the Conference on New Technology", Moscow, 1964, p. 276) for integration of a system of magnetogasdynamic equations in the quasilinear approximation with regard to finite conductivity and induced magnetic fields. One-dimensional flow of a conductive fluid is considered assuming a given rate of flow, and given magnetic and electric field intensities. It is assumed that the conductive gas is ideal and that the conductivity is a function of thermodynamic parameters. Viscosity and thermal conductivity are disregarded. The limitations of the method proposed by Stanyukovich and Kiselev are established and the first quadratures are found for constant-density, quasifrozen, constant-velocity, isothermal, isobaric and polytropic flows as well as for flow at a constant Mach number and in a channel with a constant cross section. Flow with a constant Mach number is of

Card 1/2 UDC: 538.4

Card 2/2

MISHKEVICH, Grigoriy Iosifovich; KOLOSNITSYN, V., red.

[King in a steel crown] Korol' v stal'noi korone. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1963. 151 p.
(MIRA 17:6)

GOLOVKO, Viktor Kazimirovich, inzh.-gidrograf; ARKHIPOVA, N.P., kand. geogr. nauk, retsenzent; STEPANOV, M.N., kand. geogr. nauk; KOLOSNITSYN, V., red.

[Lakes of our territory] Ozera nashego kraia. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1963. 134 p.
(MIRA 17:7)

MOSHKIN, A.M., dotsent; BYSTROV, S.G., zhurnalist; ADAMOV, V.V., dotsent, kand. istor. nauk, retsenzent; KOLOSNITSYN, V., red.; PAL'MINA, N., tekhn. red.

[Alapayevsk] Alapaevsk. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 125 p. (MIRA 15:4)

1. Sverdlovskiy pedagogicheskiy institut (for Moshkin). 2. Ural'skiy gosudarstvennyy universitet (for Adamov).
(Alapayevsk—Economic conditions) (Alpayevsk—History)

NIKITIN, P.; RUBBTSOV, N.; KOLOSNITSYN, V., red.

[The city of mineral fibers; outline history of Asbest]
Gorod gornogo l'na; ocherki po istorii Asbesta. Sverdlovsk,
Sverdlovskoe knizhnoe izd-vo, 1963. 217 p. (MIRA 17:4)

MALAKHOV, Anatoliy Alekseyevich, prof., doktor geologo-miner. nauk; KOLOSNITSYN, V., red.; SAKNYN', Yu., tekhn. red.

[Stories about rocks]Novelly o kamne. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1960. 210 p. (MIRA 15:8)

1. Sverdlovskiy gornyy institut (for Malakhov).
(Ural Mountains--Rocks)

KOSHKIN, P.P., krayeved; SHUVALOV, Ye.L., dotsent; KOLOSNITSYN, V., red.; PAL'MINA, N., tekhn. red.

Kamyshlov. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 134 p. (Mira 15:8)

(Kamyshlov)

GOLOVKO, Viktor Kazimirovich; KOLOSNITSYN, V., red.; CHERNIKHOV, Ya., tekhn. red.

[Along the banks of the Ural rivers]Vdol' beregov ural'skikh redk. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 129 p. (MIRA 15:8)

(Sverdlovsk Province--Rivers)

GORLANOV, M.G., prepodavat.; POKAZAN'YEV, Aleksandr; ADAMOV, V.V., kand. ist. nauk, retsenzent; KULAGINA, G.A., kand. ist.nauk, retsenzent; BOROZDIN, Ye.A., red.; ZAVAROV, S.I., red.; POPOV, N.Ye., red.; ROGOZHKIN, V.N., red.; SILENSKIKH, T.N., red.; TARIKO, A.N., red.; KOLOSNITSYN, V., redaktor; MAKSIMOVA, E., tekhn. red.

[Revda stories; from the history of the Revda Hardware Manufacturing and Metallurgical Plant]Revdinskie vyli; iz istorii Revdinskogo metiznometallurgicheskogo zavoda. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1960. 154 p. (MIRA 15:8)

1. Sekretar' Revdinskogo gorodskogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza (for Silenskikh).
(Revda--Metallurgical plants)

SHUKSTOVA, Zinaida; KOLOSNITSYN, V., red.; CHERNIKHOV, Ya., tekhn. red.

[Starry heavens]Zvezdnoe nebo. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1962. 185 p. (MIRA 16:4)
(Astronomy)

CHERNOUSOV, Yakov Mikhaylovich, prof.; doktor geol.-miner. nauk;
MALAKHOV, A.A., prof., doktor geol.-miner. nauk, retsenzent;
KOLOSNITSYN, V., red.; GOLOBOKOVA, L., tekhn. red.

[Academician A.P.Karpinskii] Akademik A.P.Karpinskii. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1962. 105 p.
(MIRA 16:7
(Karpinskii, Aleksandr Petrovich, 1846-1936)

KOLOSNITSYNA, G.R.; MARTYNOVA, O.M.

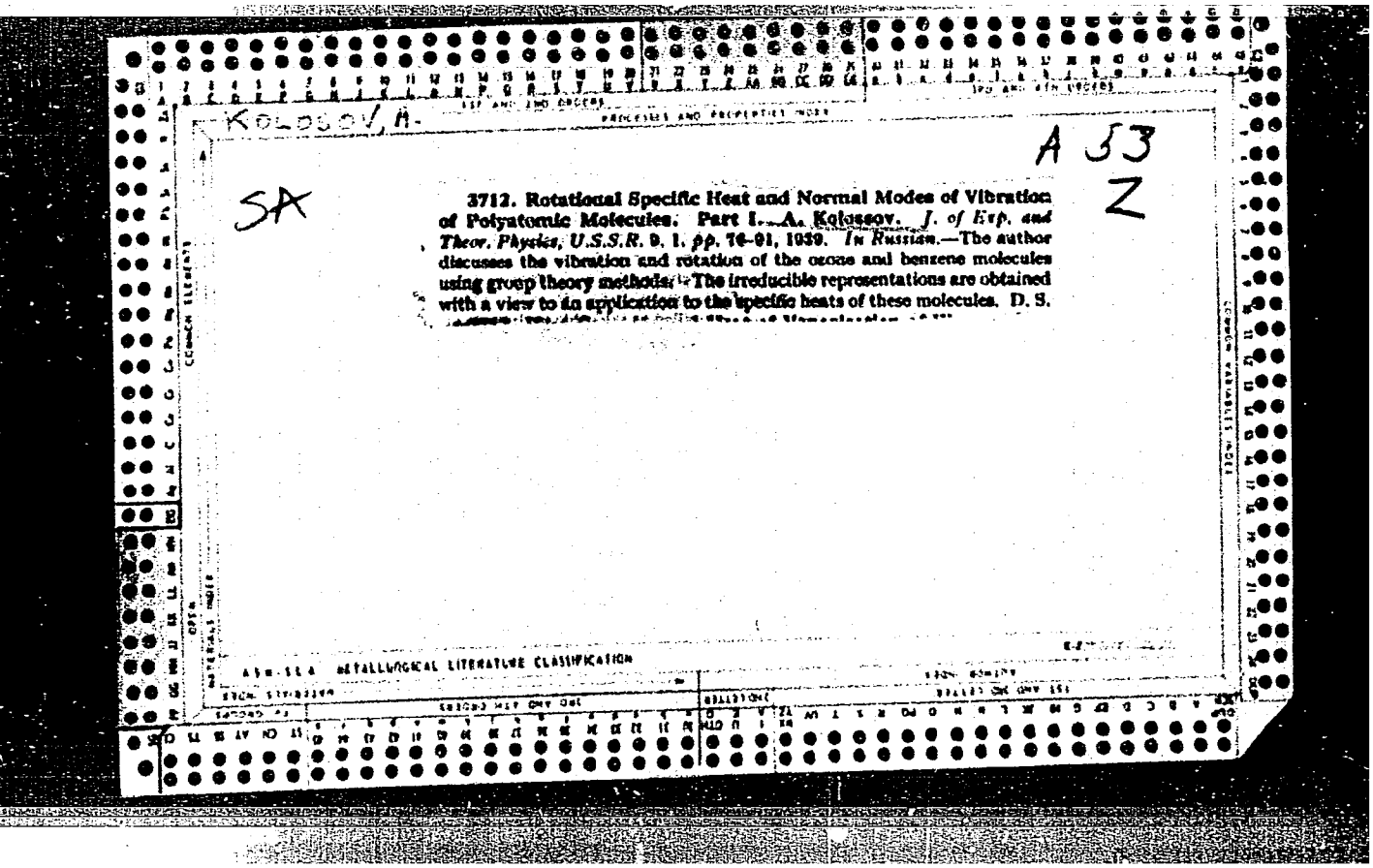
New Jurassic Ijapsyche (Mecoptera, Paratrichoptera) genus from Eastern Siberia. Paleont.zhur. no.4:162-164 '61. (MIRA 15:3)

1. Irkutskoye geologicheskoye upravleniye i Paleontologicheskiy institut AN SSSR.

(Siberia, Eastern--Mecoptera)

KOLOSNITSYNA, G.R.

New remains of Jurassic insects in the Irkutsk Basin. Trudy Lim. inst. 4:144-150 '64. (MIRA 17:11)



KOLOSOV, A.

A 53

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3712. Rotational Specific Heat and Normal Modes of Vibration of Polyatomic Molecules. Part I. A. Kolossov. *J. of Exp. and Theor. Physics, U.S.S.R.* 9, 1, pp. 76-91, 1939. *In Russian.*—The author discusses the vibration and rotation of the ozone and benzene molecules using group theory methods. The irreducible representations are obtained with a view to an application to the specific heats of these molecules. D. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

DUBROVSKIY, Ye., inzhener; KOLOSOV, A., inzhener.

Cutter-loaders in foreign countries. Mast.ugl. 6 no.6:28-31 Je '57. (MIRA 10:8)
(Mining machinery)

1. KOLOSOV, A.

2. USSR (600)

4. Irrigation

7. Transformed earth.
Smena, 29 No.22, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

KOLESOV, A.

Quality of household electric vacuum cleaners. Tekh. est. no.4:14-16 Ap '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tekhnicheskoy estetiki.

KOLOSOV, A.

Reproduction of capital assets in industry ("Capital assets of socialist industry" by P. G. Bunich. Reviewed by A. Kolosov) (MIRA 14:3)
Vop. ekno. no.4:112-116 Ap '61.
(Capital)
(Bunich, P.G.)

S/284/63/000/003/004/004
A004/A126

AUTHOR: Kolosov, A.

TITLE: Reserves for increasing the production capacities in mechanical engineering

PERIODICAL: Referativnyy zhurnal, 35. Voprosy tekhnicheskogo progressa i organizatsii proizvodstva v mashinostroyenii, no. 3, 1963, 9, abstract 3.35.46 (Plan. kh-vo, 1962, no. 9, 3 - 12)

TEXT: An examination of 42 mechanical engineering plants of RSFSR in March and April 1961 revealed that, during the first shift, 17.6% of machine tools and 24.1% of forging and pressing equipment were not fully utilized, while 25.7% of machine tools and 32.3% of the forging and pressing equipment did not operate over the whole shift. During the second shift, more than 30% of the machines remained inactive, even at plants where the production equipment was highly charged. On the whole, the production equipment was being operated only 60 - 70% of the production time, which corresponds to an operating time of each machine tool of 4 - 5 hours during one shift. It is expedient to organize a full-value two-shift

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work, without night shifts, which would result in a considerable increase in production of the mechanical engineering industry. Measures are being taken at a number of Leningrad Plants to bring the shift utilization of the main equipment to 1.6 - 2. The second shifts are manned with operators obtained mainly by reducing the number of workers employed with auxiliary and fitter and assembly operations. The production capacity of these plants could be increased by 25%, while expenditure was rather low. The most important expenditure was necessary for the construction of foundry shops and metal structure shops, and also for extending the capacities of cooperating plants supplying accessories and semi--finished products. Calculations reveal that an increase in shift utilization from 1.7 to 1.96 at 14 plants of the Gor'kiy Sovnarkhoz will yield an increase of the gross output by 28.2 mill. rubles for 1962 - 1964 at a capital investment of 3.4 mill. rubles. There is a certain disproportion between the assembly shops and the blank production shops. From 1958 to 1960 the output of all mechanical engineering production increased by 25%, while the rise in the production of blanks amounted to 19% of steel castings, 16% of cast-iron castings and 15% of forged items. Moreover, the existing production capacities of initial-product shops are utilized only insufficiently owing to the small production batches. The author

S/284/63/000/003/004/004
A004/A126

Reserves for increasing the production capacities in...

points out the necessity of a higher specialization of foundries and forging and pressing shops. There is 1 table.

N. Prikhod'ko

[Abstracter's note: Complete translation]

Card 3/3

KOLOSOV, A.; UTKIN, E.

Credit aids the increase of industrial productive capacity. Den. i kred. 20 no.12:17-22 D '62. (MIRA 16:1)

(Machinery industry—Finance)

KOLOSOV, Alekaey Aleksandrovich; SIDOROVA, L.A., redaktor; KAPUSTINA, V.S., redaktor; PETROVA, M., tekhnicheskiy redaktor.

[Work in mathematics outside of class of the upper grades] Vneklassnaia rabota po matematike v starshikh klassakh. Moskva, Gos.uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1955. 63 p. (MLRA 9:1)
(Mathematics--Problems, exercises, etc.)

KOLOSOV, Aleksey Aleksandrovich; SIDOROVA, L.A., red.; KREYS, I.G., tekhn.red.

[A book for extracurricular reading on mathematics for ninth grade students] Kniga dlia vneklassnogo chteniia po matematike dlia uchashchikhsia IX klassa. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1960. 231 p. (MIRA 13:5)
(Mathematics--Study and teaching)

BODE, Hendrik W.; KOLOSOV, A.A., [translator], redaktor; MEYEROVICH, L.A., [translator], redaktor; KARASEV, M.D., redaktor; GESSEN, L.V., redaktor; KORNILOV, B.I., tekhnicheskiy redaktor.

[Network analysis and feedback amplifier design] Teoriia tsepei i proektirovanie usilitelei s obratnoi sviaz'iu. Perevod s angliiskogo i red. A.A.Kolosova i L.A. Meerovicha. Moskva, Gos. izd-vo inostrannoi lit-ry, 1948. 641 p. (MIRA 8:5)
(Radio circuits) (Amplifiers, Electron-tube) (Telephone lines)

KOLOSOV, A. A.

PA 33/49T104

USSR/Radio — Oct 48
Radio Receiver
Amplifiers

"Noise Bands of Multistage Resonance Amplifiers," A. A. Kolosov, 4 pp

"Dok Ak Nauk SSSR" Vol LXII, No 4

Gives mathematical method of calculating the noise band for any number of stages. Sets up a table showing proportion of noise band to reception band. Concludes that the noise band of single-circuit amplifier with a large number of stages exceeds its reception band only by a few percent

[redacted] 33/49T104

USSR/Radio (Contd) — Oct 48

in the case where the degree of irregularity in the limits of the reception band is taken equal to the square root of 2 (3 decibels). Submitted by Acad B. A. Vvedenskiy, 20 Jul 48.

[redacted] 33/49T104

KOLOSOV, A. A.

Author: Kolosov, A. A.

Title: The resonant systems and resonant amplifiers. (Rezonansnye sistemy i rezonansnye usiliteli.) 560 p.

City: Moscow

Publisher: State Printing House of Literature pertaining to the problems connected with communication and radio technique.

Date: 1949

Available: Library of Congress

Source: Monthly List of Russian Acessions, Vol. 3, NO. 4, P. 239

Call No: TK7872.A5K6

Subject: 1. Amplifiers, vacuum-tube. 2. Electronics.

KOLOSOV, A. A.

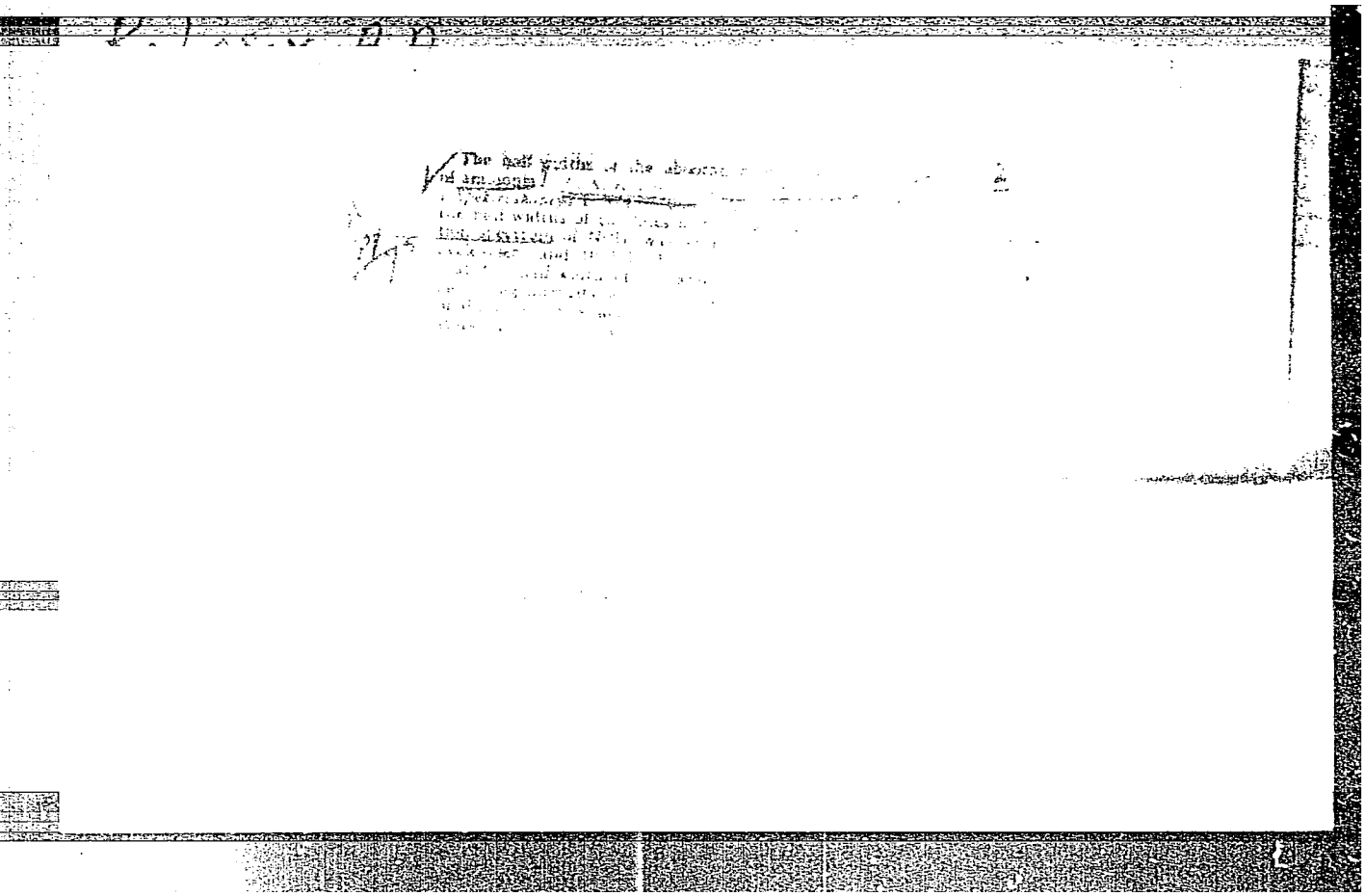
KOLOSOV, A. A.

Kolosov, A. A. defended his Doctor's dissertation in the Moscow Electrical Engineering Institute of Communications, USSR, on 29 June 1950, for the academic degree of Doctor of Technical Sciences.

Dissertation: "Resonance Systems and Resonance Amplifiers". Resume: Kolosov examined the problem of the maximum-frequency band which can be obtained at a given degree of amplification in different types of tune amplifiers. He proved that for any type there is a maximum band for any given degree of amplification, as well as a maximum degree of amplification for a given band which cannot be exceeded, no matter how many stages are used. For maximum amplification there is an optimum number of stages. Kolosov examined the question of selecting parameters for multistage amplifiers, starting from stability of the band width and the magnitude of amplification at the initial tuning frequency. He established a value for acceptable deviation of capacitances from their average value. He determined analytically the noise band of a multistage amplifier. Kolosov presented for the first time appropriate formulas to replace inconvenient graphical constructions. He investigated amplifier stability from the point of view of feedback, as well as the problem of minimum amplifier noise factor.

Official Opponents: Profs. Yu. B. Kobzarev, N. N. Krylov, and N. I. Chistyakov (Doctors of Technical Sciences).

SO: Elektrichestvo, No. 7, Moscow, August 1953, pp 87-92 (W/29844, 16 Apr. 54)



54-10-2-4/16

AUTHORS: Kolosov, A.A., Maslennikov, L.N., Myasnikov, L.L.

TITLE: The Stabilization of the Frequency of the Quartz Generator by Means of a Spectral Line (3,3) $N^{14}H_3$ (Stabilizatsiya chastoty kvartsevogo generatora posredstvom spektral'noy linii (3,3) $N^{14}H_3$)

PERIODICAL: Vestnik Leningradskogo Universiteta, Seriya fiziki i khimii, /3 , 1958, Vol. 10 Nr 2 , pp. 38-42 (USSR)

ABSTRACT: In the present paper the method worked out by the authors for the stabilization of the frequency of a quartz generator by means of the miorowave of absorption in gaseous ammonia is described. In order to stabilize the quartz generator the microabsorption line $N^{14}H_3$ (3-3) at a pressure of 10^{-2} mm mercury column was chosen. The application of gaseous ammonia is justified by the fact that the line (3-3) is well known and is easily accessible within the radiofrequency range. Besides, it is of high intensity and can therefore easily be observed in the small absorbing gas cells. Thanks to the exterior fields, the displacement of the spectral line is quite insignificant at normal conditions, and the insta-

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bility of the order of 10^{-10} caused by it can be disregarded. Modern methods make it possible to obtain great stability of the shape of the line. For the purpose of stabilization a scheme of the automatic adjustment of the frequency of the quartz generator was used (fig. 1). The following factors influence the operational stability of the scheme: 1.) Stability of the shape of the line. 2.) Stability of the amplification coefficients of the amplifiers. 3.) Starting stability of the multivibrators. 4.) Modification of the shape of the modulating signal. 5.) Modification of the feed voltage. The stability of the shape of the line depends on the pressure in the gas cell (table 1). As already mentioned, the stability of the amplification coefficients of the amplifiers influences the operation of the scheme. If anode feed is modified by 10% a shift of 1 microsecond occurs, which corresponds to a deterioration of relative instability of up to 3.10^{-7}. The change of the shape of the line also manifests itself in the accuracy of operation of the system. If the frequency of the absorption line is more towards the end of the sinusoid, the line will change with respect to time. It was found by calculation that the most favorable point of operation is near the turning point of the sinusoid and that the permitted displacement is within the limits

The Stabilization of the Frequency of the Quartz Generator by Means of a Spectral Line (3,3) $N^{14}H_3$ 54-10-2-4/16

of $\pm 5^{\circ}$. In practice possible displacement was found to be greater, and deviations from the order $\pm 30^{\circ}$ are permitted. This may be explained by the fact that the modulating signal slightly differs from the sinusoid and has a longer linear part. In the case of a linear displacement by more than the half distance from the center, the recordings of the phase detector are modified by 0.2 V. There are 8 figures, and 1 table.

SUBMITTED: December 24, 1957

AVAILABLE: Library of Congress

1. **Quartz generators—Frequency—Stabilization** 2. **Quartz crystals —Applications**

Card 3/3

KOLOSOV, Andrey Aleksandrovich; GORBUNOV, Yuriy Ivanovich; NAUMOV, Yuriy Yevgen'yevich; LUKIN, F.V., doktor tekhn. nauk, retsenzent; MOZHZHEVELOV, B.N., kand. tekhn. nauk, retsenzent; ARENBERG, N.Ya., red.

[Solid-state semiconductor networks] Poluprovodnikovye tverdye skhemy. Moskva, Sovetskoe radio, 1965. 503 p. (MIRA 18:3)

ACC NR: AM5012954 Monograph UR/

Kolosov, Andrey Aleksandrovich (Professor); Gorbunov, Yuriy Ivanovich; Naumov, Yuriy Yevgen'yevich

Semiconductor solid-state circuits (Poluprovodnikovyye tverdyye skhemy) Moscow, Izd-vo "Sovetskoye radio," 1965. 0503 p. illus., biblio. Errata slip inserted. 13,600 copies printed

TOPIC TAGS: solid state physics, semiconductor theory, semiconducting material, PN junction, integrated circuit, circuit design, electronic engineering, solid state, solid state device

PURPOSE AND COVERAGE: This book presents systematized data on solid state circuits based on semiconductors. The text describes the electronic principles of solids, the physical processes taking place in semiconductor materials, the application of these processes in designing integrated and functional solid state circuits, and the technology of constructing such circuits. The book is intended for engineers working in the field of radio electronics and electronic engineering, as well as for students at radio engineering institutes. The material used in chapters XIV and XVIII was prepared with the aid of V.N.Kononov and N.A.Avayev. The authors thank F.V.Lukin, Dr. of Technical Sciences, and B.N. Mozzevelov, Candidate of Technical Sciences, for their valuable comments on the manuscript.

Card 1/3 UDC: 621.382.8

ACC NR: AM5012954 "APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000823920017-9"

TABLE OF CONTENTS [abridged]:

Card 2/3

RYSKIN, M.Ya.; TSVETKOV, I.T.; MITROFANOV, S.I., prof., rukovoditel' raboty; Prinimali uchastiye: BAKHTEYEV, N.Ye.; KOLOSOV, A.A.; SMOLYUK, L.P.

Combined filtration of fluxes and copper concentrate. TSvet. met. 36 no.12:76 D '63. (MIRA 17:2)

KOLOSOV, A.A.

BUL'BA, V. S.; KOLOSOV, A. A.

"DKN-1" lamp appliance for diathermocoagulation in neuro- and general surgery. Khirurgiia, Moskva no.7:76-80 July 1951. (CIML 21:1)

1. Engineers. 2. Of the Department of Electromedical Apparatuses(Head -- Engineer V. S. Bul'ba), Scientific-Research Institute of Instruments and Equipment (Director I. A. Antonov).

KOLOSOV, A.A.

LIVENTSEV, Nikolay Mitrofanovich, doktor meditsinskikh nauk, kandidat tekhnicheskikh nauk; KOLOSOV,A.A., redaktor; POPRYADUKHIN, K.A. tekhnicheskiy redaktor.

[Electrical medical (physiotherapeutic) equipment; installation, operation and maintenance] Elektromeditsinskaia (fizioterapevticheskaia) appratura (ustroistvo, ekspluatatsiia i remont); rukovodstvo dlia fiziotekhnikov. Moskva, Gos.izd-vo meditsinskoi lit-ry, 1955. 325 p. (MLRA 8:10)
(ELECTROTHERAPEUTICS--APPRATUS AND INSTRUMENTS)

Kolosov, A. A.

LIVENSON, A.R.; KOLOSOV, A.A.

Apparatus for ultrahigh - frequency impulse therapy. Med.prom. 11 no.8:49-52 Ag '57. (MIRA 10:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskogo instrumentariya i oborudovaniya.
(DIATHERMY)
(ELECTRIC APPARATUS AND APPLIANCES)

AUTHORS: Livenson, A., Kolosov, A. SOV/107-58-10-25/55

TITLE: Electronic Medical Apparatus (Elektronnaya meditsinskaya apparatura)

PERIODICAL: Radio, 1958, Nr 10, pp 23-26 (USSR)

ABSTRACT: The author describes the chief groups of electronic apparatus used in medical practice; they are as follows: 1) electronic apparatus for functional diagnosis. This includes electrocardiography, vectorelectrocardiography, phonocardiography, measurement of the frequency of the pulse, electroencephalography and gastrography; 2) low-frequency pulse apparatus. Low-frequency pulse currents are widely used in diagnostic and therapeutic practice; for example, in order to cure complaints connected with a disease of the neuro-muscular system it is necessary to establish the character, degree and location of the disease. For this purpose diagnostic methods are used based on the ability of tissue to be excited by the passage of an electric current through it; the reactions of the tissue to the electrical irritation (in this case a direct current, single pulses of varying duration, and periodically a pulse current of varying duration and frequency) can be studied. Low frequency pulse currents are also used for

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therapeutical purposes, such as electrical stimulation of the muscles, artificial respiration, etc; 3) high-frequency physiotherapeutic apparatus. Some forms of h-f therapy are classified according to the frequency of the h-f generators used, for example diathermy, inductothermy, uhf therapy and microwave therapy. The author adds that for warming up muscular tissue when using uhf therapy, a new electrode has been suggested, taking the form of an oscillatory circuit separate from the apparatus itself. With this method use is made of the magnetic field of the coil of the circuit, which generates the greatest amount of heat in the muscular tissue due to the eddy currents formed in it. In this manner the doctor can localize the effect of the h-f energy by choosing one or another electrode. The author also mentions that pieces of equipment used for contact diathermy are usually universal as regards impulse, and are also used in electrosurgery for the cutting and coagulation of tissue. In such cases the equipment is provided with special electrodes. The frequencies allotted by the Ministry of Communications for h-f physiotherapy are given: they are 1,625, 13.56, 39, 152, and 2375 mc; 4) supersonic apparatus. A brief description of the principles of the therapeutic use of ultra-

sound is given, in particular its use in stomatology and diagnosis, as follows. When the supersonic method of drilling teeth is employed, with a cutting point of 1.5 x 1.5 mm and an oscillating frequency of 20 kc, the number of strokes of the cutting elements reaches 9,000,000 at a speed of 0.03 m per min. In diagnosis use is made of the reflection or absorption of the supersonic waves depending on the density, elasticity and uniformity of the tissues.
There are 4 photographs.

ASSOCIATION: Laboratoriya elektronnykh meditsinskikh priborov i apparatov VNII MIiO (Laboratory of Electronic Medical Instruments and Apparatus of the VNII MIiO)

KOLOSOV, A.A.; LIVENSON, A.R.

Use of ultrasonics in stomatology. Med. prom. 13 no.5:15-23 My '59.
(MIRA 12:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskogo instrumentariya i oborudovaniya.
(ULTRASONIC WAVES--THERAPEUTIC USE)
(DENTAL INSTRUMENTS AND APPARATUS)

KOLOSOV, A.A.

Use of ultrasonics in stomatology. Med.prom. 16 no.6:30-33 Jl '62. (MIRA 15:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskikh instrumentov i oborudovaniya.
(ULTASONIC WAVES—THERAPEUTIC USE)
(DENTAL INSTRUMENTS AND APPARATUS)

KOLOSOV, A.A.; DEMIDOV, G.Ye.; KUZNETSOV, A.P.

Apparatus for removing dental calculus by means of ultrasonics. Med. prom. 17 no.9:53-58 S '63. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskikh instrumentov i oborudovaniya.

KOLOSOV, A.A.; YEGOROVA, D.V.; DEMIDOV, G.Ye.

Portable apparatus for ultra-high frequency therapy. Med. prom. 17 no.6:54-59 Je '63 (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskikh instrumentov i oborudovaniya.

KOLOSOV, A.A.

Application of ultrasonics in stomatology. Nov. med. tekh. no.2:75-77 '62. (MIRA 17:11)

1. Vsesoyuznyy nauchnyy-issledovatel'skiy institut meditsinskikh instrumentov i oborudovaniya.

KULAKOV, A.A.; YEGOROVA, D.V.; DENISOV, G. Ye.

Portable apparatus for ultrahigh-frequency therapy. Trudy VNIIMIO no.3:35-40 '63 (MIRA 18:2)

KOLOSOV, A.A.; DEMIDOV, G. Ye.; KUZNETSOV, A.P.

Apparatus for the removal of tartar with the aid of ultrasonic waves. Trudy VNIIMIO no.3:79-86 '63 (MIRA 18:2)

KOLOSOV, A.F.

[Some problems of the production of the means of production in industries of the U.S.S.R.; author's abstract of a dissertation] Nekotorye voprosy vosproizvodstva osnovnykh fondov v promyshlennosti SSSR; avtoreferat dissertatsii. Moskva, Mosk. fin. in-t M-va vysshego obrazovaniia SSSR, 1958. 14 p. (MIRA 14:7)
(Capital)

KOLOSOV, Aleksandr Fomich; SHISHANKOV, V.S., red.; ROTOVA, R.S., red. izd-va; VORONINA, R.K., tekhn. red.

[Reproduction of public capital] Vosproizvodstvo obshchestvennogo kapitala. Moskva, Gos.izd-vo "Vysshaia shkola," 1961. 92 p. (MIRA 15:1)

(Capital)

KOLOSOV, Aleksandr Fomich. Prinimal uchastiye: IVANOV, Ye.A., nauchnyy sotr.; LEPNIKOVA, Ye., red.; KIRSANOVA, I., mladshiy red.; KORNILOVA, V., tekhn. red.

[Capital assets and their role in the socialist reproduction of the means of production (using industry as an example)] Osnovnye fondy i ikh rol' v sotsialisticheskom vosproizvodstve (na primere promyshlennosti). Moskva, Sotsekgiz, 1963. 245 p. (MIRA 16:7)

1. Sektor osnovnykh fondov Gosudarstvennogo nauchno-issledovatel'skogo ekonomicheskogo instituta Gosplana SSSR (for Ivanov).

(Capital)

KOLOBOV, [illegible] kand. ekonom. nauk; BOCHAROV, V.N.

Methodology for analyzing the utilization of the capital assets of the textile industry. Tekst. prom. 25 no.5:74-79 My '65. (MIRA 18:5)

1. Vedushchiy ekonomist NII SNKh SSSR (for Bocharov).

BOCHAROV, V.N.; DUDAYEVA, L.M.; YEVDOKIMOV, V.M.; KOLOSOV, A.F.; KRASOVSKIY, V.P.; LUK'YANOV, E.B.; MUSATOVA, V.A.; NOVIKOV, M.S.; SUKHOVANCHENKO, G.P.; TABELEV, V.V.; TOLKACHEV, A.S.; CHERTKO, V.F.[deceased]; SHTANSKIY, V.A.; PAK, G.V., red.; SELESNEVA, A.D., mlad. red.

[Structure of capital investments in the U.S.S.R. and the U.S.A.; analysis and methods of comparison] Struktura kapital'nykh vlozhenii SSSR i SShA; analiz i metody sopostavleniia. Moskva, Ekonomika, 1965. 250 p. (MIRA 18:5)

1. Moscow. Nauchno-issledovatel'skiy ekonomicheskiy institut.

KLIMOV, Yu.M.; CHIKIN, V.V.; ANISIMOV, N.I.; BARSKOV, I.M.; VINOGRADOV, Yu.V.; GAVRILOV, A.N.; GAUKHMAN, L.A.; GOLOV, A.P.; GOL'DMAN, L.S.; GREBENNIKOV, G.I.; YEFIMOV, A.N.; ZALUTSKIY, M.S.; ZAYTSEVA, A.V.; OIYRYSH, A.I.; KANDARITSKIY, V.S.; KAPRANOV, I.A.; KOVALEV, N.I.; KOVALEVSKIY, K.A.; KOLOSOV, A.F.; KRIVOV, A.S.; KRYLOV, R.M.; LEVITAS, A.G.; MALYGIN, M.A.; MORALEVICH, Yu.A.; MOTYLEV, A.S.; NESTEROV, M.V.; NIKOL'SKIY, A.V.; ORLOV, G.M.; ORLOV, Ya.L.; PARENSKIY, V.M.; POLYAKOV, A.S.; RUBIN, V.I.; SVANIDZE, K.N.; STRIGIN, I.A.; TAKOYEV, K.F.; TRUBNIKOV, S.V.; CHERNYSHEVA, L.N.; CHESNOKOV, N.Ye.; SHAMBERG, V.M.; STRUMILIN, S.G., akademik, red.; ANTOSENKOVA, L., red.; MIKAELYAN, E., red.; MUKHIN, Yu., tekhn.red.

[Dictionary of the seven-year plan from A to Z] Slovar' semiletki ot A do IA. Moskva, Gos.izd-vo polit.lit-ry, 1960. 397 p. (MIRA 13:7)

(Russia--Economic policy)

KOLOSOV, A.G., kapitan

Son of the people. Vest. Vozd. Fl. no.4:71-72 Ap '61. (MIRA 14:7)

(Gagarin, Iurii Alekseevich, 1934-)

KOLOSOV, Aleksandr Gerasimovich; TITOV, Konstantin Sergeyevich; FREYMAN, Tamara Iosifovna; MIROSHCHENKO, S., otv. red.

[Turnover tax on food products] Nalog s oborota po prodovol'stvennym tovaram. Moskva, Finansy, 1965. 213 p. (MIRA 18:5)

KOLOSOV, A. I.

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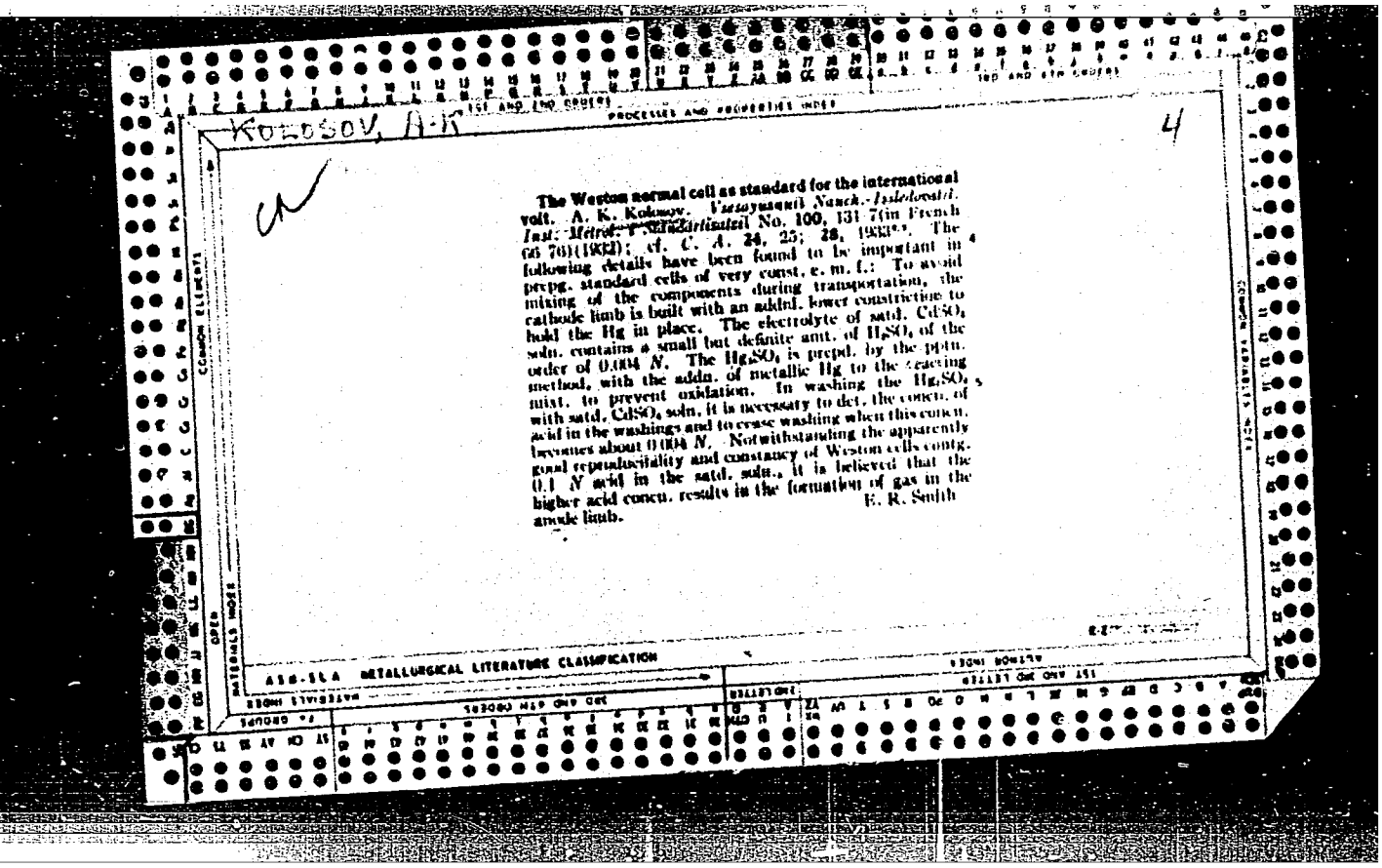
Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

KOLOSOV, Aleksandr Ivanovich; LAVRENT'YEVA, Anna Georgiyevna; SINYAKOV, N.I., red.; STRELKOVA, A.N., red.; PANKRATOVA, M.A., tekhn. red.

[Technology of printing in two books] Tekhnologiia poligraficheskogo proizvodstva v dvukh knigakh. Moskva, Iskusstvo. Vol.1.[Preparation of printed forms] Izgotovlenie pechatnykh form. 1963. 487 p. (MIRA 17:2)



KOLOSOV, A-K

4

The Weston normal cell as standard for the international volt. A. K. Kolosov. *Vsesoyuznyi Nauch.-Issledovatel. Inst. Metrol. i Standartizatsii* No. 100, 131-7(in French 66-76)(1932); cf. *C. A.* **24**, 25; **28**, 1933[9]. The following details have been found to be important in prepg. standard cells of very const. e. m. f.: To avoid mixing of the components during transportation, the cathode limb is built with an addnl. lower constriction to hold the Hg in place. The electrolyte of satd. $CdSO_4$ soln. contains a small but definite amt. of H_2SO_4 of the order of 0.004 *N*. The Hg_2SO_4 is prepd. by the pptn. method, with the addn. of metallic Hg to the reacting mixt. to prevent oxidation. In washing the Hg_2SO_4 with satd. $CdSO_4$ soln. it is necessary to det. the concn. of acid in the washings and to cease washing when this concn. becomes about 0.004 *N*. Notwithstanding the apparently good reproducibility and constancy of Weston cells contg. 0.1 *N* acid in the satd. soln., it is believed that the higher acid concn. results in the formation of gas in the anode limb.

E. R. Smith

SHRAMKOV, Ye.G.; GORBATSEVICH, S.V.; KOLOSOV, A.K.; DROTKOV, I.N.; ROZHDESTVENSKAYA, T.B.; SHIROKOV, K.P.; CHERNYSHEV, Ye.T.; YANOVSKIY, B.M.

Metrological activities in the field of electric and magnetic measurements. Trudy.VNIIM no.33:60-93 '58. (MIRA 11:11)

1. Rukovoditel' otdela elektricheskikh i magnitnykh izmereniy Vsesoyuznogo nauchno-issledovatel'skogo instituta metrologii imeni D.I. Mendeleyeva (for Shramkov).
(Electric measurements) (Magnetic measurements)

ARUTYUNOV, V.O.; GORBATSEVICH, S.V.; SHRAMKOV, Ye.G.; BURDUN, G.D.; KOLOSOV, A.K.

M.F.Malikov; obituary. Izm.tekh. no.4:61 Ap '60.
(MIRA 13:8)
(Malikov, Mikhail Fedoseevich, 1882-1960)

S/115/60/000/008/013/013
B019/B063

AUTHORS: Arutyunov, V. O., Kolosov, A. K., Chernyshev, Ye. T., Shramkov, Ye. G., Yanovskiy, B. M.

TITLE: A. N. Boyko (Deceased)

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 8, p. 63

TEXT: Aleksey Nikitich Boyko, Senior Collaborator of the Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D. I. Mendeleyeva (All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleyev) died on May 20, 1960. The son of a farmer he was born in 1885, and he completed his studies at Peterburg Politekhnicheskiy institut (Peterburg Polytechnic Institute) in 1914. He worked at the Fiziko-tekhnicheskiy institut (Institute of Physics and Technology), from 1918 onward at the Glavnaya palata mer i vesov (Main Bureau of Weights and Measures), and finally at the All-Union Scientific Research Institute of Metrology. During the years of development of the Soviet instrument-building industry he was in charge of the production and control of permanent magnets at the factories imeni Koznitskiy, Krasnaya Zarya,

Card 1/2

KOLOSOV, A.K.; CHALOVA, Ye.A.

International comparisons of the national standards of the volt for the period 1939-1959. Trudy inst. Kom. stand., mer i izm. prib. no.52:5-14 '61. (MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I. Mendeleyeva.
(Electric standards)

KOLOSOV, A.K.; SVETLAKOVA, L.F.; CHALOVA, Ye.A.

Study of nonsaturated standard components at increased and decreased temperatures. Trudy inst. Kom. stand. mer i izm. prib. no.67:12-27 '62. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni Mendeleyeva.

GLAGOLEVA, Ye.P.; GRADSKAYA, N.N.; KOLOSOV, A.K.; MYULLER, V.V.; SAVUSHKINA, A.S.; CHALOVA, Ye.A.

New small-size e.m.f. meters. Nov.nauch.-issl.rab.po metr. VNIIM no.4:4-6 '64. (MIRA 18:3)

KOLOSOV, A.M.; BAKEYEV, N.[illegible]; NAUMOV, S.P., red.; GINZBURG, G.M., tekhn. red.

[Biology of the common European hare (Lepus europaeus Pall.)] Biologiia zaitsa-rusaka. Moskva, Izd-vo Mosk. ob-va ispytatelei prirody, 1947. 100 p. (Materialy k poznaniiu fauny i flory SSSR. Otdel zoologicheskii, no.9). (MIRA 11:4)

(Stavropol Upland--Hares)

LAVROV, Nikolay Petrovich; NAUMOV, Sergey Pavlovich; KOLOSOV, A.M., prof., red.; BILENKO, L.S., red.izd-va; FOMICHEV, P.M., tekhn.red.

[Biology of game animals and birds in the U.S.S.R.] Biologiia promyslovykh zverei i ptits SSSR. Pod obshchei red. A.M.Kolosova. Moskva, Izd-vo TSentrosoiuza, 1960. 236 p. (MIRA 14:2)
(Game and game birds)

KOLOSOV, A.M.; LAVROV, N.P.; NAUMOV, S.P.; DUKAL'SKAYA, N.M., red.; MOZAROVA, G.K., red. izd-va; MURASHOVA, V.A., tekhn. red.

[Biology of commercial animals in the U.S.S.R.] Biologiia promyslovykh zverei SSSR. Moskva, Gos. izd-vo "Vysshaia shkola," 1961. 379 p. (MIRA 14:6)

(Game and game birds)

YAKOVLEV, Konstantin Konstantinovich; LAZAROVICH, Gutman Solomonovich; KOLOSOV, A.M., retsenzent; USHAKOVA, G.V., retsenzent; KORBUT, L.V., red.; SOKOLOVA, I.A., tekhn. red.

[Analyzing the economic activities of meat and dairy industry enterprises] Analiz khoziaistvennoi deiatel'nosti predpriiatii miasnoi i molochnoi promyshlennosti. Moskva, Pishchepromizdat, 1963. 173 p. (MIRA 16:10)
(Meat industry) (Dairy industry)

KOLOSOV, Aleksey Mikhaylovich, prof.; LAVROV, Nikolay Petrovich, prof.; NAUMOV, Sergey Pavlovich, prof.; PETROVSKAYA, L.P., red.

[Biology of commercial animals of the U.S.S.R.] Biologiia promyslovykh zverei SSSR. Perer. i znachitel'no dop. izd. Moskva, Vysshaia shkola, 1965. 508 p. (MIRA 18:6)

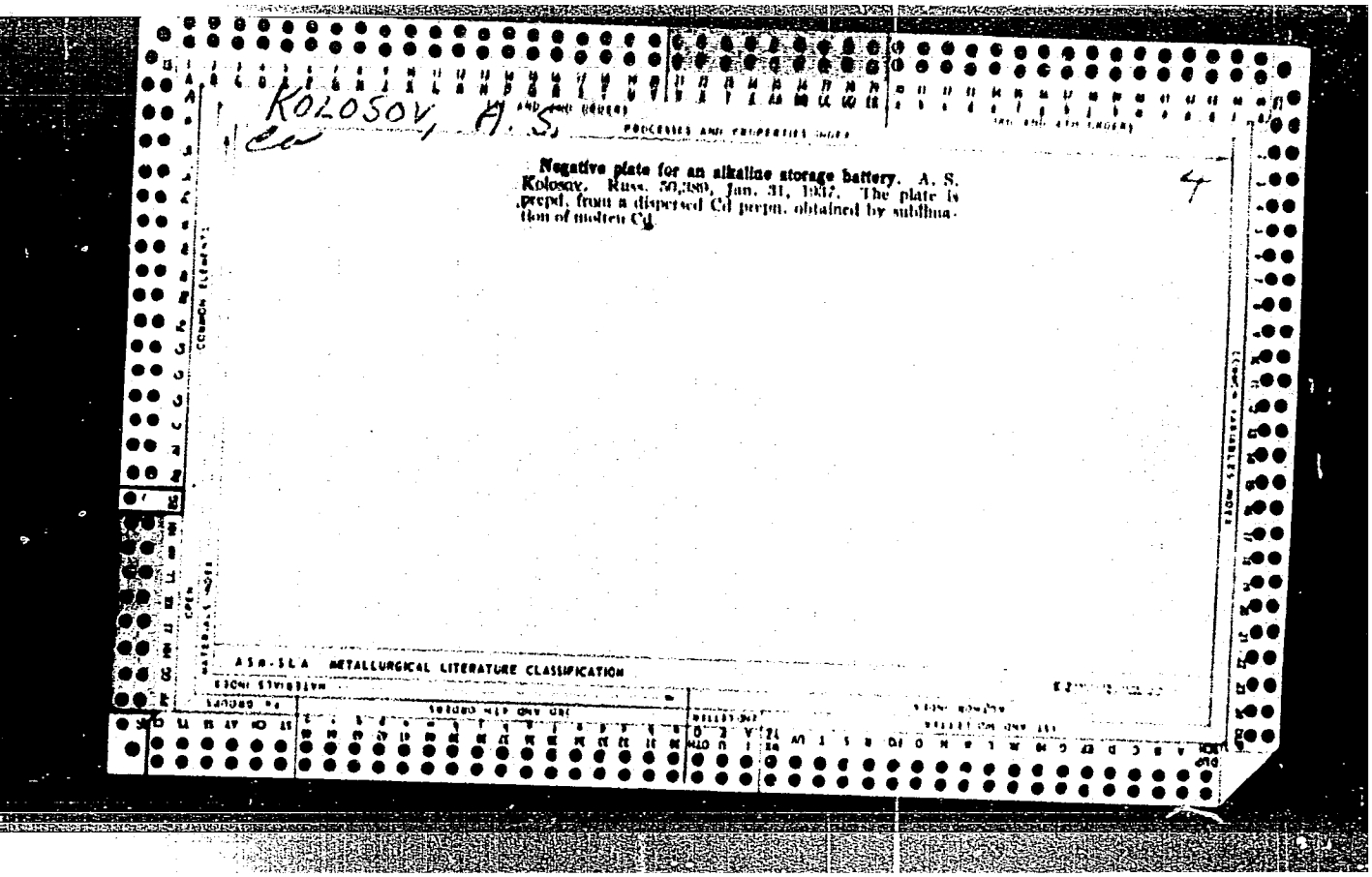
PONOMAREV, B.V., red.; KOLOSOV, A.P., red.; MAMONTOVA, N.N., tekhn. red.

[Mechanization of accounting and calculating work in commerce; collected articles on exchange of practice]Mekhanizatsiia ucheta i vychislitel'nykh rabot v torgovle; sbornik statei po obmenu opytom. Moskva, Gostorgizdat, 1962. 78 p. (MIRA 15:9)

(Russia—Commerce) (Machine accounting)

STATSENKO, G.P.; KOLOSOV, A.P., red.; MAMONTOVA, N.N., tekhn. red.

[Collected norms for sanitary work clothes for trade workers] Sbornik norm sanspetsodezhdy dlia rabotnikov torgovli. Moskva, Gostorgizdat. 1962. 159 p. (MIRA 16:5)
(Clothing, Protective)

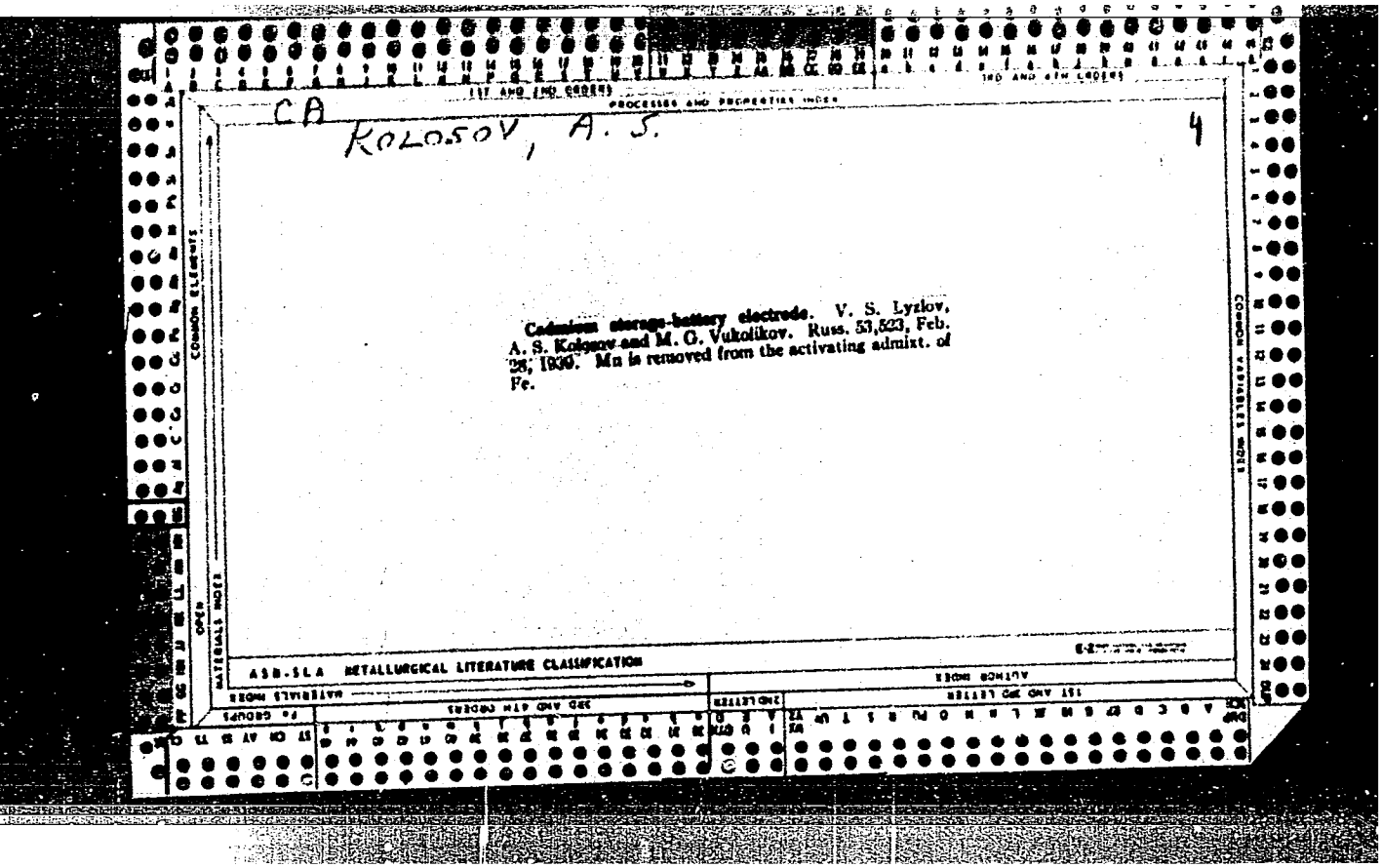


KOLOSOV, A. S.

Negative plate for an alkaline storage battery. A. S. Kolosov. Russ. 50,480, Jan. 31, 1937. The plate is prepd. from a dispersed Cd perpn. obtained by sublimation of molten Cd.

4

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

Kolosov, A. S.

4

Cadmium storage-battery electrode. V. S. Lyzlov, A. S. Kolosov and M. G. Vukolikov. Russ. 53,523, Feb. 28, 1939. Mn is removed from the activating admixt. of Fe.

KOLOSOV, A. S

M. A. 7.

Polarization Curves of Cadmium-Iron Electrodes Having an Active Iron Component. A. S. Kolosov (Zhur. Fiz. Khim., 1949, 23, 1239-1246; C. Abs., 1950, 44, 1829).--(In Russian). The equilibrium potential Cd/Cd^{++} and the stationary potential of iron, both in 4N-NaOH at 25°C. and referred to the Hg/HgO electrode, are -0.91 and -0.98 V., respectively. The oxidized cadmium electrode in 4N-KOH is reduced in contact with iron; therefore, the reaction $Cd^{++} + Fe = Cd + Fe^{++}$ must be considered in cadmium-iron electrodes. Anodic polarization curves of cadmium-iron electrodes in 4N-NaOH at small c.d. show plateaux corresponding to the ionization of iron, ionization of cadmium, oxidation of Fe^{++} to Fe^{+++}, and evolution of oxygen, whereas at high c.d. iron and cadmium are ionized simultaneously. Cathodic-polarization curves at any c.d. show plateaux corresponding to the discharge of cadmium, discharge of iron, and liberation of hydrogen. The length of the plateau shows the extent of participation of the corresponding metal in the electrode process; for iron it is little dependent on the ratio cadmium:iron when this varies from 0 to 6. The cadmium-iron electrode seems to be a mechanical mixture of cadmium and iron or their oxides.

FORTUNATOV, A.V.; KOLOSOV, A.S.; KROGIUS, Ye.A.; KLYUKINA, N.G.; L'VOV, A.L.

In memory of N.V. Shishkin. Zhur.ob.khim. 26 no.3:937-938 Mr '56. (MLRA 9:8)

(Shishkin, Nikolai Vasil'evich, 1891-1954)
(Bibliography--Chemistry)

KOLOSOV, A.S.

Isotherm of the system $MgSO_4$ - $CaSO_4$ - H_2O at 25°C. Trudy Khim.-met. inst.Zap.-Sib.fil.AN SSSR no.12:29-38 '58. (MIRA 14:6)
(Magnesium sulfate) (Calcium sulfate)

KOLOSOV, A.S.

System Na, Mg, Ca //SO_4 --H_2O at 25°C. Izv. Sib. otd. AN SSSR no.3:67-75 '59. (MIRA 12:8)

1.Zapadno-Sibirskiy filial Akademii nauk SSSR.
(Solutions (Chemistry))

LEPESHKOV, I.N.; SOLOV'YEV, V.K.; MINKO, G.M.; KOLOSOV, A.S.; VASILEVSKAYA, A.G.

Calcium content of natural salts of Krasnoyarsk Territory. Izv. Sib. otd. AN SSSR no. 10:36-46 '60. (MIRA 13:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova i Khimiko-metallurgicheskiy institut Sibirskogo otdeleniya AN SSSR.
(Krasnoyarsk Territory--Calcium salts)

AVDEYEVA, T.I.; KOLOSOV, A.S.; LILEYEV, I.S.

Optima conditions for the leaching of sulfate-limestone sinters. Trudy Khim.-met.inst.Sib.otd.AN SSSR no.1[illegible]:61-73 '60. (MIRA 14:6)
(Leaching) (Alumina)

KOLOSOV, A.S.

Work of the salts commission. Izv.Sib.otd.AN SSSR no.6:132-133 '61. (MIRA 14:6)

(Siberia—Salts)

KOLOSOV, A.S.

The system $CaSO_4$ - Na_2SO_4 - NaCl - H_2O at 25 C. Izv.Sib.otd.AN SSSR no.12:64-71 '61. (MIRA 15:3)

1. Khimiko-metallurgicheskiy institut Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(Systems (Chemistry))

NIKOLAYEV, A.V.; VASILEVSKAYA, A.G.; KOLOSOV, A.S.; NIKOL'SKAYA, Yu.P.; MINKO, G.M.

Potassium of the upper horizons of salt deposits of the Kansk-Taseyevo region. Dokl. AN SSSR. 144 no.6:1369-1372 Je '62. (MIRA 15:6)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR.
2. Chlen-korrespondent Akademii nauk SSSR (for Nikolayev).
(Krasnoyarsk Territory--Potassium salts)

KOLOSOV, A. S.

Dissertation defended for the degree of Candidate of Chemical Sciences at the Joint Academic Council on Chemical Sciences; Siberian Branch

"Equilibria in the Systems of Sodium Sulfate-Magnesium Sulfate-Calcium Sulfate-Water, and Calcium Sulfate-Sodium Sulfate-Sodium Chloride-Water at 25° C. and Problems of Forming Thenardite and Glauberite."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

NIKOL'SKAYA, Yu.P.; KOLOSOV, A.S.

Indications of potassium potential in the south of the Siberian Platform. Geol. i geofiz. no.1:43-61 '65. (MIRA 18:6)

1. Khimiko-metallurgicheskiy institut Sibirskogo otdeleniya AN SSSR, Novosibirsk.

KOLOSOV, ALEKSANDR VASIL'YEVICH

OKHRIMENKO, Veniamin Antonovich, inzhener; KOLOSOV, Aleksandr Vasil'yevich, inzhener; POMORTSEV, A.D., otvetstvennyy redaktor; SLAVOROSOV, A.Kh., redaktor izdatel'stva; KOROVENKOVA, Z.A., tekhnicheskiy redaktor

[New shields for working steep and flat seams] Novye shchitovye perekrytiia pri razrabotke krutykh i naklonnykh plastov. Moskva, Ugletekhizdat, 1957. 167 p. (MLRA 10:9)
(Coal mines and mining)

OKHRIMENKO, V.A., aspirant; KOLOSOV, A.V., aspirant

Mining medium thickness, steeply pitching seams in Kuznetsk Basin with the use of KVKP shields. Nauch. trudy MGI no.18:47-58 '57. (MIRA 11:9)

(Kuznetsk Basin--Coal mines and mining)

KOLOSOV, A.W.

Use of rocks discharged from mines as raw material for mine filling. Trudy Inst.gor.dela.Sib.otd.AN SSSR no.1:54-62 '58.
(MIRA 12:11)

(Mine filling)

KOLOSOV, A.V.

Efficient organization of rock dumping by mines of the Prokop'evsk-Kiselevsk region of Kuznetsk Basin. Ugol' 33 no.4:31-34 Ap '58. (MIRA 11:4)
(Kuznetsk Basin--Coal mines and mining)
(Waste, Disposal of)

KOLCSOV, A. V., Candidate Tech Sci (diss) -- "Investigatbn of the rock poured out onto the terraces of coal mines in order to use it as support material in the working of large round seams". Moscow, 1959. 18 pp (Min Higher Educ USSR, Moscow Mining Inst im I. V. Stalin), 150 copies (KL,No 23, 1959, 166)

LINDENAU, N.I.; KOLOSOV, A.V., red.; IVANITSKIY, I.I., red.; PANKINA, N.V., tekhn. red.

[Basic technological trends in the expansion of the Kuznetsk Coal Basin during the years from 1959 to 1965] Osnovnye tekhnicheskie napravleniia razvitiia Kuznetskogo ugol'nogo basseina v 1959-1965 godakh. Moskva, M-vo vysshego i srednego spetsial'nogo obrazovaniia RSFSR, 1959. 54 p. (MIRA 15:1)

1. Moskovskiy gornyy institut im. Stalina (for Lindenau).
(Kuznetsk Basin--Coal mines and mining)

SONIN, S.D., prof.; KOLOSOV, A.V., kand. tekhn. nauk; YUSHCHENKO, A.A., gorn. inzh; DROGAL', G.G.; RESHETNIK, G.I.

Preliminary results of the testing of hydraulic filling equipment and techniques in mining thin flat seams. Ugol' 36 no.9:14-17 S '61. (MIRA 14:9)

1. Moskovskiy gornyy institut im. I.V.Stalina (for Sonin, Kolosov, Yushchenko). 2. Glavnyy inzhener tresta Kirovugol' (for Drogal'). 3. Glavnyy inzhener shakhty no.1-2 "Novaya Golubovka" (for Reshetnik).

(Hydraulic mining)

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9.9810

S/142/60/000/003/017/017
E192/E482

AUTHORS: Sazonov, A.I. and Kolosov, A.V.

TITLE: Calculation of the Angle of Radio Refraction at Small Elevation Angles

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, No.3, pp.409-412

TEXT: The refraction error at small elevation angles can be determined as (Ref.6)

$$\alpha \simeq \frac{1}{2}\Delta \qquad (1)$$

where Δ is the angle of full refraction which is equal to the difference between the incidence angle φ_2 at the point of observation and the incidence angle φ_1 at the point where the object is situated. Consequently, for determining the refraction error it is necessary to know the change of the angular coefficient of the normal to the phase front during the propagation of radio waves in a non-homogeneous medium or the trajectory of a ray. The equation for the trajectory is in the form (Ref.5)

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E192/E482

Calculation of the Angle of Radio Refraction at Small Elevation Angles

$$x = \int_0^y \frac{du}{\sqrt{u + p^2 + ug(u)}}, \qquad (2)$$

Eq. (2) 8 ⊠

where x and y are the distance and the height in normalized units and

Eq. (A)
$$g(u) = \frac{h_1 a^*}{2\varepsilon_0}\left[\frac{\varepsilon - \varepsilon_0}{h} - \left(\frac{d\varepsilon}{dh}\right)_0\right],$$

where ε is the permittivity of the troposphere and a^* is the equivalent radius of the earth. On the other hand, the parameter p is defined by

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Calculation of the Angle of Radio Refraction at Small Elevation Angles

Eq. (B)

$$p = \sqrt[3]{\frac{ka^2}{2}}\cos\gamma.$$

where γ is the zenith angle. By solving Eq.(2) for $y = y_1$ and $y = 0$, it is possible to determine tan φ_1 and tan φ_2. The difference of the tangents of φ_1 and φ_2 is then determined and the final formula for α is

Eq. (5)

$$\alpha \cong \frac{\nu}{2} - \frac{y_1 + y_1 g(y_1)}{2d^2(2\xi + \nu)}, \qquad (5)$$

где

Eq (C)

$$d = \sqrt[3]{\frac{ka^2}{2}}. \qquad (C)$$

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Calculation of the Angle of Radio Refraction at Small Elevation Angles

and ν is the central angle. Eq.(5) was checked experimentally at the wavelength of 3.2 cm. The experimental results together with the calculated values are indicated in 2 tables. By comparing the results, it is found that in the case of increased "normal" and negative refraction the calculated results are in good agreement with the experimental data. In the case of super-refraction, there is a considerable discrepancy between the experiment and the calculated values. There are 2 tables and 8 Soviet references.

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