

ALEKSANDROV, N.N., doktor med.nauk

Surgeon's tactics in cancer patients' refusal of surgical  
treatment. Zdrav.Bel. 8 no.2:3-5 F '62. (MIRA 15:11)

1. Iz Nauchno-issledovatel'skogo instituta onkologii i  
meditsinskoy radiologii Ministerstva zdravookhraneniya BSSR  
(direktor N.N.Aleksandrov).  
(CANCER--EXCISION)

ALEKSANDROV, N.N.

Current state of the treatment of breast cancer in the United States; from personal impressions. Vop. onk. 8 no. 12:92-99 (MIRA 17:6)  
'62

1. Iz Nauchno-issledovatel'skogo instituta onkologii i meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR (dir. - doktor med. nauk N.N. Aleksandrov).

ALEKSANDROV, N.N.

Present statue of the fundamental problems of oncology; re-  
sults of the Eighth International Cancer Research Congress.  
Zdrav. Bel. 9 no.1:87-91 J163. (MIRA 16:8)  
(CANCER RESEARCH--CONGRESSES)

ALEKSANDROV, N.N.; GUTMAN, Z.M.

Status of prevention, diagnosis and treatment of malignant tumors in the White Russian S.S.R.; data for 1962. Zdrav. Bel. 9 no.6:3-6 Ja '63. (MIRA 17:5)

1. Iz Nauchno-issledovatel'skogo instituta onkologii i meditsinskoj radiologii (direktor - prof. N.N. Aleksandrov).

ALEKSANDROV, N.N.; PODDUBNAYA, T.T.; TISHCHENKO, N.A.

Scientific and Practical Conference of Oncologists of White  
Russia. Vop onk. 8 no. 10:119-121 '62. (MIRA 17:7)

ALEKSANDROV, N.N., gornyy inzh.; AZARKOVICH, A.Ye., gornyy inzh.

Crushing rocks by blasting in order to use continuous operation  
equipment. Gor. zhur. no.6:35-37 Je '64. (MIRA 17:11)

1. TSentral'nyy nauchno-issledovatel'skiy gornorazvedochnyy institut  
tsvetnykh, redkikh i blagorodnykh metallov, Moskva.

ALEKSANDROV, Nikolay Nikolayevich; VZNUZDAYEV, Sergey Vasil'yevich;  
DVORYANKOV, Sergey Mikhaylovich; KEMNITS, Yuriy Vladimirovich;  
MASLOV, Aleksey Vasil'yevich; MURASHEV, Sergey Iustinovich;  
SOBRAYSKIY, Konstantin Stanislavovich; MURASHEV, S.A., redaktor;  
KHROMCHENKO, F.I., redaktor izdatel'stva; KUZ'MIN, G.M., tekhnicheskii redaktor

[Precise calculations in topographical surveys of irrigation districts] Raschety tochnosti topograficheskikh s'emok v raionakh orosheniia. Moskva, Izd-vo geodezicheskoi lit-ry, 1956. 48 p.  
(Topographical surveying) (MIRA 10:1)  
(Irrigation)

ALEKSANDROV, N. N.

"Accuracy of Horizontals on the Plane Drawing Table Using a 1 : 10,000 Scale  
Depending on Heights".

Tr. Mosk. in-ta inzh. zemleustroystva, No. 1, pp 75-87, 1954.

Causes of errors in mapping are enumerated. The mean square errors  
are computed for horizontals on the drawing table of topographical sur-  
vey. (RZhAstr, No. 1, 1956)

SO: Sum No 884, 9 Apr 1956

ALEKSANDROV, N.N.

3(7)

PHASE I BOOK EXPLOITATION

SOV/1720

Leningrad. Glavnaya geofizicheskaya observatoriya.

Voprosy razrabotki meteorologicheskikh priborov (Problems in the Development of Meteorological Instruments) Leningrad, Gidrometeoizdat, 1958. 49 p. (Series: Its: Trudy, vyp. 83) 1350 copies printed.

Additional Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby.

Ed. (Title page): M.S. Sternzat, Candidate of Physical-Mathematical Sciences; Ed. (Inside book): M.M. Yasnogorodskaya; Tech. Ed.: A.N. Sergeyev.

PURPOSE: This issue is intended for scientific personnel engaged in the construction and use of meteorological instruments.

COVERAGE: In general, this booklet covers descriptions of new instruments and problems encountered in their development. It also describes methods used for selecting the optimum interval for averaging the velocity of the wind and for determining the aggregate composition of fogs. The instruments described in detail include a new  
Card 1/3

Problems in the Development (Cont.)

SOV/1720

automatic condensation hygrometer, a simple device for determining the composition of fog, a field radiometer, a device for measuring temperature, apparatus for actinometric observations and a device for measuring winds of high velocity. No personalities are mentioned. Bibliographies follow each article.

TABLE OF CONTENTS:

Fateyev, N.P. New Automatic Condensation Hygrometer	3
Andreyev, I.D. Selection of the Optimum Interval for Averaging Wind Velocity	20
Nikandrov, V.Ya. A Method of Determining the Aggregate Composition of a Fog	25
Aleksandrov, N.N. A Field Radiometer for Measuring the Relative Concentration of Radioactive Particles in the Atmosphere	27
Skachkova, I.F. Apparatus for Actinometric Measurements	36

Card 2/3

Problems in the Development (Cont.)

SOV/1720

Aleksandrov, V.S. Temperature Measurement Device

40

Svarchevskiy, V.N. An Instrument for Registering the Velocity  
and Gusts of High Winds

43

AVAILABLE: Library of Congress

MM/sfm  
5-25-59

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ALEKSANDROV, N.N.

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PHASE I BOOK EXPLOITATION

SOV/2028

Maslov, Aleksey Vasil'yevich, Yefim Gerasimovich Larchenko, Aleksandr Vasil'yevich Gordeyev, and Nikolay Nikolayevich Aleksandrov

Geodeziya, ch. 1 (Surveying, pt. 1) Moscow, Geodezizdat, 1958. 510 p.  
13,000 copies printed. Errata slip inserted.

Ed.: A. V. Maslov; Ed. of Publishing House: A. I. Inozemtseva;  
Tech. Ed.: V. V. Romanova.

PURPOSE: This text is intended for the practical use of land surveyors and for students in vuzes specializing in land use sciences.

COVERAGE: The book is the first part of a three-part intensive course in surveying. It covers, in considerable detail, the fundamentals of plane surveying and cartography, especially in relation to agricultural uses. There is also an introduction to geodetic surveying. The text contains not only detailed

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Surveying (Cont.)

SOV/2028

courses in the standard methods of surveying, such as transit traverses, stadia, differential leveling, plane table, and tachometer uses, but also the simplest methods adaptable for farm work. Among the latter are visual estimation surveys, semi-instrumental surveys and barometric leveling. All instruments and adjustments involved therein are described in detail. Considerable space is devoted to the theory of errors and computations, also to adjustments in a wide range of precision. Cartography and cartographic instruments are treated only in conjunction with the compilation of large scale plans. Scientific personnel mentioned are: Professor P.M. Orlov, Docent I.V. Zubritskiy, and S.V. Vznuzdayev, Yu. V. Kemnitsa, K.S. Soberayskiy, and S.G. Sharupich. There are 70 references, 67 of which are Soviet, 1 German, 1 Hungarian and 1 Czech.

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Foreword

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## NAME: BOOK INFORMATION

REV/788  
REV/2-4-93

Leningrad. Glavna geofizicheskaya observatoriya imeni A.I. Voznyakova  
Voprosy fiziki atmosfery (Problems in Physics of the Atmosphere) Leningrad,  
Glavnyy tsentr, 1979. 113 p. (Series: 151 Trudy, 77-93) 1,220  
copies printed.

Sponsoring Agency: USSR. Soviet Ministry. Glavnyy upravleniye gidrometeorologicheskoy sluzhby.

Ed. (title page): Ye. S. Melnikova, Candidate of Physics and Mathematics;  
Ed. (inside book): N. M. Yemegodskaya; Tech. Ed.: A. B. Serdyukov.

PURPOSE: This publication is intended for specialists in meteorology, aerology, and meteorological instrumentation.

CONTENTS: This collection of twelve articles contains the results of studies done under the auspices of the Glavna geofizicheskaya observatoriya imeni A.I. Voznyakova (Main Geophysical Observatory imeni A.I. Voznyakov). The first six articles give the results of aerological investigations of clouds, and the structures of multiclouds and local winds. The last six articles cover the methods of aerological investigation of atmospheric ozone, aerosols, condensation nuclei, and the chemical impurities in atmospheric precipitation. A description of new or improved instruments used in aerological investigations is also given. References are given at the end of some articles.

70  
Korshunov, V. I. Universal Electrophotometer  
A description is given of an electrophotometer used for the study of light propagation in the earth's atmosphere, light reflected by the moon and planets, and other radiation in the visible light zone. Some problems relative to operating the electrophotometer are discussed. The author proposes a simple method for checking the linearity of the optical characteristic of the photometer, and a new method for measuring the degree and the angle of light polarization.

81  
Aleksandrov, S. M., and V. P. Kiselevskiy. Methods for Measuring the Condensation Nuclei in the Free Atmosphere by Means of Aerosol Soundings  
The article describes the methods for measuring the condensation nuclei in the free atmosphere during the IRT.

83  
Korshunov, V. I., and V. I. Kiselevskiy. Analysis of Atmospheric Precipitation for  $H_2$ ,  $H_2O$ , and  $H_2O_2$  Content

95  
Korshunov, V. I., V. I. Kiselevskiy, and A. A. Pavlov.  
Distribution of Brightness Over the Day and Night Sky  
The authors give data on observations made during the summer of 1956 in Voznyakova with an electrophotometer with a PM-19 photomultiplier. A brief analysis of results is given.

104  
Korshunov, V. I. Basic Tables for Calculating the General Atmospheric Ozone Content by Optical Observations  
The article contains the tables used by the ozonometric stations in the USSR.

AVAILABILITY: Library of Congress

Card 6/6

24/05/1980  
7-59-60

9

MASLOV, Aleksey Vasil'yevich. Prinimali uchastiye: PANFILOV, A.T.;  
ALEKSANDROY, N.N., dotsent; SOBERAYSKIY, K.S., dotsent; YANUSHEV,  
F.M., starshiy prepodavatel'; SAKOVTSSEV, B.P., starshiy prepodava-  
tel'; YUNUSOVA, T.A., inzh.. VASIL'YEVA, V.I., red.izd-va; ROMA-  
NOVA, V.V., tekhn.red.

[Directions for surveys with plane-table and theodolite at a scale  
of 1:10,000] Nastavlenie po proizvodstvu menzul'nykh i teodolitnykh  
s"emok v masshtabe 1:10000. Moskva, Izd-vo geod.lit-ry, 1960. 322 p.  
(MIRA 13:8)

1. Russia (1923- U.S.S.R.) Gosudarstvennaya inspektsiya po zemle-  
pcl'zovaniyu i zemleustroystvu. 2. Zaveduyushchiy kafedroy geodezii  
Moskovskogo instituta inzhenerov zemleustroystva (for Maslov). 3. Na-  
chal'nik gosudarstvennoy inspektzii po zemleustroystvu i zemlepol'zo-  
vaniyu Ministerstva sel'skogo khozyaystva SSSR (for Panfilov).  
(Surveying)

ALEKSANDROV, N.N.

The project of a new State All-Union Standard for meteorological  
mercury thermometers. Trudy GGO no. 103:57-67 '60.

(MIPA 14:2)

(Thermometers—Standards)

ALEKSANDROV, N.N.; PETRENCHUK, O.P.

Methodology of sampling cloud water from an airplane. Trudy GGO  
no.134:126-130 '62. (MIRA 15:6)  
(Aeronautics in meteorology) (Clouds)

ALEKSANDROV, N.N.

Possibilities of the aspiration method in radioactive fallout  
measurements. Trudy GGO no.138:42-55 '63. (MIRA 17:2)

ALEKSANDROV, N.N.; VOLOKH, V.G.

Efficiency of FPP-15 filters. Trudy GGO no.138:56-59 '63.  
(MIRA 17:2)

ALEKSANDROV, N.N.; ZACHEK, S.I.

Measuring the difference of the mean velocities of counting  
pulses statistically distributed in time. Trudy GGO no.138:  
60-72 '63. (MIRA 17:2)

ALEKSANDROV, N.N.; IVANOV, O.T.

Preventing the freezing on of gauze in plane-table observations.  
Trudy GGO no.138:86-88 '63. (MIRA 17:2)

MASLOV, Aleksey Vasil'yevich; LARCHENKO, Yefim Gerasimovich;  
GORDEYEV, Aleksandr Vasil'yevich; ALEKSANDROV, Nikolay  
Nikolayevich; Prinimal uchastiye BATRAKOV, Yu.G.;  
ZUBRITSKIY, I.V., **prof.**, retsenzent [deceased];  
VASIL'YEVA, V.I., red.izd-va; ROMANOVA, V.V., tekhn. red.

[Geodesy] Geodeziia. [By] A.V.Maslov i dr. Moskva, Izd-vo  
"Nedra." Pt.1. 1964. 490 p. (MIRA 17:4)

1. Zaveduyushchiy kafedroy geodezii Belorusskoy sel'skokho-  
zyaystvennoy akademii (for Zubritskiy).

ALEKSANDROV, N.N.; KOVALENKO, V.G.; PANFILOVA, G.A.

Comparison of the results of observations of atmospheric precipitation  
by means of various collectors. Trudy GGO no.158:95-101 '64.  
(MIRA 17:9)

ALEKSANDROV, N.N.; GOROSHKO, B.B.; KOVALENKO, V.G.

Determining the coefficient of the rate of air flow through a gauze filter. Trudy GGO no.158:102-108 '64. (MIRA 17:9)

ALEKSANDROV, N.N., prof. Minsk)

Review of I.U.V. Petrov's book "Cancer of the breast; diagnosis,  
clinical aspects and treatment." Vop. onk. 10 no.10:116-117  
'64. (MIRA 18:8)

L 2666-66 EWT(1)/EWT(m)/FCC/EWA(h) GS/GW

ACCESSION NR: AT5023962

UR/0000/65/000/000/0473/0480

AUTHOR: Aleksandrov, N. N.; Goroshko, B. B.; Kovalenko, V. G.;  
Panfilova, G. A.

TITLE: Effect of meteorological conditions on the effectiveness of  
radioactive pollutant collection

SOURCE: Nauchnaya konferentsiya po yadernoy meteorologii. Obninsk,  
1964. Radioaktivnyye izotopy v atmosfere i ikh ispol'zovaniye v  
meteorologii (Radioactive isotopes in the atmosphere and their use  
in meteorology); doklady konferentsii. Moscow, Atomizdat, 1965,  
473-480

TOPIC TAGS: nuclear meteorology, micrometeorology, radioactive fall-  
out, radioactive pollution

ABSTRACT: Results are presented for comparative tests carried out  
to determine the effectiveness of 3 types of fallout collectors and  
for experiments conducted to determine the coefficient of air passing  
over a vertical sheet [panel]. The collectors were plain gauze-covered  
sheets, framed, sectional, steel sheets painted with nitrocellulose  
enamel, or glycerine-coated aluminum vessels. The effectiveness of

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ACCESSION NR: AT5023962

these collectors was tested under various meteorological conditions, e.g., days with and days without precipitation, different amounts of precipitation, changes in humidity, and for different wind velocities and directions. Orig. art. has: 3 figures and 4 tables. [ER]

ASSOCIATION: none

SUBMITTED: 28Apr65

ENCL: 00

SUB CODE: ES, NP

NO REF SOV: 001

OTHER: 005

ATD PRESS: 4101

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ALEXANDROV, N.N.; GOROSHKO, B.E.

Methods of separating dry fallout from fallout received with  
precipitation. Trudy GGO no.172:165-173 '65.

(MIRA 18:8)

ALEKSANDROV, N.P., inzh.

KAZ-120T-716 dump trailer for cotton. Trakt. i sel'khoz mash. no.3:  
26-27 Mr '58. (MIRA 11:5)

(Dump trucks)

ALEKSANDROV, NIKOLAY PAVLOVICH

SOBOLEV, N.P.; ALEKSANDROV, Nikolay Pavlovich

[Ways of increasing income from stockbreeding] Puti povysheniia  
dokhodnosti zhivotnovodstva. Moskva, Gos. izd-vo selkhoz lit-ry,  
1957. 116 p. (MIRA 11:3)  
(Stock and stockbreeding)

USSR / Farm Animals. Swine

Q

Abs Jour: Ref Zhur-Biol., No 5, 1958, 21483

Author : Aleksandrov N. P., Aleksandrov V. T., Feferman Ye. I.

Inst :

Title : Effectiveness of the Utilization of the One-Litter System of Farrowing in the Kolkhozes and Sovkhozes of TsChO (Effektivnost' ispol'zovaniya razovykh svinomatok v kokhozakh i sovkhozakh TsChO)

Orig Pub: Vestn. s.-kh. nauki, 1957, No 3, 3-10

Abstract: If the multiple-litter sows are utilized properly and an accurate evaluation is made, it will appear that the difference in the cost of producing pigs when either the one-litter or multiple-litter system is followed, is not great. If the average weight of a multiple-litter sow is 180 kg. and that of a one-litter sow is 80 kg. before mating and 100 kg. after

Card 1/3

USSR / Farm Animals. Swine

Q

Abs Jour: Ref Zhur-Biol., No 5, 1958, 21483

Abstract: kg. per month, which would constitute a ratio of 3-4  
to 1 as compared with the multiple-litter sow.

Card 3/3

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ALEKSANDROV, N. P.

22553 Aleksandrov, N. P. Kormovaya baza dlya produktivnogo zhivotnovodstva. sov. agronomiya, 1949 No. 7 s 22-29

SO: LETOPIS' No. 30, 1949

ALEKSANDROV, N. P.

25787. ALEKSANDROV, N. P. K voprosu ob otsenke kachestva seva i pakhoty.  
Sov. agronomiya, 1949, No. 8, s. 67-83.

SO: Letopis' Zhurnal'nykh Statey, Vol. 34, Moskva, 1949

1. ALEKSANDROV, N. P.: KORYAGIN, A. N.
2. USSR (600)
4. Irrigation farming
7. Problem of a movable irrigation system.  
Sov. agron., 10 No.11, 1952.

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

ALEKSANDROV, N. P.

USSR.

✓ Influence of organic impurities in sand on the strength of concrete. P. P. Grigoryev and N. P. Aleksandrov. *Stroitel. Prom.* 12, No. 43, 43-4 (1977). Sand has been condemned for use in general practice when an alk. ext. of it produces a certain depth of coloration. Sand was mixed with 0.005, 0.100, 0.200, and 0.300% of finely ground peat, made into concrete, and after one-year aging did not show practically any difference in strength as a function of peat concn., though the alk. exts. of treated sand were colored from yellow to brown. On replacing peat with 0.005-0.103% of humic acid, it was noted that 0.005% of it caused a drop of strength of 3.9%, and 0.103% led to a strength decrease of 31% after a one-year aging. Shorter time results did not show a uniform relation between these variables. Since coloration of the alk. ext. again became dark brown, the value of the test is questioned. J. D. Gal

ALEKSANDROV, N. P.

Aleksandrov, N. P.

"Investigation of the Effect of Certain Harmful Admixtures in Sand on the Properties of Cement Solutions and Concrete." Acad Sci Uzbek SSR. Inst of Structures. Tashkent, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya letopis' No. 27, 2 July 1955

*Handwritten:* H. R. Aleksandrov, N. P.

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V Influence of mica content in sands on the strength of mortars and concretes. P. N. Grikor'ev and N. P. Aleksandrov. *Stroitel. Prom.* 33, No. 6, 30-2 (1958).  
The effect of mica content in sands was checked by adding to mica-free sands up to 3% of crushed vermiculite, hydroblotite, and muscovite, making samples of mortar and concrete, and testing them for crushing and tensile strength after 7, 28, and 84 days and 6 months aging. Lowered phys. properties observed are a function of the tendency of mica to laminate and of mica concn. in the mixt. Muscovite laminates the most, and 0.5% of it lowers the 7- and 28-day strength of concrete from 100 to 132, while 2% vermiculite reduces it from 840 to 304. Allowing a permissible drop of strength of 15% permits the presence of up to 3% mica in primary sands and up to 3% hydroblotite and up to 3% muscovite in secondary sands when the grain-size distribution is adequate and, resp., 2 and 1 1/2% when the size distribution is not proper. J. D. Gat

*Handwritten:* MT

ALEKSANDROV, N.P., kandidat sel'skokhozyaystvennykh nauk; PAVLOVSKIY, Ye.S.,  
kandidat sel'skokhozyaystvennykh nauk; YAROVENKO, V.V., kandidat  
sel'skokhozyaystvennykh nauk.

Erosion control in the provinces of the central Chernozem zone.  
Zemledelie 4 no.5:66-71 My '56. (MLRA 9:8)  
(Chernozem soils) (Erosion)

ALEKSANDROV, N.P., kandidat sel'skokhozyaystvennykh nauk; KORYAGIN, A.N.,  
Inzhener.

Irrigation of crops on the land of the Dokuchaev Agricultural  
Institute. Gidr.i mel. 8 no.5:3-13 My '56. (MLRA 9:8)  
(Irrigation farming)

GORYACHKIN, M.I., kand.ekon.nauk, nauchnyy sotrudnik; RUSAKOV, G.K.,  
kand.sel'skokhoz.nauk, nauchnyy sotrudnik; MASHKEVICH, N.G.,  
kand.sel'skokhoz.nauk, nauchnyy sotrudnik; KLADCHIKOV, S.M.,  
kand.sel'skokhoz.nauk, nauchnyy sotrudnik; NOVOZHILOV, V.F.,  
kand.sel'skokhoz.nauk, nauchnyy sotrudnik; ALEKSANDROV, N.P.,  
kand.sel'skokhoz.nauk; BUTKEVICH, B.G., kand.sel'skokhoz.  
nauk; KORNEV, K.G., kand.sel'skokhoz.nauk; GREBTSOV, P.P.,  
red.; PEVZNER, V.I., tekhn.red.; TRUKHINA, O.N., tekhn.red.

[Plotting technological charts] Kak sostavit' tekhnologicheskie  
karty. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 78 p.

(MIRA 14:2)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut  
ekonomiki sel'skogo khozyaystva. 2. Vsesoyuznyy nauchno-issle-  
dovatel'skiy institut ekonomiki sel'skogo khozyaystva (for  
Goryachkin, Rusakov, Mashkevich, Kladchikov, Novozhilov).  
(Farm management)

ALEKSANDROV, N.P., red.; SLEPTSOVA, K., red.; NEMYTOV, V., tekhn. red.

[Measures for introducing a scientific farming system on collective and state farms of Orlov Province] Meropriatia po vnedreniiu nauchno obosnovannoi sistemy vedenia khoziaistva v kolkhozakh i sovkhozakh Orlovskoi oblasti;; predlozhenia, razrabotannye brigadai VASKhNIL s uchastiem nauchnykh rabotnikov i spetsialistov Orlovskoi oblasti. Orel, Orlovskoe knizhnoe izd-vo, 1960. 286 p. (MIRA 14:10)

1. Rukovoditel' brigady Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Aleksandrov).  
(Orlov Province--Agriculture)

KOTOV, P.F., kand.sel'skokhoz.nauk, glavnyy red.; ALEKSANDROV, N.P.,  
kand.sel'skokhoz.nauk, red.; KARPENKO, V.P., red.; KVASNIKOV,  
V.V., prof., doktor sel'skokhoz.nauk, red.; KOROL'KOV, V.I.,  
prof., red.; PODGORNYY, P.I., prof., red.; SKACHKOV, I.A.,  
kand.sel'skokhoz.nauk, red.; ZAPIVAKHIN, A.I., red.; KALASHNIKOVA,  
V.S., red.; GUREVICH, M.M., tekhn.red.

[Farm management system in the Central Black Earth Region]  
Sistema vedeniya sel'skogo khoziaistva v Tsentral'no-chno-  
zemnoi polose. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1961.  
470 p. (MIRA 14:4)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni  
V.I.Lenina. 2. Zamestitel' direktora Instituta sel'skogo kho-  
zyaystva imeni V.V.Dokuchayeva (for Kotov). 3. Direktor filiala  
po Tsentral'no-chno-zemnoy polose Vsesoyuznogo nauchno-issledova-  
tel'skogo instituta ekonomiki sel'skogo khozyaystva (for Aleksandrov).  
4. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh  
nauk im. V.I.Lenina (for Kvasnikov). 5. Voronezhskiy zoovetinstitut  
(for Korol'kov). 6. Voronezhskiy sel'skokhozyaystvennyy institut  
(for Podgornyy). 7. Direktor Nauchno-issledovatel'skogo instituta  
sel'skogo khozyaystva Tsentral'no-chno-zemnoy polosy imeni V.V.  
Dokuchayeva (for Skachkov).  
(Central Black Earth Region--Agriculture)

SOROKIN, V.G., inzh.; ALEKSANDROV, N.S., inzh.

Mechanization of molding, melting and baking processes in a  
precision casting shop. Mashinostroenie no. 2:7-10 Mr-Ap '64  
(MIRA 17:5)

CHUVAKHIN, V.S.; ALEKSANDROV, N.V.; SHVER, Ye.V.

Protection of plants in India. Zashch. rast. ot vred. i bol.  
5 no.9:52-55 S '60. (MIRA 15:6)  
(India—Plants, Protection of)

PROCESSING AND PROPERTIES INDEX									
ALEKSANDROV, N. V.									
<p>*On the Properties of Oxide Films and Methods for Their Production. N. V. Alexandrov, V. I. Prizulina, and N. N. Sokolov (<i>Elektricheskoye (Electricity)</i>, 1933, [14], 17-25).—[In Russian.] A suitable bath for the production of oxide films especially on Duralumin is described and the effect of current conditions and impurities in the metals on film formation is discussed. Elasticity of the film is due to the presence of copper (2-5%). The thickness of oxide films varies between 1 <math>\mu</math> and 0.5 mm., depending on the method and time of formation. The influence of corrosion and other factors on the resistance to perforation has been studied. Up to 400°-500° C. the thermal conductivity of the films remains practically unaltered.—N. A.</p>									
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>									
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ALEKSANDROV, V. V.																									
1ST AND 2ND ORDERS													3RD AND 4TH ORDERS												
PROCESSES AND PROPERTIES INDEX																									
<p>Accelerated crystallization of naphthalene from coal-tar oil at coke-chemical plants. N. V. Aleksandrov and V. L. Lyaskovetz. <i>Coke and Chem. (U.S.S.R.)</i> 1935, No. 6, 82-5. - Expts. on quick cooling of <math>C_{10}H_8</math> fractions of different concns. and a different temp. are described; although finer crystals are obtained with accelerated cooling, sepn. in presses is still possible if pressure is increased, more slowly.</p>													<p>H. C. A.</p>												
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																									
<p>GROUPS</p>													<p>ALPHABETICALLY</p>												
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1ST AND 2ND ORDERS		3RD AND 4TH ORDERS	
PROCESSES AND PROPERTIES INDEX			
130		B-2-3	
ALEKSANDROV, N.V.			
<p>Determination of benzene in the air of coke works. N. P. KOMAR, N. V. ALEKSANDROV, and V. A. MINAKOV (J. Appl. Chem. Russ., 1935, 8, 363-363).—Traces of <math>C_6H_6</math> are removed from air by bubbling through <math>H_2SO_4</math>. Lieb and Krainick's method (A., 1931, 971) is applicable to the determination of <math>C_6H_6</math> vapour in air. R. T.</p>			
ASTM-SLA METALLURGICAL LITERATURE CLASSIFICATION			
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COMMON ELEMENTS		PROCESSES AND PROPERTIES INDEX	
ALEKSANDROV, N.V.			
<p>The influence of silicon on the mechanical properties and the resistance to corrosion shown by Duralumin when aged. S. M. Voronov and N. V. Aleksandrov. <i>Aviatsiya i Promyshlennost</i> 1937, No. 9, 31-41; No. 10, 20-5; <i>Chem. Zvezda</i>, 1938, 1, 1445. — Increasing the Si content of Duralumin to over 0.5% effects a reduction in the hardening temp. to 348-10°. This reduces the tensile strength in the case of natural aging. With natural aging following the hardening the max. increase in tensile strength is obtained by the use of a high content in Cu, Mg and Mn or a high content only of Mg in the presence of Cu and Mn, or a high Mn content with a reduced Cu content. The max. increase in tensile strength in the case of artificial aging is obtained by increasing the Si content (to 0.6% and more); increasing the Cu and Mn contents does not improve this property. The optimum conditions for artificial aging are 160° for 15 hrs. The strength is decreased by storing the material after hardening and before artificial aging.</p>		<p>Increasing the Si content has a counter effect. Moreover, raising the temp. and increasing the duration of artificial aging compensate for the reduction in tensile strength produced by storage after hardening. With natural aging an increased Si content in plated Duralumin is without influence on the resistance to corrosion; with artificial aging, on the other hand, the resistance to corrosion is sharply reduced when the thickness of the protective Al layer is slight. The tests reported show that the increase in tenacity with natural aging is conditioned by Cu and Mg. Either at diffusion of these constituents into the lattice of the solid soln. or the formation of triatomic compounds of Cu, Mg and Al plays a role in this phenomenon. Thus, the increase in tensile strength must be ascribed neither to the formation of Mg silicide nor that of Cu aluminide. With artificial aging, MgSi is primarily responsible for the increase in tensile strength so that an excess of Si is necessary in the alloy.</p>	
<p>ASH-35A METALLURGICAL LITERATURE CLASSIFICATION</p>			

ALEKSANDROV, N.V.		24	
<p>Water as a component part in simple nitrocellulose varnishes. N. V. Aleksandrov and G. S. Pionkova. <i>Org. Chem. Ind.</i> (U.S.S.R.) 8, 327 (1969). It is shown that the content of water in nitrocellulose varnishes can be increased to 10% on the vol. of the volatile ingredients (100% on the wt. of nitrocellulose) in the presence of EtOH without the use of cellosolve or mixts. of AcMe and EtOH. The resulting films compare favorably with anhydrous lacquers. The varnishes were prepd. from colloxylin 8, dibutyl phthalate (b. 110-115°), BuOH (b. 110-115°), EtOH (b. 78-79°), aviation gasoline (d<sub>4</sub> 0.735, b. 62-134°) 0.5-24.1 and water 4.75-9.5%.</p>		<p>Chas. Blanc</p>	
<p>ASH SCA METALLURGICAL LITERATURE CLASSIFICATION</p>			

COMMON ELEMENTS		PROCESSES AND PROPERTIES	
1ST AND 2ND GROUPS		3RD AND 4TH GROUPS	
ALEKSANDROV, N. V.		7	
<p>Determination of cyanides in the mother liquors of ammonium thiocyanate. N. V. Aleksandrov and F. V. Pis'mennaya. <i>Trudy Vsesoyuz. Nauch.-Issledovatel. Inst. Otkhrany Truda v. g. Khar'kov</i> 8, 47-9(1939). — The possibility of the formation of cyanides during the concn. of tech. soln. of <math>\text{NH}_4\text{CNS}</math> was studied by detg. the <math>\text{CN}^-</math> by the argentometric titration (Liebig-Denigès). In the presence of large amts. of <math>\text{NH}_4\text{CNS}</math> the results are not correct stoichiometrically but are sufficiently regular to permit interpolation. The detn. was carried out in the following manner. A curve was plotted showing the consumption of 0.01 N <math>\text{AgNO}_3</math> per 100 ml. of the soln. contg. 3.0% <math>\text{NH}_4\text{CNS}</math> and varying amts. of <math>\text{KCN}</math>. Then the tech. soln. of <math>\text{NH}_4\text{CNS}</math> was dild. to a concn. of 3.6% <math>\text{NH}_4\text{CNS}</math>, titrated and the cyanide km detd. by interpolation of the curve. The results showed no appreciable <math>\text{KCN}</math>.</p> <p style="text-align: right;">B. Z. Kamikh</p>			
A.S.B.-31A METALLURGICAL LITERATURE CLASSIFICATION			
FROM SYMBOL		SYMBOL	
SYMBOL		SYMBOL	

Cand Physicomath Sci

ALEKSANDROV, N. V.

Dissertation: "Study of the Methods for Measuring the Electrical Properties of  
Intensively-Absorbing Dielectrics on Centimeter Waves."  
29/5/50

Moscow State Pedagogical Inst imeni

V. I. Lenin

SO Vecheryaya Moskva  
Sum 71

ALEKSANDROV, N. V.  
W/E

*Measurements & Test Gear*

621 317 333 3 029 04 1870  
Measurement of the Electrical Properties of Highly  
Absorbing Dielectrics on Centimetre Waves by the  
'Infinite Layer' Method. N. V. Aleksandrov. *Zh.*  
*tekhn. fiz.* June 1951, Vol. 21, No. 6, pp. 647-651. The  
dielectric is introduced into a cylindrical waveguide in  
which  $H_{10}$  waves are propagated. Assuming no reflection  
from the far end, the dielectric constant and loss angle  
can be calculated from the distribution of the field in  
front of the dielectric. The theory of the method is given  
with experimental results.

ALEKSANDROV, N.V.

On "total polarization" angles of absorbing dielectrics. Uch.zap.  
MGPI 88:37-41 '54. (MLRA 10:2)  
(Microwaves) (Polarization (Electricity))

KADANER, Lev Il'ich; ALEKSANDROV, N.V., kandidat khimicheskikh nauk,  
otvetstvennyy redaktor; CHERNYSHENKO, Ya.T., tekhnicheskii  
redaktor

[Protective coatings for metals] Zashchitnye plenki na metallakh.  
Khar'kov, Izd-vo Khar'kovskogo ordena trudovogo krasnogoznameni  
gos. univ. im. A.M.Gor'kogo, 1956. 282 p. (MLRA 9:9)  
(Metals--Finishing) (Protective coatings)

ALEKSANDROV, N.V.; BOGORODITSKIY, N.P.; VALEYEV, Kh.S.; VUL, B.M.; DROZDOV, N.G.;  
KURBATOVA, N.S.; MIKHAYLOV, G.P.; MIKHAYLOV, M.M.; PETROV, G.N.; PRIVE-  
ZENTSEV, V.A.; RENNE, V.T.; SKANAVI, G.I.

Professor B.M.Tareev. Elektrichestvo no.8:94 Ag '56. (MIRA-9:10)  
(Tareev, Boris Mikhailevich)

ALEKSANDROV, N.V., dots.; ANDRONIKOV, V.V., dots.; MAKSAKOV, A.V., tekhn.  
red.

[Programs of pedagogical institutes; electric engineering] Programmy  
pedagogicheskikh institutov; elektrotehnika. [Moskva] Uchpedgiz,  
1957. 6 p. (MIRA 11:9)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i  
srednikh pedagogicheskikh uchebnykh zavedeniy.  
(Electric engineering--Study and teaching)

ALEKSANDROV, N.V., dots.; YERSHOV, A.D., dots.; KREYS, I.G., tekhn. red.

[Programs of pedagogical institutes; general physics for physics and mathematics faculties; major: mathematics and drawing] Programmy pedagogicheskikh institutov; obshchaya fizika dlia fiziko-matematicheskikh fakul'tetov (spetsial'nost' - matematika, issledovanie). Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1958. 14 p. (MIRA 11:9)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i srednikh pedagogicheskikh uchebnykh zavedeniy.  
(Physics--Study and teaching)

ALEKSANDROV, N.V.; MALOV, N.N., prof.; POLYANINA, G.D.; YASHKIN, A.Ya.  
~~MIKHAILOVICH~~, T.V., red.; TSVETKOVA, V.S., tekhn.red.; PONOMAREVA,  
A.A., tekhn.red.

[Practical work in electric and radio engineering; textbook for  
students of pedagogical institutes] Praktikum po elektrotekhnike  
i radiotekhnike; posobie dlia studentov pedagogicheskikh institutov.  
Pod red. N.N. Malova. Moskva, Gos. uchebno-pedagog. izd-vo M-va  
pros. RSFSR, 1958. 165 p. (MIRA 12:1)  
(Electric engineering) (Radio)

9.4340  
6.4500

80128  
S/141/59/002/06/009/024

AUTHORS: Aleksandrov, N.V., Gorskaya, L.B., Gershenzon, Ye.M.  
and Etkin, V.S.

TITLE: Control of the Amplitude and Phase of an Electromagnetic  
Wave in a Waveguide by Means of Germanium Plate

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika,  
1959, Vol 2, Nr 6, pp 911 - 914 (USSR)

ABSTRACT: Experiments were conducted on phase and amplitude modulation of an electromagnetic wave incident on a germanium plate inside a waveguide by controlling the concentration of free-charge carriers in the germanium. The concentration of free-charge carriers changes the permittivity of the semiconductor, thus influencing the absorption of electromagnetic waves in the semiconductor. The control of concentration was achieved by using the Hall effect in a germanium plate having different velocities of recombination on its opposite surfaces. High-resistance (35 - 40  $\Omega$ .cm) antimony-alloyed n-type germanium was used. Concentration of free-charge carriers N was approximately  $10^{14}$  per  $\text{cm}^3$ ; permittivity was

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E310/E382

Control of the Amplitude and Phase of an Electromagnetic Wave  
in a Waveguide by Means of Germanium Plate

approximately 16. By varying the electrical current flowing through the germanium plate, both the modulus and the phase of the reflection coefficient, as well as the phase of the passing wave, can be varied. In this way, a phase modulation can be achieved, the percentage of which for a given material depends upon the phase difference caused by reversal in current at a given current value. An audio-frequency generator and a pulse generator were used as signal sources. Modulation percentage was independent of the period of modulation voltage up to 0.1  $\mu$ s pulses. Efficiency of the modulator can be increased considerably by more careful treatment of the plate surfaces to increase the difference in the recombination rate on the surfaces. There are 4 figures and 11 references, 6 of which are English, 1 German and 4 Soviet. 4

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S/141/59/002/06/009/024

E310/E382

Control of the Amplitude and Phase of an Electromagnetic Wave  
in a Waveguide by Means of Germanium Plate

ASSOCIATION: Moskovskiy pedagogicheskiy institut im. V.I. Lenina  
(Moscow Pedagogical Institute imeni V.I. Lenin)

SUBMITTED: June 8, 1959

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Card 3/3

S/105/60/000/07/25/027  
B007/B005

AUTHORS: Aleksandrov, N. V., Larionov, A. N., Bragin, S. M., Grodnev, I. I., Drozdov, N. G., Tareyev, B. M., Renne, V. T., Mayofis, I. M., Troitskiy, I. D., Kabystina, G. F., Sidorov, K. V., and Others

TITLE: Professor V. A. Privezentsev. On His 60th Birthday and the 35th Anniversary of His Scientific-pedagogical and Engineering Activity

PERIODICAL: Elektrichestvo, 1960, No. 7, p. 94

TEXT: This is a brief biography of Vladimir Alekseyevich Privezentsev, born at the village of Kolodkino, Moscow oblast', on June 10, 1900. In 1924 he finished his studies at the Elektrotekhnicheskiy fakul'tet MVTU (Department of Electrical Engineering of the MVTU), later on at the Moskovskiy promyshlenno-ekonomicheskiy institut (Moscow Institute of Industry and Economy), and the Vysshiye pedagogicheskiye kursy pri MVTU (Higher Pedagogical Course at the MVTU). In 1938, he dissertated for the degree of Candidate, became a Docent in 1939, and a Professor in 1946. ✓

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Professor V. A. Privezentsev. On His 60th  
Birthday and the 35th Anniversary of His  
Scientific-pedagogical and Engineering  
Activity

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B007/B005

tekhnicheskogo soveta Ministerstva elektrotekhnicheskoy promyshlennosti  
(Cable Section of the Scientific and Technical Council at the Ministry  
of the Electrotechnical Industry), and was a member of the Prezidium  
Vsesoyuznogo byuro po elektricheskoy izolyatsii (Presidium of the All-  
Union Bureau of Electric Insulation) for more than 15 years; later on,  
he cooperated in the work of the komissiya po dielektrikam i po  
terminologii pri AN SSSR (Commission on Dielectrics and Terminology at the  
AS USSR). There is 1 figure. ✓

Card 3/3

KADANER, Lev Il'ich; ALEKSANDROV, N.V., kand. khim. nauk, otv. red.;  
VAYNBERG, D.A., red.; KAGAN, M.Ye., tekhn. red.

[Uniformity of electroplated coatings] Ravnomernost' gal'va-  
nicheskikh pokrytii. Izd. Khar'kovskogo gos.univ., im.  
A.M.Gor'kogo, 1961. 413 p. (MIRA 16:5)  
(Electroplating)

ALEKSANDROV, N.V., doktor tekhn.nauk; KALININA, Ye.A., inzh.;  
TRUBACHEV, S.G., inzh.

Use of different methods for determining the corona resistance  
of electric insulating materials. Elektrichestvo no.4:61-  
68 Ap '61. (MIRA 14:8)

1. Vsesoyuznyy elektrotekhnicheskiy institut imeni Lenina.  
(Electric insulators and insulation)  
(Corona (Electricity))

9.2570 (1144, 1159, 1139)

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S/106/61/000/006/004/005  
A055/A127

AUTHORS: Aleksandrov, N. V., Gershenzon, E. M. and Etkin, V. S.

TITLE: Regenerative low-noise microwave amplifiers.

PERIODICAL: Elektrosvyaz', no. 6, 1961, 31 - 37

TEXT: The authors derive generalized formulae giving the amplification factor, passband and the noise factor of resonator-type regenerative microwave amplifiers. The elements of the total resistance type are called by the authors regenerative elements with negative effective resistance (Ref. El. -  $R_-$ ), while the elements of the total-conductance type are called regenerative elements with negative effective conductance (Reg. El. -  $G_-$ ). Figure 2a is the equivalent circuit of an active Reg. El. -  $R_-$ .  $R_c$  is the loss resistance of the element;  $X_c$  its reactance;  $R_-$  the negative resistance created by the element in the circuit. Figure 2b is the equivalent circuit of the resonator-type regenerative passage-coupled amplifier, and Figure 2 c the equivalent circuit of the reflection-coupled amplifier;  $X = X_{c\text{circ}} + X_c$ ,  $R_c$  is the loss resistance in the amplifier circuit and  $Z_0$  is the wave impedance of the feeding line. Figure 3a is the equivalent circuit of Reg.El. -  $G_-$ .  $G_c$  is the loss conductance of the element;  $B_c$  its reac-

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tive conductance,  $G_-$  the negative conductance created by the element in the circuit. Figure 3b is the equivalent circuit of the passage-coupled amplifier and Figure 3c of the reflection-coupled amplifier. Basic formulae for the amplification factor and the noise factor. The amplification factor of an passage-coupled amplifier is determined as the ratio of the power at the amplifier output to the power given up by the signal source to a matched load. This latter power is:

$$P_{cc} = \frac{E^2}{4R_d} \quad (3)$$

E being the RMS of the emf. On the other hand:

$$P_{c \text{ outp}} = \frac{E^2 R_\mu}{(R - R_-)^2} \quad (4)$$

and, therefore:

$$K = \frac{P_{c \text{ outp}}}{P_{cc}} = \frac{4 R_d R_\mu}{(R - R_-)^2} \quad (5)$$

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where  $R = R_c + R_k + R_d + R_H$ . In the case of reflection-coupled amplifiers, the amplification factor is the ratio of the reflected wave power to the incident power, (i.e., the reflection factor):

$$K = \frac{P_{\text{reflect.}}}{P_{\text{inc}}} \quad (6)$$

Since  $P_{\text{inc}} = \frac{U_{\text{inc}}^2}{Z_0}$ ,  $P_{\text{reflect}} = \frac{U_{\text{reflect}}^2}{Z_0}$ , and  $U_{\text{reflect}} = U_{\text{inc}} - Z_0 I_H$ ,

$$K = \frac{U_{\text{reflect}}^2}{U_{\text{inc}}^2} = \left| 1 - \frac{Z_0 I_H}{U_{\text{inc}}} \right|^2 \quad (7)$$

Taking into account the equivalent circuits (Figure 2 and 3), the authors obtain:

$$K = \left| 1 - \frac{2Z_0 I_H}{E} \right|^2, \text{ i.e., for } K \gg 1 \quad K = \frac{4Z_0^2 I_H^2}{E^2} \quad (8)$$

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or

$$K = \frac{4 Z_0^2}{(R - R_-)^2} \quad (9)$$

where  $R = Z_0 + R_k + R_c$ ,  $I_H = \frac{E}{R - R_-}$ . The pass-band of the amplifier is determined by the Q-factor of the system:

$$\frac{\Delta f}{f} = \frac{1}{Q_p} = \omega C (R - R_-) \quad (10)$$

In the case of passage-coupled amplifiers:

$$\begin{aligned} \sqrt{K} \frac{\Delta f}{f} &= 2 \sqrt{R_d R_H} \omega_0 C = 2 \sqrt{R_d R_H} \frac{C}{2\pi \sqrt{LC}} = \\ &= \frac{\sqrt{R_d R_H} \mu}{\pi} \sqrt{\frac{C}{L}} = \frac{\sqrt{R_d R_H} \mu}{\pi \rho} \end{aligned} \quad (11)$$

where  $\rho = \sqrt{\frac{L}{C}}$  is the characteristic impedance of the circuit.

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If  $R_K \ll R_H$ ;  $R_d \approx R_H \approx 1/2 R_-$ , then  $\sqrt{K} \frac{\Delta f}{f} = R_- \omega_c C$ . (12)

In the case of reflection-coupled amplifiers

$$\sqrt{K} \frac{\Delta f}{f} = 2 Z_0 \omega_0 C \quad (13)$$

or (since usually  $Z_0 \gg R_K$  and hence  $R_- \approx Z_0$ ):

$$\sqrt{K} \frac{\Delta f}{f} = 2 R_- \omega_0 C. \quad (14)$$

The noise factor is expressed by:

$$F = \frac{P_{n \text{ outp}}}{K P_{n \text{ inp}}} \quad (15)$$

$P_{n \text{ outp}}$  being the noise power at the amplifier output, and  $P_{n \text{ inp}}$  the noise power at the amplifier input, i.e., the power given up by the noise source with internal resistance  $R_d$  and temperature  $T_0$  ( $T_0 \approx 290^\circ\text{K}$ ) to the matched load. The noise emf operating in the circuit are:

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Regenerative low-noise microwave amplifiers

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1) the noise emf of the signal source:  $E_{nd}^2 = 4 KT_O R_d \Delta f$  (16),

2) the thermal noise emf produced in  $R_k$   $E_{nk}^2 = 4 KT_k R_k \Delta f$ , (17)

3) the thermal noise emf produced in  $R_c$   $E_{nc}^2 = 4 KT_c R_c \Delta f$ , (18)

4) the thermal noise emf produced in  $R_H$   $E_{nH}^2 = 4 KT_H R_H \Delta f$ , (19)

Besides, sources of non-thermal noises may exist in the amplifier, which can be represented as sources of additional noises with resistance  $R_c$  and temperature  $T_{cg}$ :

$$E_{ng}^2 = 4 KT_{cg} R_c \Delta f \quad (20)$$

Considering the noises as non-correlated, the authors obtain, in the case of passage-coupled amplifiers

$$P_{n \text{ outp}} = 4 K \Delta f \left[ \frac{T_O R_d R \mu}{(R - R_-)^2} + \frac{T_k R_k R \mu}{(R - R_-)^2} + \frac{T_c R_c R \mu}{(R - R_-)^2} + \frac{T_H R_H R \mu}{(R - R_-)^2} + \frac{T_{cg} R_c R \mu}{(R - R_-)^2} \right]$$

and  $P_{n \text{ inp}} = KT_O \Delta f$ , so that:

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$$F_{\text{passage}} = 1 + \frac{R_k T_k}{R_d T_0} + \frac{R_k T_k}{R_d T_0} + \frac{R_c T_{cg}}{R_d T_0} \quad (21)$$

In the case of reflection-coupled amplifiers, they obtain in an analogous manner:

$$F_{\text{reflect}} = 1 + \frac{R_k T_k}{R_d T_0} + \frac{R_c T_c}{R_d T_0} + \frac{R_c T_{cd}}{R_d T_0} \quad (22)$$

It ensues from (21) and (22) that the reflection-coupled amplifier is characterized by a smaller noise factor than the passage-coupled amplifier. To obtain the minimum noise factor, there must be a strong mismatch between amplifier and signal generator:

$$R_c \ll R_d; \quad R_k \ll R_d; \quad R_H \ll R_d \quad (23)$$

To obtain a high amplification, it is necessary that:

$$R_- \approx R. \quad (24)$$

The use of a ferrite circulator ensures a smaller noise factor and a greater stability of the whole system. In parametric amplifiers, the noise factor is somewhat greater in both cases. For parallel circuits, the basic formulae are analogous ✓  
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to the preceding ones:

$$K_{\text{passage}} = \frac{4 G_d G_{\mu}}{(G - G_-)^2}$$

where  $G = G_d + G_k + G_c + G_H$ .

$$K_{\text{reflect.}} = \frac{4 Y_0^2}{(G - G_-)^2} \quad (25)$$

where  $G = Y_0 + G_k + G_c$ .

$$F_{\text{passage}} = 1 + \frac{G_k T_k}{G_d T_0} + \frac{G_c T_c}{G_d T_0} + \frac{G_{\mu} T_{\mu}}{G_d T_0} + \frac{G_c T_{c2}}{G_c T_0}, \quad (26)$$

$$F_{\text{reflect.}} = 1 + \frac{G_k T_k}{G_d T_0} + \frac{G_c T_c}{G_d T_0} + \frac{G_0 T_{c2}}{G_d T_0}$$

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The condition for high amplification is:

$$G_{-} \approx G \quad (27)$$

The condition for low noise is:

$$\left. \begin{array}{ll} G_k \ll G_d & T_{cg} \ll T_0 \\ G_H \ll G_d & G_k \ll Y_0 \\ G_c \ll G_d & G_c \ll Y_0 \end{array} \right\} \quad (28)$$

To ensure low-noise, the regenerative elements of the microwave circuits must satisfy the conditions:

$$R_{-} \gg R_c; \quad G_{-} \gg G_c \quad (29)$$

There are 3 figures and 7 references, 5 Soviet-bloc and 2 non-Soviet-bloc. The references to two English-language publications read as follows: Krömer. The

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Regenerative low-noise microwave amplifiers

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physical principles of a Negative mass amplifier. Proc. IRE, 1959, vol. 47, No.3,  
2) Sard. Tunnel (Esaki) diode amplifiers with unusually large band-widths. Proc.  
IRE, 1960, vol. 48, No. 3.

SUBMITTED: March 3. 1961

[Abstracter's note: The following subscripts are translated in formulas and text:  
reflect. is the translation of omp; passage is the translation of np; inc. (in-  
cident) is the translation of naq; n (noise) is the translation of w; outp. is  
the translation of Bw; inp. is the translation of bx; d replaces z.

Card 10/11

X

NESTEROV, N.G., inzh.; ALEKSANDROV, N.V., inzh.

A brush slide contact on turbogenerator slip rings.  
Elek. sta. 34 no.1:45-48 Ja '63. (MIRA 16:2)  
(Turbogenerators)

ALEKSANDROV, N.V., prof.; TRUBACHEV, S.G., inzh.

Electrical and mechanical properties of polyethylene terephthalate  
films. Vest. elektroprom. 34 no.8:41-46 Ag '63. (MIRA 16:9)  
(Terephthalic acid) (Films (Chemistry))

ACC NR: AP6025647

(A)

SOURCE CODE: UR/0413/66/000/013/0098/0099

INVENTOR: Verzhikovskiy, G. V.; Aleksandrov, N. V.

ORG: None

TITLE: A specimen for shear tests of thin refractory coatings. Class 42, No. 183458

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 98-99

TOPIC TAGS: refractory coating, shear strength, tensile test

ABSTRACT: This Author's Certificate introduces a specimen for shear tests of thin refractory coatings. The unit consists of inner and outer sections which have the coating to be tested located between them. Testing accuracy is increased by making the inner and outer sections of the specimen in the form of thin-walled sleeves with their ends threaded to fit into a tensile testing machine. The outer diameter of the thread is equal to the outside diameter of the inner sleeve. The outer sleeve has holes uniformly spaced about the circumference for application of the coating to be tested.

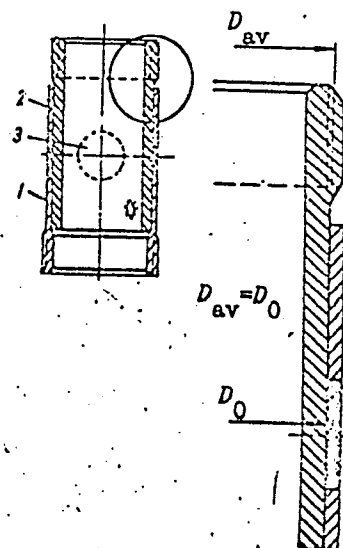
Card 1/2

UDC: 620.198:620.176

ACC NR: AP6025647

1—outer sleeve; 2—  
inner sleeve; 3—holes

SUB CODE: 11, 13/ SUBM DATE: 21Oct64



Card 2/2

MILICHENKO, S.L., inzh.; ALEKSANDROV, N.Ya., inzh.

Mechanized welding of heat exchanger tubes. Svar. proizv.  
no.7:28-29 JI '63. (MIRA 17:2)

1. Ural'skiy politekhnicheskiy institut im. S.M. Kirova  
(for Milichenko). 2. Sverdlovskiy proyektno-tekhnologicheskoy institut (for Aleksandrov).

ALEKSANDROV, O.

Nuts

Elder. Sov. zhen. No. 5, 1952.

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

ALEKSANDROV, O.; SERGEYEV, I.

Yugoslavia's foreign trade, Vnesh. torg. 27 no.8:30-32 '57.  
(Yugoslavia--Commerce) (MLRA 10:9)

ALEKSANDROV, O. A.

Aleksandrov, O. A.

"On the Effect of the Focusing Elements in the Optical Circuit of a Television System on the Sharpness of the Television Picture." Min Higher Education USSR. Leningrad Electrical Engineering Institute V. I. Ul'yanov (Lenin). Chair of Television. Leningrad, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

2

SO: Knizhnaya letopis' No. 27, 2 July 1955

GAPONOV, Ye., polkovnik, delegat XXII s"yezda Kommunisticheskoy partii  
Sovetskogo Soyuza; FEDOSEYEV, S., polkovnik; ALEKSANDROV, O., mayor

Discipline of flight. Vest. Vozd. Fl. no.11:41-49 N '61.  
(MIRA 15:2)

(Russia--Air force)

*ALEKSANDROV, O.A.*

CHERKASSKAYA, Ye.I.; ALEKSANDROV, O.A.; KANEVSKIY, Ye.I.

Brief news. Sov. zdav. 13 no.4:61-63 J1-Ag '54. (MLRA 7:9)  
(STATISTICS) (PUBLIC HEALTH)

ALEKSANDROV, O. A.  
USSR/Medicine - Scientific session

FD-2191

Card 1/1      Pub 102-11/15

Author : Deryabina, V. I., Aleksandrov, O. A., and Biryukov, R. N.

Title : Scientific session of the Institute for Organization of Public Health and History of Medicine imeni N. A. Semashko, Academy of Medical Sciences USSR

Periodical : Sov. zdrav., 3, 53-57, May-June 1955

Abstract : Second scientific session of the Institute was held on January 27-February 5, 1955. Minister of Health USSR, M. D. Kovrigina, Minister of Health RSFSR, S. V. Kurashov, and other high ranking personnel of various ministries and Academy of Medical Sciences USSR took part in the proceedings. Minister of Health of the Rumanian People's Republic, Marinescu, was also present. Proceedings indicated that great advance was made in USSR on scientific-theoretical front of health service organization as well as in medical statistics and history of medicine. It was pointed out that application of results of scientific research are numerous. It was also stated that struggle against excessive paper work and bureaucracy must go on.

Institution : —

Submitted : —

**ALEKSANDROV, O.A.**

Organization of city districts. Sov. zdrav. 15 no.1:42-48 Ja-F '56  
(MIRA 9:6)

1. Iz Instituta organizatsii zdravookhraneniya i istorii meditsiny  
AMN SSSR imeni N.A. Semashko (dir. Ye.D. Ashurkov)

(PUBLIC HEALTH  
in Russia, organiz. of med. districts in cities)

ALEKSANDROV, O.A.

Conference on exchange of experience in servicing industrial  
workers. Sov.zdrav. 16 no.12:58-60 D '57. (MIRA 11:1)  
(INDUSTRIAL MEDICINE)

ALEKSANDROV, Oleg Alekseyevich; PETROV, B.D., red.

[Methodological manual for seminar studies on the history of Russian medicine] Metodicheskoe posobie k seminarakim zaniatiyam po istorii otechestvennoi meditsiny. Izd.2, Pod red. B.D.Petrova. Moskva, 1958. 33 p. (MIRA 14:8)

(RUSSIA--MEDICINE)

ALEKSANDROV, Oleg Alekseyevich; DERYABINA, V.L.; MATSKO, B.M.; ZAKHAROV,  
F.G., red.

[Organization of operations in consolidated hospitals] Ob organi-  
zatsii raboty v ob"edinennykh bol'nitsakh, pod red. F.G.Zakharova.  
Moskva, Medgiz, 1958. 82 p. (MIRA 12:4)  
(HOSPITALS--ADMINISTRATION)

KURASHOV, Sergey Vladimirovich; ALEKSANDROV, O.A., red.; PISAREV, B.P., red.;  
POGOSKINA, M.V., tekhn. red.

[Organization of the control of cardiovascular diseases] Organiza-  
tsiia bor'by s serdechno-sosudistymi zabolevaniami. Moskva, 1960.  
107 p. (MIRA 14:7)

(CARDIOVASCULAR SYSTEM--DISEASES)

NECHAYEV, Sergey Vasil'yevich; METELKIN, A.I., prof., red.; ALEKSANDROV,  
O.A., red.; KUZ'MINA, N.S., tekhn.red.

[G.N.Gabricheskii; founder of Russian microbiology] G.N.Gabri-  
chevskii; osnovopolozhnik otechestvennoi mikrobiologii, 1860-1907.  
S dopolneniem i pod red. A.I.Metelkina. Moskva, Gos.izd-vo med.  
lit-ry, 1960. 221 p. (MIRA 13:11)  
(GABRICHEVSKII, GEORGII NORBERTOVICH, 1860-1907)

IDEL'CHIK, Khasya Issakovna; ALEKSANDROV, O.A., red.; BUL'DYAYEV, N.A.,  
tekh.n.red.

[N.I.Teziakov and his role in the development of Zemstvo medicine  
and in the building of the Soviet public health system] N.I.Tezia-  
kov i ego rol' v razvitii zemskoi meditsiny i stroitel'stve so-  
vetskogo zdravookhraneniia. Moskva, Gos.izd-vo med.lit-ry, 1960.  
202 p. (MIRA 13:12)

(TEZIAKOV, NIKOLAI IVANOVICH, 1859-1925)

BORODULIN, Feodosiy Romanovich, prof. (1896-1956); KUZ'MIN, M.K.,  
dots.; LISITSIN, Yu.P., kand. med. nauk; ALEKSANDROV, O.A.;  
LUSHNIKOV, A.G., red.; ZUYEVA, N.K., tekhn. red.

[History of medicine; selected lectures] Istoriia meditsiny;  
izbrannye lektsii. Moskva, Medgiz, 1961. 251 p.  
(MIRA 15:3)

(MEDICINE)

ALEKSANDROV, O.A.; BRILLIANTOVA, M.S.

Organizing the polyclinical attendance of industrial workers according to workshops. Zdrav. Ros. Feder. 5 no.10:19-23 0 '61.

(MIRA 14:10)

1. Iz Instituta organizatsii zdravookhraneniya i istorii meditsiny imeni N.A.Semashko (dir. P.I.Kal'yu).  
(CLINICS) (INDUSTRIAL HYGIENE)

ALEKSANDROV, W. G., ALEKSANDROV, O. G.

Wheat

Morphological and physiological characteristics of wheat spike and grain. Trudy  
Bot. inst. AN SSSR. Ser 7 No. 2, 1951.

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

ZUBENKO, V.F.; VALOVNENKO, D.K.; DOROSHENKO, Ye.I. · MOL'DERF.  
T.D., st. nauchn. sotr.; SALEY, A.K. [Salei, A.K.], st.  
nauchn. sotr.; ALEKSANDROV, O.I.

[Informational material on mineral fertilizers, poisonous  
and chemical substances used in animal husbandry] Dovidkovyi  
material po mineral'nykh dobryvakh, otrutokhimikatakh ta  
khimichnykh rehovynakh, shcho zastosovuiut'sia v tvaryn-  
nytstvi. Zhytomyr, 1964. 106 p. (MIRA 18:6)

1. Zhitomir (Province). Sil's'kohospodars'ka doslidna stan-  
tsiya.

L 12058-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG/WB

ACC NR: AP6001302

SOURCE CODE: UR/0363/65/001/008/1354/1359

AUTHOR: Ivanov, V. Ye.; Nechiporenko, Ye. P.; Zmiy, V. I.; Krivoruchko, V. M.;  
Verkhorobin, L. F.; Aleksandrov, O. M.; Mitrofanov, A. S.; Poltavtsev, N. S.

ORG: Physicotechnical Institute, Academy of Sciences UkrSSR (Fiziko-tehnicheskii  
Institut Akademii nauk UkrSSR)

TITLE: Study of the oxidation kinetics of molybdenum disilicide at 1500 — 1800C

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 8, 1965, 1354-1359

TOPIC TAGS: molybdenum compound, silicide, oxidation kinetics, silicon dioxide

ABSTRACT: Molybdenum disilicide samples (prepared by siliciding molybdenum at 1250, 1300, and 1350C) were oxidized for 10 hr at 1500 and 1600C and for 1 hr at 1700 — 1800C. The oxidation is represented as follows: (1)  $5\text{MoSi}_2 + 7\text{O}_2 \rightarrow \text{Mo}_5\text{Si}_3 + 7\text{SiO}_2$ , (2)  $2\text{MoSi}_2 + 7\text{O}_2 \rightarrow 2\text{MoO}_3 + 4\text{SiO}_2$ . X-ray analysis shows that reaction (1) predominates over (2); the latter is of decisive importance at the start, when the  $\text{SiO}_2$  film is formed. The increase in the oxidation rate is related to the orientation of the crystals. The structure of  $\text{MoSi}_2$  may be considered to consist of layers of silicon and molybdenum atoms alternating in the direction of axis c; if it is kept in mind that the bonding forces between like atoms in a layer are weaker than the forces between the layers, the layer orientation parallel to the surface ( $\text{MoSi}_2$

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UDC: 646.77'281

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ACC NR: AP6001302

samples obtained at 1250 and 1300C) will cause a lower oxidation rate than in samples where the layer orientation is perpendicular to the surface (silicides obtained at 1350C). It is concluded that the oxidation rate of  $\text{MoSi}_2$  is affected by many factors, but it has not been possible to determine which is the most important one. Orig. art. has: 2 figures.

SUB CODE: 07, 11 / SUBM DATE: 24May65 / ORIG REF: 006 / OTH REF: 007

OC  
Card 2/2