Development Prospe...

These pro... ...
paper deliv.red ... ...y ...v, chief ...ineer of ...
Vsesoyuznyy provekino-tekn... i...icheskiy i.stitu...
lomu mashinostroyeniye (All-...i.n Des... ... ...
Institute for Heavy Engineering). In the ... ... A.N.
Istomin, director of the rolling-mill sect... ...
Gipromez (State Institute for Metallurgical ... ...
and B.P. Bakhtinov, Candidate of Technical Sciences,
director of the rolling-mill laboratory ... ...li ... ...
the development prospects of rolling-mill ... ...
ferrous ... ...ring 1959-1965 were dis... ...
concrete tasks facing equipment manufact...rer... ... ...
rolling mills and continuous units for t.. f... ...
rolling-mill products were established. A.D. ...
Candidate of Technical Sciences, chief engineer ...
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introduction of new techniques in rolli. -mill, ...
during 1959-1965, facing both his office and the ... ...
plants. Special attention was devoted to produ...t ...
processes which hitherto have not been sufficiently
mechanised either in Russia or abroad. Kireyev, A.A.

Card 6/9

Development

Candidate ... ... term ...
of mechanical ... ... metallurgical ... ...
Moscow Even... Institute for Metallurgy, report...
impressions ... ... metallurgical an... ...
plants in England ... ... Germany, France a... ...
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of Uralmash...vod V.I. ...y... Director ... ...
Kramatorskiy ... ... Zavod (Novo-Kramat...l.
Engineering Plant) Yu.F. D...na..., director of t... ... ...
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deputy director ... ... Electrostal' Plant ... have ...
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designers of the... ...ants, G.I. Khinich, ...I. Br1na... ...
V.L. Slvayun, V.M. Y...pol'skiy, A.B. Vernik, I.I.D ...
V.M. Kolesov and others, various deficiencie... in t... ...
isation of de...gn... ...tallurgical equipment and ... ...
commissioning were ...di...ted. Proposals were ...de ...
evolve a long-term plan f...r the design and construct...
new rolling mills in the co...in... 7-10 years, to est...1

Card 7/9

Development Prospects for the Manufacture of Metallurgical Equipment

the
schedules
of new rolling mills,
Gipromez and its branches,
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of papers were
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automatic
mation in
the paper   Tishchenko, ..A.,
central d   "Elec   v.I.
Krupovich,
E.Yu. G
laboratory, L.I. R
and A.S. F

Card 8/9

Development Prospects for the Manufacture of Metallurgical Equipment

1. Industrial plants--Equipment   2. Industrial equipment--Production

Card 9/9

OSIPOV, Ye.O., podpolkovnik

Obligations undertaken are being successfully fulfilled.
Vest. protivovozd. obor. no.8:41-43 Ag 61.   (MIRA 14:8
                    (Russia--Army)

BIRKIN, A.; OSIPOV, Yu.

Features in the analysis of the financial and economic operati n
of automotive transportation. Fin.SSSR 23 no.6:73-86 Je '62.
(MIRA 15:7)
(Transportation, Automotive--Finance)

OSIPOV, Yu.

The colonial sterling standard and its role in the exploitation of the British colonies. Den. i kred. 17 no.8:81-91 Ag '59.

(Sterling area)   (MIRA 12:11)

SIR V. Yu.

...eer ... ...ween countries of the socialist cam and ... ... countries of asia and the orient. Fi . ... (.. .. 1. 8,

... ... a economic point ... ... atoms,

BUTAKOV, D.; OSIPOV, Yu.

The budget and the development of national economy of the Korean
People's Republic. Fin.SSSR 16 no.11:64-73 N '55.   (MLRA 9:1)
     (Korea, North--Economic conditions) (Budget)

OSIPOV, Yu. A.

Effect of ultra-high frequency currents on workers in electrical plants. Gig. sanit., Moskva no.6:22-23 June 1952.   (CLML 23:2)

1. Of Leningrad Scientific-Research Institute of Labor Hygiene and Occupational Diseases.

OSIPOV, Yu.A.

High-frequency currents as a factor in professional medical work.
[Izdaniia] LOBITOMASH no. 30:70-76 '52.   (MIRA 8:1)
        (Electrotherapeutics)

OSIPOV, Yu.A.

Hygienic considerations of induction heating of metals with high frequency
currents. Gig.i san. no.8:39-42 Ag '53.   (MLRA 5:9)

1. Leningradskiy nauchno-issledovatel'skiy institut gigiyeny truda i pro-
fessional'nykh zabolevaniy.   (Industrial hygiene) (Induction heating)

NATADZE, G.M., professor [author]; GALANIN, N.F.; MARKARYAN, M.G.; OSIPOV, Yu.A. [reviewers].

"Principles of Hygiene" G.M.Natadze. Reviewed by N.F.Galanin, M.G.Markarian, IU.A.Osipov. Gig.i san. no.8:57-61 Ag '53.   (MLRA 6:9)

(Hygiene) (Natadze, G.M.)

1. OSTROV, Yu. A.

2. USSR (600)

4. Electricity, Injuries from

7. Medical examination of those working with high frequency currents.
    Sov. zdrav. 12, No. 3, 1953.

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

OSIPOV, Yu.A.

Problems of labor hygiene in the industrial application of high-
frequency currents. [Izd.] LONITOMASH no.33:25-31 '54.
(Electric engineering—Safety measures)   (MIRA 8:2)

Osipov, Yu A

AID P - 2193

Subject   : USSR/Medicine

Card 1/1   Pub. 37 - 13/19

Author   : Osipov, Yu. A.

Title   : Answer to S. A. Raykher's note

Periodical : Gig. i san., 5, 51-52, My 1955

Abstract   : The author argues with S. A. Raykher in connection with
               the latter's review published in this journal, no. 2 of
               the current year, of the author's articles on the impor-
               tance for industrial hygiene of high-frequency currents.

Institution : None

Submitted   : Mr 8, 1955

Translation from: Referat svyy zhurnal Metallurgiya 1958 Nr. p 295 USSR

AUTHOR: Osipov Yu A

TITLE: Problems of Labor Hygiene in the Employment of High-frequency Currents (Voprosy gigiyeny truda pri primenenii tokov vysokoy chastoty)

PERIODICAL: Tr Yubileyn nauchn sessii. posvyashch 30-letney deyat sti Gos n-i in-ta gigiyeny truda i protzabolevaniy Leningrad 1957 pp 36-43

ABSTRACT: As a result of a study of the biological effect of high frequencies and a number of its peculiarities high frequency currents are regarded as an unfavorable factor in terms of workers' health   To eliminate their harmful effect, the following is recommended that the potential gradient of the induced field at points in a building where people are found be reduced to   a proper procedure for servicing the generator, the presence of workers in zones of quasi-stationary processes only when indispensable, observance of safety regulations in electrical procedures, care not to clutter buildings with objects capable of acting as antennas, regular medical examination of personnel

Card 1 2

137-58-1-2181

Problems of Labor Hygiene in the Employment of High-frequency Currents

with mandatory participation of a neuropathologist therein, temporary trans ers to work not involving entry into an electromagnetic field. Note is taken of the effectiveness of the reduction of the field voltage by means of metallic shielding which should, if possible, encompass all radiating elements of the oscillator and constitute an electrically closed surface

Ye. L.

1. High frequency currents--Biological effects   2. High frequency currents --Safety measures

Card 2 2

KULIKOVSKAYA, Ye.L.; OSIPOV, Yu.A. (Leningrad)

Electromagnetic fields on industrial premises with high-frequency
heating devices. Gig. truda. i prof. zab. 4 no.6:3-6 Je '60.
(MIRA 15:4)

1. Institut gigiyeny truda i profzabolevaniy, Leningrad.
           (INDUCTION HEATING--PHYSIOLOGICAL EFFECT)

VOL'FOVSKAYA, R.N., kand.med.nauk; OSIPOV, Yu.A., kand.med.nauk; KOLYADA, T.V.;
KULIKOVSKAYA, Ye.L.; ASANOVA, T.P.; SHCHEGLOVA, A.V., kand.me :.nauk

Combined effect of a high-frequency field and X-rays under industrial
conditions. Gig. i san. 26 no.5:18-23 My '61.   (MIRA 15:4)

1. Iz Leningradskogo instituta gigiyeny truda i professional'nykh
zabolevaniy.
(ELECTRICITY--PHYSIOLOGICAL EFFECT)   (X RAYS--PHYSIOLOGICAL EFFECT)
(ELECTRONIC INDUSTRIES--HYGIENIC ASPECTS)

AGASHIN, Yu.A.; GRIGOR'YEV, Z.E.; KOVHATSKIY, M.A.; LEVIN, V.M.; OSIPOV, Yu.A.;
RAZUMOVSKIY, M.D.; RETNEV, V.M.; YURKEVICH, A.Ya.

Meeting devoted to the results of the work of the Leningrad Research
Institute on Industrial Hygiene and Occupational Diseases for 1959-
1960. Gig. i san. 26 no.8:110-114 Ag '61.   (MIRA 15:4)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta gigieny
truda i professional'nykh zabolevaniy.
                        (INDUSTRIAL HYGIEN)

OSIPOV, Yu.A.

Classification of Kizel coals according to their washability in the massif and methods for the gasification of stope with the introduction of the method of water injection into the seam. Nauch. trudy Perm NII no. 1-5 '61. (MIRA ...)

ZYRYANOV, Ye.G.; OSIPOV, Yu.A.; P'YANKOV, A.P.; UTKIN, S.A.

Dust collecting equipment for use in rock drilling in the
Kizel Basin. Nauch. trudy Perm NIUI no. 4:146-155 '62.
(MIRA 17:6)

OSIPOV, Yu.A., kand. ...

Sate of art ...e f ... development of research ..
the public health ...e... of the ...R.... for the ...
of the influence of ...-frequency electromagnet ... f ...
on the organism. ...

OSIPOV, Yu.A., kand. med. nauk· VOL'FOVSKAYA, R.N., kand. med. nauk;
ASANOVA, T.P., kand. med. nauk; KULIKOVSKAYA, Ye. L., starshiy
inzhener; KALYADA, T... mladshiy nauchnyy sotrudnik; SHCHEGLOVA,
A.V., kand. med. nauk

Combined effect of a high frequency magnetic field and X-ray
radiation in industry. Gig. i san. 28 no.6:35-39 Je'63.

                                              (MIRA 17:4)

1. Iz Leningradskogo instituta gigiyeny truda i professional'-
nykh zabolevaniy.

OSIPOV, Yu.A.; OB[...], [...].; K[...]TSYN, N.[...].; K[...]V[...]V, [...].

Perm[...] [...] equipment for injecting water into a [...].
trudy Perm[...] [...].[...].-[...] [...].

ZYRYANOV, Ye.G.; KOLEVATOV, P.A.; OSIPOV, Yu.A.; KOZHEVNIKOV, V.N.

Industrial testing and introduction of dry PermNII I-4 dust collectors at the Lenin Mine of the Kizelugol' Combine.
Nauch. trudy PermNII no.6:215-223 '64.
(MIRA 18:1)
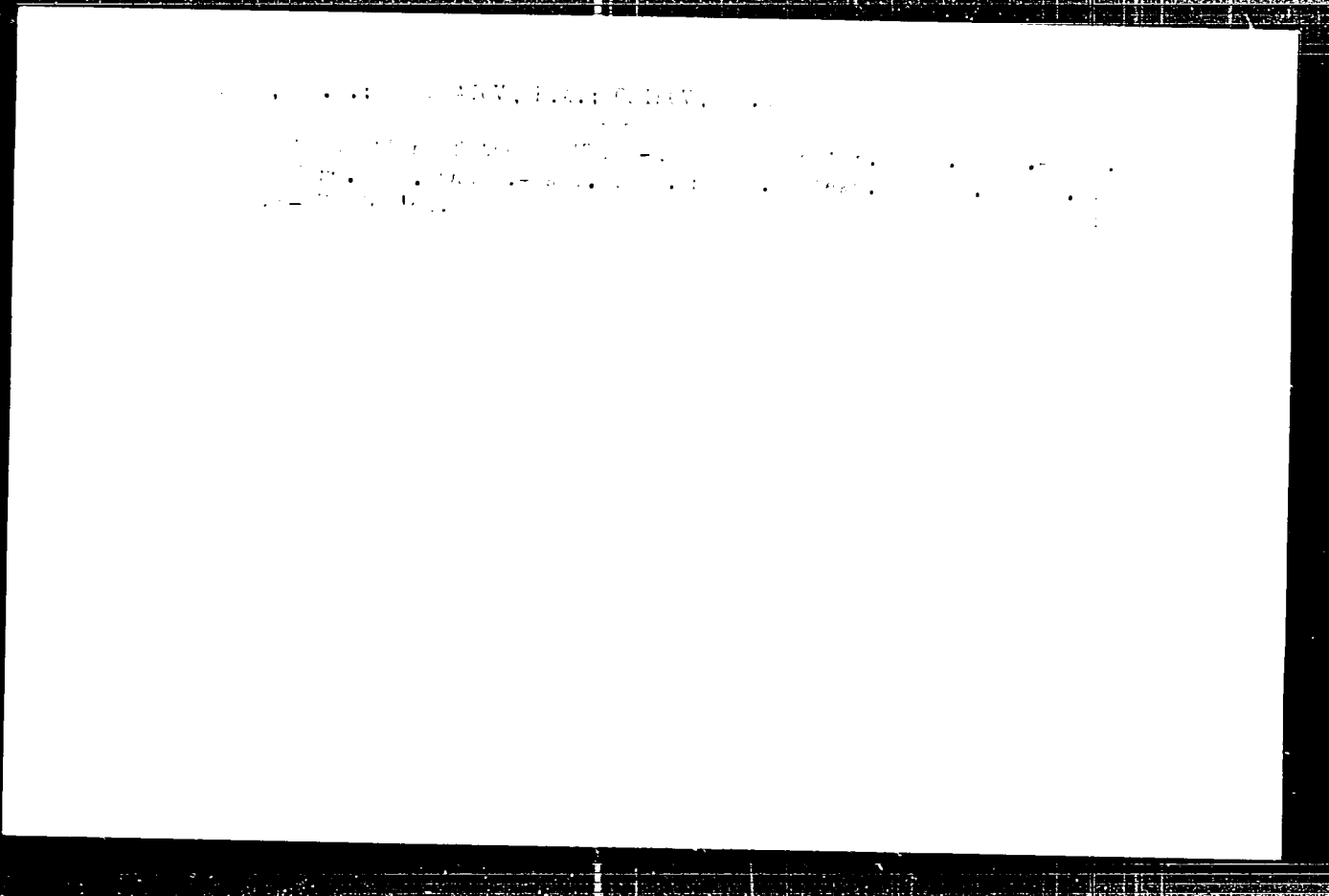
OSIPOV, Yu.A.; KOLEVATOV, P.A.; SYSOYEV, V.A.; ZYRYANOV, Ya.G., KISELEV,
L.V.

Preventing bumps in coal mines by pressing water into the seam. N.
tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. 17 no. 1
12-13 Jl '64.
(MIRA 17:10)

KUZNETSOV, Yu.V.; OSIPOV, Yu.A.; TARELANOV, V.A.

Efficiency of injecting water into a seam. Biul. tekh.-ekon. inform. Gos nauch.-issl. nauch. i tekh. inform. 17 no.9:10-12 S '64.
(MIRA 18:1)

OSIPOV, Yu.A.; OBUKHOV, V.N.; KTISY., N.I.; KULEVATOV, I.A.

Introducing the PERMICI-10 equipment set for injecting water into a seam. Bl.i.tekr.e.n.inform.G.s.naucn.-issl.inst.na.r.i tekn.inform.1 no.10:16-18) 'U.   MIRA 13:4)

SHILENKOV, Viktor Nikandorovich; YZHIKH, Leonid Ivanovich;
    POYELUYEV, Aleksandr Pavlovich; OSIPOV, Yu.A.,
    retsenzent; BURCHAKOV, A.S., kand. tekhn.nauk, otv.
    red.; LUCHKO, V.S., red.izd-va; ZHIVRINA, G., tekhn.
    red.; LOMILINA, L., tekhn.red.

    [Preliminary wetting of coal blocks] Predvaritel'noe
    uvlazhnenie ugol'nogo massiva. Moskva, Gosgortekhizdat,
    1963. 123 p.   (MIRA 17:2)
    1. Permskiy nauchno-issledovatel'skiy institut (for Osipov).

OSIPOV, Yu.A.; SYSUYEV, V.A.; KOLEVATOV, i.A.; GHANDAROV, C. .;
DOBRYNIN, A.V.; ZLITENOK, V.P.

Mining a seam subject to bumps using the method of water
injection into the seam. Ugol' 39 no.8:65-67 Ag '64.

(MIRA . . .)

1. Permskiy nauchno-issledovatel'skiy ugol'nyy institut (for
Osipov, Sysuyev, Kolevatov). 2. Shakhta im. Kalinina Kombinata
Kizelugol' (for Ghandarov, Dobrynin, Zlitenok).

KUZNETSOV, Yu.V., inzh.; TARKHANOV, V.A., inzh.; OSIPOV, Yu.A., inzh.

Role of weakening of the coal massif strength under the effect of water injection into the seam, in an increased labor productivity. Ugol' 40 no.11:56-57 '65.   (MIRA 18:11)

1. Permskiy nauchno-issledovatel'skiy ugol'nyy institut.

OSIPOV, Yuriy Aleksandrovich. Prinimal uchastiye - LIK ASLAYA,
Ye.L., inzh.; SHAGAS, I.r., red.

[Industrial hygiene and the effect of electromagnetic fields
of radio frequencies on workers] Gigiena truda i vliianie na
rabotaiushchikh elektromagnitnykh polei radiochastot. Le-
ningrad, Meditsina, 1965. 219 p.   (MIRA 18:11)
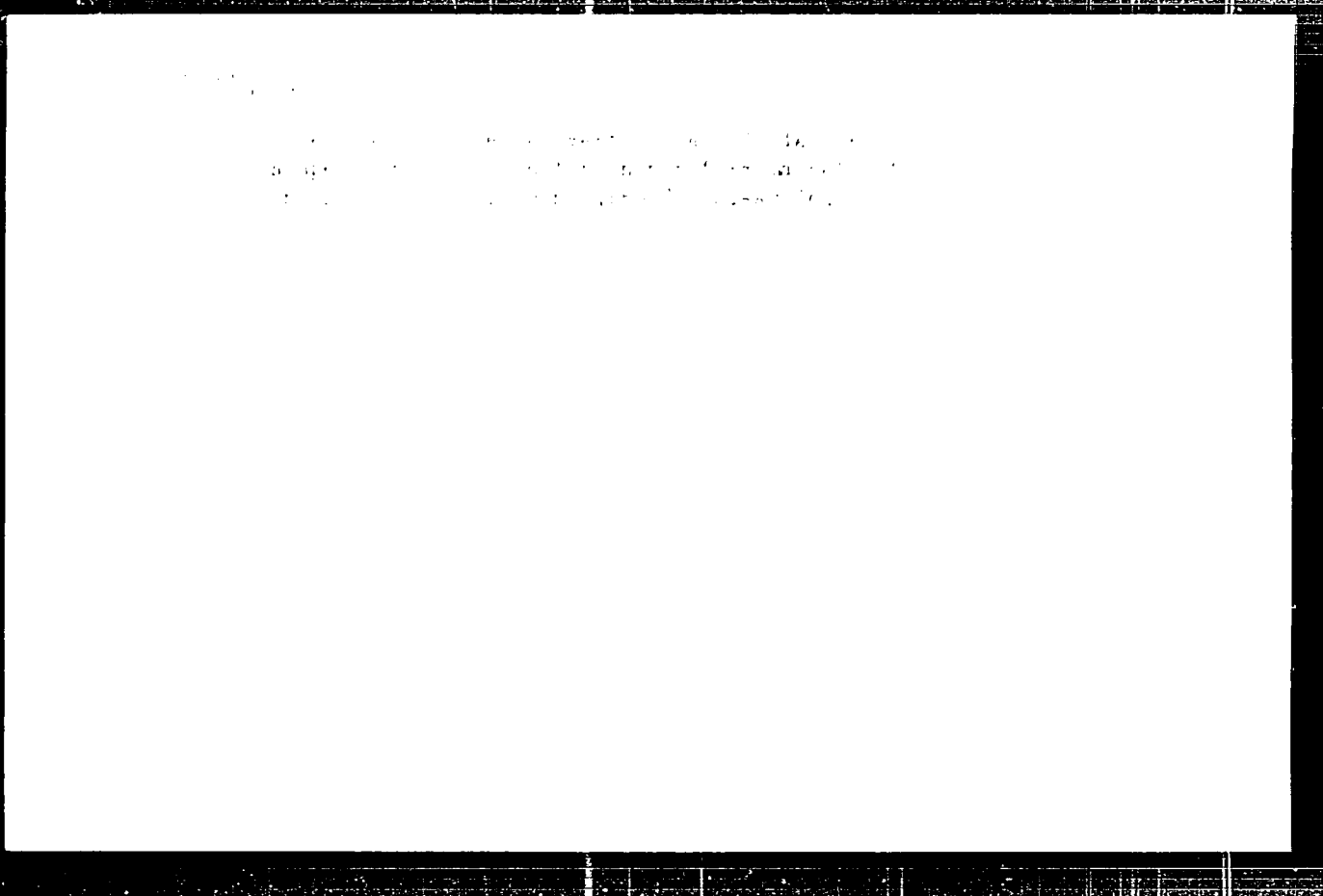
OSIPOV, Yu.B.

Significance of the statistical processing of the data on the
resistance to the shift of clay soils. Vest. Mosk. un. Ser
Geol. 20 no.4:81-85 Jl-Ag '65.   (MIRA 8:9)

1. Kafedra gruntovedeniya i inzhenernoy geologii Moskovskogo
universiteta.

KACHURIN, L. G.; GASHIN, L. I.; OSIPOV, Yu. G.

Control of the structure of crystals growing in a flow of
supercooled aerosols. Dokl. AN SSSR 147 no.4:833-834 D '62.
(MIRA 16:1)

1. Leningradskiy gidrometeorologicheskiy institut. Predstavleno
akademikom A. V. Shubnikovym.

(Aerosols)   (Crystals—Growth)

L ....
ACC NR: AP6032020   SOURCE CODE: UR/0386/66/004/006/0213/0216

AUTHOR: Kitayeva, V. F.; Osipov, Yu. I.; Sobolev, N. N.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy Institut Akademii nauk SSSR)

TITLE: Electron temperature in the electric discharge used for the argon ion laser

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 6, 1966, 213-216

TOPIC TAGS: gas laser, argon, electron temperature, electron density, electric discharge

ABSTRACT: This is a continuation of an earlier investigation (Dokl. AN SSSR, in press) of the charged-particle concentration and the gas temperature in argon under conditions typical of the operation of a continuously operating ionic argon laser. The results indicated that the decisive influence on the ion motion in the discharge column is exerted by the drift of the ions to the wall and their recombination. The present investigation was devoted to a determination of the electron temperature in a discharge of this type. Measurements were made of the half-width of the Ar II lines radiated transverse to the discharge in a tube of 2.8 mm diameter and ~40 cm length, with a bypass channel. The gas pressure ranged from 0.21 to 0.62 Torr and the current density from 150 to 350 a/cm^2. The results show that the width of the Ar II line increases with increasing current density. The width $\delta\lambda_{11}$ of the line

Card   1/2

ACC NR: AP6032020

radiated transverse to the channel exceeds the width $\delta\lambda_{\perp||}$ of the line radiated along the discharge by a factor ~1.5- 2. From the values of $\delta\lambda_{||}$ the authors determined the "effective temperature" of the ions transverse to the discharge and the electron temperature T_e. T_e increases from 5 x 10^4 to 9 x 10^4 (for p_{Ar} = 0.37 Torr) when the current density rises from 150 to 350 a/cm^2, and is expected to reach 13 x 10^4K at j = 550 a/cm^2. It follows from the results that the increase of the intensity of the spontaneous radiation of the Ar II lines and the increase of the power of the co-herent radiation of the laser with increasing current density in the capillary are due primarily to the increase in the electron temperature. The electric-conductivity cross sections (Q_a) calculated from the electron temperature are equal to 3 x 10^{-16} cm^2 at 5 x 10^4K and 6 x 10^{-16} cm^2 at 9 x 10^4K. The electron density N_e is also cal-culated from the temperature and agrees with the values experimentally determined from the half-width of the hydrogen line H_β. It is concluded that the investigations have yielded the basic characteristics of the discharge used for the argon ionic laser, which are of undisputed interest for the explanation of the mechanism that ensures population inversion. Although the increase of T_e with current density is not subject to doubt, the absolute values of the temperature must be verified by other independent methods. The authors thank A. A. Rukhadze for valuable discussions and advice. Orig. art. has: 1 figure, 2 formulas, and 1 table.

SUB CODE: 20/   SUBM DATE: 17Jun66/   ORIG REF: 004

Card 2/2

Osipov, Yu. I.

Results of the study of the isotopic shift in the neodymium spectrum. F. A. Korolev and Yu. I. Osipov (M. V. Lo-monosov State Univ., Moscow). Doklady Akad. Nauk S.S.S.R. 110, 565-7(1956).—The isotopic shift was detd. by using a natural mixt. of Nd in the spectral range 4450-6600 A. The lines were resolved into 6 components, 5 of which are attributed to the 5 even isotopes of Nd. The 6th is attributed to the hyperfine structure of Nd^{14}.

J. Rovtar Leach

Distr: 4E4j/4E3d

7
1-RML
2

Category: USSR / Physical Chemistry - Atom   B-

Abstour.   Referat Zhur-Khimiya, No. 9, 1957, 27830

Author   : Korolev F. A., Osipov Yu. I.
Inst   : Academy of Sciences USSR
Title   : Some Results of Investigation Isotope Shift in the Spectrum of
            Neodymium

Orig Pub: Dokl. AN SSSR, 197, 110, N 3, 369-367

Abstract: An investigation of isotope shift in Nd spectrum in the region of
            4400-6500 A, using a natural mixture of isotopes. The light source
            was a tube with a hollow, water cooled cathode. A table of spectral
            lines with measured isotope shift is given. There is noted a de-
            crease in magnitude of isotope shift and also of the magnitude of
            the sudden change between the isotopes Ni   -Nd   with increasing
            wave length.

Card   :

ACC NR.AP7005582   SOURCE CODE: UR/0020/67/172/002/0317/0319

AUTHOR: Kitayeva. V. F.; Osipov, Yu. I.; Sobolev, N. N.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences, SSSR
(Fizicheskiy Institut Adademii nauk SSSR)

TITLE: Spectroscopic investigation of gas discharge for argon ion
lasers

SOURCE: AN SSSR. Doklady, v. 172, no. 2, 1967, 317-319

TOPIC TAGS: population inversion, argon ion laser, gas discharge,
DISCHARGE TUBE, GAS DISCHARGE SPECTROSCOPY, ION TEMPERATURE

ABSTRACT: Two types of discharge tubes were used in the investigation: 1) tubes
1—3 mm wide, with capillaries approximately 300 mm long between the bulbs,
for use with cw lasers, and 2) tubes 5 mm wide and 95 cm long with hot
electrodes, for use with pulsed lasers. For tubes of the first type, the
temperatures of the Ar ions and neutral atoms were derived from the
measured width of their respective spectral lines; the ion concentrations
were derived from the Stark effect exhibited by the H_α line of the hydrogen —
traces. The current densities were about 300 amp·cm^{-2}; ion concentrations,
about 3.5 (10^{13}) cm^{-3}; atom temperatures, about 2500°K (rising with
current density); and ion temperatures, about 2.5 times greater than the —

Card 1/2   UDC: 535.89

ACC NR: AP7005582

atom temperatures. For tubes of the second type, an He-Ar (10:1) mixture
was used. Current was applied in 4-μsec, 6—1 .v pulses, yielding a
density of approximately 500 amp·cm^{-2}. The atom temperatures and ion con-
centrations were obtained by comparing the widths of the H_α and H_β lines
and by using an assumed ratic for the contribution of the Stark and
Doppler effects. Temperatures from 2000 to 6000°K and concentrations from
0.8 to 20 (10^{13}) cm^{-3} were obtained. Electron temperatures, which are
required for population inversion, were extremely difficult to determine
in the investigated case. Orig. art. has: 1 figure and 2 tables. [JM]

SUB CODE: 20/ SUBM DATE: 22Mar66/ ORIG REF: 001/ OTH REF: 001/
ATD PRESS: 5116

Card 2/2

OSIPOV, Yuriy, Mikhaylovici., assistent, PEVZNER, Yevsey Markovich,
starshiy prepodavatel', PRYANISHNIKOV, Viktor Alekseyevich,
FUNTOV, Nikolay Mikhaylovich, kand. tekhn. nauk, dotsent

Parallel operation of impulse lamps. Izv. vys. ucheb. zav.;
elektromekh. 6 no.10:1157-1160 '63.   (MIRA 17:1)

1. Kafedra teoreticheskikh osnov elektrotekhniki Leningradskogo
instituta tochnoy mekhaniki i optiki (for Osipov, Pevzner).
2. Starshiy inzhener kafedry teoreticheskikh osnov elektrotekhniki
Leningradskogo instituta tochnoy mekhaniki i optiki (for Pryanish-
nikov). 3. Zaveduyushchiy kafedroy teoreticheskikh osnov
elektrotekhniki Leningradskogo instituta tochnoy mekhaniki i
optiki (for Funtov).

L 42470-65   EEO-2/EWT(d)/FSS-2/EEC-4/EEC(t)/EED-2   Pn-4/Pp-4/Pac-4
ACCESSION NR: AP5006635   S/0146/65/008/001/0055/0061

AUTHOR: Funtov, N. M.; Smirnov, G. V.; Petrov, Ye. A.; Osipov, Yu. M.

TITLE: Comparison of several methods of converting a single electrical signal into a series of discrete values

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 1, 1965, 55-61

TOPIC TAGS: signal conversion, continuous discrete signal conversion

ABSTRACT: In converting a single continuous signal into a series of discrete signals, it is essential to know the error that accompanies the conversion. The errors inherent to these methods are theoretically compared: (1) Conversion of voltage into a proportional time interval; (2) Use of a number of discrete levels of the comparison voltage (includes PAM); (3) Use of a number of comparison voltages proportional to the weight of binary positions. It is found that the first method requires only one-half or less the equipment necessary for the other

Card 1/2

L 42470-65
ACCESSION NR: AP5006635

methods; however, it is slow and only applicable for coding signals of a few
milliseconds' duration. The second method does not provide high accuracy and is
suitable for recording signals of a few dozen microsecond duration. The third
method is suitable for those applications where the signal is of hundreds of
microsecond duration, high accuracy is not required, and the signal dynamic
range is not large. Orig. art. has: 4 figures and 12 formulas.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki (Leningrad
Institute of Fine Mechanics and Optics)

SUBMITTED: 02Dec63   ENCL: 00   SUB CODE: DP

NO REF SOV: 001   OTHER: 000

Card 2/2

OSIPOV, Yu.M., inzh.; PEVZNER, Ye.M., inzh.; PRYANISHNIKOV, V.N., inzh.; PUNTOV, N.M., inzh.

Impulse-type lighting system. Svetotekhnika 9 no.6:28-29
Je '63.   (MIRA 16:6)

1. Leningradskiy institut tochnoy mekhaniki i optiki.
                (Electric lighting)
                (Photography—Electric equipment)

KRASOVSKII, N.N. (Sverdlovsk); OSIPOV, Yu.S. (Sverdlovsk)

Stabilization of the motion of a controlled object with delay
in a control system. Izv. AN SSSR. Tekh. kib. no.4:3-15 N-D
'63.   (MIRA 17:4)

L 2667-66   EWT(1)/EWT(m)/EPF(c)/FCC/EWP(j)/EWA(h)   RPL   WW/GS/RM/GW
ACCESSION NR: AT5023954   UR/0000/65/000/000/0392/0402

AUTHOR: Byzova, N. L.; Mashkova, G. B.; Osipov, Yu. S.

TITLE: Results of model experiments on the distribution of pollutants
settling into the lower layers of the atmosphere under various meteor-
ological conditions

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,
392-402

TOPIC TAGS: micrometeorology, meteorological tower, aerosol fallout,
air pollution, atmospheric boundary layer, atmospheric surface
boundary layer

ABSTRACT: This paper describes and summarizes the results of a series
of theoretical model and field experiments carried out between 1959
and 1963 at the 300-m meteorological tower of the Institute of Applied
Geophysics at Obninsk to study the dispersion of effluents from vari-
ous heights. The aerosols were spherical particles of poly[methyl]-

Card 1/2

L 2667-66
ACCESSION NR: AT5023954

methacrylate/powders ranging between 10 and 100 μ in diameter. Meas-
urements were made of four fractions ejected at speeds of 0.27, 0.17,
0.1, and ∿ 0.03 m/sec, at 100—200 points, 10—20 km away from the
source. Meteorological parameters measured included the wind-velocity
profiles, wind direction, temperature profile (daytime and nighttime
inversions), and such turbulence characteristics as wind-direction
pulsations. The results obtained from the field measurements are
compared with those derived experimentally. Orig. art. has: 4 formu-
las, 4 figures, and 4 tables.   [ER]

ASSOCIATION: none

SUBMITTED: 28Apr65   ENCL: 00   SUB CODE: ES, NP

NO REF SOV: 011   OTHER: 001   ATD PRESS: 4/101

Card 2/2

L 00342-66   EWT(d)/EWP(1)   IJP(c)   BC
ACCESSION NR: AP5019615

UR/0376/65/001/007/0908/0922

AUTHOR: Osipov, Yu. S.

TITLE: On the stabilization of nonlinear control systems having a time lag in the critical case of one zero root

SOURCE: Differentsial'nyye uravneniya, v. 1, no. 7, 1965, 908-922

TOPIC TAGS: control system stability, differential equation, nonlinear control system

ABSTRACT: The control system studied is described by the following equations

$$\frac{dx(t)}{dt} = Ax(t) + A_\tau x(t-\tau) + Bu + X(x(t), x(t-\tau), u), \qquad (1.1)$$

where x is the state vector; u is the control vector; τ, a positive constant, is the time lag; A, A_τ, B are constant matrices; X is a sufficiently smooth vector function. A functional solution u is sought for the critical case of a single zero root among the class of functionals satisfying the Lipschitz conditions

$$|u_i[x^{(1)}(\theta)] - u_i[x^{(2)}(\theta)]| \leqslant l \cdot |x^{(1)}(\theta) - x^{(2)}(\theta)|_\tau \quad (l = \text{const} > 0).$$

Card 1/2

L 00342-66

ACCESSION NR: AP5019615

The criteria for stability are adduced and solutions are carried out first for the class of analytic controls and then for non-analytic controls. An illustrative example is given for various conditions on the parameters of (1.1). "The author expresses his gratitude to N. N. Krasovskiy for his valuable comments." Orig. art. has: 77 formulas.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet imeni A. M. Gor'kogo (Ural State University)

SUBMITTED: 08Feb65   ENCL: 00   SUB CODE: MA, DP

NO REF SOV: 010   OTHER: 000

Cord 2/2

L 55940-65   EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)   Po-4/Pq-4/Pf-4/Pg-4/Pk-4/P1-4
ACCESSION NR: AP5015218   IJP(c)   BC   UR/0376/65/000/005/0605/0618

AUTHOR: Caipov, Yu. S.

TITLE: On the stabilization of control systems with delays

SOURCE: Differentsial'nyye uravneniya, no. 5, 1965, 605-618

TOPIC TAGS: delay control system, control system stabilization, asymptotic stability, stability theory

ABSTRACT: An analysis is made of the problem of stabilizing a control system whose motion is described by the system of equations

$$\frac{dx(t)}{dt} = Ax(t) + A_\tau x(t-\tau) + Bu + X(x(t), x(t-\tau), u), \qquad (1)$$

where x is an n-vector in phase coordinates; u is an r-control vector; A, A$_\tau$, and B are constant n × n, n × n, and n × m matrices; τ is a constant delay; and X(x(t), x(t - τ), u) is a sufficiently smooth n-vector function representing the totality of nonlinear terms of higher infin-

Card 1/3

L 55940-65

ACCESSION NR: AP5015218

itesimal order than x(t), x(t - r), and u. The stabilization problem
is formulated as follows: on the basis of information obtained con-
cerning the current state x(t) of system (1) at any instant t, it
is required to form a control u(t) under which the nondisturbed motion
x = 0 of system (1) is asymptotically stable. The segments of the
trajectory $x_t(\theta) = x(t + \theta) = \{x_{kt}(\theta); k = 1, ..., n; -\tau \leq \theta \leq 0\}$.
are considered as elements of the trajectory corresponding to instants
t; and the control function is chosen in the form of a certain func-
tional $U[x_t(\theta)]$ which is defined on the curves $\{x_t(\theta)\}$ and satisfies
the Lipschitz condition. To solve the stabilization problem for
system (1), stabilization criteria for the corresponding linear system

$$\frac{dx(t)}{dt} = Ax(t) + A_\tau x(t - \tau) + Bu$$

(2)

are established first, and the control function $U_t(\theta)$ stabilizing
system (2) is derived in the form of a linear functional. Conditions
are derived under which nonlinear system (1): a) can be stabilized
by the control function derived for the linear system (2) regardless

Card 2/3

L 55940-65
ACCESSION NR: AP5015218   /

of the nonlinear terms; b) can not be stabilized by any control func-
tion $u_t(*)$ taken from the class of allowable control functions regard-
less of the nonlinear terms; c) can be stabilized by proper selection
of nonlinear terms. Orig. art. has: 62 formulas.   [LK]

ASSOCIATION: Ural'skiy gosudarstvennyy universitet im. A. M. Gor'kogo
(Ural State University)

SUBMITTED: 08Feb65   ENCL: 00   SUB CODE: MA

NO REF SOV: 013   OTHER: 002   ATD PRESS: 4032

Card 3/3 MB

L 17841-66   EWT(d)   IJP(c)   GS

ACC NR: AP6004065

AUTHOR: Osipov, Yu. S. (Sverdlovsk)

31

ORG: none

30

B

TITLE: On the principle of information in critical circumstances of stability of system motion with a time delay

SOURCE: Prikladnaya matematika i mekhanika, v. 29, no. 5, 1965, 810-820

TOPIC TAGS: differential equation, differential operator, time lag theory, system analysis, motion equation, motion stability, ordinary differential equation

ABSTRACT: The problem of the stability of steady motions described by ordinary differential equations with time delay is studied. The characteristic equation of the first order approximation system has m roots with zero real parts and does not have roots with positive real parts. The system is described by the equation

$$\frac{dx(t)}{dt} = Ax(t) + A_{\tau}x(t-\tau) + X(x(t), x(t-\tau))$$

where x is an n-vector; τ = constant > 0 is the value of the delay; A and A_{τ} are constant matrices of like dimensions; X(x,y) is an n-vector function, which

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Z

L 17841-66
ACC NR: AP6004065

O

in the domain

$$|x| < H, \quad |y| < H \quad (H = \text{const}),$$

satisfies the Lipshitz condition

$$|X(x^{(1)}, y^{(1)}) - X(x^{(2)}, y^{(2)})| \leqslant q(|x^{(1)} - x^{(2)}| + |y^{(1)} - y^{(2)}|).$$

The variable q is given by

$$q = L(|x^{(1)}| + |x^{(2)}| + |y^{(1)}| + |y^{(2)}|)^\gamma,$$

where L, γ are positive constants. In the space $C_{[-\tau, 0]}$ the operator

$$dx_t(\vartheta)/dt = Px_t(\vartheta) + R[x_t(0), x_t(-\tau)]$$

corresponds to the system equation (see N. N. Krasovskiy. Nekotoryye zadachi teorii ustoychivosti dvizheniya. Fizmatgiz, 1959). Conditions of system stability are developed and comparison is made with systems described by means of ordinary differential equations developed by I. G. Malkin (Teoriya ustoychivosti dvizheniya. Gostekhizdat, 1952). It is shown that, as in the case of ordinary equations, the problem is equivalent to the problem on the stability of motion of a certain infinitely-dimensioned subsystem of order m. The subsystem problem is obtained through separation of the critical degrees of freedom. This analysis leads to an approach to the theory of critical conditions of systems with aftereffect. This approach is developed by S. N. Shimanov (Kriticheskiy sluchay pary mnimykh korney

2/3

L 17841-66
ACC NR: AP6004065   /

dlya sistem s posledeystviyem. PMM, 1961, t. 25, vyp. 3). The author thanks N. N.
Krasovskiy for his valuable comments. Orig. art. has: 93 equations and 1 figure.

SUB CODE: 12,20/ SUBM DATE: 30Mar65/ ORIG REF: 006

3/3 nst

L 23422-66   EWT(1)/FCC/T   JK/GW

ACC NR: AT6012593   SOURCE CODE: UR/3201/65/000/002/0065/0073

AUTHOR: Byzova, N. L.; Osipov, Yu. S.

ORG: Institute of Applied Geophysics (Institut prikladnoy geofiziki)

TITLE: Distribution during inversions of heavy pollutants in the lower layer of the atmosphere

SOURCE: Leningrad. Institut prikladnoy geofiziki. Trudy, no. 2, 1965, Pogranichnyy sloy atmosfery (Boundary layer of the atmosphere), 65-73

TOPIC TAGS: micrometeorology, meteorologica? tower, air pollution, inversion, atmospheric aerosol distribution, atmospheric boundary layer, surface boundary layer

ABSTRACT: Results are presented for two series of model experiments set up to study the distribution of pollutants in the lower layer of the atmosphere during inversions. Observations were made at night for one year, with daytime measurements also made in the winter and early spring. Use of the instruments at the 300-m meteorological tower made it possible to determine the wind speed and temperature profiles and gradients at the height of 8 m, the wind direction profile from C m to 300 m, and the fluctuations in wind direction. Twenty-five experiments were made for inversions in the autumn-winter season of 1962-1963. The point source height varied between 50 and 300 m over periods lasting 10--40 min. The aerosols used were spherical particles with a rate of gravitational settling ω varying from 0.005—0.3 m/sec.

Card 1/2   UDC: 551.506+508+508.2+508.5+510

L 23422-66
ACC NR: AT6012593

Results of these experiments are presented in tabular form. Except for a few corrections, analytical procedures used in studying pollutant distribution were similar to those used by Aleksandrova, Byzova, and Mashkova, as reported in the second report on the research carried out at the 300-m meteorological tower (Investigation of the lower 300-meter layer of the atmosphere, Academy of Sciences, USSR, 1963). Experimental and calculated pollutant fallouts are compared, and the results are presented in graphs. Special features noted for pollutant distribution during inversions, not found for other types of stratification, were as follows: in one instance, the plume was sharply bent (probably related to the effect of poorly expressed relief on the wind direction), and in another instance, a weakly expressed maximum in precipitation density was detected. Orig. art. has: 5 figures, 1 formula, and 4 tables.   [ER]

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 001/ ATD PRESS: 4233

Card 2/2

L 23429-66   EWT(l)/FCC/T   JK/GW

SOURCE CODE: UR/3201/65/000/002/0130/0136

ACC NR: AT6012600   *13*

AUTHOR: Osipov, Yu. S.   RH/

ORG: Institute of Applied Geophysics (Institut prikladnoy geofiziki)

TITLE: Modeling methods for investigating the distribution of pollutants in the lower layer of the atmosphere

SOURCE: Leningrad. Institut prikladnoy geofiziki. Trudy, no. 2, 1965. Pogranichnyy sloy atmosfery (Boundary layer of the atmosphere), 130-136

TOPIC TAGS: micrometeorology, atmospheric pollution, atmospheric boundary layer, pollutant distribution modeling

ABSTRACT: The author gives a short review of the multiplicity of experiments which have been carried out by Soviet and non-Soviet investigation to study the pollutant distribution in the lower layer of the atmosphere. Emphasis is on techniques with no discussion of results. Projects such as "Prairie Grass," "Round Hill," and "Green Glow" are described, as are studies of industrial pollution carried out in the United States, Japan, England, Germany, and the USSR. The use of tracers and filters, the thermal and electrostatic collection of particles, and sample analysis, especially optical methods, are enumerated (photography and movies).   [ER]

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 029/ ATD PRESS:

UDC: 551.506+508+508.2+508.5+510

Card 1/1 Adv

21770

S/170/61/004/004/001/014
B116/B203

26.2160

AUTHORS: Kosterin, S. I., Koshmarov, Yu. A., Osipov, Yu. V.

TITLE: Effect of the divergence angle on the position of the
compression jump in a supersonic nozzle under uncalculated
conditions with existence of a heat exchange

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 4, 1961, 3-9

TEXT: The present paper gives results of experimental studies of a flat
supersonic nozzle with wedge-shaped supersonic part under uncalculated
conditions with existence of a heat exchange. Relations between the
divergence angle of the supersonic part of the nozzle and the position of
the compression jump are obtained. The results are generalized for the
case of axisymmetric, conical nozzles. Some recommendations for calcula-
tions are given. A flat model of a supersonic nozzle was prepared. The
investigations were carried out in the range of those Re and M numbers
which determine flow conditions and heat exchange characteristic of real
engines. The medium used was compressed air delivered from a piston
compressor (0.2 kg/sec at 8 atm). The compressed air was heated in an

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S/170/61/004/004/001/014
B116/B203

Effect of the divergence angle...

electric furnace, then passed to the test stand, and from there via three
coolers and four forepumps conducted into the open air (Fig. 1). The flow
part of the nozzle was formed by two symmetrical, movable jaws. The angle
of the supersonic part could be varied between 0 and 50°. The nozzle
entrance was formed by two symmetrical arcs. Thus, the subsonic part
maintained the same form in all experiments. The thickness of the
boundary layer at the front sides of the plates (holding the jaws together)
was calculated by the method of Kalikhman (Ref. 6: M. Ye. Kalikhman,
Gazodinamicheskaya teoriya teploobmena. (Gasdynamic theory of heat
exchange). Oborongiz, 1946), and was less than 1 mm at the nozzle end.
The critical cross section of the nozzle model was 51 mm high, and 6.82 mm
wide. For measuring the distribution of static pressures over the length
of the nozzle, 14 bores (0.8-0.9 mm diameter) were made every 15 mm along
the axis of the nozzle canal. In visual observation, the static pressures
were measured on the nozzle wall formed by the movable jaw with 14 bores
of the same diameter. For an accurate determination of the compression
zone and the burble point of the boundary layer, the authors made visual
studies with photographs of the flow. Fig. 2 gives the results of evalua-
tion of experimental data. A special investigation showed that the

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Effect of the divergence angle...

change in flow parameters due to the variable thermal conductivity of the gas along the nozzle can be neglected up to $M = 3.5-4.0$. The experiments showed that a system of overlapping curved compression jumps was formed in the nozzle under all conditions. The values of $(F_{jump}/F_*)_w$, $(F_{jump}/F_*)_0$, (p_0'/p_{00}), and (p_0''/p_{00}) were determined for every divergence angle and every mode of operation according to the measurements along the flow axis and on the nozzle wall. F_{jump} is the cross section area where the jump drops, F_* is the area of the critical cross section, p_0' is the static pressure before the jump, and p_0'' that after the jump; the index w refers to the parameters on the nozzle wall, and the index 0 to the parameters measured along the flow axis. Fig. 3 shows that the ratio $p_0/p_0 \approx p_0/p_a$ does not maintain the value of 0.4 recommended by Sammerfield (Ref. 3: M. Sammerfield Jet Propulsion, vol. 24, no 5, 1954). Fig. 4 illustrates the experimentally established effect of the divergence angle α on the position of the compression jump; it also considers results found by K. Scheller and D. A. J. Bierlein (Ref. 2: Amer Rock., Soc., vol. 23,

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S/170/61/004/004/001/014
B116/B203

Effect of the divergence angle...

no. 1, 1953) and by M. Ye. Deych (Ref. 1: Tekhnicheskaya gazodinamika. (Technical gas dynamics), 1953). The position of the compression jump $(F_{jump}/F_*)_w = f(\alpha)$ can be determined from diagrams (as shown in Fig. 4), but it is more convenient to use empirical formulas. The authors recommend empirical formulas established on the basis of an approximation of the experimental results obtained, for the position on the nozzle wall: $(F_{jump}/F_*)_w = 1.5 + 0.23 (p_{00}/p_a) - K\alpha^n$, and on the flow axis: $(F_{jump}/F_*)_0 = 1.5 + 0.23 (p_{00}/p_a) + K\alpha^n$, where $K = f(p_{00}/p_a)$. In the range of divergence angles between 0 and 15°, K may be assumed equal to zero; between 15 and 50°, K is determined from $K = 0.00645(p_{00}/p_a) - 0.029$.

$n = 0.95 \div 0.98$. The formula for determining the jump peak holds for flat nozzles, and should be checked for round ones. With the aid of the experimentally found relations it is also possible to establish approximately the shape of the jump within a flat, conical nozzle for various divergence angles, and to determine the angle β_{jump} of the oblique jump. It was found that the shape of the jump greatly depended on the nozzle

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Effect of the divergence angle...

S/170/61/004/004/001/014
B116/B203

divergence angle, the jump was asymmetrical, and a periodic shift of the
interrupted jet from one side wall of the nozzle to the other occurred with
certain divergence angles, the frequency of such shifts depending on the
nozzle divergence angle. Finally, the authors clarified some phenomena
occurring with an increase of the heat exchange in the jump zone and in the
zone after the jump. There are 5 figures and 6 references: 2 Soviet-bloc
and 4 non-Soviet-bloc.

ASSOCIATION: Energeticheskiy institut im. G. M. Krzhizhanovskogo AN SSSR,
              g. Moskva (Power Engineering Institute imeni
              G. M. Krzhizhanovskiy of the AS USSR, Moscow)

SUBMITTED: October 8, 1960

Legend to Fig. 1: (I) Diagram of the test stand: (1) Flow-adjusting
plate, (2) electric furnace, (3) test section, (4) cooler, (5) block of
RH-6 (VN-6) forepumps. (II) Design of the test section (visual variant).
(III) Diagram of two variants of the nozzle flow part.

Card 5/10

S/170/62/005/004/001/...
B104/P108

/C 2/CC
2(2/6C

AUTHORS: Mesterin, S. S., Koshmarov, Yu. A., Osipov, Yu. V.

TITLE: Investigation of flow and heat transfer of a rarefied gas in
a flat supersonic nozzle

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 5, no. 4, 1962, 4-9

TEXT: Rarefied air was used to investigate the flow and heat transfer in
the ranges of $Re_x/M = 5 - 5$ and $T_w/T_{oo} = 0.7 - 0.8$ (Fig. 1). The highest
possible uniformity of flow at the entrance of the nozzle was achieved by
applying a grid. The flat nozzle consisted of two metal shoes (part 6,
Fig. 1) which are clamped between two plates of quartzglass. The surfaces
of the metal shoes are smoothly ground, the metal shoes themselves can be
adjusted so as to permit the study of flows at various aperture angles of
the nozzle. The breadth-to-height ratio of the rectangular channel was
chosen such, that an almost plane flow existed in the central
region of the channel. The conditions under which experiments were carried
out provided an isentropic flow core. According to the test conditions,

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Investigation of flow and heat...   S/179/62/ 5/ 04/ 1, 16.
                                         B104/B108

the cross section of this core ranged from 5.5 mm to 15.15 mm.   During
the tests, the width in the critical cross section was varied between
and 8 mm.   A noticeable deviation of the heat transfer coefficient and
displacement thickness from values predicted by the continuum theory was
discovered (Fig. 4). There are 4 figures and 17 references: 4 Soviet and
13 non-Soviet. The four most recent references to English-language publi-
cations read as follows: A. Hasimoto, JAS, 25, no. 1, 1958; T. Li,   of
Fluid Mechanics, 2, p. 3;   J. Howard, Ammons, Fundamentals of Gas Dynamics,
1958; L. Savanau, Trans. ASME, 77, 617, 1955.

ASSOC. TION: Institut mekhaniki AN SSSR, g. Moskva (Institute of Mechanics
               AS USSR, Moscow)

SUBMITTED: January 2 , 1962

Fig. 1. Test arrangement. Legend: (1) fore-vacuum pump; (2) high-
vacuum pump; (3) cooling spirals; (4) pressure chamber; (5) electrical
gas heater; (6) nozzle; (7) jet arrester; (8) air drier; (9) air

Card 2/4

KOSTERIN, S.I.; KOSHMAROV, Yu.A.; OSIPOV, Yu.V.

Note on our article published in IrZh no.4, 1962.   Inth. -fiz. zhur.
5 no.10:137-138 O '62.   (MIRA 1:12)
                              (Nozzles)

L 15540-66   EWT(1)/EWT(m)/T/EWP(t)/EWP(b)   IJP(o)   JD

ACC NR: AP6002091

SOURCE CODE: UR/0139/65/000/006/0162/0163

AUTHORS: Osipov, Yu. V.

ORG: Leningrad Electrotechnical Institute (Leningradskiy elektro-tekhnicheskiy institut)

TITLE: Exciton absorption in germanium in the direct-transition region

SOURCE: IVUZ. Fizika, no. 6, 1965, 162-163

TOPIC TAGS: exciton absorption, germanium, light absorption, forbidden band, absorption spectrum, optic transmission, absorption edge, Coulomb interaction

ABSTRACT: The author presents the results of a study of optical absorption in germanium in the direct-transition region at photon energies less than or equal to the width of the forbidden band in the direct transition. The studies were made with an n-type sample with carrier density 1.8 x 10^{14} cm^{-3} and resistivity ~ 20 ohm-cm) with

Card   1/2

Card   2/2

OSIPOV, Yu.V.

Exciton absorption in germaniu in the region of a direct
transition. Izv. vys. ucheb. zav.; fiz. 8 no.6:162-163 '

1. Leningradskiy elektrotekhnicheskiy institut. Submitted
September ..., 1964.

L 04147-67   E;;T(1)/E;;T(m)/T/E;;P(t)/ETI   IJP(c)   JD/GG
ACC NR: APG026671   SOURCE CODE: UR/0181/66/008/008/2280/2292

AUTHOR: Osipov, Yu. V.

ORG: Leningrad Electrical Engineering Institute im. V. I. Ul'yanov (Lenin) (Leningradskiy elektrotekhnicheskiy institut)

TITLE: Effect of strains on the optical spectrum of direct excitons in germanium

SOURCE: Fizika tverdogo tela, v. 8, no. 8, 1966, 2280-2292

TOPIC TAGS: germanium single crystal, single crystal film, exciton, crystal optic property, optic spectrum

ABSTRACT: The transmission spectra of n-Ge single-crystal films oriented in the (001), (111), (110), and (112) planes and subjected to static tensile and compressive strains are investigated experimentally at 77K in the region of direct exciton transition in the center of the Brillouin zone (point k = 0). The strains are produced in the cooling process of a Ge film together with its isotropic substrate, due to the difference in their thermal linear expansion coefficients. The strain potential constants of the electron states in the valence band of germanium (at k = 0) are calculated from the anisotropic exciton splitting observed in the case of compressive strains, with the aid of the so-called interband approximation (which assumes that band splitting at k = 0 is large compared to the exciton binding energy $(2 \Delta \gg E(0))$ and that the exciton splitting

Card 1/2

L 04147-67

ACC NR: AP6026671   4/

observed corresponds to the splitting of the valence bands at $k = 0$). It is found that $|D_u| = 1.2 \pm 0.4$ ev and $|D_u'| = 8 \pm 1$ ev per unit shearing stress in the $\langle 001 \rangle$ and $\langle 111 \rangle$ directions and that the mean value of the constant $D_d^c - D_d^v = -10.5 \pm 1$ ev per unit cubic expansion of the lattice. The binding energies of the principal s-states of the excitons, which result from the split valence bands $V - (m_\perp / m_{||} > 1)$ and $V + (m_\perp / m_{||} < 1)$ are calculated, in the effective mass approximation, for $\xi = 00$ & $\xi \neq 0$ in the $\langle 001 \rangle$ and $\langle 111 \rangle$ directions. Strain splitting and shear in direct exciton transition are examined with allowance for the effect of exciton binding energy at $k = 0$. The author is indebted to B. P. Kozyrev for his support in this work, V. M. Chulanovskiy for the use of a spectrometer, and G. Ye. Pikus and G. L. Bir for propos-ing the computation methods and their critical remarks in discussing the results of this work. Orig. art. has: 3 figures, 3 tables, and 16 formulas.

SUB CODE: 20/ SUBM DATE: 01Nov65/ ORIG REF: 006/ OTH REF: 035

Card 2/2

OSIPOV, Z., polkovnik; BEZIMENEZHNYKH, P.T., podpolkovnik, redaktor;
SLEPTSOVA, Ye.N., tekhnicheskiy redaktor.

[Solicitude of the Communist Party for strengthening the active
defense of the U.S.S.R.] Zabota Kommunisticheskoi partii ob ukrep-
lenii aktivnoi oborony SSSR. Moskva, Voennoe izd-vo, 1953. 71 p.
(MLRA 7:4)
(Russia--Defenses) (Communist Party of the Soviet Union)

124-57-2-2512

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 119 (USSR)

AUTHOR: Osipov, Z. G.

TITLE: How to Determine the Natural Angles of Repose of the Loess type
            Clays of Central Asia (K voprosu opredeleniya uglov yestestven-
            nykh otkosov lessovidnykh suglinkov Sredney Az i)

PERIODICAL: Tr. Sredneaz. politekhn. in-ta. Tashkent, Gosizdat UzSSR,
            1955, pp 267-275
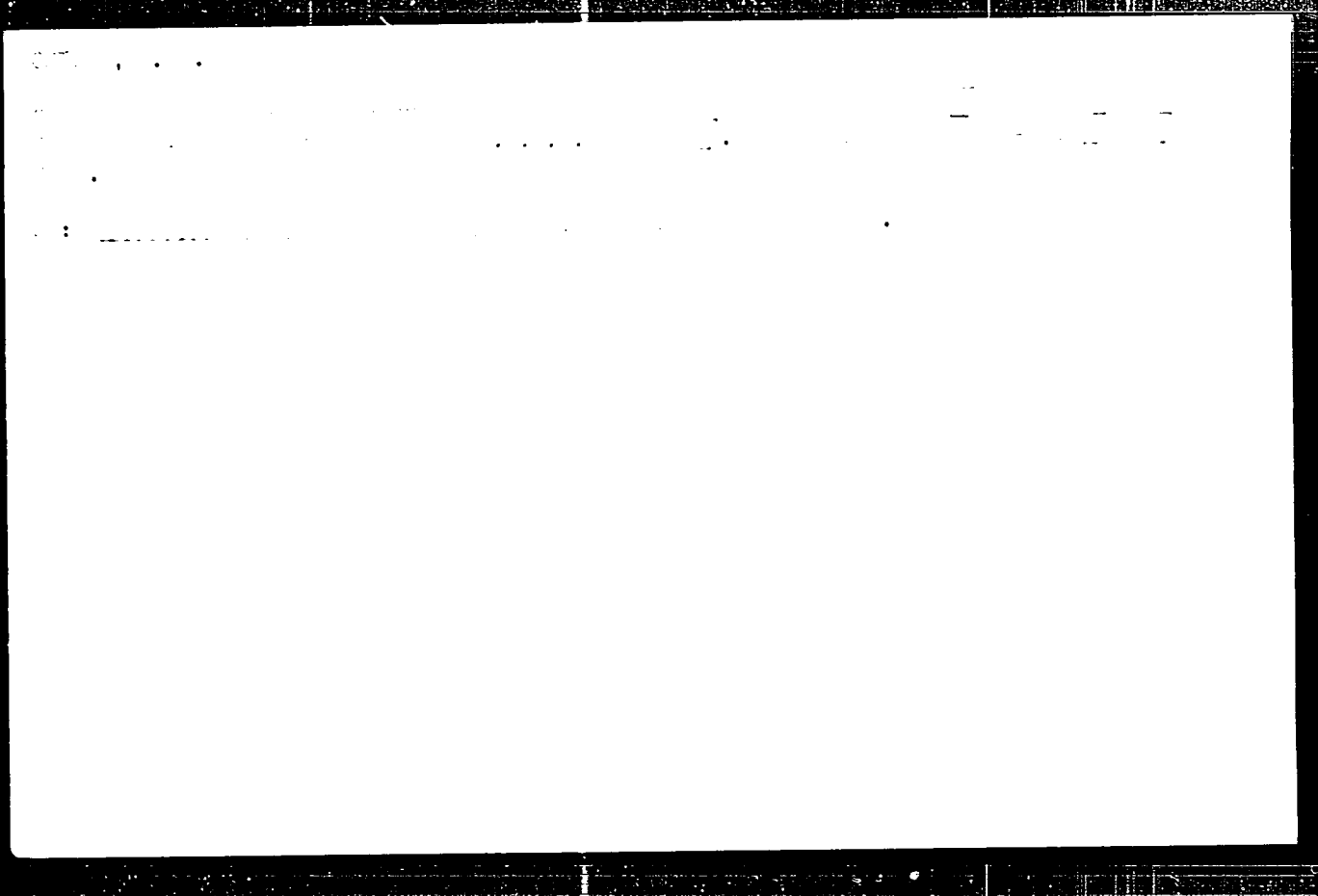
ABSTRACT: Bibliographic entry
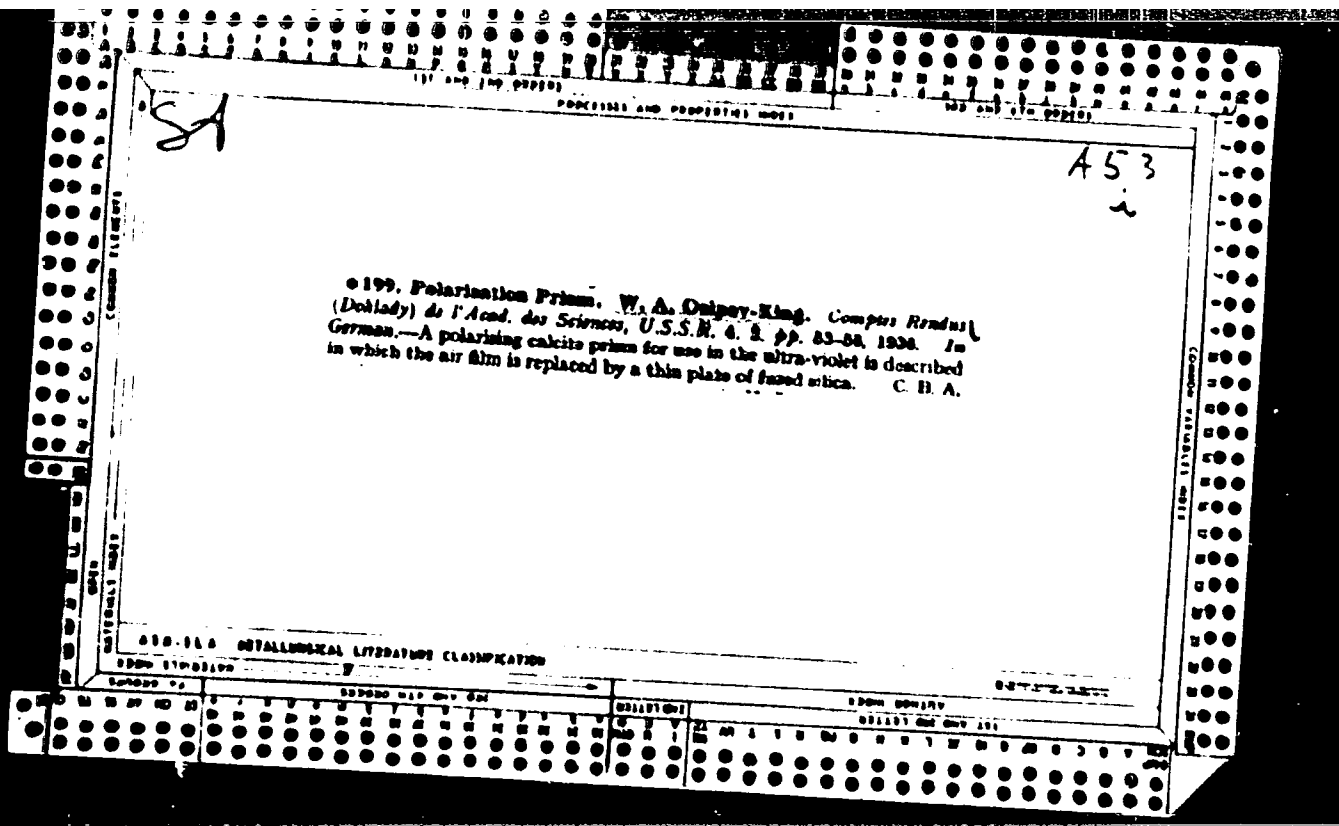
            1. Clays--Physical properties

Card 1 1

OSIPOV, Z. S.

N/ 5
172
.08

Zabota Kommunisticheskoy Part 11 ob ukreplenii aktivnoy oborony SSSR
(The Responsibility of the communist party for the active defense of U.S.S.
R.)   Moskva, Voennoe Izd. Ministerstva Oborony soyuza SSr, 1953.
71 P.

● 199. **Polarisation Prism.** W. A. Onipey-King. *Comptes Rendus* (Doklady) *de l'Acad. des Sciences, U.S.S.R. 4. 2. pp. 83-88. 1936. In German.*—A polarising calcite prism for use in the ultra-violet is described in which the air film is replaced by a thin plate of fused silica.   C. B. A.

OSIPOV, Z. O. Cand Tech Sci -- (diss) "Flat XXXXX Ferro-Brick

Overlaps." Mos, 1957. 14 pp 22 cm. (Academy of Construction and

Architecture USSR, Central Scientific Research Inst of Str

Structural Constructions TSNIISK), 150 copies (KL, 27-57,107)

- 36 -

SOV 124-58-3-3401

Translation from: Referativnyy zhurnal Mekhanika. 1958 Nr 3 p 18 (USSR)

AUTHOR: Osipov Z. G

TITLE: Plane Steel reinforced Brick Coverings (Ploskiye zhelezokir
           pichnyye perekrytiya)

PERIODICAL: Tr. Sredneaz politekhn in-ta. 1957. Nr 1. pp 11-23

ABSTRACT: Bibliographic entry

Card 1 1

ZARUBIN, A.I., polkovnik; OSIFOV, Z.S., general-mayor, red.; ORLOV, P.C.,
red. izd-va; MEDNIKOVA. A.N., tekhn. red.

[Let's be friends with technology; experience in the promotion of
technological knowledge in the Soviet Army and Navy] V druzhbe s
tekhnikoi; opyt voenno-tekhnicheskoi propagandy v Sovetskoi Armii i
Voenno-Morskom Flote. Moskva, Voen. izd-vo M-va oborony SSSR, 1961.
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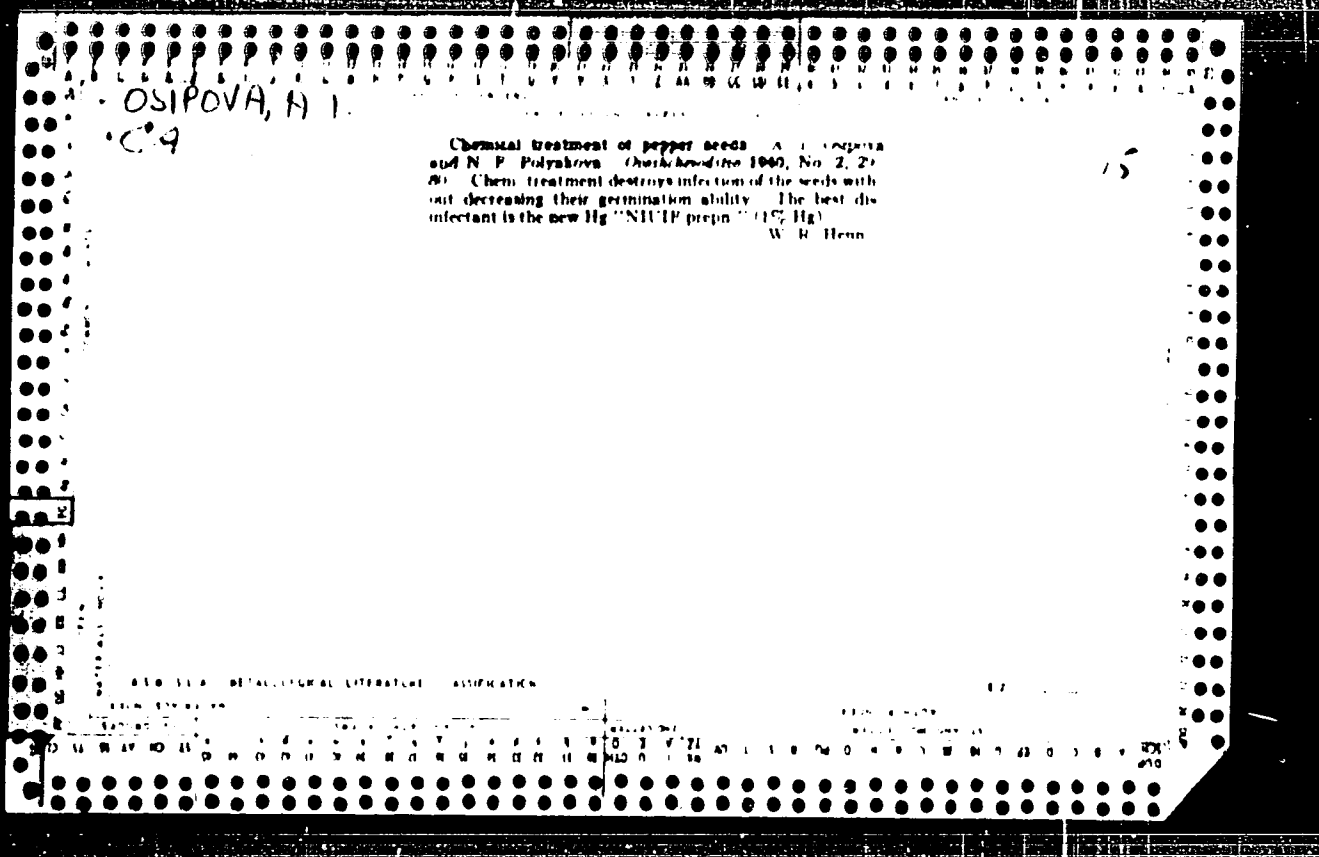
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27138. [illegible text] Insterburg [illegible text]

SO: Letopis' [illegible text]

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Combined paleocological and lithological study of the lower
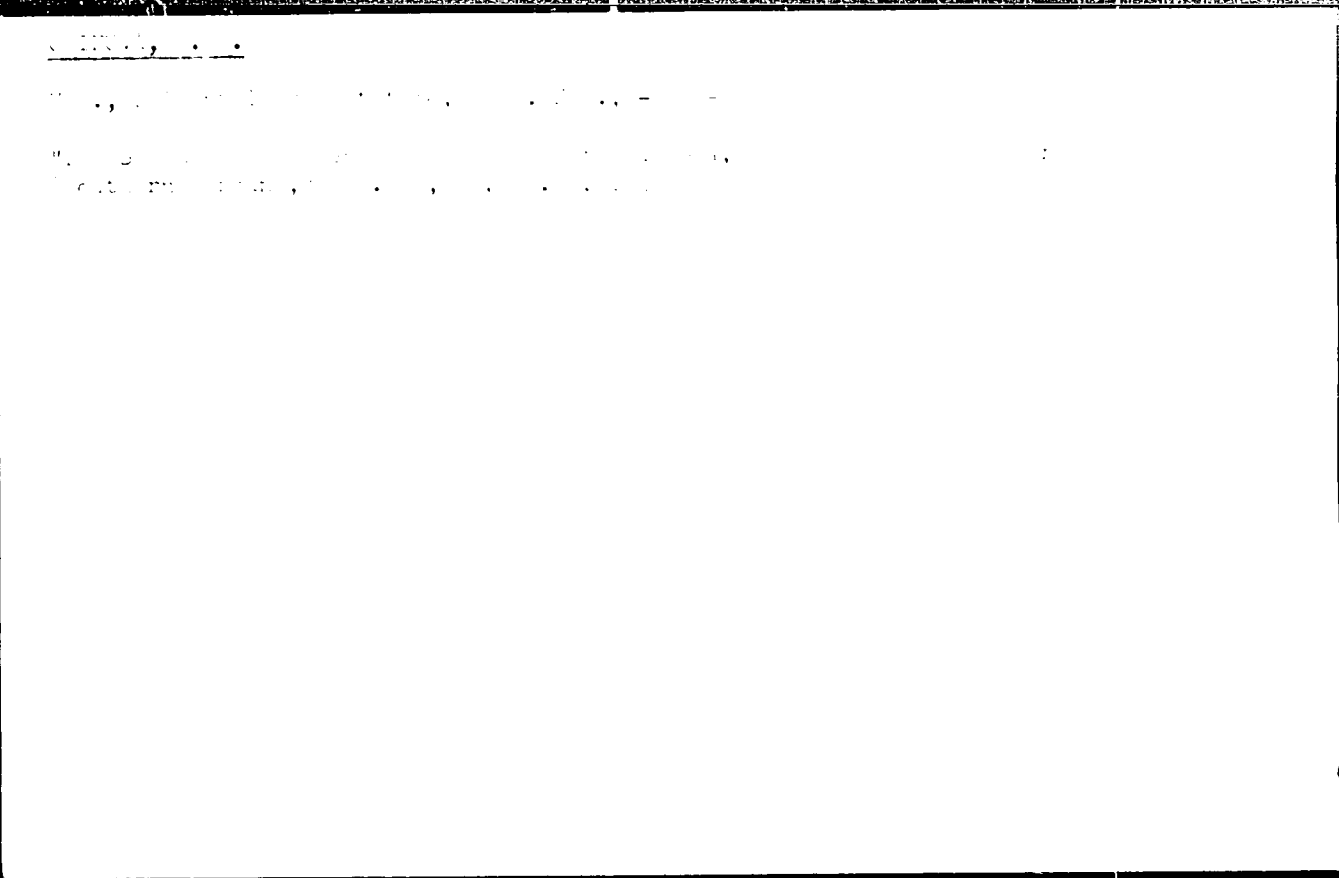Carboniferous in the Moscow Basin. Mat.po geol.i pol.iskop.
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Mg in calcareous clay rocks . . . . Osipova. Bull
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summary) In analyses of calcareous clays one has to
consider the Mg assed with silicates in reporting the
CaO MgO ratio In some calcareous clays as much as
15 to 60 MgO is assed with the silicates Some Mg is
found in the adsorption complex In evaluating car
bonates of Ca and Mg in calcareous clays it is important
to establish their true value by making a CO₂ detn
A fusion analysis for total Mg is also important
                                                    I S Joffe

OSIIOVA, A. I.   IA 41T36

USSR/Geology   Jan/Feb 1948
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"Some Types of Limestones of a Mechanical Origin and
the Conditions of Their Formation," A. I. Osipova,
7½ pp

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Describes the limestone found in the Upper Paleozoic
terrigenous layers in the basin of the Yurezan River.
Limestone was formed as the result of the washing of
carbonated rocks, and skeleton remains in bentonite.
Growth of the lime layers is one reason for the in-
crease of the tectonic movement and the formation of
the structure of the Kara-Tau complex.

                                             41T36

PA 27/49T59

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USSR/Geology
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Jan 49

"Data for a Lithological and Environmental
Description of the Paleogenic Deposits in South-
eastern Fergana," A. I. Osipova, 4 pp

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Studies samples of Paleogenic rocks from three
points east of, and south of Andizhan, and south
of Leninsk. Establishes that the Paleogenic
layer is not limited in amplitude to the known,
basic layer on the Isfar River, and is similar in

USSR/Geology (Contd)

Jan 49

the three points mentioned. Gives distinguishing
features and general characteristics of the layer.
Submitted 11 Nov 48.

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(Maps 1962)