ACCESSION NR: AP5016129

SHUVALOV, L.A.

Observation of domain structure in potassium dihydrophosphate
crystals by a polarization-optical technique /Report, 4th All-Union
Conf. on Ferroelectricity held in Rostov-on-the-Don 12-18 Sept 1964/

SOURCE: AN SSSR.Izvestiya. Ser.fizicheskaya, v.29,no.6,1965, 962-964

TOPIC TAGS: ferroelectric crystal, domain structure, polarized light,
potassium compound, hydrogen compound, phosphate

ABSTRACT: The domain structure of a 17 x 17 x 2 mm Z-cut KH_2PO_4 crys-
tal was observed at liquid nitrogen temperature with the aid of pola-
rized light. The crystal was held in a metal cryostat provided with 3
mm diameter openings to permit passage of light through the crystal
parallel to its Z-axis and was cooled with liquid nitrogen. Monochro-
matic (5500 Å) light was collimated, polarized, passed through the
crystal and an analyzer, and was observed
film or in the field of a microscope

ACCESSION NR: AP5016129

3

rizer and analyzer and the temperature above the Curie point (123°K) the field was dark. When the temperature was reduced below the Curie there appeared two perpendicular systems of bands parallel to the (100) and (01?) planes. The two systems of bands was irregular and was broader than the bands themselves. The position of the bands and their width, the temperature was reduced, and the boundary between the two band systems was in general differently located than before. When the analyzer was set parallel to the polarizer the previously bright regions became dark and the bands. The width of a single band was a maximum and did not change over the whole extent of the area, but it was different in the two regions. Their gratitude to I.S.Zheludev and their interest in the work is.

N: AP016129

CONTACT N: none

SUBMITTED: 00   ENCL: 00

: 201   OTHER: 006

Card 3/3

FOMICHEV, P., general-mayor; SIMONOV, B., inzhener-polkovnik

Study practices in highway maintenance. Tyl i snab. Sov.
Voor. Sil 21 no.4:77-80 Ap '61.   (MIRA 14:7)
                (Military roads)
                (Military bridges)

RUDENKO, I. I.

Financing exploratory drilling. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gornotoplivnoi lit-ry, 1952. 110 p. (53-31038)

HD9575.R82F6

FOMICHEV,P.M.; BROYDE,I.M., redaktor; TITSKAYA,B.F., redaktor; POLOSINA, A.S., tekhnicheskiy redaktor

[Financing the drilling of oil and gas wells] Finansirovanie bureniia neftianykh i gazovykh skvazhin. Moskva, Gos.nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1953. 181 p.

(MIRA 9:2)

(Petroleum--Well drilling) (Gas, Natural) (Finance)

FOMICHEV, P.M.

Changes in accounting for well construction costs. Azerb.neft.khoz.
35 no.3:31-32 Mr '56.   (MLRA 9:10)

(Oil well drilling--Prices)

FOMICHEV, P.M.

New regulations on the financing of drilling operations. Azerb. neft.
khoz. 36 no.10:46-48 O '57.   (MIRA 11:2)
                              (Oil well drilling)

11(0)   PHASE I BOOK EXPLOITATION   SOV/1602

Fomichev, Petr Markovich

Finansirovaniye bureniya neftyanykh i gazovykh skvazhin (Financing Oil and Gas
    Well Drilling) 2nd ed., rev. and enl. Moscow, Gostoptekhizdat, 1958. 182 p.
    2,000 copies printed.

Ed.: Isaak Markovich Broyde; Exec. Ed.: N.D. Dubrovina; Tech. Ed.: E.A. Mukhina.

PURPOSE: This book is intended for engineers, technicians, economists, accountants
    and bookeepers of drilling organizations and other enterprises of the petroleum
    industry.

COVERAGE: The book describes the financial organization of oil and gas surveying
    and drilling operations. Project specifications and estimate-cost forms for
    each phase of a drilling operation are given in the Appendixes. No personalities
    are mentioned. There are no references.

Card 1/2

Financing Oil and Gas Well Drilling   SOV/1602

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

Card 2/2   TM/mas
                                  5-19-59

FOMICHEV, P.M.

Drilling costs. Azerb. neft. khoz. 37 no.1:46-48 Ja '58.
(Oil well drilling--Costs)   (MIRA 11:6)

FOMICHEV, Petr Markovich. Prinimal uchastiye: SHAPOVALOV, Aleksandr Grigor'yevich; BROYDE, I.M., red.; LATUKHINA, Ye.I., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Business accounting within drilling organizations] Vnutri-khoziaistvennyi raschet v burovykh organizatsiiakh. Moskva, Gos.nauchno-tekhn.izd-vo neftianoi i gorno-toplivnoi lit-ry, 1959. 109 p.   (MIRA 12:9)
                    (Oil well drilling--Accounting)

FOMICHEV, P.M.; KYAZIMOV, Ya.R.

Drilling costs in Azerbaijan. Azerb. neft. khoz. 39 no.6:46-48
Je '60.   (MIRA 13:10)
    (Azerbaijan—Oil well drilling—Costs)

FOMICHEV, P.M.

Plans and estimates of well construction.   Naft. khoz. 38 no.12:
1-5 D' '60.   (MIRA 14:4)
                (Oil well drilling)

FOMICHEV, P.M.

Improving the efficiency of drilling. Azerb. neft. khoz. 39
no.12:45-47 D '60.
　　　　　　(Oil well drilling)　　　　　　　　　　(MIRA 14:9)

FOMICHEV, P.M.

Planning, financing, and accounting problems in oil and gas
drilling industry. Neft. khoz. 39 no.12:6-10 D '61. (MIRA 14:12)
(Oil well drilling)

FOMICHEV, P.M.

What methods should be used to account for the cost of the construction of wells; a topic for discussion. Neft. khoz. 43 no.3:5-9 Mr '65.   (MIRA 18:6)

SHAPOVALOV. Aleksandr Grigor'yevich; FOMICHEV, Petr Markovich; BROYDE,
    I.M., red.

[Calculation and the analysis of the cost of drilling gas
and oil wells] Kal'kulirovanie i analiz sebestoimosti
bureniia neftianykh i gazovykh skvazhin. Moskva, Nedra,
1965. 119 p.   (MIRA 18:10)

FOMICHEV, P.M; RASHEVSKAYA, T., red.

[Analysis of the production and management of a drilling organization] Analiz proizvodstvenno-khoziaistvennoi deiatel'nosti burovoi organizatsii. Baku, Azerneshr, 1965. 205 p.   (MIRA 18:11)

FOMICHEV, R.A.

Conference of readers at the Ivanovo Peat Machinery Plant. Torf.
prom. 38 no. 3:37 '61.   (MIRA 14:4)
                    (Ivanovo—Peat machinery—Periodicals)

FOMICHEV, S., dots., kand.tekhn.nauk

Single pipe hot-water systems with water distributing collec-
tors. Zhil.-kom.khoz. 9 no.10:7-9 '59.   (MIRA 13:2)
    (Hot-water heating) (Heating pipes)

FOMICHEV, S.

In the economics of production section of the Technical and Economic
Council of Moscow City Economic Council. Vop. ekon, no.10:139-142
Vop. ekon. no.10:139-142 O '59.   (MIRA 12:12)
                      (Moscow--Industries)

GRIGOR'YEV, B.A.; FOMICHEV, S.N.

Using albedograph for determining optical coefficients of
engineering materials. Inzh.-fiz.zhur. no.1:34-40 Ja '58.

(MIRA 11:7)

(Materials--Optical properties)

FOMICHEV, T.F.

SHLIAPNIKOV, E.G.; ALAKHVERDOV, I.A.; SAGITOV, A.V.; POCHKAE:, I.A.;
FOMICHEV, T.F.,Sr. State Vet. Inspector; KASK, E.A.; NIKOLSKII, R.N.
Kherson oblast
     "On zooveterinary servicing of consolidated kolkhoz."
SO: Vet. 28 (12) 1951, p. 17

FOMICHEV, V. A.

NUCLEAR RESEARCH

DECEASED

C/ 1964

1964

ZIMNYAYA, I.A.; FOMICHEV, V.A.

Study of one of the acoustic stimuli causing the perception
of speech intonation in a question. Vop. psikhol. no.5:73-82
S-O '64   (MIRA 18:1)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut ino-
strannykh yazykov imeni Morisa Toreza.

L 06298-67   EWT(1)   GD

ACC NR: AT6015377   SOURCE CODE: UR/0000/65/000/000/0266/0279

AUTHOR: Karpov, R. G.; Oranskiy, A. M.; Fomichev, V. A.

ORG: none

TITLE: Electronic systems for the approximate differentiation of pulse repetition rate modulated signals

SOURCE: AN BSSR, Institut tekhnicheskoy kibernetiki. Vychislitel'naya tekhnika (Computer engineering). Minsk, Nauka i tekhnika, 1965, 266-279

TOPIC TAGS: digital computer, computer technology, computer input unit, digital differential analyzer, differentiating circuit, differentiation

ABSTRACT: The authors describe a system designed to perform approximate differentiation on continuous or quantized pulse trains, the pulse repetition rate being modulated to represent a controlled process. In the current differentiation schemes, the pulse train is first converted into a varying dc voltage and then differentiated by conventional means. This method introduces errors and delays. The authors propose a new system which can perform the differentiating operations directly on the basis of the digital data. A pulse train having a repetition frequency representing the first derivative of the original pulse train is expressed as

$$F(t) = k \frac{dF_1(t)}{dt}.$$

Card 1/4

L 06298-67

ACC NR: AT6015377

where $F(t)$ is the repetition frequency of the pulse train related to the first derivative of the original pulse train $F_1(t)$, k is the dimensional coefficient. This expression can be also written as

$$F(t) = \lim_{\Delta t \to 0} \frac{F_1(t + \Delta t) - F_1(t)}{\Delta t}$$

For a pulse train, the condition $\Delta t \to 0$ has no physical meaning, hence an approximate differentiation can be used for $\Delta t \to \Delta \tau$, where $\Delta \tau$ is a small value, satisfying

$$\Delta \tau \ll T_x$$

T_x is the variation period of $F_1(t)$. Under these conditions

$$F(t)_p = \lim \frac{F_1(t + \Delta t) - F_1(t)}{\Delta t} = k \frac{\Delta F_1(t)}{\Delta t} \approx k \frac{dF_1(t)}{dt}.$$

This mathematical operation can be carried out using the system shown in figure 1. In this system, the differentiation amounts to the generation of a pulse train $F(t)$ equal to the difference of the pulse train $F_1(t)$ and a new analogous pulse train $F_1'(t)$ delayed by a finite time interval $\Delta \tau$ with respect to $F_1(t)$. The pulse train to be differentiated is fed into block 1 and block 3. Block one generates a fixed delay $\Delta \tau$.

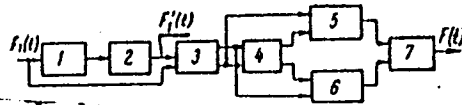Card 2/4

L 06298-67

ACC NR: AT6015377

Fig. 1.

It can be in the form of a delay line for pulse trains having high repetition rates, or in the form of a magnetic drum, in which the delay is introduced by the use of two read heads displaced with respect to each other. The latter arrangement has the advantage of providing for variable adjustable delay. The output pulses of block 1 are shaped in block 2 and fed into block three, where coinciding pulses from both pulse trains are eliminated using a differential anticoincidence circuit. From here the two pulse trains minus coincidence pulses are introduced into block 4 which, in conjunction with blocks 5 and 6, has the task of generating a pulse train

$$F_1^*(t) - F_1(t) \text{ if } F_1(t) > F_1^*(t).$$

No output occurs if

$$F_1^*(t) > F_1(t), \text{ or } F_1^*(t) = F_1(t).$$

Anticoincidence techniques are used to perform this operation. Block 7 is cathode follower output stage. The authors describe and analyze two practical circuits based on the proposed approximate differentiation method. The first is suitable for continuous pulse trains in which the instantaneous pulse repetition frequency is proportional to the current state of the monitored process; the second is designed to operate on quan-

Card 3/4

L 06298-67
ACC NR: AT6015377

tized pulse trains in which the pulses occur in "parcels" at distinct intervals. Orig. art. has: 5 figures.

SUB CODE: 09,12/   SUBM DATE: 15Dec65

Card 4/4

1. AP7-67   EWT(1)/EWT(m)/EWP(t)/ETI   IJP(c)   JD/JH

ACC NR: AP6033549   SOURCE CODE: UR/0181/66/008/010/2892/2899

AUTHOR: Fomichev, V. A.

ORG: Leningrad State University im. A. A. Zhdanov, (Leningradskiy gosudarstven-
nyy universitet)

TITLE: Study of the energy structure of Al and Al_2O_3 by the method of ultralong
wave x-ray spectroscopy

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 2892-2899

TOPIC TAGS: aluminum, aluminum oxide, spectroscopy, x ray spectroscopy,
ultralong wave x ray spectroscopy, absorption spectra, emission spectra,
crossover transition

ABSTRACT: A study was made of the emission and absorption spectra of aluminum
(Al) and aluminum oxide (Al_2O_3) within the ultra-soft region of x-ray radiation.
Al and Al_2O_3 absorption spectra were found to have a sharply defined fine struc-
ture near the $L_{II, III}$-boundary of aluminum absorption. The emission band of
Al in Al_2O_3 has a two-hump shape. In the ultrasoft region, this band is accompa-
nied by two secondary maxima at 45 and 50.5 ev. The first appears to be the

Card 1/2

L C9917-67

ACC NR: AP6033549

result of an internal $L_1 = L_{II, III}$ transition of aluminum. The second is apparently the result of crossover transitions of 2s-electrons of oxygen to the 2p-level of aluminum. Energy level diagrams are plotted for Al and Al_2O_3. In the proximity of the oxygen and aluminum atoms in Al_2O_3, the diagrams differ. Orig. art. has: 8 figures and 1 table. [Author's abstract]

SUB CODE: 20/ SUBM DATE: 08Feb66/ ORIG REF: 011/ OTH REF: 018/

L 9915-66   EWT(1)/EWP(e)/EWT(m)/EWE(j)/EWP(b)   LHB/RM/WH

ACC NR: AP5022867   SOURCE CODE: UR/0051/65/019/003/0425/0433

AUTHOR: Lukirskiy, A. P. (Deceased); Savinov, Ye. P.; Yershov, O. A.; Zhukova, I. I.;
Fomichev, V. A.

ORG: None

TITLE: Reflection of x rays with wavelengths from 23.6 to 190.3 Å. Some remarks on
the operation of diffraction gratings

SOURCE: Optika i spektroskopiya, v. 19, no. 3, 1965, 425-433

TOPIC TAGS: x ray diffraction, x ray filter, x ray spectrum, diffraction grating

ABSTRACT: The authors measured the angular dependence of the reflection coefficient
for various substances, using the following monochromatic lines: O_K (23.6 Å),
N_K (31.4 Å), C_K (44 Å), B_K (67 Å), $Sr_{M\xi}$ (108.65 Å), $Rb_{M\xi}$ (128.66 Å), $Ba_{NV-OIII}$ (164.6
Å), and $Cs_{NV-OIII}$ (190.3 Å). The measurement methods were described by the authors
elsewhere (Opt. i spektr. v. 16, 310, 1963 and earlier). For lines shorter than
113 Å the radiation was detected with a flow-through proportional counter filled with
methane; for longer wavelengths a Geiger counter with argon-alcohol mixture was used.
The substances measured were F-1 glass, gold, titanium, and polystyrene. The method
of preparing the reflectors was also described in the earlier papers. Polystyrene
and titanium reflectors are found to be capable of effectively filtering radiation
shorter than 50--200 Å, depending on the angle of incidence. In the case of F-1
glass, a sharp fine structure is observed in the reflection coefficient at wave-
lengths 70--130 Å. For titanium the fine structure appears at wavelengths shorter

Card 1/2   UDC: 537.531

L 9915-66

ACC NR: AP5022867

than 30 Å, and for polystyrene at wavelengths shorter than 45 Å. Gold exhibits no fine structure. The spectral dependences of the reflection coefficients show that titanium mirrors can be used effectively as filters for radiation of wavelengths shorter than 30--50 Å at various angles of incidence, and that polystyrene mirrors can be used as filters for radiation shorter than 50--180 Å, depending on the angle of incidence. The maximum reflection coefficients in the first order of diffraction have been calculated also for echelettes cut in F-1 glass and echelettes with gold and titanium coatings, which were also studied by the authors earlier (Opt. i spektr. v. 14, 285, 1963). Plots of the maximum reflection coefficient of the echelettes (600 and 1200 lines/mm) vs. the angle make it possible to choose the optimum angles of incidence and the angles of inclination of the echelette steps. The greatest possible reflection coefficients are obtained in first order. Orig. art. has: 3 formulas and 1 table.

SUB CODE: 20/   SUBM DATE: 21May64/   ORIG REF: 007/   OTH REF: 001
07/
18/

Card 2/2

L 18755-66   EWT(m)/EWP(t)   IJP(c)   JD

ACC NR: AP6003767   SOURCE CODE: UR/0181/66/008/001/0095/0102

AUTHORS: Lukirskiy, A. P. (deceased); Brytov, I. A.; Fomichev, V. A.

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: New emission bands of Re, W, Ta, Te, Sb, Pd, Mo, Nb, and Ti in the ultrasoft x-ray region of the spectrum

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 95-102

TOPIC TAGS: x ray emission, x ray diffraction study, spectral line, line width, line shift, x ray spectroscopy

ABSTRACT: The purpose of the experiment was to obtain additional experimental data on the density of the electronic states in the valence band. The new lines were obtained in the spectral region 70 -- 450 Å with the aid of a diffraction-grating x-ray spectrometer. The use of effective detectors and reflecting mirrors to filter out the radiation has made it possible to detect the new lines. The

Card   1/2

L 18755-66
ACC NR: AP6003767   2

spectrometer was described by one of the authors earlier (Lukirskiy,
Izv. AN SSSR ser. fiz. v. 25, 913, 1961). An identification for the
observed emission bands is proposed and the widths of the levels
participating in the transitions are determined. The shape of the
emission bands and the widths are not discussed in detail, in view
of the lack of data on the detector efficiency and on the spectral
dependence of the diffraction-grating reflection coefficient. The
observed shape of the emission line of W is compared qualitatively
with the theoretical distribution of the energy density of the elec-
tronic states of the 5d6s band. Further improvement in the results
is expected when the resolution of the spectrometer is increased
and when absorption spectra of the same elements become available
for the investigated region of spectrum. The authors thank M. A.
Rumsh and T. M. Zimkina for useful remarks. Orig. art. has: 8 figures
and 3 tables.

SUB CODE: 20/ SUBM DATE: 29Jun65/ ORIG REF: 007/ OTH REF: 007

Card   2/2 JM

L 24282-66   EWT(m)/EWP(j)/EWA(h)/EWA(l)   RM

ACC NR: AP6007023   SOURCE CODE: UR/0051/66/020/002/0366/0368

AUTHOR: Lukirskiy, A. P. (deceased); Fomichev, V. A.; Brytov, I. A.   4/6

ORG: none   B

TITLE: Absorption coefficients of nitrocellulose and polystyrene in the 8--410 Å
region of the ultrasoft x-radiation

SOURCE: Optika i spektroskopiya, v. 20, no. 2, 1966, 366-368

TOPIC TAGS: absorption coefficient, polystyrene, nitrocellulose, radiation detector,
x ray filter

ABSTRACT: This is a continuation of earlier work (Opt. i spektr. v. 17, 438, 1964)
on the efficiency of gas-filled radiation detectors. Whereas the absorption coeffi-
cients of the gas and vapor used in these detectors were measured earlier, the nitro-
cellulose used for the detector window was not investigated before. The measurement
procedure was the same as in the earlier work. The preparation of the transparent
films is briefly described. Films close to optimal thickness for each wavelength
were used. The numerical values of the absorption coefficients are listed in a table
for the different wavelengths in the case of nitrocellulose and plotted in the case
of polystyrene. In the case of polystyrene, a considerable jump occurs in the ab-
sorption coefficient in the vicinity of the carbon line and it is noted that poly-
styrene can serve because of this anomaly as an effective filter for ultrasoft x-
radiation. Orig. art. has: 1 figure, 1 formula, and 1 table.

SUB CODE: 20/   SUBM DATE: 29Jun65/   ORIG REF: 003/   OTH REF: 003   2
Card 1/1 PV   UDC: 535.34: 537.351

L 04740-67   EWT(1)/EWT(m)/EWP(t)/ETI   IJP(c)   JD

ACC NR: AP6024473   SOURCE CODE: UR/0181/66/008/007/2104/2108

AUTHOR: Fomichev, V. A.; Lukirskiy, A. P. (Deceased)   37

ORG: Leningrad State University im. A. A. Zhdanov (Leningradskiy gosudarstvennyy B
universitet)

TITLE: Fine structure of $L_{II, III}$ absorption spectrum of aluminum 7

SOURCE: Fizika tverdogo tela, v. 8, no. 7, 1966, 2104-2108

TOPIC TAGS: absorption spectrum, x ray spectrum, spectral fine structure, absorption
edge

ABSTRACT: The purpose of the investigation was to check on the accuracy of data ob-
tained by others, in view of the experimental difficulties involved in investigations
of the ultrasoft x-ray region of the spectrum. The fine structure was investigated
near the $L_{II, III}$ absorption edge (170 Å) with the aid of the bremsstrahlung spectrum
of a tungsten anode, using apparatus described in various earlier papers by one of
the authors (Lukirskiy et al., Opt. i spektr. v. 19, 800, 1965 and earlier). The
samples were prepared by evaporating aluminum in vacuum on a glass substrate coated
beforehand with KCl. The evaporated film was then floated free on water. The results
have shown that the observed fluctuations in the absorption coefficient on the short-
wave side of the absorption edge are typical of aluminum, and cannot be attributed to
the substrate as suggested by D. H. Tamboulian and E. M. Pell (Phys. Rev. v. 83, 1196,
1951). On the long-wave side, no fine structure is observed in the absorption coef-

Card 1/2

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ACC NR: AP6024473   ○   ,

ficient of aluminum, and it is therefore concluded that the results obtained by T.
Hayasia and T. Sagawa (Sci. Rep. Tohoku Univ. no. 44, 126, 1960) are in error. Orig.
art. has: 5 figures.

SUB CODE: 20/   SUBM DATE: 14Dec65/   ORIG REF: 005/   OTH REF: 006

Card 2/2

L. 00347-67   EWT(1)/EWT(m)/EWP(t)/ETI   IJP(c)   JW/JD
ACC NR: AI6030653   SOURCE CODE: UR/0020/66/169/006/1304/1306

AUTHOR: Zimkina, T. M.; Fomichev, V. A.

ORG: Leningrad State University im. A. A. Zhdanov (Leningradskiy gosudarstvennyy universitet)

TITLE: Absorption spectrum of sulfur hexafluoride in the ultrasoft x-ray region

SOURCE: AN SSSR. Doklady, v. 169, no. 6, 1966, 1304-1306

TOPIC TAGS: sulfur compound, fluoride, x ray spectrum, fine structure, absorption coefficient, absorption edge, photoionization, molecular structure

ABSTRACT: The authors have obtained the absorption spectrum of SF_6 in the region of the L_{II-III} absorption edge. The purpose of the investigation was to explain the nature of the selective maxima in the region of the edge and their connection with the energy structure of the molecule, and to obtain data supporting the theory of photoionization absorption and the applicability of x-ray absorption laws in the ultrasoft region. The absorption coefficients were investigated by a method described in earlier papers (Izv. AN SSSR ser. fiz. v. 27, 324, 1963 and v. 28, 772, 1964). The spectral range investigated was 41 - 73 Å at a pressure 4.5 ± 0.5 mm Hg (ensuring a 30% transmission). The results are presented in the form of a plot of the absorption coefficients vs. energy in the range 170 - 300 ev, and a larger-scale portion of the fine structure (first three absorption bands) between 170 and 205 ev. The distances between the maxima are close to the spin-doublet splitting of the L_{II} and L_{III} levels

Card 1/2   UDC: 535.343

L 09347-67

ACC NR: AP6030653   O

of sulfur. The absorption spectrum has an unusual form, anomalous intensity ratios, and no clear-cut absorption edge, but the lack of experimental data on the uv absorption spectrum and of theoretical calculations make the interpretation of the results difficult. It is quite likely that the unusual spectrum can be attributed not only to the energy structure of the molecule but also to the character of the photoionization absorption, since the x-ray absorption regularities obtained by using hydrogen-like wave functions do not hold for ultrasoft x rays. This report was presented by A. A. Lebedev 30 November 1965. Orig. art. has: 2 figures.

SUB CODE: 20/   SUBM DATE: 25Nov65/   ORIG REF: 003/   OTH REF: 004

Card   2/2

ACC NR: AP7001405   (A)   SOURCE CODE: UR/0413/66/000/021/0107/0108

INVENTOR: Lashkov, K. A.; Klimova, T. N.; Fomichev, V. A.; Matsyuk, L. N. Kolobkov,
Yu. M.

ORG: none

TITLE: Device for heat-pulse welding of polymer films. Class 39, No. 187991

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966,
107-108

TOPIC TAGS: polymer film, polymer film welding, heat pulse welding device, closed
contour article, curvilinear lap weld. *heat resistance, equipment*

ABSTRACT: An Author Certificate has been issued for a device for heat-pulse welding
of polymer films. The device consists of two insulation blocks, heating elements
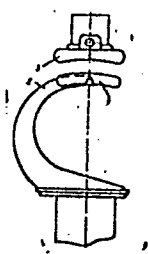

Fig. 1.

1 - Bottom block; 2 - s-shaped support; 3 - top block.

Card 1/2   UDC: 621.791.46.052.2.037

ACC NR: AP70001405

in the form of metal strips with copper inserts, and a support. To obtain closed-
contour articles with a curvilinear lap weld, the blocks have a surface curvature
corresponding to that of the articles to be welded, and the bottom block is
mounted on an s-shaped support. Orig. art. has: 1 figure.   [BO]

SUB CODE: 11, 13/ SUBM DATE: 15Aug63/ ATD PRESS: 5109

Card   2/2

ACC NR: AP6036271   SOURCE CODE: UR/0108/66/021/011/0069/0071

AUTHOR: Karpov, R. G.; Fomichev, V. A.

ORG: none

TITLE: Controllable frequency divider with storage-type counter

SOURCE: Radiotekhnika, v. 21, no. 11, 1966, 69-71

TOPIC TAGS: frequency divider, pulse counter

ABSTRACT: A divider is considered which turns a pulse packet of frequency F_s (t) simulating a physical quantity into another pulse packet of frequency: $F_1(t) = F_s(t)/n$; here, n = n(t) is a stepwise adjustable division ratio of a storage-type counter (see figure). The circuit includes a blocking oscillator turned off by a voltage drop across R_3. The turn-on level can be adjusted by control voltage U_y applied to the grid circuit of the cathode follower. Experimental plots of division ratio vs. control voltage are shown. Orig. art. has: 3 figures and 6 formulas.
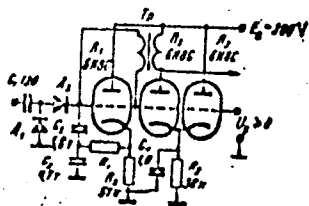
SUB CODE: 09 / SUBM DATE: 10Dec65 / ORIG REF: 002

Card 1/1   UDC: 621.374.4

FOMICHEV, V.D.; BUL'VANKER, E.Z., red.; VOLKOVA, A.N., red.izd-va;
    GLUKHOYEDOVA, G.A , tekhn. red.

[Permian Rugosa in the Far East] Permskie korally Rugosa
Dal'nego Vostoka. Moskva, Gosgeolizdat, 1953. 70 p.
                                                (MIRA 16:7)

    (Soviet Far East--Tetracoralla)

POLTEHEV, V. D. (ZNIGRI, Central Geological and Prospecting Institute, Leningrad.)

A USSR registrant of the 17th International Geological Congress held in Moscow in 1937.

SO: Report of the 17th Inter. Geol. Cong., 1937.

PA 43/43T25

FOMICHEV, V. D.

Feb 1948

USSR/Geology
     Tectonics

"The General Tectonic System of Western Siberia and
Eastern Kazakhstan," V. D. Fomichev, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 4

Describes, with aid of map of Siberia and Kazakhstan,
folding zones of various ages and their stages. Sub-
mitted by Academician V. A. Obruchev, 10 Dec 1947.

43T25

FOMIC EV, V   D

Dorally Rugosa I Stratigrafiya Sredne-I Verkhnekamennougol'nykh I Permskikh Otlozheniy Donetskogo Basseyna (Rugosa corals and Stratigraphy of the Middle and upper Bituminous Coal and Permian Deposits of the Donet, Basin) Moskva, Gosgeolizdat, 1953.
  621 p. Diagrs., Tables.
  "Literatura": p. 608-613.

Temichev, V. D.

FOMICHEV, V.D.; GORSKIY, I.I., red.; SHUMOV, V.V., red.izd-va;
    BORISOV, A.S., tekhn. red.

[Rugosa and the stratigraphy of the Middle and Upper
Carboniferous and Permian sediments in the Donets Basin] Ko-
rally Rugosa i stratigrafiia sredne i verkhnekamennougol'nykh i
permskikh otlozhenii Donetskogo basseina. Moskva, Gos.izd-vo
geol. lit-ry, 1953. 621 p. ___ Atlas. 90 p. (MIRA 15:2)

1. Chlen-korrespondent Akademii nauk SSSR (for Gorskiy).
        (Donets, Basin—Geology, Stratigraphic)
            (Donets Basin—Rugosa)

FOMICHEV, V.D.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Fomichev, V. D.	"'Rugosa' Corals and the Stratigraphy of the Middle and Upper Carboniferous and Permian Strata of the Donets Basin"	Ministry of Geology and Conservation of Mineral Resources USSR

SO: W-30604, 7 July 1954

FOMICHEV, V.D.

AKSARIN,A.V.; ANAN'YEV,A.P.; BENEDIKTOVA,R.N.; GORBUNOV,M.G.; GRATSIANOVA,
    R.T.; YEGOROVA,L.I.; IVANIYA,V.A.; KRAYEVSKAYA,L.N.; KRASNOPEYEVA,
    P.S.; LEBEDEV,I.V.; LOMOVITSKAYA,M.P.; POLETAYEVA,O.K.; ROGOZIN,L.A.;
    RADCHENKO,G.P.; RZHONSNITSKAYA,M.A.; SIVOV,A.G.; FOMICHEV,V.D.; KHAL-
    FINA,V.K.; KHALFIN,L.L.; CHERNYSHEVA,S.V.; NIKITINA,V.N., redaktor;
    GUROVA,O.A., tekhnicheskiy redaktor

[Atlas of leading forms of fossils in the fauna and flora of Western
Siberia] Atlas rukovodiashchikh form iskopaemykh fauny i flory zapad-
noi sibiri. Pod red. L.L.Khalfina. Moskva, Gos. nauchno-tekhn.izd-vo
lit-ry po geologii i okhrane nedr, Vol.1. 1955. 498 p. Vol.2. 1955.
318 p. [Microfilm]   (MLRA 9:3)

1. Tomsk. Politekhnicheskiy institut imeni Kirova.
        (Siberia, Western--Paleontology)

FOMICHEV, V.D.

New data on the stratigraphy of Salair Ridge. Inform.sbor.VSEGEI
no.3:43-45 '56.   (MLRA 10:1)
          (Salair Ridge--Geology, Stratigraphic)

MELESHCHENKO, V.S.; SAKS, V.N.; SPIZHARSKIY, T.N.; FOMICHEV, V.D.

Interdepartmental meeting on developing unified stratigraphic
systems for Siberia. Inform. sbor. VSEGEI no.4:31-37 '56.
            (Siberia--Geology, Stratigraphic)   (MLRA 10:4)

SPIZHARSKIY, T.N., red.; BODYLEVSKIY, V.I., red.; BOCH, S.G., red.; VASILENKO,
V.K., red.; DODIN, A.L., red.; DOMRACHEV, S.M., red.; KRASNOV, I.I.,
red.; MELESHCHENKO, V.S., red.; MENNER, V.V., red.; NIKIFOROVA, O.I.,
red.; OBRUCHEV, S.V., red.; RZHONSNITSKAYA, M.A., red.; ROSTOVTSEV,
N.N., red.; SAKS, V.N., red.; SARYCHEVA, T.G., red.; FOMICHEV, V.D.,
red.; CHERNYSHEVA, N.Ye., red.; YAKOVLEV, S.A., red.; SKVORTSOV, V.P.,
red.izd-va; PEN'KOVA, S.A., tekhn.red.

[Decisions of the Interdepartmental Conference on Making Unified
Stratigraphic Charts of Siberia] Resheniia Mezhvedomstvennogo sove-
shchaniia po razrabotke unifitsirovannykh stratigraficheskikh skhem
Sibiri. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane
nedr, 1959. 91 p.   (MIRA 12:9)

1. Mezhvedomstvennoye soveshchaniye po razrabotke unifitsirovannykh
stratigraficheskikh skhem Sibiri, Leningrad, 1956.
          (Siberia--Geology, Stratigraphic)

FOMICHEV, V.D.

Boundary between the Carboniferous and Permian systems and
the Artemovsk complex of sediments. Sov. geol. 3 no. 11:94-108
N '60.   (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.
              (Geology, Stratigraphic)

FOMICHEV, V.D., starshiy nauchnyy sotrudnik; ALEKSEYEVA, L.E., geolog;
SOKOLOVSKAYA, Ye.Ya., red.izd-va; IVANOVA, A.G., tekhn.red.

[Outline of the geology of the Salair Ridge] Geologicheskii
ocherk Salaira. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po
geol. i okhrane nedr, 1961. 201 p. 7 plates. (Leningrad.
Vsesoiuznyi geologicheskii institut. Trudy, vol.63.). (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.
(Salair Ridge—Geology)

IVANOVSKIY, S.A., dotsent; FOMICHEV, V.F., veterinarnyy vrach

Problems in the methodology of X-ray photometry. Veterinariia
38 no.8:54-57 Ag '61   (MIRA 18:1)

1. Bashkirskiy sel'skokhozyaystvennyy institut.

FOMICHEV, V. F. (Veterinary Doctor, Chair of Clinical Diagnosis and Therapy,
Bashkir Agricultural Institute). (Abstracted by V. A. ALIKAYEV)

"Method of staining animal blood smears."
Veterinariya, vol. 39, no. 2, February 1962   pp. 82

VASIL'YEV, S.F.; MOSIN, A.M.; LAPIDES, N.A.; Prinimali uchastiye: MISHENKO,
    M.L.; OSTROVSKAYA, L.V.; FOMICHEV, V.F.; GUBBOTINA, G.V.; SHVEDOVA,
    L.M.

    Oxidative pyrolysis of lower hydrocarbons. Khim.prom. no.4:238-243
    Ap '61.   (MIRA 14:4)

    1. Institut goryuchikh iskopayemych AN SSSR.
        (Hydrocarbons)   (Oxidation)

FOMICHEV, V.G.

Study of bipolar electrodes. Trudy LTI no.46:36-48 '58.
(MIRA 14:4)
(Electrodes)   (Electrochemistry)

.5.1310

77640
SOV/80-33-2-15/52

AUTHORS: Volova, Ye. D., Maksimova, I. N., Mashovets, V. P., and Fomichev, V. G.

TITLE: Electrolytic Preparation of Thallium Amalgam for Low-Temperature Thermometers

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2, pp 349-354 (USSR)

ABSTRACT: Electrolytic preparation of thallium amalgam was studied to determine optimum conditions for the process. The materials used were: purified and vacuum-distilled mercury (and brand P-2 mercury); thallium sulfate of composition: Tl_2SO_4, 99.9%; Fe, 0.001%; Cu, 0.005%; water insoluble impurities 0.01%, impurities precipitable with NH_2OH 0.01%, those not precipitable with $(NH_4)_2S$ 0.01%; and metallic thallium (for preparation of amalgam by direct
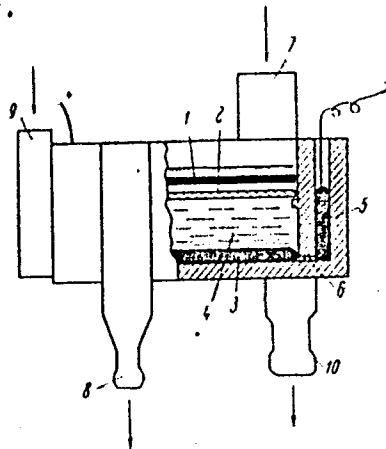
Card 1/8

Electrolytic Preparation of Thallium
Amalgam for Low-Temperature Thermometers

77640
SOV/80-33-2-15/52

dissolution of Tl in mercury) containing Tl, 99.8%;
Zn, 0.004%; Cd, 0.02%; Cu, 0.006%; Pb, 0.005%; and Fe,
0.001%. Figure 1. shows the cross section of the
electrolyzer.

Fig. 1

Card 2/8   See Card 3/8   for caption.

Electrolytic Preparation of Thallium   77640
Amalgam for Low-Temperature Thermometers   SOV/80-33-2-15/52

Caption to Fig. 1.

Fig. 1. Cross section of the electrolyzer: (1)
anode; (2) pressed fiberglass membrane; (3)
flowing mercury cathode; (4) the electrolyte; (5)
outlet from cathode; (6) platinum contact; (7) inlet '
for the electrolyte; (8) electrolyte drain; (9)
inlet for the mercury; (10) amalgam drain.

Content of thallium in amalgam was determined by
potentiometric titration with 0.01 N $KBrO_3$ of
0.2-0.5 g amalgam samples dissolved in dilute sul-
furic acid. Results obtained by the use of a
platinum wire anode (with a surface area of 2.5 cm^2)
were compared with the results with a lead anode
(a perforated horizontal plate of $\sim$ 30 cm^2 surface).
Cathodes with an area of 5.7 and 30 cm^2 in the first
case, and 30 cm^2 in the second were used. In the

Card 3/8

Electrolytic Preparation of Thallium   77640
Amalgam for Low-Temperature Thermometers   SOV/80-33-2-15/52

case of platinum anode 95-100% thallium yield based on current were reached at all investigated temperatures $(20-45°)$, cathodic current densities $(12-50 \text{ ma/cm}^2)$, acidities of initial solution (0.001 to 1.33 g-equiv/l) and flowrates, w, of the solution from $w_{theoret}$ (in 1/min) to 5 $w_{theoret}$ at the optimum composition of the electrolyte (high Tl^+ concentration and low acidity). $w_{theoret}$ was calculated from Tl concentration and current, taking complete Tl extraction and yield based on current as 100%. Figure 1 shows that the degree of thallium utilization (in amalgam) is inversely proportional to the flowrate of the solution.

Card 4/ 8

Electrolytic Preparation of Thallium
Amalgam for Low-Temperature Thermometers
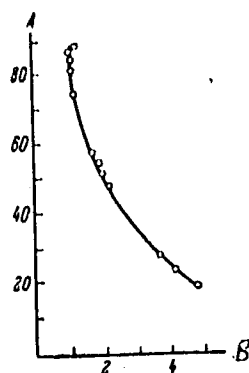
77640
SOV/80-33-2-15/52

Fig. 2. Degree of thallium utilization (in %): (A)
as a function of solution flowrate; (B) --$w_{actual}/w_{theoretical}$ -- in electrolysis with a platinum anode.

Card 5/8

Electrolytic Preparation of Thallium
Amalgam for Low-Temperature Thermometers

77640
SOV/80-33-2-15/52

The output is lowered with decreasing thallium concentration (by lowering concentration of Tl from 40.5 to 8.5 g/l, the yield based on current dropped from 98.0 to 64.5% and degree of thallium utilization from 86.0 to 50.2%) and with increasing acidity (at $\sqrt{H}$ 1.33 g-equiv/l compared to the optimum $\leq$ 0.01 g-equiv/l the yield dropped to 70.6%). Experiments with a lead anode show that the process gives lower outputs than with platinum anode, is accompanied by thallium oxidation to Tl_2O_3 and is more sensitive to changes in temperature (rise in temperature increases thallium yield and utilizaton and decreases oxidation), current density (increase of current density raises Tl yield and utilization somewhat with a maximum at 50 ma /cm2; a subsequent decrease in yield is probably caused by increasing evolution of hydrogen at the cathode) and flowrate (increasing flowrate some- what decreases oxidation, increases Tl yield and decreases degree of utilization). Unfavorable results

Card 6/8

Electrolytic Preparation of Thallium   77640
Amalgam for Low-Temperature Thermometers   SOV/80-33-2-15/52

obtained by the use of lead anode are caused by its
large surface area and high overvoltage. Experiments
on electrolysis with a smaller lead anode resulted
in overheating of electrolyte and decomposition of anode.
On the basis of experimental results the authors
recommend the use of a platinum anode with a small
surface area. Optimum conditions: the electrolyte
containing 40.5 g/l of Tl^+ and $\leq$ 0.01 g-equiv/l of free
H_2SO_4; temperature 20-40°; cathodic current density
35-50 ma/cm²; and the flowrate of the solution 1.02-
1.05 $w_{theoret}$. In electrolysis on the lead anode
temperature of 60-65°and current density of 50-70
ma /cm² should be used. Preparation of thallium
amalgam by dissolving thallium in mercury (at room
temperature, under glycerin or water) is a simpler
process than electrolysis, but the amalgam prepared by
the latter process is supposed to be of greater purity.
The amalgams prepared by both processes have been
submitted for tests in low-temperature thermometers

Card 7/ 8   to ascertain the advantages of the electrolysis amalgam.

Electrolytic Preparation of Thallium   77640
Amalgam for Low-Temperature   SOV/80-33-2-15/52

There are 5 figures; 1 table; and 13 references ,
3 Soviet, 5 German, 1 U.K., 4 U.S. Abstracter's
Note: There are 12 references listed in the article
but one of them was broken down into two. The
U. K. and U.S. references are: D. Mac-Intosh, F. M.
Johnson, J. Am. Chem. Soc., 34, 941 (1910); J.
Enrenreich, Instruments & Automation, 27, 1070
(1954); F. W. Richards, C. Smith, J. Am. Chem. Soc.,
44, 524 (1922), 45, 1455 (1923); F. Singch, J. Indian.
Chem. Soc., 13, 717 (1936); F. W. Richards, F. Daniels,
J. Am. Chem. Soc., 41, 1732 (1919).

ASSOCIATION: Leningrad Lensovet Technological Institute
                (Liningradskiy tekhnologicheskiy institut imeni
                Lensoveta)

SUBMITTED: February 25, 1959

Card 8/8

AUTHORS: Mashovets, V. P. and Fomichev, V. G.

TITLE: Study of a Cylindrical and a Spherical Bipolar Electrode

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 8,
              pp. 1795 - 1801

TEXT: Many commercial electrolyzers have conductive parts as bipolar
interelectrodes, such as metallic walls of cells, metallic grid
diaphragms, valves, and metal grains or coal particles in electrolytes
used for fusion electrolysis. The effect of electrode polarization and
polarizability upon the current distribution on cylindrical and
spherical bipolar electrodes has now been studied. A method is given for
the calculation of the current flowing through a cylindrical or spherical
electrode which is placed in a uniform electric field. It was assumed that
the polarization was equivalent to the additional resistance which was
uniformly distributed in the bipolar electrode. Calculations made for the
current density distribution on the cylindrical electrode were experi-
mentally verified. Various electrolytes, such as copper and nickel-sulfate

Card 1/2   ,

Study of a Cylindrical and a Spherical Bipolar   S/076/60/034/008/026/039/XX
Electrode   B015/B063

solutions, sulfuric acid, and boric acid, were examined by means of a
cylindrical or spherical copper or nickel electrode. The experimental
values obtained from the copper electrode were in good agreement with the
calculated values, while agreement was less good with the highly
polarizable nickel electrode. The participation of a bipolar electrode in
the current density distribution depends on three factors: 1) resistivity
of the solution; 2) cathodic and anodic polarization; and 3) polarizability
and dimensions of the bipolar electrode. There are 7 figures, 3 tables,
and 7 Soviet references.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensoveta
             (Leningrad Technological Institute imeni Lensovet)

SUBMITTED: November 21, 1958

Card 2/2

MASHOVETS, V.P.; FOMICHEV, V.G.

Current distribution in electrochemical systems with a bipolar
electrode. Zhur. fiz. khim. 34 no. 11:2587-2595 N '60.
(MIRA 14:1)

1. Leningradskiy tekhnologicheskiy institut im. Lensoveta.
(Electrodes)   (Electric currents)

FOMICHEV, V.G.; MASHOVETS, V.P. (Leningrad)

System with bipolar electrodes in the form of a complex of
circular cylinders. Zhur. fiz. khim. 35 no. 4:803-808 Ap '61.

(MIRA 14:5)

1. Leningradskiy tekhnologicheskiy institut im. Lensoveta.
(Polarization (Electricity))

FOMICHEV, V.I., gornyy insh.

Draining out of methane from stoped out areas. Ugol' Ukr. 5 no.1:
36-37 Ja '61.   (MIRA 14:1)
          (Coal mines and mining—Safety measures)
                    (Mine gases)

SEREDENKO, M.M., kand.ekon.nauk; KUGUSHEV, M.F. [Kuhushev, M.F.];
PRAVDIN, M.V.; FOMICHEV, V.I.; ALEKSANDROVA, V.P.; GORODETSKIY,
N.I. [Horodets'kyi, N.I.]; DYATLOV, T.I.; KALITA, M.S. [Kalyta,
M.S.]; DARAGAN, M.V. [Darahan, M.V.]; RADINA, Yu.M.; VOROB'YEVA,
K.T. [Vorobyova, K.T.]; LASTIVKA, N.N.; STARODUBSKIY, R.D.
[Starodubs'kyi, R.D.]; YATSENKO, P.F.; MUROMTSEVA, G.M.
[Muromtseva, H.M.]; RASNER, S.I.; CHERNYAK, K.I.; KOBILYAKOV,
I.I. [Kobyliakov, I.I.]; ALEKSANDROVA, V.O., kand.ekonom.nauk,
otv.red.; DEMIDYUK, V.F. [Demydiuk, V.F.], red.; LIBERMAN, T.R.,
tekhn.red.

[Ways of increasing profits in metallurgical industries] Shliakhy
pidvyshchennia rentabel'nosti metalurgiinykh pidpryiemstv. Kyiv,
Vyd-vo Akad.nauk URSR, 1961. 93 p.

(MIRA 14:6)

1. Akademiya nauk USSR, Kiyev. Institut ekonomiki. 2. Institut
ekonomiki AN USSR (for Seredenko, V.P.Aleksandrova, Kalita,
Daragan, Radina). 3. Dnepropetrovskiy khimiko-tekhnologicheskiy
institut (for Gorodetskiy, Dyatlov). 4. Dneprodzerzhinskiy
metallurgicheskiy institut (for Kobilyakov).
   (Dnepropetrovsk Province—Steel industry—Costs)

KOMAROV, V.B.; FOMICHEV, V.I.

Unevenness of gas escape in mine sections. Zap. LGI 46 no.1:6-11
'62.   (MIRA 16:6)
                              (Mine gases)

SPIZHARSKIY, T.N., red.; TOLSTIKHINA, M.A., red.; BODYLEVSKIY, V.I., red.;
    BOCH, S.G., red.[deceased]; VASILENKO, V.K., red.; DODIN, A.L., red.;
    DOMRACHEV, S.M., red.; KRASNOV, I.I., red.; MELESHCHENKO, V.S, red.;
    MENNER, V.V., red.; NIKIFOROVA, O.I., red.; OBRUCHEV, S.V., red.;
    RZHONSNITSKAYA, M.A., red.; ROSTOVTSEV, N.N., red; SAKS, V.N., red.;
    SARYCHEVA, T.G., red.; FOMICHEV, V.L., red; CHERNYSHEVA, N.Ye., red.;
    YAKOVLEV, S.A., red.; RAGINA, G.M., vedushchiy red.; YASHCHURZHINSKAYA,
    A.B., tekhn.red.

[Proceeding of the Interdepartmental Conference on the Development
of a Unified System for the Stratigraphy of Siberia; reports on the
stratigraphy of Mesozoic and Ceinozoic deposits] Trudy Mezhvedomstven-
nogo soveshchaniia po razrabotke unifitsirovannykh stratigraficheskikh
skhem Sibiri; doklady po stratigrafii mezozoiskikh i kainosoiskikh ot-
lozhenii. Leningrad, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi
lit-ry, Leningr. otd-nie, 1957. 575 p.   (MIRA 11:6)

1. Mezhvedomstvennoye soveshchaniye po razrabotke unifitsirovannykh
stratigraficheskikh skhem Sibiri. Leningrad, 1956. 2. Vsesoyuznyy
geologicheskiy nauchno-issledovatel'skiy institut (for Spizharskiy,
Tolstikhina, Boch, Dodin, Krasnov, Meleshchenio, Nikiforova, Rostov-
tsev, Fomichev, Chernysheva, Yakovlev). 3. Leningradskiy gornyy insti-
tut (for Bodylevskiy). 4. Vsesoyuznyy neftyanoy nauchno-issledovatel'-
skiy geologo-razvedochnyy institut (for Vasilenko, Domrachev). 5. Geolo-
gicheskiy institut Akademii nauk SSSR (for Menner). 6. Laboratoriya
dokembriya Akademii nauk SSSR (for Obruchev). 7. Institut geologii
Arktiki (for Saks). 8. Paleontologicheskiy institut Akademii nauk
SSSR (for Sarycheva)
                    (Siberia--Geology, Stratigraphic)

BRAZHNIK, Viktoriya Ivanovna; MIKELADZE, Pavel Vyacheslavovich;
FOMICHEV, Vasiliy Ivanovich; USPENSKIY, V.V., kand. ekon.
nauk, nauchnyy red.; MORSKOY, K.L., red.; MIKHEYEVA, A.A.,
tekhn. red.

[Planning and financing capital construction; practice of
the Dnepropetrovsk Economic Council] Planirovanie i finan-
sirovanie kapital'nogo stroitel'stva; opyt Dnepropetrovskgo
sovnarkhoza. Moskva, Gosstroiizdat, 1963. 76 p.
(MIRA 16:8)
(Dnepropetrovsk Province--Construction industry--Finance)

SAMBORSKIY, Georgiy Ivanovich; FOMICHEV, Viktor Ivanovich;
KOGAN, Ye.L., red.

[Use of synthetic materials in industry] Sinteticheskie
materialy - v promyshlennost'. Moskva, Izd-vo "Znanie,"
1964. 31 p. (Novoe v zhizni, nauke, tekhnike. III Seriia:
Ekonomika, no.15)   (MIRA 17:8)

KULKASHEV, N.T., kand. geologo-mineralog. nauk; FOMICHEV, V.I.

Role of dislocations with a break in continuity in the formation
of Iceland spar deposits in the Sayak syncline. Vest. AN Kazakh.
SSR 21 no.9:68-73 S '65.   (MIRA 18:9)

KULKASHEV, N.T.; IL'YUSHCHENKO, N.F.; FEDICHEV, V.I.

Structural control of mineralization in the Sayak deposit.
Izv. AN Kazakh. SSR Ser. geol. 22 no. 6:35-47 N-D '65
(MIRA 19:1)

1. Institut geologicheskikh nauk imeni K.I. Satpayeva, Alma-Ata.

KONONEN, V.P., Inzh.; ANZIBACH, L.F.

      Rapid mining with the PK-3m cutter loader. Ugol' 40 no.6:16-18 Je '65.   (MIRA 18:7)

      1. Donetskiy politekhnicheskiy institut.

6,4130

AUTHORS: Bresler, S. Ye., Kazbekov, E. N., Fomichev, V. N., Sech, F., and Smeytek, P.

TITLE: Macroradicals in solid polymers

TEXT: The destruction of macropolymers is studied in a special vacuum manipulator at liquid-nitrogen temperature. The investigations were made using an e.p.r. spectrometer with rf magnetic-field modulation. The diphenyl picrylhydrazyl spectrum served as reference standard. The polymers investigated (polymethyl methacrylate (I), polystyrene (II), polyvinyl acetate (III)) were produced by thermal polymerization. The kinetics of the disintegration of the macroradicals in solid polymers, formed by mechanical destruction, is studied in great detail. The macroradicals obtained in vacuo vanish very slowly; this process whose rate constants are given by $K_I = 10^{16} \exp\left(\dfrac{-29000 \pm 2000}{RT}\right)$ cm^3/mole·sec;

Card 1/3

Macroradicals in solid polymers

S/181/63/005/002/046/051
B102/B186

$$K_{II} = 10^{18} \exp\left(\frac{-24000 \pm 2000}{RT}\right) cm^3/mole \cdot sec; \quad K_{III} = 10^7 \exp\left(\frac{-23000 \pm 2000}{RT}\right) cm^3/mole \cdot sec;$$

takes several hours. The macroradical separation is due to disruption of hydrogen molecules from the polymer chains; a migration mechanism is assumed for the radical state being effective from chain to chain. The macro-radical disrupture is strongly stimulated by oxygen due to radical oxidation. The destruction process by O_2 is accelerated to about 100 times the rate under normal conditions. The kinetic constants of the macroradical disrupture in the presence of oxygen were measured and their temperature dependence was determined. If the oxygen is eliminated from the ampoules after complete radical oxidation (only ROO·present) the rate of macroradical destruction is decreased by a factor of 5 to 10. Also this effect speaks in favor of the hydrogen migration suggested. The regeneration of the initial carbon radicals of polymethyl methacrylate from the hydroxides on oxygen evacuation occurs more rapidly at $0^{\circ}C$ and leads to a 50% restoration. It proved impossible to explain radical destruction by diffusion processes; the only mechanism possible seems to be the radical state migration through subsequent disrupture of hydrogen atoms by the polymer chain radicals. There are 4 figures.

Card 2/3

Macroradicals in solid polymers

S/181/63/005/002/046/051
B102/B186

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR, Leningrad
              (Institute of High-molecular Compounds AS USSR. Leningrad)

SUBMITTED: October 1, 1962

Card 3/3

BRESLER, S.Ye.; KAZBEKOV, E.N.; FOMICHEV, V.N.

Reactivity of macroradicals. Kin.i kat. 6 no.5:820-827 S-O '65.
(MIRA 18:11)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

FOMICHEV, V.P., kand. tekhn. nauk; ARZHANOVSKOV, A.I., inzh.;
    ZHEREBKOV, I.V., red.

    [Resistance of hard and frozen ground to cutting] Soprotiv-
    lenie rezaniiu tverdykh i merzlykh gruntov. Rostov-na-Donu,
    1962. 38 p.   (MIRA 17:4)

    1. Akademiya stroitel'stva i arkhitektury SSSR. Institut po
    stroitel'stvu, Rostov-on-Don.

FOMICHEV, V.P. (Kiiv)

Experimental study of the relation between the wire-rope stretching
force and feeding and cutting speeds in coal cutters [with summaries
in Russian and English]. Prykl.mekh. 3 no.2:196-201 '57. (MLRA 10:9)

1. Institut girnichoi spravi AN URSR.
                    (Coal mining machinery)

Fomichev, V P

AUTHOR: Fomichov, V.P.   21-4-5/24

TITLE: Effect of Feeding and Cutting Speeds on the Force for Feeding
                 the Tool in Coal Cutters (Vplyv shvydkostey podachi i rizannya
                 na sylu podachi riztsya vrubovykh mashyn)

PERIODICAL: Dopovidi Akademii Nauk Ukrains'koi RSR, 1957, #4, pp 339-342
                 (USSR)

ABSTRACT: The origination process of a force for feeding coal cutter tools
                 and its dependence on the speeds of feed and cutting are inves-
                 tigated for the case the cutting tool has the rounded edge and
                 wear face surface parallel to the cutting velocity.

                 A formula was derived expressing the force necessary for feed-
                 ing the tools in coal cutters, which takes into account compres-
                 sion of the coal cut and its abrasion.

                 Results of experimental investigations in the laboratory have
                 shown that theoretical values given by this formula describe
                 adequately observational data.

Card 1/2   The article contains 1 figure and cites 4 Slavic references.

21-4-5/24

TITLE: Effect of Feeding and Cutting Speeds on the Force for Feeding
             the Tool in Coal Cutters (Vplyv shvydkostey podachi i rizannya
             na sylu podachi ristsya vrubovykh mashyn)

INSTITUTION: Institute of Mining Engineering of the Ukrainian Academy of
             Sciences

PRESENTED BY:Savin, H.M. (Russian equivalent - Savin, G.N.), Member of the
             Ukrainian Academy of Sciences.

SUBMITTED: 20 February 1957

AVAILABLE: At the Library of Congress

Card 2/2

POLICHUK, ... , inzhener; ...

Cupola furnace ... oxeter, ...

(Cupola ...)

FOMICHEV, V. P., Cand Tech Sci -- (diss) "A Study of the Dependence of the Force of ~~Blade Motion~~ cutter feed and Cable Tension ~~from~~ upon the Speed of ~~Motion~~ Travel and Cutting in Cutting Machines". Kiev, 1958. 15 pp. with figs. (Acad. Sci. UkSSR. Institute of Mining Engineering imeni M. M. Fedorov). 120 copies. (KL, 34-58, 100)

19

FOMICHEV, V.P., inzh.

Effect of rope length, pulse number and the average rate of feed on the dynamic surge in rope tension and power consumption in cutting machines. Izv. vys. ucheb. zav.; gor. zhur. no.12: 70-78 '58. (MIRA 12:8)

1.Tul'skiy gornyy institut.
        (Coal mining machinery)

FOMICHEV, V.P., kand.tekhn.nauk

Effect of dust clogging of the cutting chain on cutter per-
formance. Izv.vys.ucheb.zav.; gor.zhur. no.7:77-81 '59.
(MIRA 13:4)

1. Tul'skiy gornyy institut. Rekomendovana seminarom tekhni-
cheskikh kafedr.
(Coal mining machinery)

FOMICHEV, V.P., kand.tekhn.nauk

Specific wear of cutting machine edges. Izv.vys.ucheb.zav.; gor.
zhur. no.8:45-48 '59.   (MIRA 13:5)

1. Tul'skiy gornyy institut. Rekomendovana kafedroy gornykh mashin.
        (Coal mining machinery)

FOMICHEV, Vasiliy Petrovich; ASTAKHOV, A.V., otv.red.; SUKHININA, N.D.,
   tekhn.red.; GALANOVA, V.V., tekhn.red.

[Calculation of the load on cutting machines] Raschet nagruzok
na vrubovye mashiny. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
gornomu delu, 1961. 146 p.   (MIRA 14:4)
            (Coal mining machinery)

S/128/62/000/008/003/003
A004/A127

AUTHOR: Fomichev, V.P.

TITLE: Removing flue gases from arc and other furnaces

PERIODICAL: Liteynoye proizvodstvo, no. 8, 1962, 38

TEXT: The gases to be removed from electric arc furnaces and furnaces operating on solid fuel contain a considerable amount of highly dispersed dust which is difficult to collect. The most efficient way is by electrofilters, which, however, is not expedient if the gas contains sulfur. More economical is a dust collector with needle-shaped ionizer at the outlet of a centrifugal scrubber. The large dust particles are removed in the centrifugal scrubber, while the coagulation and removal of fine fractions is effected in the aeration flow from the point of the needle-shaped ionizer during the dark discharge. A brief description and layout of such an installation are given. There are 2 figures.

Card 1/1

FOMICHEV, V.P., kand.tekhn.nauk

Calculation of the loads and wear of the cutters of the ShBM
cutter-loader. Izv. vys. uch. zav.; gor. zhur. 5 no.6:98-105
'62.   (MIRA 15:9)

1. Novocherkasskiy ordena Trudovogo Krasnogo Znameni politekhni-
cheskiy institut imeni S.Ordzhonikidze. Rekomendovana kafedroy
gornykh mashin i rudnichnogo transporta Novocherkasskogo poli-
tekhnicheskogo instituta.
                        (Mining machinery) (Mechanical wear)

FOMICHEV, V.P., kand.tekhn.nauk

Calculating the loads on cutter-loaders which cut off large chips.
Izv.vys.ucheb.zav.; gor.zhur. 5 no.9:65-72 '62.   (MIRA 15:11)

1. Novocherkasskiy ordena Trudovogo Krasnogo Znameni politekhni-
cheskiy institut imeni S.Ordzhonikidze. Rekomendovana kafedroy
gornykh mashin i rudnichnogo transporta.
               (Coal mining machinery)

FOMICHEV, V.P., inzh.

Efficient layout for drawing air away from type 115 and 116
mixing runners. Vod. i san. tekh. no.7:26 Jl '62. (MIRA 15:9)
(Factories—Heating and ventilation)