ACCESSION NR: AP4023374

property on which a new method of industrial geophysics may be developed. Orig.
art. has: 4 figures and 1 table.

ASSOCIATION: Akademiya nauk SSSR Institut fiziki Zemli (Academy of Sciences SSSR
Institute of Physics of the Earth)

SUBMITTED: 29Apr63   DATE ACQ: 27Mar64   ENCL: 00

SUB CODE: AS   NO REF SOV: 010   OTHER: 000

Cord 2/2

PARKHOMENKO, E.I.; BONDARENKO, A.T.

Electric resistance of rocks at pressures up to 40,000 kg./cm.^{2} and temperatures up to 400°. Izv. AN SSSR. Ser. geofiz. no.12: 1823-1832 D '63.
(MIRA 17:1)

1. Institut fiziki Zemli AN SSSR.

PARKHOMENKO, E.I.

Use of ultrasonics in studying the electric properties of rocks.
Trudy Inst. fiz. Zem. no.23:91-96 '62.

Types of symmetry of piezoelectric structures of rocks formed
by piezoelectric minerals.   97-100   (MIRA 16:11)

VOLAROVICH, M.P.; BONDARENKO, A.T.; PARKHOMENKO, E.I.

Effect of pressure on the electric properties of rocks. Trudy
Inst. fiz. Zem. no.23:80-90 '62.   (MIRA 16:11)

PARKHOMENKO, E.I.; BONDARENKO, A.T.

Electric conductivity of rocks at high temperatures and one-
sided pressure. Trudy Inst. fiz. Zem. no.23:101-106 '62.

(MIRA 16:11)

PARKHOMENKO, F.

Senior Scientific Worker

On: Alfalfa Seed Raisin

Soviet Source: U: Pravda vostoka, 2 June 1947,
                                         Tashkent

Abstracted in USAF "Treasure Island", on file in
Library of Congress, Air Information Division,
Report No. 35471

PARKHOMENKO, F. S.

27820. Parkhomenko, F. S. K voprosv o semenovodstve menogoletnikh rykhlokv-
stovykh zlakovykh trav. Sots. sel. khoz-vo Uzbekistana, 1949, No. 2, s. 50-55
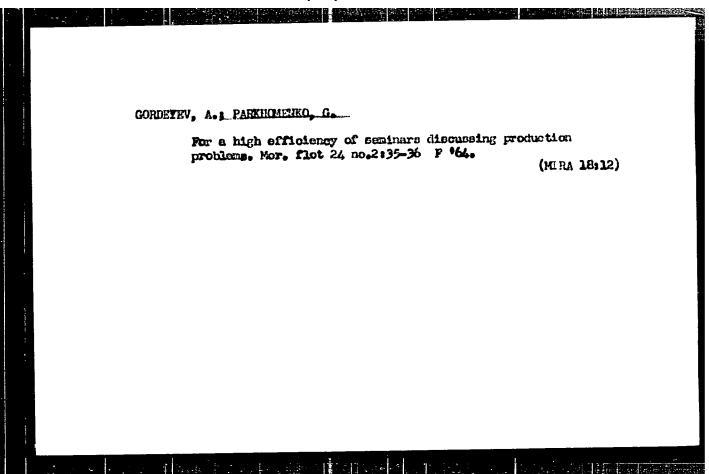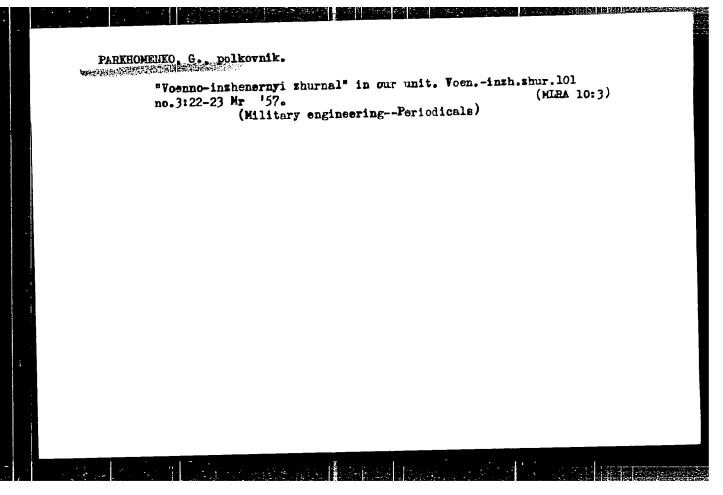
SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

PARKHOMENKO, G., inzh.

Green light for new materials. NTO 2 no.5:33-34 My '60.
(MIRA 14:5)

1. Chlen nauchno-tekhnicheskogo obshchestva vodnogo transporta.
(Shipbuilding)   (Plastics)

GORDEYEV, A.; PARKHOMENKO, G.

For a high efficiency of seminars discussing production problems. Mor. flot 24 no.2:35-36 F '64.

(MIRA 18:12)

PARKHOMENKO, G., polkovnik.

"Voenno-inzhenernyi zhurnal" in our unit. Voen.-inzh.zhur.101
no.3:22-23 Mr '57.
(MLRA 10:3)
            (Military engineering--Periodicals)

PARKHOMENKO, G.;GORDINSKII, S.

   Prophylaxy in handling radio-active isotopes. Tr. from the Russian. p. 310.
Vol. 9, no. 10, Oct. 1955. Orhrona Pracy. Warszawa.

Source: Monthly list of East European Accessions(EEAL), Lc, Vol. 5, no. 2, Feb.
1956

PARKHOMENKO, G.A., inzh.; SPANNUT, V.S., inzh.

Experimental determination of synchronous reactances. Elektro-
tekhnika 36 no.5:51-52 My '65.   (MIRA 18:5)

L 30730-66   EWT(1)   GD-2
ACC NR: AP6007337   SOURCE CODE: UR/0292/66/000/002/0006/0008

AUTHOR: Lodochnikov, E. A. (Engineer); Sheminov, V. G. (Engineer);
Parkhomenko, G. A. (Engineer); Shalagin, V. M. (Engineer); Ageyev, V. Ye.
(Engineer); Vlasova, V. P. (Engineer); Spannut, V. S. (Engineer)

ORG: none

TITLE: Electric microdrives of the MB series

SOURCE: Elektrotekhnika, no. 2, 1966, 6-8

TOPIC TAGS: miniature motor, electric motor, servomotor / MB miniature
motor

ABSTRACT: A miniature contactless MB-series d-c motor is briefly described.
It comprises the motor proper, a transformer-type transistorized rotor-position
sensor, and a transistorized commutator; its principal circuit diagram is shown.

Card 1/2   UDC: 621.313.13 – 181.4

L 39730-66
ACC NR: AP6007337

The motor is actually a synchronous machine with a magnetically hard rotor. The
rotor-position sensor inverts dc into 10—30-kc power which is amplitude-
modulated with a frequency determined by motor rpm. Three-phase signal
envelopes are isolated and used for controlling the commutator. The latter has a
3-phase power-amplifier bridge circuit and is designed for operation within ± 50C.
The motor windings receive a 3-phase square-shaped voltage which does not
contain even or 3rd order harmonics. Data on five types of the MB series whose
torques vary between 25 and 400 g·cm is tabulated. The motor is in the developmental
stage. Its life is claimed to be between 3000 and 10000 hrs, depending on
the type. Plots of rpm and efficiency vs. torque are presented. Orig. art. has:
4 figures, 5 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 004

Card 2/2

PARKHOMENKO, C.I.; YARANTSEVA, Ye.P.; KATS, A.M.; Prinimala uchastiye CHERTKOVA, A.N.

Prescriptions at the drugstores of Moscow. Apt. delo 14 no. 4:
58-61 Jl-Ag '65   (MIRA 19:1)

1. Moskovskoye gorodskoye aptechnoye upravleniye. 2. Nauchno-
issledovatel'skaya aptechnaya stantsiya Moskovskogo gorodskogo
aptechnogo upravleniya (for Chertkova).

PARKHOMENKO, G.I.

Providing Moscow residents with medicines. Gor.khoz.Mosk.
36 no.2:25-28 F '62.   (MIRA 16:2)

1. Nachal'nik Moskovskogo gorodskogo aptechnogo upravleniya.
                        (MOSCOW—DRUGSTORES)

SIDORKOV,A.M.; PARKHOMENKO, G.I.; KOROLEVA, M.G.; YARANTSEVA, Ye.P.

Review of T.I.Tol'tsman's book "Textbook on the organization of pharmaceutical service." Apt. delo 12 no.5:86-87 S-0'63
(MIRA 16:11)

✻

PARKHOMENKO, G.I., YARANTSEVA, Ye., MIRLIN, N.D., kand.farmatsevticheskikh nauk
(Leningrad)

"Organization of the pharmacy system" by A.I. Shimanko, A.K. Mel'nichenko.
Reviewed by G.I. Parkhomenko, E. IArantseva, N.D. Mirlin. Apt. delo
7 no.4:92-95 Jl-Ag '58   (MIRA 11:8)

1. Zamestitel' predsedatelya Moskovskogo nauchno-farmatsevticheskogo
obshchestva (for Parkhomenko). 2 Zamestitel' predsedatelya sektsii
planirovaniya i nchestva Moskovskogo nauchno-farmatsevticheskogo
obshchestva (for Yarantseva).
        (PHARMACY)

GORODINSKIY, S.M.; PARKHOMENKO, G.M.

Preventive problems of radioisotopes in industry. Gig. sanit., Moskva
no.4:22-28 Apr 1953.   (CIML 24:4)

1. Of the Institute of Labor Hygiene and Occupational Diseases of the
Academy of Medical Sciences USSR.

Trans: M-75.2, 30 Aug 5*

PARKHOMENKO, G. M. and GORODINSKIY, S. M.

"Safety Measures in Handling Radioactive Isotopes," 1955

"Sanitary Regulations and Instructions for Handling RadioactiveIsotopes," 1955

GRANIL'SHCHIKOV, V.P.; PARKHOMENKO, G.M.

Sanitary, hygienic and technical requirements in planning and
equipping laboratories for radioactive substances. Med. rad. 1
no.3:42-52 My-Je '56.   (MLRA 9:10)
        (LABORATORIES
            sanitary, hygienic & technical requirements in
            laboratories for radioactive substances)
        (RADIATION PROTECTION
            same)

PARKHOMENKO, G.M.

"Medical Hygiene and Problems of Hygiene," by Prof. A. A. Letavet, Active Member, Academy of Medical Sciences USSR, and G. M. Parkhomenko, Candidate of Medical Sciences, Vestnik Akademii Meditsinskikh Nauk SSSR, No 3, 1956, pp 77-80

The article reviews the scientific reports presented at the Hygiene Section of the All-Union Conference on Medical Radiology (30 January to 4 February 1956, Moscow).

Among the topics embraced are the following: radiation hygiene and dosimetry; hygienic standardization and the establishment of maximum permissible levels of external irradiation and maximum permissible concentration of radioactive substances in the atmosphere and water; hygienic characteristics of industries and laboratories using radioactive substances; basic factors in the injurious action of radioactive substances and methods for improving working conditions where they are used; sanitary-hygienic and technical requirements in the planning and equipment of laboratories using large amounts of radioactive substances; the cleansing of hands contaminated with radioactive substances; determination of alpha-active aerosols in the air; individual protection of workers; selection of polymer materials and resin for use in individual protection; resins for individual protective clothing which can be washed free of radioactive substances; description of a new type of valveless respirator, the "Lepestok," for once-only use; cleansing of individual protective clothing items of cotton and plastic; disposal of radioactive wastes; and the behavior of radioelements in water under experimental conditions. (U)

54M.1345

SOV/137-58-8-18205

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 286 (USSR)

AUTHOR: Parkhomenko G. M.

TITLE: Some Problems of Labor Hygiene in the Work With Radioactive Isotopes in Metallurgy and Machine Building (Nekotoryye voprosy gigiyeny truda pri rabote s radioaktivnymi izotopami v metal- lurgii i mashinostroyenii),

PERIODICAL: Tr Vses. konferentsii po med. radiol. Vopr. gigiyeny i dozimetrii Moscow, Medgiz, 1957, pp 22-26

ABSTRACT: The regions of application of radioactive isotopes in machine building and prophylactic measures are examined.

Ye. L

1. Radioisotopes--Applications
2. Radioisotopes--Physiological factors

Card 1/1

Иик А и с и с гс

137-58-1-2185

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 296 (USSR)

AUTHORS: Gorodinskiy, S. M. , Parkhomenko, G. M.

TITLE: Problems of Labor Hygiene in Work with Radioactive Isotopes
(Voprosy gigiyeny truda pri rabote s radioaktivnymi izotopami)

PERIODICAL: V sb.: Izuch. iznosa detaley mashin pri pomoshchi radioaktivn
izotopov. Moscow, AN SSSR, 1957, pp 135-143

ABSTRACT: The harmful effect of radioactive isotopes upon the human
body is examined, and a complex of hygiene and technical
health measures is set forth for the purpose of making work
with radioactive isotopes safe.
                                                                    Ye. L

1. Isotopes (Radioactive)--Physiological effects 2. Isotopes
(Radioactive)--Safety measures

Card 1/1

GORODINSKIY, Semen Mikhaylovich; PARKHOMENKO, Galina Maksimovna; LETAVET,
A.A., prof.,red.;MARGULIS, U.Ya., red.; KNAKNIN, M.T., tekhn.red.

[Hygienic aspects of work with radioactive isotopes] Gigiena
truda pri rabote s radioaktivnymi izotopami. Pod red. A.A.
Letaveta. Izd.3, dop. i ispr. Moskva, Gos. izd-vo med. lit-ry,
1958. 66 p.   (MIRA 11:12)

1. Deystvitel'nyy chlen AMN SSSR.
            (RADIOISOTOPES--SAFETY MEASURES)

PARKHOMENKO, G. M.

PARKHOMENKO, G.M., kand.med.nauk

Safety rules for the transportation, storage, registration and
handling of radioactive substances. Gig. i san. 23 no.1:43-45
Ja '58.   (MIRA 11:2)
        (RADIATION PROTECTION
            regulations for transportation, storage, registration
            & handling of radioactive substances)

GRANIL'SHCHIKOV, V.P., PARKHOMENKO, G.M.

Result of using a three-zone plan in work with radium. Gig. i san.
23 no.10:76-78 O '58   (MIRA 11:11)
          (RADIATION PROTECTION,
              hosp. zones in protection against radium (Rus))
          (HOSPITALS,
              zonal system in protection against radium (Rus))

PARKHOMENKO, Galina Maksimovna; ZOLOTUKHINA, Rita Yakovlevna; NOVIKOV,
Yu.V., red.; ZUYEVA, N.K., tekhn.red.

[Industrial hygiene in work with radium] Gigiena truda pri rabote
s radiem. Moskva, Gos.izd-vo med.lit-ry Medgiz, 1960. 64 p.
(MIRA 14:3)
(RADIUM--PHYSIOLOGICAL EFFECT)
(RADIOACTIVITY--SAFETY MEASURES)

ACCESSION NR: AT4016989   S/3057/63/000/000/0011/0015

AUTHOR: Parkhomenko, G.M.

TITLE: The problem of deriving maximum permissible contamination levels for working surfaces in operations involving alpha-radiation

SOURCE: Zashchitny*ye pokry*tiya v atomnoy tekhnike (Shielding in nuclear engineering); sbornik statey. Moscow, Gosatomizdat, 1963, 11-15

TOPIC TAGS: contamination level, radioactive contamination, radioactivity, alpha radiation, nuclear shielding

ABSTRACT: The author discusses the problems connected with safety and precautionary measures to be taken in establishments dealing with radioactive materials. Special attention is given to the different contamination aspects of beta and gamma radiation on the one hand and alpha radiation on the other in terms of the danger posed to operating personnel. An attempt is made at an analysis of the radiation hazard from the point of view of location within an establishment and it is pointed out that the distinction between "fixed" and "unfixed" radiation is not justified and that a unified standardization of radiation levels (such as has been adopted in the Soviet Union) is to be

Card 1/3

ACCESSION NR: AT4016989

preferred to this "indefinite concept". A discussion follows of the maximum
permissible concentration of aerosols and a table is presented showing the
data on the contamination of working surfaces by various alpha-active substances
and the resultant maximum permissible content of these substances in the air.
It is established that at permissible surface contamination levels (500 alpha-
particles/150 cm2 · min.), the aerosol content in the air is below the permis-
sible content. Another chart is given to show the comparison of the maximum
permissible levels of contamination in Poland, France, Great Britain and the
United States. The author calls attention to the lower levels adopted in the
USSR. In conclusion, the author submits certain suggestions in connection with
the proposed revision of the "Sanitation Rules for Working with Radioactive
Materials and Sources of Ionizing Radiation (No. 33-60)"; they are: 1) that
the contamination levels be given not for an area of 150 cm2, but for 1 cm2;
2) that for the surfaces of floors and equipment a single permissible level be
adopted, for both before and after cleansing (within 500 -particles/150 cm2.min);
3) that, in zone planning, different contamination levels be adopted for equip-
ment and repair areas on the one hand (where personnel spend only a limited per-
iod of time) and for the operators (or "clean") zone, on the other hand. Orig.
art. has: 2 tables.

Card 2/3

ACCESSION NR: AT4016989

ASSOCIATION: none

SUBMITTED: 00   DATE ACQ: 20Feb64   ENCL: 00

SUB CODE: NP   NO REF SOV: 004   OTHER: 002

Card 3/3

GORODINSKIY, S.M., red.toma; PARKHOMENKO, G.M., red. toma; TARASENKO,
N.Yu., red. toma; MAREY, A.N., red. toma; ROZANOV,M.S.,red.;
KUZ'MINA, N.S., tekhn. red.

[Radiation hygiene] Radiatsionnaia gigiena. Moskva, Medgiz,
Vol.1. [Industrial hygiene] Gigiena truda. 1962. 231 p. Vol.2.
[Communal hygiene] Kommunal'naia gigiena. 1962. 223 p.
            (RADIATION PROTECTION)   (MIRA 15:7)

GRANIL'SHCHIKOV, V.P.; PARKHOMENKO, G.M.

Planning of laboratories and radiation safety. Med. rad. 5 no.12:
47-56 '60.   (MIRA 14:3)
            (RADIATION PROTECTION)

PARKHOMENKO, Galina Maksimovna; GORYACHEVA, N.A., red.;
        DRUZHININA, L., tekhn. red.

[Work hygiene in handling polonium] Gigiena truda pri
rabote s poloniem. Moskva, Gosatomizdat, 1963. 50 p.
                                          (MIRA 16:10)

        (Polonium—Safety measures)

CHUYKO, N.M., doktor tekhn.nauk; RUTKOVSKIY, V.B., inzh.; DANICHEK, R.Ye.,
        inzh.; PEREVYAZKO, A.T., inzh.; BORODULIN, G.M., inzh.;
        TREGUBENKO, A.F., inzh.; SHAMIL', Yu.P., inzh.; FRANTSOV, V.P.,
        inzh.; VOLOVICH, V.G., inzh.; Prinimali uchastiye: IOFFE, I.M.,
        inzh.; LAVRENT'YEV, M.I., inzh.; PARKHOMENKO, G.P., inzh.;
        DEMIDENKO, V.I., inzh.; RYSIN, Ye.M., inzh.; VOROB'YEVA, T.M., inzh.

        Inert gas blowing of metal in the ladle in vacuum. Stal' 22
        no.9:809-811 S '62.   (MIRA 15:11)
                    (Vacuum metallurgy) (Protective atmospheres)

PARKHOMENKO, I. I.

PARKHOMENKO, I. I. - "_____
_____
_____,
_____. (_____
Sciences.)

SO: Knizhnaya letopis',_____.

PARKHOMENKO, I.

USSR/Chemistry – Systems, Binary
    Chemistry – Inorganic Compounds

"Binary Systems Composed of the Halides of Silicon, Titanium, Tin Arsenic, Antimony And Bismuth With Various Organic Compounds," N. A. Pushin, Collaborators: N. Vasovich, I. Valitekin, T. Voroponovoy, L. Marichem, L. Mikhaylovich, L. Nikolich, I. Parkhomenko, Ye. Ucovich, 8 pp

"Zhur Obshch Khimii" Vol XVIII, No 9

Investigates fusibility diagrams of 16 binary systems. Shows that arsenic trichloride with aniline and 1,3,4-xylidine gives high-melting compounds of composition $AsCl_3 \cdot 3C_6H_5NH_2$ and $AsCl_3 \cdot 3(CH_3)_2C_6H_3 \cdot NH_2$. Stannic tetrachloride with o-nitranisole forms a compound of equimolecular composition, $SnCl_4 \cdot O \cdot C_6H_4(NO_2) \cdot O \cdot CH_3$. The remaining systems, except arsenic tribromide-azobenzene, are mechanical mixtures in the crystalline state. A second modification of bismuth tribromide exists with transition temperature of 151°. Submitted 13 Jun 47.

PA 30/49T5

PARKHOMENKO, I.A.; BUYNYACHENKO, G.P.

Remarks on the article "Regular thermal conditions for solids of complex shape" by G.N.Tret'iachenko and L.V.Kravchuk.   Inzh.-fiz. zhur.   5 no.4:127-129 Ap '62.   (MIRA 15:4)

1. Tekhnicheskiy institut rybnoy promyshlennosti i khozyaystva, Kaliningrad.
       (Thermodynamics)   (Tret'iachenko, G.N.) (Kravchuk, L.V.)

PARKHOMENKO, I.A.

The fastening of pole arms should be changed. Avtom., telem. i
svias' 6 no.10:39 O '62.   (MIRA 16:5)

1. Starshiy elektromekhanik Bikinskoy distantsii signalizatsii i
svyazi Dal'nevostochnoy dorogi.
                    (Electric lines—Poles and towers)

S/170/62/005/004/014/016
B104/B102

AUTHORS: Parkhomenko, I. A., Buynyachenko, G. P.

TITLE: Remarks on a paper by G. N. Tret'yachenko and L. V. Kravchuk
             entitled "Normal thermal conditions of bodies of complex
             shape"

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 5, no. 4, 1962, 127 - 129

TEXT: According to I. Boussinesq (Theorie analitique de la chaleur, 1, 2,
Paris, 1901 - 1903), the temperature field of a solid body under constant
boundary conditions can be represented by

$$t(\bar{r}, \tau) = A_0 U_0(\bar{r}) \exp(-m_0 \tau) + A_1 U_1(\bar{r}) \exp(-m_1 \tau) + \qquad (1)$$

$$+ A_2 U_2(\bar{r}) \exp(-m_2 \tau) + \dots$$

From a certain moment, the temperature can be described in good approxima-
tion by $t = A_0 U_0(r) \exp(-m_0 \tau)$. These temperature conditions are called
normal by G. M. Kondrat'yev G. N. Tret'yachenko and L. V. Kravchuk (IFZh,

Card 1/2

Remarks on a paper by ....

$S/170/62/005/004/014/016$
$B104/B102$

no. 6, 132, 1961) showed that the terms of the series (1) decrease rapidly with $m_j > m_0$ and that the contribution of the eigenfunctions $U_j(\overline{r})$ to the sum is somewhat larger so that the "determining" term of the series is not the first but an n-th term. The number of this term largely depends on the point observed of the body. Thus the authors prove that "m is not a constant and does not depend on the coordinates". Their statement is restricted to bodies of complex shape. For bodies of simple shape, m is constant. The authors do not agree to these statements. They prove that the functions $A_j U_j(\overline{r}) \exp(-m_j)$ do not only depend on the reference point, i. e., on $U_j(\overline{r})$, but also substantially on time. There are 3 tables and 2 Soviet references.

ASSOCIATION: Tekhnicheskiy institut rybnoy promyshlennosti i khozyaystva,
        g. Kaliningrad (Technical Institute of Fish Industry and
        Fishery, Kaliningrad)

SUBMITTED: December 30, 1961

Card 2/2

28822

S/147/61/000/003/012/017
E031/E335

\0.6000 1321

AUTHORS: Akhmerov, A.F. and Parkhomenko, I.F.

TITLE: The problem of determining the parameters for the
            bending and stretching of the profiles of components

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
            Aviatsionnaya tekhnika, no. 3, 1961, pp. 127 - 133

TEXT: The problem is considered of determining the
parameters for the process in which the component is subjected
to bending in the stretched state, the profiles consisting of
rectangular sections asymmetrically disposed with respect to
the axis of bending. The problem of a cross-section consisting
of a number of rectangular parts and stretched by a force P
and then subjected to bending moments M acting in the plane
of symmetry or in the plane of the central axis parallel to the
edge gives rise to two cases: the first is where the edge is
compressed by the bending; the second is where the edge is
stretched by the bending. The moment of the internal stresses
and the springiness of the component are calculated in each
case, starting from the equation for the equilibrium of
Card 1/2

28822

S/147/61/000/003/012/017
E031/E335

The problem of determining ....

additional stresses and using the equation expressing the
equilibrium of the moments of the internal and external forces.
The results were verified experimentally on a ПГР-8 (PGR-8)
machine in factory conditions, using T-shaped components of
a length of 3 100 mm, made from Д-16М (D-16M) material. Three
marks, 500 mm apart, were made on the specimens. The radius of
curvature of the bending was 610 mm. Theory and experiment were
found to be in good agreement. M.I. Lysov is mentioned in the
article. There are 5 figures, 1 table and 4 Soviet-bloc
references.

ASSOCIATION: Kafedra proizvodstva samoletov,
               Kazanskiy aviatsionnyy institut
               (Department of Aircraft Production,
               Kazan' Aviation Institute)

SUBMITTED: February 10, 1961

Card 2/2

AKHMEROV, A.F.; PARKHOMENKO, I.F.

Determining engineering parameters for section parts subjected to bending and stretching. Izv.vys.ucheb.zav.; av.tekh. 4 no.3: 127-133 '61.

(MIRA 14:8)

1. Kazanskiy aviatsionnyy institut, kafedra proizvodstva samoletov.

(Beams and girders)

AKHMEROV, A.F.; PARKHOMENKO, I.F.

Investigating the effect of external friction on technological
parameters of bending with stretching. Trudy KAI no.70:3-21 '62.
(MIRA 18:4)

L 45599-66   EWT(1)/EWT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k)   IJP(c)   FDN/JD/HW

ACC NR: AT6014324   SOURCE CODE: UR/2529/62/000/070/0003/0021

AUTHOR: Akhmerov, A. F.; Parkhomenko, I. F.   56

ORG: None   B+1

TITLE: Investigation of the effect of external friction on the technological parame-
ters of bending processes with elongation

SOURCE: Kazan. Aviatsionnyy institut. Trudy, no. 70, 1962. Aviatsionnaya tekhnolo-
giya i organizatsiya proizvodstva (Aviation engineering and organization of produc-
tion), 3-21

TOPIC TAGS: metal bending, sheet metal, metal forming, stretch forming, ELONGATION,
FRICTION COEFFICIENT, STRESS DISTRIBUTION

ABSTRACT: Analytical formulas are derived for determining the basic parameters of
bending and stretching processes used in sheet metal forming with regard to external
friction. Two bending-stretching combinations are considered: bending followed by
stretching, and stretching followed by bending with subsequent additional stretching
(calibration). The theoretical work is based on an experimental study of the effect
which frictional forces have on the mechanical deformation characteristics of sheet
metal. A PGR-87 cornice brake was used for forming angular components from D16 alloy.
The results show that external friction results in nonuniform stress distribution leav-
ing a spring in the finished component. An analysis of the theoretical formulas shows

Card 1/2

L 45599-66

ACC NR: AT6014324

that the degree of nonuniformity increases with bending angle and coefficient of fric-
tion. An expression is given for maximum bending angle as a function of the mechanical
properties of the material and bending curvature. It is shown that the use of lubri-
cant reduces nonuniformity of elastic deformation in some cases but cannot eliminate
this phenomenon. The formulas derived in the paper are recommended for industrial de-
sign purposes. Orig. art. has: 13 figures, 1 table, 17 formulas.

SUB CODE: 13/ SUBM DATE: 27Nov61/ ORIG REF: 008

Card 2/2

16.4500

S/044/62/000/002/046/092
C111/C444

AUTHOR: Parkhomenko, I. G.

TITLE: The solution of the first problem of elasticity for
the circle

PERIODICAL: Referativnyy zhurnal, Matematika, no. 2, 1962, 78,
abstract 2B347. ("Dokl. AN Uz SSR" 1959, no. 12, 8-12)

TEXT: It is shown that it is possible to reduce the solution
of the integral equations of the first elasticity problem for a circle
to the solution of systems of integral equations with bounded kernels.
[Abstracter's note: Complete translation.]

Card 1/1

PARKHOMENKO, I.G.

Solving the first problem in the theory of elasticity for a circle.
Dokl.AN Uz.SSR no.12:8-12 '59.   (MIRA 13:5)

1. Chimkentskiy UKP VZISI. Predstavleno akad. AN UzSSR T.N.
Kary-Niyazovym.
              (Elasticity)

PA...........K, I.I.

PA.........., I.I. Mode........'..... ......t .. U .mo. Urals. (G. rafii v s....., . .,
no.1, p. 14.)

DLC: Unclass...ed

SO: LC, Soviet Geo.ra.i., Pa.t II, 1..1, U....s i..;

TAKHAYEV, KH YA: PARKHOMENKO, I. I.

Ufa; Stolitsa Bashkirskoy ASSR (Ufa; Capital of Baskir ASSR, by)
Kh. Ya. Takhayev I I. I. Parkhomenko. Moskva, Geografizdat, 195..
75 p. Illus., maps.

So: 119W/5
    621.13
    .T1

PARKHOLENKO, I.I.

Hydraulic Engineering—China

People's construction projects of new China.   Priroda 41, no. 7, 1952.

9. **Monthly List of Russian Accessions**, Library of Congress, _____ DECEMBER 1952 ~~1953~~ Unclassified.

PARKHOMENKO, I I.

USSR/ Scientific Organization - Conferences

Card 1/1   Pub. 86 - 10/36

Authors   : Kozubov, A. S., and Parkhomenko, I. I.

Title   : First conference of the Chinese Geographic Society

Periodical : Priroda 2, 78-80, Feb 1954

Abstract : Excerpts from Chinese scientific periodicals, "Kesyue Tunbao"
(Scientific Herald) and "Dili Syuebao" (Geographical Herald),
describing the minutes from the first national conference held
by the Chinese Geographic Society in Peking on January 195,
are presented.

Institution : . . . .

Submitted : . . . .

PARKHOMENKO, I.

Journal of abstracts, "Geografiia". Reviewed by I.Parkhomenko.
Geog. v shkole 19 no.3:75-76 My-Je '56.   (MLRA 9:9)
        (Geography--Periodicals)

30(5)   SOV/10-59-4-27/29

AUTHOR: Parkhomenko, I.I.

TITLE: First Conference to Study the Development of
               Productive Forces of the Stanislavskiy ekonomich-
               eskiy administrativnyy rayon (Stanislav Economic
               District)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geografiches-
               kaya, 1959, Nr 4, pp 156-157 (USSR)

ABSTRACT: The article covers the First Inter-Vuz Conference
               to Study the Development of Productive Forces of
               the Stanislav Economic District and Methods to Con-
               duct Economic and Geographical Research on the Na-
               tional Economy which took place in Chernovtsy from
               6 to 10 April, 1959. The conference was organized by
               the Ministerstvo vysshego obrazovaniya USSR (Minis-
               try of Higher Education of the Ukrainskaya SSR), the
Card 1/6   Chernovitskiy gosudarstvennyy universitet (Chernovtsy

SCV/10-59-4-27/29

First Conference to Study the Development of Productive Forces
of the Stanislavskiy ekonomicheskiy administrativnyy rayon (Sta-
nislav Economic District)

       State University), and the Sovet narodnogo khozyay-
stva (Economic Council) of the Stanislav Economic
District, with more than 100 scientists, education
specialists, engineers, economists, and planning wor-
kers participating who heard 50 reports. The follow-
ing personalities delivered reports: K.M. Leutskiy,
Head of the Chernovtsy State University, held an
opening address; I.V. Romanov, Deputy Chairman of the
Stanislav Economic Council, lectured on the future
development of that district during 1959-65; V.V.
Onikiyenko - on "The Industrial Complex of the
Stanislav Economic District and Its Economic Pros-
pects in the Future" and "Basic Laws in the Devel-
opment and Geographical Distribution of Agricultural
Production in the Carpathian areas of the Ukrainskaya
SSR"; N.G. Ignatenko - on "The Present-Day Speciali-
zation Level in the Chemical Industry of the Stanis-

Card 2/6

SC7/10-59-4-27/29

First Conference to Study the Development of Productive Forces
of the Stanislavskiy ekonomicheskiy administrativnyy rayon (Sta-
nislav Economic District)

lav Economic District and Its Future Development";
Ye.V. Mironova - on "The Industry of Chernovtsy and
Its Future Development"; Ya.I. Zhupanskiy and Ya.I.
Bondarenko - on "The Wood Resources and Lumber In-
dustry of the Stanislav Oblast´ and Their Future
Prospects"; V.A. Kostyuk, Chairman of the Planning
Committee of the Stanislav Oblast´, reported on the
development of economy in the Stanislav Oblast´
during 1959-65, whereas D.S. Shemetun, Chairman of
the Planning Committee of the Drogobychskaya oblast´
(Drogobych Oblast´) reported on the development of
economy of the oblast´ during that period; I.T. Pastu-
khov, Head of the Stanislavskoye oblastupravleniye
Card 3/6   (Stanislav Oblast´ Administration), lectured on the

SOV/10-59-4-27/29

First Conference to Study the Development of Productive Forces
of the Stanislavskiy ekonomicheskiy administrativnyy rayon (Sta-
nislav Economic District)

history of development and distribution of both
forest economy and lumber industry in the Stanislav
Oblast'; V.A. Perevalov, L'vovskiy torgovo-ekonomich-
eskiy institut (L'vov Institute of Commerce and Eco-
nomics), elucidated on "The Teaching of V.I. Lenin
on the Territorial Division of Labor as a Base for
the Modern Theory of Division of the USSR Into Economic
Districts"; S.L. Lutskiy, (L'vov University), - on
"The Methods of Division Into Low-Level Economic Dis-
tricts"; I.I. Parkhomenko, Institut nauchnoy informa-
tsii AN SSSR (Institute of Scientific Information
AS USSR), - on "The Location and Nature of Economic
and Geographical Research on Various Scales at Wor-
king Out Development Schemes of Economic Districts";
V.V. Onikiyenko - on "The Experience in Making Eco-
Card 4/6   nomic Maps of the Industry of the Stanislav Oblast'";

SOV/10-59-4-27/29

First Conference to Study the Development of Productive Forces
of the Stanislavskiy ekonomicheskiy administrativnyy rayon (Sta-
nislav Economic District)

Ya.A. Chernova-Gruzdeva, Voronezhskiy sel'sko-
khozyaystvennyy institut (Voronezh Institute of Agri-
culture), - on "Drawing and Editing a Compound Agri-
cultural Map of a District"; I.F. Mukomel', Kiyevskiy
universitet (Kiyev University), - on the analysis of a
system of statistical and economic indices on the
economic mapping of agriculture; I.V. Nikol'skiy,
MGU, - on the experience in making economic and geo-
graphical studies of the construction industry of
Irkutskaya oblast'; A.B. Krasil'shchikov, V.I. Gortsev,
G.A. Zil'ber, S.M. Voskoboynikova, F.M. Khismatov,
and others lectured on the division into districts;
A.V. Darinskiy discussed the efforts of the geographers
Card 5/6   of the Leningradskiy pedagogicheskiy institut im. A.I.

SOV/10-59-4-27/29

First Conference to Study the Development of Productive Forces
of the Stanislavskiy ekonomicheskiy administrativnyy rayon (Sta-
nislav Economic Distrct)

Gertsena (Leningrad Pedagogical Institute Imeni A.I.
Gertsen) which resulted in a comprehensive study
of the oblasts of the Leningradskiy ekonomicheskiy
rayon (Leningrad Economic District); T.K. Tolokonnikova,
Vologodskiy pedinstitut (Vologda Pedagogical Insti-
tute), I.I. Kolyshev and A.A. Girits, Uzhgorodskiy
universitet (Uzhgorod University), and others lectured
on the economic use of the elements of nature.
The conference passed a resolution on the necessity
to intensify economic and geographical studies and men-
tioned in this connection the MVO USSR and the Ukrains-
koye geograficheskoye obshchestvo (Ukrainian Geo-
graphical Society).

Card 6/6

PARKHOMENKO, I.I.; POKSHISHEVSKIY, V.V., prof., red.; ANDREYEV, O.,
         tekhn.red.

[Economic administrative regions of the U.S.S.R.; a catalog
of recent literature on nature, resources, and economy]
Ekonomicheskie administrativnye raiony SSSR; ukazatel' novoi
literatury po prirode, resursam i khoziaistvu. Pod red. V.V.
Pokshishevskogo. Moskva. No.12 [Kazakhstan] Kazakhskaia SSR.,
1958. 142 p.   (MIRA 12:5)

1. Akademiya nauk SSSR. Institut nauchnoy informatsii.
        (Bibliography--Kazakhstan--Economic conditions)

UKRAINETS, V.P.; PARKHOMENKO, I.I.

Mechanizing the purification of poppy and small-seed medicinal plants. Med. prom. 16 no.1:39-41 Ja '62. (MIRA 15:3)

1. Ukrainskaya zonal'naya opytnaya stantsiya lekarstvennykh rasteniy.

(BOTANICAL DRUG INDUSTRY)

BURLAKOVA, Ye.V.; PARKHOMENKO, I.M.

Effect of autolytic processes on the electrical parameters of
tissues in irradiated animals. Trudy MOIP. Otd. biol. 7:113-
117 '63.   (MIRA 16:11)

PARKHOMENKO, I. M.

(b)

Electrical Conductivity and Autolysis of Tissues of Irradiated Animals

E. V. Burlakova, M. L. Kakushkina, O. P. Kol'e and I. M. Parkhomenko

4

The changes in electrical conductivity and rate of autolysis were measured in the liver, spleen and skeletal muscles of white mice and rats exposed to lethal doses of ^{60}Co γ-rays. The measurements were carried out with isolated organs directly after their extirpation as well as after their survival for many hours; they started on the day of irradiation and lasted until the animals died. Analogous measurements were carried out on controls. The electrical conductivity was measured with an A.C. bridge. The rate of autolysis was determined from the free aminoacid content in the tested organs.

Irradiation decreased the dispersion of the electrical conductivity of the liver and spleen. The dispersion increased with time mainly due to an increase in the low-frequency resistance. Simultaneously, autolysis increased. The increase in the low-frequency resistance and in the rate of autolysis in the liver of irradiated animals was more pronounced than in control animals. The opposite effect was found for the spleen. The resistance of skeletal muscle of irradiated animals also showed an increase. In the case of protracted survival the dispersion of resistance and the rate of autolysis of isolated muscles showed little change both for irradiated and control animals.

The change of the low-frequency resistance of surviving tissues is related to the change of the rate of autolytic processes in these tissues. Effects which lower the rate of autolysis result in an inhibition of the increase of resistance of a surviving isolated organ. The trend of physico-chemical processes and of the autolytic processes in the surviving tissues of irradiated animals differs from the trend of these processes in the surviving tissues of normal animals mainly in the rates of these processes.

Biophysics Chair of the Faculty of Soil Biology of the Moscow State University, USSR

report presented at the 2nd Intl. Congress of Radiation Research, Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

L 10426-67   EWT(m)

ACC NR: AT6031774   (A)   SOURCE CODE: UR/2956/66/016/000/0019/0021

AUTHOR: Burdin, K. S.; Parkhomenko, I. M.; Petrusevich, Yu. M.; Shestakova, S. V.

ORG: none

TITLE: Use of a chemiluminescent method to investigate the protective action
mechanism of certain substances and their mixtures

SOURCE: Moskovskoye obshchestvo ispytateley prirody. Trudy. Otdel biologicheskiy,
v. 16, 1966. Svobodnoradikal'nyye protsessy v biologicheskikh sistemakh (Processes of
free radicals in biological systems), 19-21

TOPIC TAGS: antiradiation drug, recombination luminescence, chemiluminescence,
oxidation kinetics, oxidation inhibition, antibiotic

ABSTRACT: In earlier experiments on gamma irradiated SOTs and human amnion cells the
action mechanism of the radioprotectors (veronal, medinal, evipol, AET, propylgallate,
gramicidin, vinylpyrrolidone and pyridine) and the potentiated effects produced by
combining radioprotectors appear to be related to their interaction with radicals
during oxidation. The present study investigated the effect of the radioprotectors on
recombined luminescence of radicals appearing during electrochemical oxidation of
tyrosine in a 0.11 M solution of Na_2SO_4. Intensity of luminescence was determined
with an FEU-42 photomultiplier.

Card 1/3

L 10426-67

ACC NR: AT6031774

Effect of protective substances on intensity of tyrosine chemiluminescence.

I—veronal; II—medinal; III—evipol; IV—AET; V—propylgallate; VI—gramicidin; VII—vinylpyrrolidone; VIII—pyridine. 1—natural luminescence of tested substances in an electrolytic cell in a $0.11M$ solution of Na_2SO_4; 2—chemiluminescence of tyrosine in a 0.11 M solution of Na_2SO_4; 3—chemiluminescence of tyrosine with the addition of the tested substances.

Card 2/3

L 10426-67
ACC NR: AT6031774

Findings show that AET, medinal, veronal and evipol quench chemiluminescence of radicals formed during tyrosine electrolysis; these apparently act as antioxidants. On the other hand, gramicidin and propylgallate increase chemiluminescence probably by increasing the number of radical recombinations. In testing the radioprotector effectiveness of the preparations on gamma irradiated cells, the barbituric acid derivatives (veronal and evipol) offered little protection. Pyridine increased the survival of SOTs cells irradiated with a 900 r dose from 19.5 to 40%. No potentiated effect was produced by combining AET with veronal or AET with evipol. Survival of cells was markedly increased by combining AET with propylgallate, AET with gramicidin, AET with vinylpyrrolidone, anoxia with vinylpyrrolidone and anoxia with pyridine. However, a potentiated effect cannot be produced by combining gramicidin with vinylpyrrolidone. It is concluded that a potentiated radioprotective effect is produced by combining preparations with different action mechanisms in relation to radicals. Orig. art. has: 1 table.

SUB CODE: 06, 07/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001

Card 3/3

ACC NR: AT7002536   SOURCE CODE: UR/0000/66/000/000/0318/0327

AUTHORS: Burlakova, Ye. V.; Parkhomenko, I. M.

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet)

TITLE: Dynamics of the postradiation multiplication of SCH cells during reparation and chemical protection against radiation

SOURCE: AN SSSR. Nauchnyy sovet Radiobiologiya. Zashchita i vosstanovleniye pri luchevykh povrezhdeniyakh (Protection and repair from radiation damage). Moscow, Izd-vo Nauka, 1966, 318-327

TOPIC TAGS: cell physiology, gamma irradiation, radiation protection, radiation damage, radiation cell effect, radioprotective agent, *entiradiation drug*

ABSTRACT: Experiments were set up to examine the problem of the reversibility of various forms of lesions of SCH cells following γ-irradiation and to elicit whether the presence of the irrecoverable portion of the lesion is associated with some definite form of inactivation. The protectors used were aminoethylisothiuronium bromide hydrobromide, propyl gallate, and polyvinyl pyrolidone. The investigation revealed that the rate of division of γ-irradiated SCH cells forming both normal and abortive colonies did not substantially differ from the rate of division of un-irradiated cells. Various forms of inactivation of the irradiated SCH cells were found to exist which differed in the extent of damage. Under conditions of protection

Card 1/2   UDC: none

ACC NR: AT7002536

and postradiation recovery the more severe forms of lesion could change to milder
forms. The authors state that it is unlikely that some forms of lesion are related
only with the reversible part of damage and others are responsible for its irrevers-
ible part. In conclusion, the authors express their gratitude to V. I. Korogodin
for valuable advice and discussion of the results and to S. V. Shestakova for
technical assistance. Orig. art. has 1 table and 3 figures.   [26]

SUB CODE: 06/   SUBM DATE: 26Aug66/ ORIG REF: 008/ OTH REF: 005

ATD PRESS: 5117

Card 2/2

PARKHOMENKO, I.M.

Postirradiation recovery of cynohomolgus monkey heart cells
subjected to gamma-irradiation. Radiobiologiia 3 no.5:689-690
'63.
(MIRA 17:4)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova,
biologo-pochvennyy fakul'tet.

ORLOV, V.N.; ORLOV, O. Y.; PANOV, Ye.N.; CHAYKOVSKIY, Yu.V.; YABLOKOV, A.V.;
GONCHARENKO, Ye.H.; GORBUNOVA, V.G.; KONOPLYANNIKOV, A.K.;
KUDRYASHOV, Yu.B.; REUK, V.D.; SHUBNIKOVA, Ye.A.; TARUSOV, B.N.;
PETRUSEVICH, Yu.M.; IVANOV, I.I.; GAPONENKO, V.I.; ANTONOV, V.A.;
VOROB'YEV, I.N.; BURLAKOVA, Ye.V.; BURDIN, K.S.; PARKHOMENKO, I.M.;
AGAVERDIYEV, A. Sh.; DOSKACH, Ya. Ye.; TARUSOV, B.N.

Brief news. Biul. MOIP. Otd. biol. 70 no.6:158-171 N-D '65.
(MIRA 19:1)

PARKHOMENKO, I.M.

Effect of some protective substances in gamma irradiation
of the cell cultures of cynomolgus heart. Radiobiologiia 3
no.3:467-471 '63.   (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova,
biologo-pochvennyy fakul'tet.

BURDIN, K.S., PARKHOMENKO, I.M.

Release of potassium from the spleen and kidneys of irradiated mice during early postradiation period. Nauch. dokl. vys. shkoly; biol. nauki no.1:94-97 '66.

(MIRA 19:1)

1. Rekomendovana kafedroy biofiziki Moskovskogo ordena Lenina universiteta. Submitted March 9, 1965.

L 11251-63   EWP(j)/EWT(1)/EWT(m)/BDS--AFFTC/AMD/ASD--Pc-4--RM/AB/X
ACCESSION NR: AP3001076   S/0205/63/003/003/0467/0471 63
                                                                    62

AUTHOR: Parkhomenko, I. M.
                                                              19
TITLE: Effect of certain protective substances during gamma irradiation of Tsino-
mol'gus monkey heart cell culture

SOURCE: Radiobiologiya, v. 3, no. 3, 1963, 467-471

TOPIC TAGS: propylgallate, vinylpyrrolidon, aminoethylisotiuron (AET), protective
action mechanism, coaction of protective substances, gamma irradiation

ABSTRACT: The protective action of propylgallate, vinylpyrrolidon, and their co-
action with aminoethylisotiuron (AET) was investigated to determine their effective-
ness in treating radiation injuries and to understand more fully the mechanism of
radiation action on biological systems. The studies were conducted on a trans-
planted strain of SOTs (Tsinomol'gus monkey heart) culture. Effective concentra-
tions and optimum time intervals between administration of protective substances
and irradiation were chosen. Propylgallate administered before a 550 r dose irra-
diation increases survival of cells from 46.2 to 72.9-75%, and when administered
after a 550 r dose it increases survival up to 71%. Survival of cells irradiated
in the presence of vinylpyrrolidon also increases significantly up to 72%. Coaction

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L 11251-63
ACCESSION NR: AP3001076

of AET and propylgallate administered before irradiation reduces survival of cells
to 53.6% and in some cases to 35%. However, administering AET 5 mins before irra-
diation and propylgallate after irradiation increases cell survival by 80% for 550
r. and 52.9% for 750 r. This total protective action is attributed to different ac-
tion mechanisms. Orig. art. has: 2 figures, 5 tables.

ASSOCIATION: Moskovskiy gosurdarstvennyy universitet im. M. V. Lomonosova,
biologo-pochvennyy fakul'tet (Moscow State University, Biology and Soil Division)

SUBMITTED: 18Jan62   DATE ACQ: 01Jul63   ENCL: 00

SUB CODE: 00   NO REF SOV: 006   OTHER: 004

ch/ww
Card 2/2

ACCESSION NR: AP3007762   S/0205/63/003/005/0689/0690

AUTHOR: Parkhomenko, I. M.

TITLE: Post-radiation regeneration of SOTS cells exposed to gamma-irradiation

SOURCE: Radiobiologiya, v. 3, no. 5, 1963, 689-690

TOPIC TAGS: post-radiation cell regeneration, gamma-irradiation, Tsinomol'gus monkey (SOTS) heart cells, phosphate buffer, phosphate buffer incubation, survivability rate, radioprotective substances

ABSTRACT: SOTS (Tsinomol'gus monkey heart) cells were gamma-irradiated with a dose of 550 r on a GUT-Co-400 unit (50 r/min). Before irradiation the cells were taken from their culture medium and placed into a phosphate buffer which provided starvation conditions. The cells were irradiated in the phosphate buffer and then incubated in it for periods ranging from 1 to 24 hrs. Then the cells were placed in a medium culture and cell colonies were counted 14-18 days later. Incubation in a phosphate buffer does not damage non-irradiated cells, but completely inhibits their fission. For a 550 r dose the survivability rate under normal conditions is $46.2 \pm 3.6\%$.
Cardl/2

ACCESSION NR: AP3007762

With short term (2 hr) phosphate buffer incubation of the irradiated cells survivability of cells is reduced to 25%. The survivability of irradiated cells rises with increase in the incubation period. After 8 hr of incubation in a phosphate buffer a constant survivability rate of 74-78% is reached. This rate coincides with survivability of cells irradiated with 550 r in the presence of nitrogen or protective substances. It appears that for each radiation dose there is a certain percentage of cells which cannot be regenerated under any conditions. For 550 r the percentage is 22-26%. Orig. art. has: 1 figure.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova, biologo-pochvennyy fakul'tet (Moscow State University, Biological and Soil Department)

SUBMITTED: 18Oct62   DATE ACQ: 22Oct63   ENCL: 00

SUB CODE: AM   NO REF SOV: 003   OTHER: 008

Card 2/2

L 28983-66   EWT(m)

ACC NR: AP6019164   (A,N)   SOURCE CODE: UR/0325/66/000/001/0094/0097

AUTHOR: Burdin, K. S.; Parkhomenko, I. M.

ORG: Department of Biophysics, Moscow State University im. M. V. Lomonosov (Kafedra biofiziki Moskovskogo gosudarstvennogo universiteta)

TITLE: Yield of potassium from the spleen and kidneys of irradiated mice in the early post-radiation period

SOURCE: Nauchnyye doklady vysshey shkoly. Biologicheskiye nauki, no. 1, 1966, 94-97

TOPIC TAGS: polymerization, gamma irradiation, radiation biologic effect, enzyme, pyridine, monomer

The yield of potassium ions from isolated tissues of animals in the first hours after irradiation was studied as a function of the radiation dose and treatment with certain protective substances (vinyl-pyrrolidone and acryl amide). The authors propose that the increase in yield of K^+ after a massive dose of gamma rays indicates liberation of proteolytic enzymes. Pre-radiation injection of low molecular substances capable of polymerization results in suppression of K^+ yield. Pyridine suppressed the K^+ yield from the kidneys and spleen of unirradiated animals. Comparison of the effect of aminoethyl isothiuronia, pyridine and the monomers on K^+ yield supports the idea that in connection with irradiation K^+ yield is associated with destruction of intracellular surfaces of division (lysosomes). Monomers capable of inoculation in the lipid fractions sharply reduce the K^+ yield from the cells.

Orig. art. has: 3 figures. [JPRS]

SUB CODE: 06, 07 / SUBM DATE: 29Mar65 / ORIG REF: 002 / OTH REF: 008

Card 1/1

KRIGER, Yu.A.; PARKHOMENKO, I.M.

The protective effect of thiourea. Biofizika 5 no. 2:239-242 '60.
(MIRA 14:4)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo
universiteta im.M.V. Lomonosova.
(RADIATION PROTECTION)   (UREA)

KRIGER, Yu.A.; PARKHOMENKO, I.M.

Change in the properties of erythrocytes caused by prehemolytic
doses of -rays. Biofizika 5 no. 5:539-542 '60.   (MIRA 13:10)   .

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(ERYTHROCYTES) (GAMMA RAYS—PHYSIOLOGICAL EFFECT)

BURLAKOVA, Ye.V.; PARKHOMENKO, I.M.

Studies on electric conductivity and autolysis of liver tissue
in irradiated animals. Biofizika 5 no. 5:552-557 '60.
                                              (MIRA 13:10)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo
universiteta imeni M.V. Lomonosova.
    (GAMMA RAYS—PHYSIOLOGICAL EFFECT)   (AUTOLYSIS)
                    (ELECTROPHYSIOLOGY)

PARKHOMENKO, I S   49-58-2-6/18

AUTHOR: Parkhomenko, I.S.

TITLE: Investigation on Models of the Passage of a Main Wave
Through Layers with an Increased Speed (Issledovaniye na
modelyakh prokhozhdeniya glavnoy volny cherez sloy s
povyshennoy skorost'yu)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizich   ,
1958, Nr 2, pp.195-20, and 2 plates (USSR)

ABSTRACT: The results are ... of an experimental study of the
shape of recordings of the main refracted wave as of the
magnitude of the seismic drift as a function of the ratio
of the thickness of the layer to the length of the wave,
d/λ, during its passage through a layer of finite thickness
with an increased speed of wave propagation. The cases are
considered of incidence of a wave on a layer under an angle
which is smaller or larger than the limit angle for longi-
tudinal waves. The investigations have shown that during
passage of a wave through the layer the shape of the wave
changes. In the case of incidence of a wave on a layer
at the limit angle an increase is observed in the magni-
tude of the seismic drift as compared to its previous value.
The problem of passage of a wave impulse through a layer of
finite thickness has not been satisfactorily solved hither-
Card 1/9

49-58-2-6/18

Investigation on Models of the Passage of a Main Wave Through Layers
with an Increased Speed.

matically owing to the involved great difficulties and has
also not been studied directly on real media. Therefore,
a method of simulating on models of seismic phenomena was
chosen by the authors which has been developed by the
Geophysics Institute, Academy of Sciences of the USSR
(Geofizicheskiy Institut, AN SSSR) (Refs.2-4). This prob-
lem was first solved by B.N.Ivakin (Ref.5) using 3-dimen-
sional models consisting of sheets of various materials
which are submerged in water; he investigated the dependence
of the "transparency" coefficient of the layers on the in-
cidence angle of the wave and analysed the types of waves
which pass through the layer. Various experimental and theo-
retical work has been published (Refs.6-21) in which the
passage of waves through a solid layer are investigated from
the acoustics angle. However, in contrast to the seismic
formulation of the problem, these authors do not study the
complete system of waves forming during passage through a
layer and the respective authors usually limit themselves

Card 2/9

49-58-2-6/18

Investigation on Models of the Passage of a Main Wave Through
Layers with an Increased Speed.

to the steady state regime and deal less with
tions. In all the mentioned published work
passage of oscillations through plates. attention
focussed on the change of the intensity of the
seismic considerations, however, other problems
portance, for instance, study of new types of waves
occur in presence of a covering layer of a higher
the shape of recording of the passing wave, the
drift in presence of a screen in the covering media
number of other problems. In this paper a partial
is made to fill this gap and the author studies some of
these problems, particularly the shape of the recording
the magnitude of the seismic drift of the main wave
function of the ratio of the thickness of the layer to the
wavelength. The author proposes later on to investigate
the problem of intensity of this wave. The here-described
experiments were effected by simulating seismic
on 3-dimensional solid-liquid models. Full analogy
natural conditions was not obtained, firstly because
natural conditions solid media are investigated
the models solid media were

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which transverse waves were absent and secondly, because
in the two cases the differences in the wave resistances
the model were more pronounced than under natural conditions.
The ratio of the wave resistances of perspex, aluminium and
brass to the wave resistance of water is about 2, 10 and
20 whilst in nature the ratio of the wave resistances of
individual layers with increased speed and of the media
surrounding them is usually not over 3-5. At the initial
stage of the study absence of transverse waves was desir-
able since this simplifies somewhat the wave picture and
permits studying the basic phenomena which are of interest.
The ratios of the wave resistances were imposed by the ex-
perimental conditions. The investigations were carried out
by means of a pulse ultrasonic seismoscope, using as
transmitter and receiver piezoelectric pickups of seignette
salt (45° x-cut) in the shape of a cube of 10 x 10 x 10 mm.
Such a crystal produced in the water a short pulse of a
basic frequency of about 140 kc/s. A wide band amplifier
with a passband between 15 and 150 kc/s was used. The

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Model consisted of a water tank into which sheets of various
materials and various thicknesses were submerged in a hori-
zontal position to simulate layers with increased speed of
propagation of elastic waves. The following were
investigated: (1) a brass sheet 1120 x 600 mm,
to a depth of about 140 mm; (2) the same sheet but with a
brass strip 80 mm wide and 19.5 mm thick fitted at a dis-
tance of 550 mm from its left end to simulate a protuberance;
(3) the same as Nr (2), additionally fitted with a sheet
placed horizontally above the basic brass sheet in the
region of exit of the main wave (see Fig.1, p.1.) This
served as an intermediate layer and consisted of sheets of
various thicknesses of various materials with speeds of
propagation of the elastic waves both lower and higher than
the respective speeds in brass. The results are entered in
graphs and tables and several recorded oscillograms are
produced. The investigations described in the paper have
shown that presence of a layer with an increased speed in
the covering medium in the zone where the main wave emerges
will bring about a change in the shape of the record and
of the magnitude of the seismic drift of the main wave and

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certain conditions. During passage of the main wave through
thin layers with an increased speed in cases of incidence of
the wave on the layer under an angle θ which is equal, near,
or larger than the limit angle θ_p, the shape of the re-
cording of the main wave in the case of longitudinal wave
in the layer will remain the same as in the case of above
of an intermediate layer; this takes place in the case of
$\theta < \theta_p$ for d/λ ratios below 0.23 and also in the case of
screening $(\theta > \theta_p)$ for d/λ ratios below 0.04. With in-
creasing thickness of the intermediate layer the shape of
the recording of the main wave will become distorted in
both cases owing to superposition for certain d/λ ratio
of a transverse and of multiple waves inside the layer. If
the thickness of the layer increases further $(d/\lambda \approx 2)$,
shape of the recording of a transmitted main wave will
be undistorted if the wave hits at an angle $\theta < \theta_p$.

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Investigat... on ...dels of the Passage of a Main Wave...
Layers with an Increased Speed.

Presence in the covering medium of a thin layer ($d/\lambda <$ .3
for $\theta > \theta_p$ and $d/\lambda < 0.04$ for $\theta \leq \theta_p$) does not ...
magnitude of the seismic drift which remains the sa...
would be in absence of an intermediate layer. With incre...
ing thickness of the layer determination of the seismic
drift will become less reliable in the cases $\theta < \theta_p$ and
$\theta > \theta_p$ due to distortions of the shape of ... record...
the main wave but the magnitude of the drift corres... to
the magnitude calculated on the basis of geometric ...
laws. For an incidence angle of the wave $\theta = \theta_p$ the
following is observed: (1)for d/λ ratios $= 0.04$-0.... a
sharp decrease is observed in the amplitude of the main
wave on the section of the profile which coresponds to the
normal drift; this decrease is apparently due to a compat-
ion of recording of the wave which passes through the inter-
mediate layer in the form of a transverse wave; (2) an ex-
cess value of the drift was detected which is attributed to
the passage through the layer of a particular type of longi-
tudinal wave which penetrates into the medium in th... case of

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Layers with an Increased Speed.

the angle being a limit angle for the longitudinal waves;
the additional drift in the intermediate layer increases
with increasing d/λ ratios and amounts to 1-2 wavelengths
in the layer. It can be assumed that the observed relat-
ions remain unchanged also for the range of lower frequen-
cies and in this case the detected excess value of the
seismic drift will be of interest: in the case of recording
of oscillations of about 10 cps the excess may amount to
about 1 km and for waves with a predominating frequency of
100 cps it may reach 150-200 m. Presence of an intermediate
layer in the range of exit of the main wave leads to the
formation of two new waves, namely, a refracted-reflected
wave which is reflected from the intermediate and the basic
layers, and a complicated diffraction-main wave which is
linked with the two layers (the basic and the intermediate
layers). The obtained experimental results are qualitative-
ly in agreement with equations which follow from the

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Investigation on Models of the Passage of a Main Wave Through Layers with an Increased Speed.

theoretical investigations of the problem of passage of waves through a layer in the case of incidence angles which are equal or larger than the limit angle for longitudinal waves. There are 11 figures, 1 table and 25 references, of which 13 are Russian, 7 German and 5 English.

ASSOCIATION: Academy of Sciences of the USSR, Institute of **Earth** **Physics** (Akademiya nauk SSSR, Institut fiziki Zemli)

SUBMITTED: June 13, 1957.

AVAILABLE: Library of Congress.

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PARKhoMENKo, I.S.   49-58-3-3/19

AUTHORS: Vasil'yev, Yu.I., Kovalev, O.I. and Parkhomenko, I.S.

TITLE: Investigation of the Crystalline Foundation by the Method
of Refracted Waves Under Conditions of Incomplete Screening. I.
(Issledovaniye kristallicheskogo fundamenta metodom prelom-
lennykh voln v usloviyakh nepolnogo ekranirovaniya. I)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya,
1958, No.3, pp. 317 - 329 (USSR).

ABSTRACT: Of all the existing geophysical methods of prospecting,
including the seismic method of refracted waves, the most
reliable and accurate results are obtained in investigating a
crystalline foundation by means of the method of refracted waves.
In a number of regions, particularly in the eastern part of
the Russian platform, prospecting of the foundation by means of
refracted waves encounters serious difficulties, particularly
due to the presence in the covering medium of thick layers of
carbonate rocks in which the speeds of the elastic waves are
equal or almost equal to those characterising the crystalline
formations. Therefore, conditions are created which are near
to those of screening of longitudinal, refracted primary waves
in the respective surfaces of the crystalline formations. The
Geophysics Institute of the Ac.Sc. USSR (Geofizicheskiy institut
AN SSSR) carried out special tests for elucidating the possibility

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AO-58-5-3/19

Investigation of the Crystalline Foundation by the Method of
Refracted Waves Under Conditions of Incomplete Screening. I.

of exploration of the foundation by means of the method of
correlation of refracted waves under the given seismological
conditions. The work included evolving a low-frequency modi-
fication of the method of correlation of refracted waves. The
work was carried out under the direction of G.A. Gamburtsev
between 1951 and 1955 with the participation of the authors of
this paper and a number of other people of the Geophysics
Institute of the Ac.Sc. USSR. The results of these investi-
gations are described in this paper. The experiments were based
on conclusions derived from earlier work, according to which
optimum conditions for recording longitudinal, refracted waves
corresponding to the surface of crystalline rocks, under con-
ditions approaching screening, can be created by utilising
sufficiently large wavelengths, i.e. by using apparatus which
ensures the possibility of recording of frequencies of oscill-
ation of the soil which are lower than those usually applied in
seismic prospecting. The apparatus used is described in para. 1.
It is designed to record frequencies of the range 10 - 35 c.p.s.

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Investigation of the Crystalline Foundation by the Method of
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The circuit of the low-frequency amplifier in Fig.2 and the
frequency characteristics in Fig. 3 are shown.   Para. 2 deals
with the technique used in the investigations.   The
experimental results are dealt with in para. 3, giving a
number of seismograms and hodographs.   The carried out investi-
gations show that an application of low-frequency apparatus
permits recording longitudinal, refracted waves corresponding
to the surface of the crystalline foundation in cases in
which the latter is located under a thick layer of carbonate
formations in which the speed of elastic waves is almost the
same as in the crystalline formations.   Earlier attempts to
use, for the same purpose, medium-frequency apparatus did not
prove successful.   Considerable differences were detected in
the dynamic characteristics of waves corresponding to the
refracted layers in the carbonate formation and in the surface
of the crystalline formations (differences in the features
of the recording, the frequency and the degree of attenuation
with distance).   A low-frequency modification of the correlation
method of refracted waves was developed, which can be used
not only for investigating crystalline foundations, but also

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Investigation of the Crystalline Foundation by the Method of
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for studying thick layers of sedimentary rocks, particularly
in the case of strong absorption of seismic energy or if
screening layers are present. The authors consider it
advisable to carry out tests also for recording refracted
waves by means of low-frequency apparatus.
There are 14 figures and 10 references, all of which are
Russian.

ASSOCIATION: Institute of Physics of the Earth Ac.Sc. USSR.
               (AN SSSR institut fiziki Zemli)

SUBMITTED: February 13, 1957

AVAILABLE: Library of Congress
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49-58-4-3/18

AUTHOR: Parkhomenko, I. S.

TITLE: Analog Studies of the Head Wave Intensity when a Layer of
Higher Propagation Velocity is Passed Through (Izucheniye
na modelyakh intensivnosti golovnoy volny pri yeye
prokhozhdenii cherez sloy s povyshennoy skorost'yu)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya,
1958, Nr 4, pp 449-457 (USSR)

ABSTRACT: Experimental data on the refracted waves occurring when
compressional waves are incident on a layer of higher pro-
pagation velocity at angles above and below the critical
are considered, particularly in relation to the way the
wave amplitude is dependent on the ratio of layer thickness
to wavelength. The setup used is one with parallel-sided
layers of solid immersed in a liquid in which only com-
pressional waves are incident, refraction occurring from
brass to gloss, perspex, aluminium, etc. The experimental
arrangements (source, detector, etc.) are not described.
Effects due to waves repeatedly reflected within the solid
layer are considered, as well as interference phenomena
(depressed and accentuated transmission). A comparison with
results computed from the wave theory shows good agreement

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...alog Studies of the Head Wave Intensity when a Layer of Higher
...ropagation Velocity is Passed Through.

at angles of incidence less than critical but the transmitted
waves are of amplitudes higher than predicted for angles
beyond the critical, except with thick layers. The results
do not appear to differ greatly from those previously re-
ported in Western acoustics journals. There are 5 figures,
1 table and 11 references, 2 of which are English, 9 Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut Fiziki Zemli (Academy of
Sciences, USSR, Institute for Studying the Physics of the Earth)

SUBMITTED: July 22, 1957.

1. Sound—Intensity   2. Sound—Velocity   3. Sound—Propagation
4. Wave analysis

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49-58-5-1/15

AUTHORS: Vasil'yev, Yu. I. Kovalev, O. I., Parkhomenko, I. S.

TITLE: On Investigating the Crystalline Foundation by Means of the Method of Refracted Waves Under Conditions of Incomplete Screening. Part II (Ob issledovanii kristallicheskogo fundamenta metodom prelomlennykh voln v usloviyakh nepolnogo ekranirovaniya.II)

ABSTRACT: In Part I of this paper (same journal, Nr 3, 1958) an attempt is described of applying a low frequency modification of the method of refracted waves for exploring the crystalline foundation in cases where the foundation is incompletely screened, and the results are given which were obtained in experimental work in the Volga-Ural region. In this paper a more detailed evaluation is made of the obtained experimental method for the purpose of detecting characteristic features of the observed data and for justifying this method of exploration. Certain dynamic and kinematic features are considered which characterise the main waves under conditions of small speed differentiation of the medium in presence of incomplete screening. Quantitative evaluation is given of the effect of screening. Furthermore, the probl...... inter-

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On Investigating the Crystalline Foundation by Means of the Method
of Refracted Waves Under Conditions of Incomplete Screening. Part II.

pretation of the obtained information and the exploration
potentialities of the method are considered. Para.1 deals
with the attenuation and the stability of the main waves
corresponding to the surface of the foundation, $\left(t_{II} \right)$ and
the refracting layers in a carbonate massif $\left(t_I \right)$ consider-
ing the obtained experimental results and the causes of
differing attenuation of the waves, as well as the
the magnitude of the differing attenuation of the waves for
recording the t_{II} waves. Para.2 deals with the screening
of the crystalline foundation, considering the kinematic
conditions, as well as the dynamic conditions of screening.
Para.3 deals with certain features of refracted waves corres-
ponding to the surface of the foundation under conditions of
small speed differentiation of the medium. Para.4 deals in
detail with problems of qualitative and quantitative inter-
pretation. In Para.5, relating to the exploration potentia-
lities of the method, the authors deal with the possibility

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On Investigating the Crystalline Foundation by Means of the Method
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in principle of exploring the foundation under conditions of
incomplete screening by the described method, considering
also the accuracy and the main trends in perfecting
the method. . It is possible with adequate probability to
distinguish structural elements of the foundation of at least
100-200 m with incidence angles of at least 1°-2°. The
errors relating to the relief of the foundation are at present
determined to a considerable extent by lack of information on
the layer speeds in the lower regions of the massif and may
reach 20 to 25% of the real fluctuations at the surface of the
foundation. As an example of the comparison of seismic and
geological data, a schematic structural chart is reproduced
in Fig.6, p.579, which shows the foundation as plotted from
seismic data and also information gained from bore holes; on
the Northern part of the territory a satisfactory agreement
was found to exist between the seismic and the geological
data. One of the wells in the South Western part of the
territory sunk after gaining knowledge from seismic data con-
firmed the presence of a rise i·. the level of the foundation
whereby the difference between the seismic data and the data
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.On Investigating the Crystalline Foundation by Means of the Method
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location of the foundation. It is pointed out that the
developed method which is based on recording of only the
longitudinal refracted low frequency waves can be considerably
improved by combining observation of the longitudinal waves with
observations of the "exchange" longitudinal-transverse refracted
waves corresponding to the same surface and also by combining
with the refracted and reflected waves corresponding to con-
siderably deeper boundaries. Some experience in recording
such waves and using the results for exploring the foundat-
ion in the Volga-Ural region is already available. There are
6 figures and 17 Soviet references.

ASSOCIATION:Akademiya nauk SSSR, Institut Fiziki Zemli(Academy of
Sciences USSR, Institute of Physics of the Earth)

SUBMITTED: February 13, 1957.

1. Geophysical surveying--USSR

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