

ACCESSION NR: AT4020804

activated not only with thallium, but with other mercury-like ions as well. The primary purpose was to determine to what degree the mercury-like ions can serve as "luminescent probes" in the study of different physical phenomena in crystals (for example, the phenomenon of energy migration), which develop as the result of the effect of electrons on the crystals. The author has shown that the mercury-like luminescence centers in these phosphors can easily be excited by an electron beam. The experimental results clearly show the appearance of activator emission in cathode luminescence of the phosphors mentioned above. The spectrum of this emission is very close to (if not identical with) the fluorescence spectrum; that is, the emission under electron excitation corresponds to $3P_1 \rightarrow 1S_0$ transitions in Ga^+ , Ge^{2+} , In^+ , Sn^{2+} , and Tl^+ centers. The author has examined cathode luminescence spectra as a function of the activator concentration in the surface layer of KI-Tl. Possible mechanisms for the cathode luminescence of the phosphors under discussion are considered. "In conclusion, the author wishes to express her sincere gratitude to Ch. B. Lushchik for proposing the subject and supervising the work, to N. Ye. Lushchik for assistance in designing the equipment, to N. A. Yaanson and I. A. Muuga for furnishing some of the objects of the investigation, and to Z. I. Klabukova and E. I. Zhukovskaya for their help in making the cathodes."

Orig. art. has: 4 figures.

Card 2/3

ACCESSION NR: AT4020804

ASSOCIATION: Institut fiziki i astronomii AN EstSSR (Institute of Physics and Astronomy, AN EstSSR)

SUBMITTED: 03Jan63

DATE ACQ: 07Apr64

ENCL: 00

SUB CODE: PH

NO REF SOV: 016

OTHER: 010

3/3

Card

"APPROVED FOR RELEASE: 08/22/2000

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CIA-RDP86-00513R000412020005-7"

L 1739-66 EWT(l)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACCESSION NR: AT5013697

UR/2613/64/000/030/0098/0101

AUTHOR: Eksina, T. I.

TITLE: Luminescence excitation functions of alkali-halide crystals
in the case of slow exciting electrons (50 -- 500.eV)

SOURCE: AN EstSSR. Institut fiziki i astronomii. Trudy, no. 30,
1964. Issledovaniya po lyuminescentsii (Research on luminescence),
98-101

TOPIC TAGS: luminescence, luminescence excitation, excitation
function, alkali halide, electron bombardment

ABSTRACT: In view of the lack of data on the luminescence excitation
functions of ionic crystals in the energy region 20 -- 500 eV the
authors investigated the electronic excitation functions of lumines-
cence of single-crystal plates (thickness ~1 mm) of NaCl, KCl, KBr,
KI, RbI, and CsI, activated with Tl⁺ and In⁺ ions. The phosphors
were excited with a monokinetic beam of electrons with energies 50 --
500 eV. The current density in the beam was maintained constant

Card 1/3

L 1739-66

ACCESSION NR: AT5013697

($\sim 1 \mu\text{A}/\text{cm}^2$). The dependence of the luminescence brightness on the energy of the electrons incident on the phosphor (the luminescence excitation function) was measured with special optical filters and registered automatically with a photoelectronic photometer. A typical curve is shown in Fig. 1 of the Enclosure. The reason for the departure from a linear dependence is discussed. The minima are attributed to production of x-rays by the incident electrons and possibly to double ionization of the chlorine ions. It is concluded that the present results are insufficient and further research is necessary. Orig. art. has 1 figure.

ASSOCIATION: None

SUBMITTED: 28Nov64

ENCL: 01

SUB CODE: OP

NR REF SOV: 005

OTHER: 003

Card 2/3

L 1739-66

• ACCESSION NR: AT5013697

ENCLOSURE: 01

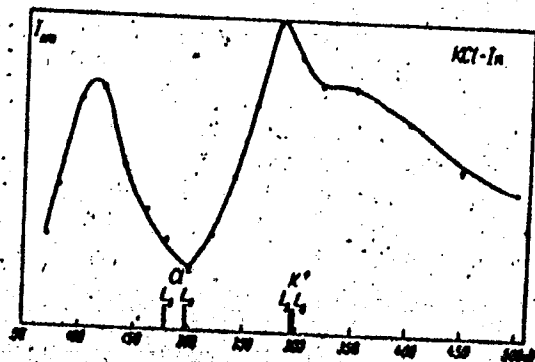


Fig. 1. Typical excitation function for the luminescence of KCl-In luminor.

Card 3/3

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APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000412020005-7"

GORJUNOV, N., kand.fiz.-matem.nauk; EKSLER, A., inzh.

Electrical parameters of tunnel diodes and methods for measuring
them. Radio no.12:38-41 D '64. (MIRA 18:3)

GCRYUNOV, N., kand. fiz.-matem. nauk; EKSLEK, A., inzh.

Sinusoidal wave amplifiers and oscillators using tunnel diodes.
Radio no.1:35-37 Ja '65. (MIRA 18:4)

L 25677-66 EWT(1)/EWT(m)/EWA(h) JD/JG

ACC NR: AM6013861

Monograph

UR/

Goryunov, Nikolay Nikolayevich; Kuznetsov, Anatoliy Filippovich;
Eksler, Aleksey Andreyevich

44
41
B+1

Tunnel diode circuits (Skhemy na tunnel'nykh diodakh) Moscow, Izd-vo
"Energiya", 1965. 78 p. illus, 60,000 copies printed. Series note:
Massovaya radiobiblioteka, vyp, 586

TOPIC TAGS: tunnel diode, gallium arsenide tunnel diode, germanium
tunnel diode, circuit design

PURPOSE AND COVERAGE: This booklet, intended for advanced radio ama-
teurs, may also be used by technicians and engineers engaged in the
design of circuits using semiconductor devices. Principles of
tunnel-diode circuit designing are described. Basic parameters and
characteristics of tunnel diodes are listed and practical circuit
diagrams using these devices are given.

TABLE OF CONTENTS:

- Ch.I. Tunnel Diodes -- 3
- Structure and principle of operation -- 3
- Electrical parameters of a tunnel diode -- 6

Card 1/2

UDC 621.382.233.014.2

L 25677-66

ACC NR: AM6013861

3

Equivalent circuit of a tunnel diode and its parameters -- 9
Limiting values -- 14

Ch.II. Use of Tunnel Diodes in Electronic Circuits -- 16
Power supply of tunnel-diode circuits -- 19
Sinusoidal-oscillation generators and amplifiers -- 21
Relaxation generators -- 28
Voltage converters -- 31
Switching circuits -- 36
Combined switching circuits using tunnel diodes and transistors - 51

Ch.III. Some Practical Circuits Using Tunnel Diodes -- 60
Multivibrator -- 63
Counting circuit using germanium tunnel diodes -- 66
Counter using gallium-arsenide diodes -- 69
Single-diode trigger²⁷ -- 74
Analog-to-digital converter -- 74

APPENDICES -- 77

SUB CODE: 09/ SUBM DATE: 15Jul65/

Card 2/2 dda

ZHUNEV, P.A.; KOTELEVSKIY, Yu.M.; EKSLER, L.I.

Designing ball gland cocks. Mash. i neft. obor. no.3:
10-15 '64. (MIRA 17:5)

1. Monkovskiy filial Tsentral'nogo konstruktorskogo byuro
armaturostroyeniya.

ZHUNEV, P.A.; KOTELEVSKIY, Yu.M.; EKSLER, L.I.

Calculating the optimal width of a packing box for gland
cocks. Mash. i nef't. obor. no.4:10-12 '64. (MIRA 17:6)

1. Moskovskiy filial Tsentral'nogo konstruktorskogo byuro
armaturostroyeniya.

ZHUNEV, P.A.; EKSLER, L.I.; BRODOTSKAYA, I.Z.

Coefficients of friction in lubricated valves. Mash. 1 nef. 1.
Obor. no. 11:23-24 '65. (MIRA 18:12)

1. Moskovskiy filial Tsentral'nogo konstruktorskogo byuro
armaturostroyeniya.

L 39988-66

ACC NR: AP6018792

(A)

SOURCE CODE: UR/0314/66/000/002/0005/0008

AUTHOR: Eksler, L. I. (Engr.)

11
B

ORG: none

TITLE: Operation of a contact metal seal 1

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 2, 1966, 5-8

TOPIC TAGS: hermetic seal, metal seal

ABSTRACT: An attempt was made to develop a model for the operation of a contact metal seal for liquid media. The seal (see Figure 1) consists of two metal surfaces ground down and pressed together, having the same microgeometry and width b , and separating region A_1 with a liquid under excess pressure p from region A_2 with air at atmospheric pressure. The problem is assumed to be two-dimensional, i. e., all the quantities are independent of the coordinate y (which is perpendicular to the plane of the figure), and hence the sealing surfaces are absolutely plane and coincident. A theoretical equation is derived expressing the nominal specific pressure q_0 on the sealing surfaces necessary for tightness as a function of the pressure of the medium p , sealing width b , allowed leakage Q , viscosity of the medium η , microgeometry parameters of the sealing surfaces r , h_m and ΔA_2 , and elastic constants of the sealing material E and μ :

Card 1/2

UDC: 62-762.001.1

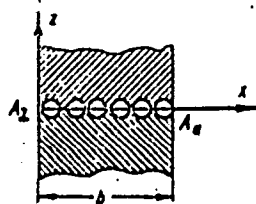
L 39988-66

ACC NR: AF6018792

$$q_0 = \frac{p}{2} + 2,31 \cdot 10^{-4} \frac{E}{1-\mu^2} \cdot \frac{r^{1/2} \cdot h_m^{1/2}}{\Delta A_a} \times \left(1 - 0,23 \frac{Q_0}{h_m^3} \eta \frac{b}{p} \right)^{1/2}$$

The equation was found to yield results of the same order as the empirical relations now in use. Orig. art. has: 4 figures and 11 formulas.

Fig. 1. Diagram of contact seal



SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 014

Card 2/2 11b

EKSLER, M. B.

PA 12/49T28

USSR/Engineering

Jul 48

Welding - Equipment
Welding, Electric

"Mobile Equipment for Welding of Pipe," M. B.
Eksler (Trust Lenpromeneromontazh), 1 p

"Avtogennoye Delo," No 7 - p. 24

Describes equipment with the aid of two photographs. Tabulates performance figures. Power 100 kw, 220 volts. It can deal with piping from 25 to 83 mm in diameter, bent or straight.

12/49T28

EKSLER, M. B.

USSR/Engineering
Electrodes
Welding

Nov 48

"An Experiment in the Production of Coated Electrodes
at a Plant of the 'Leningradenergomontazh,'" M. B.
Eksler, *Engg*, 1 p

PA 56/49T30
"Avtozen Delo" No 11 - p. 27

New electrode shop has been equipped at Kotel'no-
Mekhanicheskly Plant of Leningradenergomontazh
to produce TSM-7 and Tsl-6 electrodes. These
electrodes will increase productivity 20-30% in
welding in comparison with electrodes now used.

56/49T30

USSR/Engineering (Contd.)

Nov 48

Shop has a special press to coat welding rods
under pressure which can put out 40,000 electrodes
a shift. Machine which straightens and cuts
wires can produce 180 rods a minute.

56/49T30

SHOLEH, M. B.

PA 40/49746

USSR/Engineering
Welding Machines
Welding - Equipment

Apr 49

"Mobile Welding Machines for Contact Butt-Welding,"
M. B. Kheiler, Engr, Lenpromenergomontazh, 3/4 p
"Prom Energet" No 4

Engineers of "Lenpromenergomontazh" constructed a
mobile welding machine for contact butt-welding
pipes on assembly sites. Describes basic parts
of the welding machine which weighs 8 tons. Outfit
can be used for welding various parts with a sur-
face up to 2,500 sq mm. Claims that use of unit

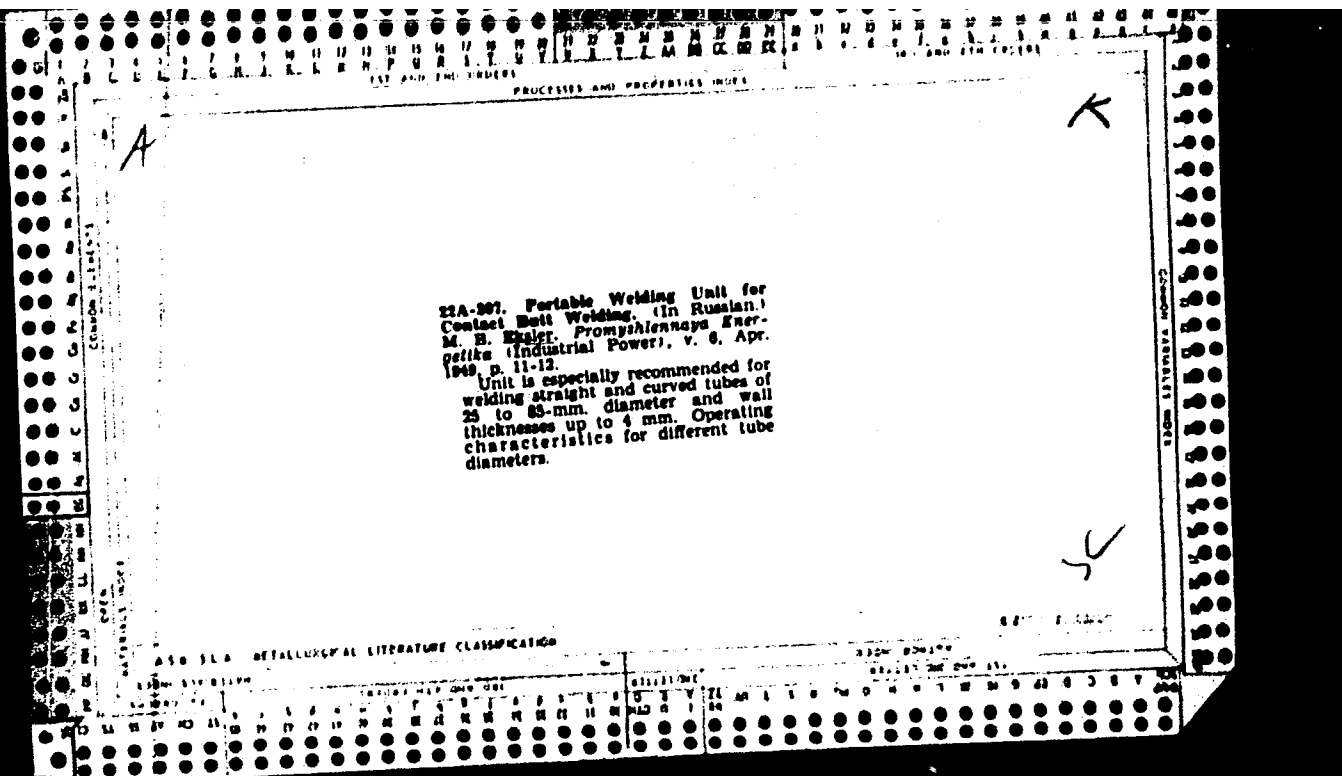
40/49746

USSR/Engineering (Contd)

Apr 49

Will improve quality of welding and decrease
man-hours and power expenditure. Gives two
tables pertaining to construction.

40/49746



EKSLER, M. B.

Pnevmaticheskaiia mashina PM-2. (Vest. Mash., 1950, no. 2, p. 27)

Refers to "Lenpromenergmontazh" plant.

The PM-2 pneumatic machine.

DLC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

EKSLER, M. B., Engr

PA 167T64

USSR/Metals - Welding

Jul 50

"Manufacture of Electrodes for Welding Respon-
sible Constructions Made of Alloy Steels," M. B.
Eksler, Engr

"Avtogen Delo" No 7, pp 19-21

Describes experiments for developing new-type
electrodes for welding high-pressure pipelines
made of low-carbon and alloy steels. Reviews
technological process and describes several
types of electrodes and mechanical properties
of welded joints.

167T64

EKSLER, M. B.

Feredvizhnoi agregat dlia kontaktnoi stykovoii svarki trub. (Vestn. Mash., 1950,
no. 12, p. 21-22)

Adjustable unit for resistance butt welding of pipes.

DIC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of
Congress, 1953.

EKSLER, M.B.

EKSLER, M.B. (Leningrad)

Steam and water-heating boiler designed by Engineer M.IA.Remez.
Vod.i san.tekh. no.8:32-33 Ag '57. (MIRA 10:11)
(Boilers)

EKSLER, M.B., insh.

Using slag concrete blocks in building houses. Stroi.prom.
27 no.9:17-18 S '59. (MIRA 13:2)
(Architecture, Domestic) (Concrete blocks)

KLEYMAN, A.; EKSLER, R.

Parameters of transistors with medium and large power ratings.

Radio no.2:60-62 F '61.

(MIRA 14:9)

(Transistors)

EKSPERIANDOVA, E. A.

Subacute bacterial endocarditis. Ter. arkh., Moskva 23 no.
6:76-80 Nov-Dec 1951. (CML 21:3)

1. Candidate Medical Sciences. 2. Of the Faculty Therapeutic
Clinic (Director -- Prof. L. A. Varshamov), Saratov Medical
Institute.

EKSPERIANDOVA-POPOVA, Yekaterina Alekseyevna

Functional Collection of the Liver Concerning Ulcerous Disease of
the Stomach and Duodenal Ulcer

Dissertation for Candidate of Medical Science degree. Chair of the
Department of Therapeutics (head, Prof. L.A. Varshamov) Saratov Medical
Institute, 1945

USSR 2

Chemical composition of grape seeds. Ya. Etkin and V. Ogorchuk (Agr. Inst., Odessa). *Vinogradovstvo*, S.S.S.R. 13, No. 7, 21-31 (1953).—Grape seeds contain total N 1.69-2.89, pentosanes 7.42-8.30, and furfural 4.54-5.47% of the air-dried substance; and on the dry basis: tannins 3.3-7.9, and oils 10-20.6%. The oils obtained from different grape varieties were similar in their properties: iodine no. 80.34-120.12. The refined oils are edible; their organoleptic properties did not change during storage at 16-20° for 2-12 months. E. Werhicki

Etkin is correct spelling

USSR / Plant Physiology. Respiration and Metabolism. I

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5973.

Author : Ekster, Ya. E.
Inst : Odessa Agricultural Institute.
Title : The Interrelation of Oils and Tannic Acids
Content in Grape Seeds.

USSR / Plant Physiology. Respiration and Metabolism. I

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5973.

Abstract: rived from carbohydrates in as much as many of them represent complex esters of glucose and tannic acid. The carbohydrate origin of aromatic compounds, entering into the composition of tannic acids of both groups, is indicated through the formation of polyphenols, entering into the composition of tannic acids from carbohydrates. The hypothesis linking the formation of polyphenols with the photosynthesis process has not been confirmed, so that the synthesis of tannic acids in plants can also occur in the absence of light. Schemes are cited as to the formation of glycarine and the simplest polyphenols from carbohydrates. -- P. Ye. Tsekhmistrenko.

Card 2/2

4

EKSTER, Ya. E.

"Organic chemistry" by N.I. Putokhin. Reviewed by IA. E. Ekster.
Zhur. prikl. khim. 31 no.1:151-152 Ja '58. (MIRA 11:4)
(Chemistry, Organic)
(Putokhin, N.I.)

AUTHOR:

Ekster, Ya. E.

SOV/79-29-1-5/74

TITLE:

On the Problem of the Reduction of Furfurole on the Mercury Drop Electrode (K voprosu o vosstanovlenii furfurola na rtutnom kapel'nom elektrode)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 17-20 (USSR)

ABSTRACT:

Taking into account the important part played by furfurole in industry it is necessary to employ more accurate methods for its quantitative determination. In this connection the polarographic method gains importance, especially because of contradictory data published about it. (Refs 1,2,3). The author is of the opinion that this is due to the different conditions of furfurole polarographing. It is the aim of the present paper to investigate the stepwise reduction, to determine the intensity of diffusion current, the importance of the furfurole half-wave potential to be found in dependence on the aqueous or aqueous-alcoholic medium, the composition of the mixture and the percentage content. The above-mentioned reaction was found to take place in two steps in a certain interval of the percentages. The percentages of the mixture and its composition act upon the diffusion current intensity

Card 1/2

On the Problem of the Reduction of Furfurole on
the Mercury Drop Electrode

SOV/79-29-1-5/74

as well as upon the half-wave potential. At pH 7 only one polarographic wave appears clearly which renders it possible to determine the diffusion current. It is, therefore, convenient to carry out the quantitative polarographic determination of furfurole in alkali medium, especially because in such a medium sodium sulfite can be used to eliminate oxygen. In the aqueous alcoholic medium the intensity of the diffusion current of furfurole is smaller, the half-wave potential more negative than in aqueous solutions. With an increase of the concentration of the alcohol the wave height decreases, whereas the absolute intensity of the half-wave potential increases. There are 2 tables and 3 references, 2 of which are Soviet.

ASSOCIATION: Odesskiy sel'skokhozyaystvennyy institut (Odessa Agricultural Institute)

SUBMITTED: November 14, 1957

Card 2/2

EKSTERKIN, Ye.S., kand.med.nauk

"Obstetrics seminar, Vol. 2" by L.S.Persianinov. Reviewed by E.S.
Eksterkin. Vop. okh. mat. 1 det. 7 no.3:93-94 Mr '62. (MIRA 15:5)
(OBSTETRICS) (PERSIANINOV, L.S.)

ELACINA, Z.

The main link. Moskva, Moskovskii rabochii, 1953. 74 p.

ELAGINA, Z.S.

Review of foreign periodicals. Vest.mash.35 no.8:94-95 Ag'55.
(Bibliography--Technology) (MIRA 8:10)

STEKHANOV, A.I.; ELAISHBERG, M.B.

Raman scattering of mixed crystals of alkali halides. Fiz. tver.tela
2 no.10:2354-2355 '60. (MIRA 13:12)

1.Leningradskiy fiziko-tekhnicheskoy institut AN SSSR.
(Alkali halide crystals—Optical properties)
(Raman effect)

GASPAROV, Anton, sanitetski pukovnik doc. d-r; PETKOVIC, Darinka, d-r;
FILIPOVIC-RISTIC, Brana, d-r; ELAKOVIC, M., sanitetski kapetan d-r

Histological changes of the gastric mucose in young men. Voj.san.
pregl., Beogr. 17 no.7/8:771-774 JI-Ag '60.

1. Armiska poliklinika u Beogradu, Interno odeljenje
(STOMACH anat & histol)

GASPAROV, Antun, sanitetski pukovnik, doc., dr.; SMIRCIC, Petar, sanitetski potpukovnik, dr.; FILIPOVIC, Brana, dr.; PETROVIC, Milentije, sanitetski kapetan, dr.; ELAKOVIC, Mihajlo, sanitetski kapetan I kl., dr.

Control of asymptomatic chronic gastritis with the aid of aspiration biopsy. (8 month control of 101 normal soldiers). Vojnosanit. pregl. 18 no.10:851-855 0 '61.

1. Armijska bolnica u Beogradu, Interno odeljenje.

(GASTRITIS pathol) (BIOPSY)

GASPAROV, A.; SMIRCIC, P.; FILIPOVIC, B.; PETROVIC, B.; ELAKOVIC, M.

Histological changes in the gastric mucosa in gastroduodenal ulcer and in normal young subjects. Vojnosanit. pregl. 19 no.2:101-104, F '62.

1. Armijska vojna bolnica u Beogradu, interno odeljenje.
(GASTRITIS) (DUODENAL ULCER) (STOMACH ULCER)
(BIOPSY)

GASPAROV, Antun, sanitetski pukovnik, doc., dr.; SMIRCIC, Petar,
sanitetski potpukovnik, dr.; FILIPOVIC, Brana, dr.;
PETROVIC, Milentije, sanitetski kapetan, dr.; ELAKOVIC, Mihajlo,
sanitetski major, dr.

Results of the histological examination of the mucous membrane
of the colon in normal young subjects. Vojnosanit. pregl. 19
no.4:255-258 Ap '62.

1. Armijska bolnica u Beogradu, Interno odeljenje.
(COLON) (MUCOUS MEMBRANE)

2

ĠASPAROV, Antun, sanitetski pukovnik doc. dr; SMIRCIC, Petar, sanitetski
potpukovnik dr; FILIPOVIC, Brana, vojni sluzbenik dr; PETROVIC, M.,
sanitetski kapetan dr; ELAKOVIC, M., sanitetski major dr

Roentgenological and histological comparisons in chronic gastritis
in recruits. Vojnosanit. pregl. 19 no.11:769-773 N '62.

1. Armijska Bolnica u Beogradu, Interno odeljenje.
(GASTRITIS)

ELANCHIK, G. M.

Hoisting equipment for mines. Moskva, Gos. nauch.-tekhn. izd-vo neftianoi
i gorno-toplivnoi lit-ry, 1941. 646 p. (49-44759)

TN339.E6

ELANDT, R.

"Experimental Error of a Method." p. 97 (Wiadomosci Chemiczne. Vol. 7, no. 3, Mar. 1953
Wroclaw.)

SO: Monthly List of East European Accessions. ^{Vol. 3, no. 6} /Library of Congress, June 1954, Uncl.

ELANDT, R.

"Application of the Analysis of Variance to Complex Fruit Growing Problems." p. 107,
(ROCZNIKI NAUK ROLNICZYCH. SERIA A-ROSLINNA, Vol. 66, no. 2, 1953, Warsaw, Poland).

SO: Monthly List of East European Accession, Lib of Congress, Vol 2, no 10Oct. 1953, Uncl.

ELANDT, R.

"Statistical Terminology and Symbols in Agricultural Experimentation." p. 199,
(ROCZNIKI NAUK ROLNICZYCH. SERIA A-ROSLINIA, Vol. 66, no. 2, 1953, Warsaw, Poland).

SO: Monthly List of East European Accession, Lib of Congress, Vol 2, no 10 Oct. 1953, Uncl.

37003

S/O44/62/000/003/052/092
C111/C444

16.6200

AUTHOR: Elandt, R.

TITLE: On some interaction tests made in repeated experiments during several years, concerning the question of regionalisation

PERIODICAL: Referativnyy zhurnal, Matematika, no. 3, 1962, 17, abstract 3V76. ("Zastosow. mat.", 1956, 3, no. 1, 8-45)

TEXT: The author proposes the following two criteria: 1. The non-parametric criterium of independency. Examined is the hypothesis H_0 on the independency of the stochastic variables x and y . Let x_1, \dots, x_N (y_1, \dots, y_N) be the results of N observations of the stochastic variable $x(y)$, $\xi_i = x_i - Me_x$, $\eta_i = y_i - Me_y$ ($i = 1, \dots, N$, Me means median). For the examination of the hypothesis one introduces a statistics U which is equal to the number of the couples (ξ_i, η_i) , the components of which are of the same (of different) sign. The distribution, the mathematical expectation and the dispersion of U are derived, under the hypothesis H_0

Card 1/2

On some interaction tests made in ...

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C111/C444

one proves the local limit theorem. 2. The criterium χ^2 for differences. Let $X_i(Y_i)$ ($i = 1, \dots, N$) be a stochastic variable being normally distributed, having the mean $\mu_1(\mu_2)$ and the dispersion $\sigma_{x_i}^2(\sigma_{y_i}^2)$; $x_i(y_i)$ let be the observed values. Then the statistics

$$\chi^2 = \sum_{i=1}^N \frac{[(x_i - y_i) - (\mu_1 - \mu_2)]^2}{\sigma_{x_i}^2 + \sigma_{y_i}^2}$$

has the distribution χ^2 with N degrees of freedom, if μ_1 and μ_2 are known, and with $N - 2$ degrees of freedom, if they are estimated.

One proposes to use these criteria for the evaluation of the results of biological investigations and in the planning of housing of agricultures.

[Abstracter's note: Complete translation.]

Card 2/2

ELANDT, R.

Biometric methods in plant breeding. Acta agronom Hung 10 no.1/2:
69-74 '60. (EEAI 9:12)

1. Lecture held at the Budapest Biometrical Symposium (September
7-9, 1959)
(Plants) (Biometry)

ELANDT, Regina

Problems of the reduction of repetition in regional experiments.
Rocz nauk roln rosl 83 no.1:203-214 '60. (EAI 10:7)

1. Zaklad Doswiadczalnictwa Rolniczego i Biometrii Wyzszej
Szkoly Rolniczej w Poznaniu.
(Poland--Sugar beets)

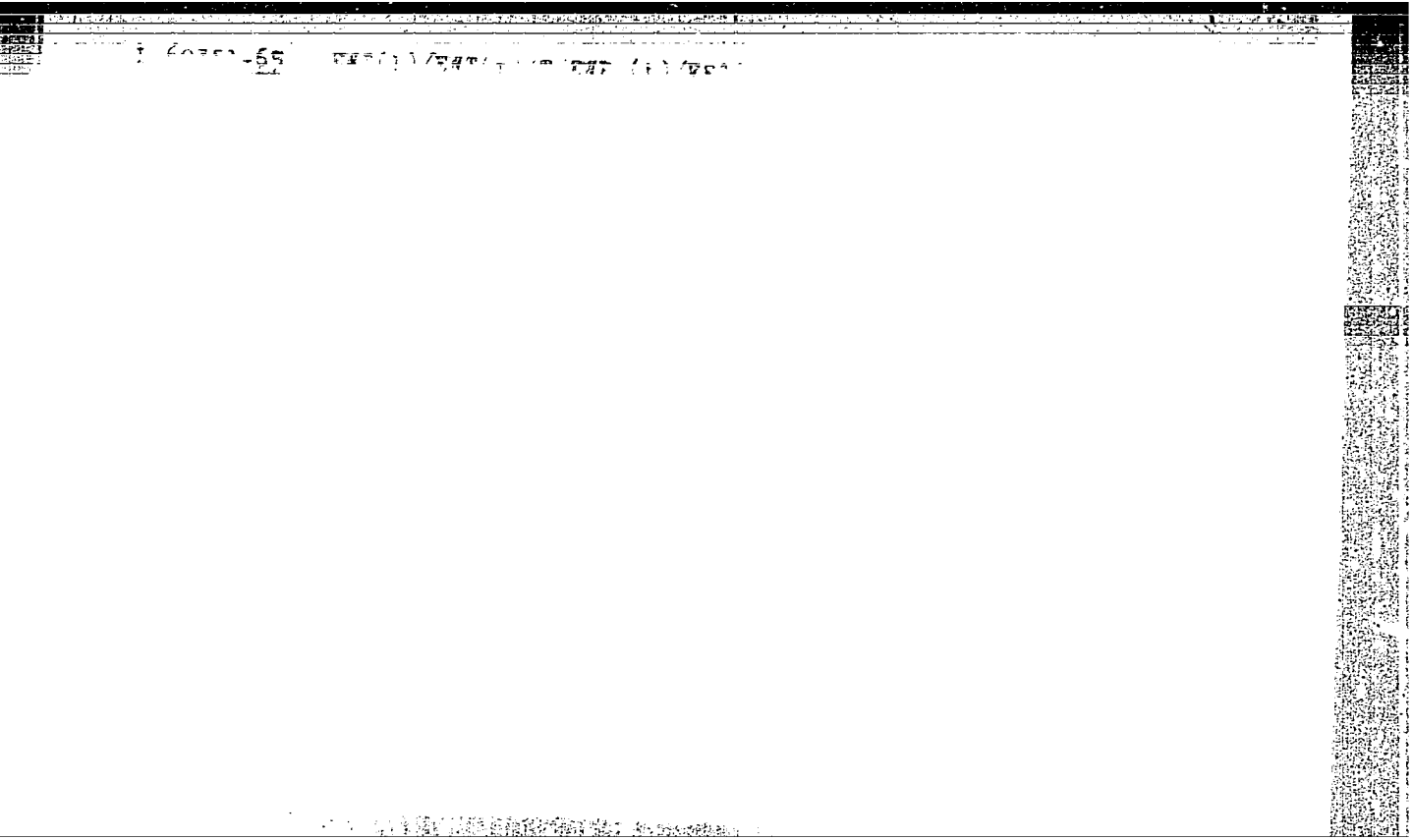
ELANDT, Regina C.

Elimination of two-directional soil variability by parabolic curves in long strips. Rocznik nauki rolniczej 87 no.1:117-134 '62.

1. Zakład Doswiadczeń Rolniczych i Biometrii, Wyższa Szkoła Rolnicza, Poznań, i Case Institute of Technology, Cleveland, Ohio.

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GINDINA, R.I.; VALE, G.K.; ELANGO, A.A.

Luminescence and coloration of filamentary alkali halide crystals.
Izv. AN SSSR. Ser.fiz. 29 no.3:401-403 Mr '65.

1. Institut fiziki i astronomii AN Estonskoy SSR.

(MIRA 18:4)

24,3500

S/081/61/000/008/004/017
B110/B202

AUTHOR: Elango, M. A.

TITLE: Study of the thermal destruction of F-centers in NaCl-
single crystals

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 8, 1961, 32, abstract
85239 (8B239) (Tr. In-ta fiz.i astron. AN-EstSSR, 1960,
no. 12, 197 - 225)

TEXT: The author made a comprehensive study of thermal de-excitation and
thermal decoloration of NaCl-crystals which had been grown by various
methods and subjected to various effects. The possible mechanisms of
the F-centers are discussed on the basis of the experimental material
obtained. Special attention is paid to the part played by ion-electron
processes. [Abstracter's note: Complete translation.]

/c

Card 1/1

3539
S/613/61/000/017/010/011
D051/D113

24,350 (1137, 1138, 1163)

AUTHOR: Elango, M.A.

TITLE: Physical processes during excitation of alkali halide crystals
by ionizing radiation
I. Creation of color centers in NaCl single crystals

SOURCE: Akademiya nauk Estonskoy SSR. Institut fiziki i astronomii.
Trudy, no. 17, 1961. Issledovaniya po lyuminesentsii, 135-147

TEXT: A comparative investigation was conducted of growth curves of X-ray induced F- and V₂-centers and thermal bleaching curves of F-centers in NaCl single crystals containing a different number of host and impurity defects. The article is a direct continuation of a previously published paper (M.A. Elango, Trudy IFA AN ESSR, N^o 12, 197, 1960). It was established that the X-ray induced growth of the number of electronic (F) and hole (V₂) centers occurs in two stages. The first, rapid stage, depends on the pre-excitation number of vacancies in the crystal, the second, linear stage, depends on the

Card 1/2

Physical processes ...

S/613/61/000/017/010/011
D051/D113

degree of plastic deformation of the crystal. The ratio of the number of V_2 -centers to that of F-centers increases with excitation time. It was shown that the greater the point defect number in the crystal prior to excitation, the lower is the thermal stability of the X-ray induced centers in it. This effect is connected with the ionic mechanism of the thermal destruction of color centers. The mechanism of creation of color centers by X-rays is discussed. Ch.B.Lushchik is thanked for help rendered. There are 5 figures and 1 table.

SUBMITTED: April 25, 1961

Card 2/2

44377

S/613/62/000/018/007/013
E039/E120

24.7500

AUTHORS: Tiysler, E.S., and Elango, M.A.

TITLE: On the role of ionic processes in the creation and destruction of colour centres in NaCl crystals

SOURCE: Akademiya nauk Estonskoy SSR. Institut fiziki i astronomii. Trudy. no.18, 1962. Issledovaniya po lyuminestsentsii. 93-101

TEXT: The ionic conductivities of a number of single crystals of NaCl containing different numbers of host and impurity defects are measured in the temperature range 20 to 200 °C. The crystals are 1 mm thick and aquadag electrodes 10 mm² are used. It is shown that the smallest ionic conductivity is obtained for the natural crystal and that the ionic conductivities for crystals grown from a melt decrease with increase of their purity. The largest value obtained is for NaCl containing 0.1 mole % Ca. Conductivities are in the region of $10^{-10} \Omega^{-1} \text{cm}^{-1}$. Samples with large ionic conductivity have low thermal stability for F centres created by X-rays (Cu anode 55 kV 20 mA) and a larger

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On the role of ionic processes in ... S/613/62/000/018/007/013
E039/E120

number of F centres during the first stage of growth during X-irradiation. These results confirm the hypothesis of the ionic mechanism of the thermal destruction of F centres in alkali halide crystals. Ionic conductivity of natural rock salt has a maximum in the temperature range 60 - 80 °C after X-irradiation and partial optical bleaching of the sample. This maximum vanishes after complete thermal bleaching of the sample. There are 3 figures and 1 table. ✓

SUBMITTED: December 25, 1961

Card 2/2

ACCESSION NR: AT3013089

S/2613/62/000/021/0215/0246

AUTHOR: Elango, M. A.

TITLE: Physical processes induced by ionizing radiation in alkali halide crystals.
2. Ionic-electronic phenomena in creation and destruction of color centers in NaCl single crystals

SOURCE: AN EstSSR. Institut fiziki i astronomii. Trudy*, no. 21, 1962, 215-246

TOPIC TAGS: alkali halide, crystal, color center, bleaching, thermal destruction, F- and V-center, ionizing irradiation

ABSTRACT: An investigation has been carried out of the x-ray and ultraviolet induced creation of the color centers, of the bleaching action of x-rays, and of the thermal destruction of the color centers in NaCl single crystals. One specimen was a natural crystal and two were grown from single crystal melts, etched and observed under microscope MIM-7 (370-fold magnification). The x-ray tube used was a BSVLT-Cu, 55kV, 18mA tube at room temperature. To check the effect of quenching on speed of coloring during an x-ray, two identical melt-grown specimens were heated to 750C and cooled, one in an oven and the other in water. The absorption coefficient in the maximum F-band of the fast-cooled specimen was 20% greater than in the slow-cooled

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ACCESSION NR: AT3013089

specimen. The ultraviolet radiation absorption was measured on spectrophotometer SF-4. It is shown that the velocity of the creation of F- and V-centers depends on the degree of plastic deformation and on the previous x-raying. The number of ultraviolet-created F-centers passes through a maximum value which is proportional to the number of F-centers created during previous x-raying. Bleaching action of x-rays and excitons on the 390-, R-, M- and N-bands in natural NaCl crystals previously x-irradiated and partially bleached in the F-band has been detected. It is further shown that the thermal destruction of color centers in x-rayed natural crystals takes place as a result of complicated ionic processes. A color center model is assumed in the form F-center $v^- e$, M-center $v_2^- e_2$, R-center $v_3^- e_3$, and N_1^- center $v_3^- v^+ e_2$. This leads to the result that the process of thermal destruction of F- and M-centers follows through a series of intermediate products which may correspond to new absorption bands, distributed between F- and M-bands. It is concluded that the ionic phenomenon plays a substantial role in the relaxation process of alkali-halide crystals. "The author is grateful to Ch. B. Lushchik for his help in the work." Orig. art. has: 14 figures, 4 formulas, and 1 table.

ASSOCIATION: AN EstSSR. Institut fiziki i astronomii (AN EstSSR. Institute of Physics and Astronomy)

Card 2/3

EPF(a)-2/EPF(a)/EPF(a)-2/EPF(1)/EPF(a)/EPF(a) EPF(a)/EPF(a) EPF(a)/

ABSTRACT: The object of this work was to study the creation of color centers in NaCl

L 20763-65

NR AT5000306

Ionic crystals are discussed on the basis of the data obtained and literature data. To con-

clude, the authors express their appreciation to K. K.

for his assistance in the experiments.

OTHER 234

radiation defect crystal lattice alkali halide crystal lattice vacancy crystal

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CIA-RDP86-00513R000412020005-7"

ACCESSION NR: AP4043338

S/0181/64/006/008/2256/2262

AUTHORS: Lushchik, Ch. B.; Liyd'ya, G. G.; Elango, M. A.

TITLE: Electron-hole mechanism of production of color centers in ionic crystals

SOURCE: Fizika tverdogo tela, v. 6, no. 8, 1964, 2256-2262

TOPIC TAGS: color center, ionic crystal, electron bombardment, x ray irradiation, color center, ultraviolet irradiation, alkali halide, crystal lattice defect

ABSTRACT: The present communication is a direct continuation of a cycle of investigations carried out by their laboratory to clarify the mechanism whereby ionic crystals become colored by ultraviolet radiation, x-rays, and radiation from reactors. Natural crystals of NaCl and crystals of NaCl.Tl and KCl.Ag grown from melts of especially pure salts by the Kiropoulos method were irradiated in

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ACCESSION NR: AP4043338

the vertical channel of the IRT-2000 reactor, and also with x-rays (60keV), slow electrons (150 eV), and ultraviolet radiation (5--14 eV). The authors were especially interested in elementary processes which occur during a complicated phenomenon such as radiation coloring of ionic crystals, and paid consequently special attention to a parallel investigation of the production of F centers by these type of radiations. It is shown that irradiation of the crystals leads not only to a filling of the anion vacancies by electrons, but also to generation of a large number of new point defects and their clustering. Only the electron-hole mechanism of F-center production is considered in detail, the others having been treated by the authors in numerous other papers. It is pointed out, however, that this is not the only possible mechanism. "We are deeply grateful to K. K. Shvarts for collaboration and to G. V. E. E. Il'mas, T. Eksina, and I. Yaek for participating in the experiments and a discussion of the results." Orig. art. has: 6 figures.

Card 2/3

ACCESSION NR: AP4043338

ASSOCIATION: Institut fiziki i astronomii AN ESSR, Tartu (Institute
of Physics of Astronomy, AN ESSR)

SUBMITTED: 28Dec63

SUB CODE: OP, SS

NR REF SOV: 031

ENCL: 00

OTHER: 008

Card 3/3

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APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000412020005-7"

L 11125-66 EWT(1)/T LJP(c)

ACC NR: AP6000884

SOURCE CODE: UR/0181/65/007/012/3673/3676

AUTHORS: Vilu, R. O.; Elango, M. A.

ORG: Institute of Physics and Astronomy AN ESSR, Tartu (Institut
fiziki i astronomii AN ESSR)

TITLE: On the role of hole processes in the creation of F centers
in ionic crystals during the initial stage of radiative coloring

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3673-3676

TOPIC TAGS: color center, F band, light absorption, ionic crystal,
hole mobility

ABSTRACT: The authors have made a detailed investigation of the tem-
perature dependence of the efficiency with which F centers are pro-
duced by x rays in NaCl, KCl, KBr, and KI during the first stage of
radiative coloring, in the temperature interval from 80 to 450K,
which covers the region of autolocalization of the holes (100--250K)

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L 14125-66

ACC NR: AP6000884

and of intense ionic processes in crystals (300--400K). The crystals were grown from the melt by the Kirooulos method. All were of equal thickness (0.75 ± 0.10 mm) and were irradiated in a cryostat under identical conditions. The absorption was measured automatically during the irradiation of the crystals at the wavelength corresponding to the maximum of the absorption F band. All crystals had an optimal temperature at which the efficiency of F-center production was a maximum. This temperature decreased in the sequence NaCl--KCl--KBr--KI, and agreed well with the temperature at which intense autocalcization of the holes in the crystal lattice took place. At the optimal temperature, the F centers were produced more effectively in NaCl and KCl than in KBr and KI. This difference is connected with the difference in the relative efficiency of generation of electron-hole pairs and excitons in the different ionic crystals. The authors also measured the thermoluminescence of the crystals after x-irradiation at 80K for five minutes, and the temperature dependence of the x-ray luminescence as the crystals were cooled from room temperature. Two thermoluminescence peaks were observed in the region of steep decrease of the F-center efficiency, due most probably to the release

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L 14125-66

ACC NR: AP6000884

of the autolocalized holes. The results show that during the initial stage of the radiative coloring the F centers are produced essentially via the electron-hole mechanism; the efficiency of which is determined in many respects by the conditions for localization of the holes and the different points of the crystal lattice. Authors are grateful to Ch. B. Lushchik for a discussion of the material. Orig. art. has: 1 figure and 1 table.

SUB CODE: 20/ SUBM DATE: 08Jul65/ ORIG REF: 006/ OTH REF: 005

TS
Card 3/3

ELANGO, O.

School reform in bourgeois Estonia. (To be con't) p. 653

NOUKOGUIDE KOOL. (HARIDUSMINISTEERIUM) Tallinn, Estonia
Vol. 17, no. 9, Sept. 1959

Monthly List of East European Accessions (EMAI) LC, Vol. 8, No. 12, Dec. 1959
Uncl.

ELANIDZE, R.F.

Contributions to the study of the ichthyofauna of the Alazan' River [in Georgian with summary in Russian]. Trudy Zool. inst. AN Gruz. SSR 10:161-186 '51. (MIRA 7:7)
(Alazan' River--Fishes) (Fishes--Alazan' River)

ELANIDZE, R.F.

Data on the ichthyofauna of the Iora River [in Georgian with summary in Russian]. Trudy Zool. inst. AN Gruz. SSR 11:25-61 '53. (MLRA 9:7)
(Iora River--Fishes)

ELANIDZE, R.F.

Contribution to a study of Supsa River ichthyofauna [in
Georgian with summary in Russian.] Trudy Zool. inst. AN
Grus. SSR 13:197-214 '54. (MLRA 8:8)
(Supsa River--Fishes)

Elanidze, R.F.

USSR / General Biology. General Hydrobiology

B-6

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 353

Author : Elanidze, R.F.

Inst : Not Given

Title : Materials for Benthos Study in the Dori River.

Orig Pub : Tr. In-ta zool. AN GruzSSR, 1956, 14, 277-288

Abstract : Two main sections of the Dori River (Eastern Georgia) are described. In the benthos of the upper river section, specimens of 11 groups were found with characteristic rhephylic forms; among these are chiefly Ephemeroptera, Plecoptera, Trichoptera and Diptera. The fauna of the lower section are poor in qualitative and quantitative composition. Here only Ephemeroptera, Trichoptera, Diptera and Odonata were found, amongst them *Protopistoma foliazeum* (Ephemeroptera), a minor Asian form, known from the Kura River. On the whole the specimens of Dori River benthos and their distribution by sections differed little from those of other rivers in the Kura basin.

Card : 1/1

ELANIDZE, R.F.

Fishes of the Rion River [in Georgian with summary in Russian].
Trudy Zool.inst.AN Gruz. SSR 15:111-168 '56. (MLRA 10:8)
(Rion River--Fishes)

ELANIDZE, R.F.

Fishes of the Inguri River [in Georgian with summary in Russian].
Trudy Inst. zool. AN Gruz. SSR 17:53-86 '60. (MIRA 13:11)
(Inguri River--Fishes)

ELANIDZE, R.F.

Ichthyofauna of the Kodor River. Trudy Inst. zool. AN Grus.
SSR 18:53-72 '61. (MIRA 15:6)
(Kodor River--Fishes)

ELANIDZE, R.F.

Changes in the intensity of the feeding habits of the chub in Lake
Bazaleti. Soob. AN Gruz. SSR 32 no.2:447-454 '63.

(MIRA 18:1)

1. Submitted November 30, 1962.

LARIONOV, V.V.; ELANSKIY, M.M.

Using field geophysical data in studying geological structures for underground gas storage. Gaz.prom. 6 no.7:44-49 '61. (MIRA 17:2)

ELASHVILI, V. I.

"Enacheniye etnograficheskikh materialov po narodnomu sportu."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,
Moscow, 3-10 Aug 64.

ARESHIDZE, Kh.I.; ELASHVILI, Z.M.

Isomerization of isopropylcyclopentane in the vapor phase in
the presence of gumbrin. Soob. AN Gruz. SSR 34 no.2:339-
343 My '64. (MIRA 18:2)

1. Chlen-korrespondent AN Gruzinskoy SSR (for Areshidze).

ARESHIDZE, Kh.I.; ELASHVILI, Z.M.

Investigation of gumbrin and askanite a dehydrating, isomerizing, and alkylating catalysts. Part 10: Isomerization of isopropylcyclopentane in the liquid phase in the presence of gumbrin. Zhur.ob.khim. 32 no.8:2657-2659 Ag '62. (MIRA 15:9)

1. Institut khimii imeni P.G. Melikishvili AN Gruzinskoy SSR.
(Cyclopentane) (Isomerization) (Gumbrin)

GLAZAR, Samuel (Sarajevo)

Problems of medicinal plants in Bosnia and Hercegovina as a whole.
Farmaceut gi Zagreb Supplement (18) no.5:50 '62

14(10)

AUTHOR:

Neporozhniy, P. S., Rutkovskiy B. I., and El'b, N. K.
Engineer

SOV/98-59-7-4/22

TITLE:

Rubber Caulking for Warping Seams in Canal Linings

PERIODICAL:

Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 7, pp 18
- 22 (USSR)

ABSTRACT:

The process described is one applied in this case to the North Donets-Donbass canal, which is lined with sectional ferro-concrete sheets, with provision for draining (Fig 1). In view of the necessity for good draining, the caulking of the concrete sheets is of extreme importance, and the use of rubber for this purpose, for the first time in the USSR but common now in many countries, has proved to be preferable due to its durability, flexibility, cheapness and its waterproof properties. Fig 2 shows the tapered edge of the concrete sheets and the 7x2 cm. recesses cut into them, into which 2mm thick rubber strips are affixed by means of an adhesive and sealed with a metal-reinforced sand/cement mixture. Three alternative methods of sealing are given, all of which proved to be unsuited for the purpose. The width of

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