

HUNGARY/Pharmacology. Toxicology. Tranquilizers.

V

Abs Jour: Ref. Zhur. - Biol., No 22, 1958, 102790

Author : Szabo, Gy.; Solti, F.; Rev, J.; Refi, A.;
Megyesi, K.

Inst : -

Title : The Effect of Chlorpromazine on Hypoxia of the
Heart Muscle.

Orig Pub: Magyar belorv. arch., 1958, 11, No. 1, 10-12

Abstract: No abstract

Card 1/1

HUNGARY

FRANZ, Mihaly, FUDY, Jozsef, JAKAB, Tivadar, KFI, Miklos; Medical University of Budapest, II. Surgical Clinic (Budapesti Orvostudományi Egyetem, II. sz. Sebészeti Klinika).

"Effect of Icterus on the Small Intestinal Mucosa."

Budapest, Viscerales Orvostudomány, Vol XVIII, No 5, Oct 66, pages 490-495.

Abstract: [Authors' Hungarian summary] In dogs, in a state of icterus produced by ligation of the ductus choledochus and at certain serum bilirubin levels, motion of the intestinal villi is greatly decreased or ceases. If bile from the gall bladder or salts of the bile acids are introduced into the mesenteric artery, an initial increase in automatism is followed by a reversible inhibition or suspension of motion of the villi; the strongest effect is exerted by Na-glycocholate, followed by that of Na-taurocholate; Na-dehydrocholate had the weakest effect. Local application of bile or salts of bile acids to the mucosa exert a concentration-dependent stimulating effect on the motion of the villi. The stimulating effect of concentrated bile is more sluggish than that of the dilute one. The mechanism of the effect can be explained in terms of the influence of bile acids on the ganglions of the intestinal wall. Some references are made to the clinical aspects of these observations. 4 Hungarian, 23 Western references. [Manuscript received 13 Oct 65.]

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MAGYAR, Imre, Dr.; MARTON, Istvan, Dr.; MATHE, Zoltan, Dr.; REFI, Zoltan, Dr.;
KERTAI, Pal, Dr.

Mechanism of action of oral antidiabetics. Orv. hetil. 99 no.26:885-
889 29 June 58.

1. A Budapesti Orvostudományi Egyetem I. sz. Belklinikájának (igazgató:
Rusznay István dr. egyet. tanár) közleménye.

(ANTIDIABETICS

carbutamide & tolbutamide, mechanism of action (Hun))

SOLTI, F.; SIMONYI, G.; ISKUM, M.; PETER, Agnes; REFI, Z.; HERMANN, R.

On the effect of stellate block on arterial and venous brain circulation.
Acta med. Hung. 18 no.3:287-292 '62.

1. I. Medizinische Klinik (Direktor: Prof. Dr. I. Ruzsnyak) und
Neurologische Klinik (Direktor: Prof. Dr. B. Horanyi) der Medizinischen
Universitat Budapest.

(AUTONOMIC NERVE BLOCK) (BRAIN) (BLOOD CIRCULATION)
(CEREBRAL ARTERIES)

SOLTI, F.; PETER, A.; SIMONYI, G.; ISKUN, M.; REFI, Z.; DUBSKI, K.; RANDL, J.

The effect of strophanthin on cerebral blood flow, potassium and sodium metabolism, and cerebral venous pressure. Acta med. Hung. 18 no.2:163-168 '62.

1. First Department of Medicine (Director: Professor I. Ruzsnyak) and Department of Neurology (Director: Professor B. Horanyi), University Medical School, Budapest.

(STROPHANTHIN pharmacology) (BRAIN blood supply)
(BRAIN metabolism) (SODIUM metabolism) (POTASSIUM metabolism)

SOLTI, F.; PETER, A.; OLAH, I.; ISKUM, M.; REV, J.; HERMANN, R.;
REFI, Z.

The acute effect of nicotine on cerebral blood flow and
cerebral venous pressure. Cor vasa 5 no.3:197-202 '63.

1. First Medical Clinic and Neurological Clinic of the Uni-
versity Medical School, Budapest.

(CEREBROVASCULAR CIRCULATION) (RETINAL VESSELS)

(BLOOD PRESSURE) (BLOOD FLOW VELOCITY)

(NICOTINE)

SOLTI, F.; KOMAROMI, I.; SIMONYI, G.; ISKUM, M.; REV, Judit; REFI, Z.
with the technical assistance of BRAUN, E.

Effect of hypoxia on venous pressure in the brain. Acta physiol. acad.
sci. hung. 23 no.1:9-12 '63.

1. First Department of Medicine and Department of Neuropathology,
Medical University, Budapest.

(CEREBRAL ANOXIA) (BLOOD PRESSURE) (BRAIN)
(SYMPATHOLYTICS)

REFI, Zoltan

HUNGARY

SOLTI, Ferenc, KOMAROMI, Istvan, SIMONYI, Gusztav, ISKUM, Miklos, REV, Judit, and REFI, Zoltan, of the First Department for Medicine and Department for Neuropathology at the Medical University (Orvostudományi Egyetem I.sz. Belklinika és Idegkörtani Klinika) in Budapest.

"Effect of Hypoxia on Venous Pressure in the Brain"

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Vol 23, No 1, 1963, pp.9-12.

Abstract: [English article; authors' English summary] Acute hypoxia has been found to be followed first by an increase in venous tone and then by a rise in cerebral and systemic venous pressure. These phenomena subsided after the termination of hypoxia. Administration of Dibenamine prevented the hypoxic increase of both venous tone and venous pressure. Twelve references, including 3 Hungarian, 4 German, and 5 Western.

1/1

SOLTI, F.; PETER, A.; OLAH, I.; ISKUM, M.; REV, J.; HERMANN, R.; REFI, Z.

Effect of nicotine on cerebral blood circulation and venous pressure.
Kiserl. orvostud. 14 no.3:269-272 Je '62.

1. Budapesti Orvostudományi Egyetem I. sz. Belklinikája és
Idegklinikája.

(BRAIN blood supply) (NICOTINE pharmacol)

SOLTI, F.; REV, J.; MARTON, I.; REF. Z.; KOLTAY, E.

The effect of dibenamine on the increased excretion of water, sodium and potassium in sweat caused by strophanthin. Acta med. hung. 12 no.3-4:305-309 1958.

1. 1st Department of Medicine, Medical University, Budapest.

(STROPHANTHIN, effects

on potassium & sodium excretion in sweat after
dibenamine admin.)

(SYMPATHOLYTICS, effects

dibenamine on strophanthin-induced changes in
potassium & sodium excretion in sweat.)

(SWEAT

potassium & sodium excretion, eff. of strophanthin
after dibenamine admin.)

FOLDI, M.; STARK, E.; REV, J.; MIHALY, K.; HERMAN, R.; REFI, Z.

Spontaneous benzoic acid excretion in kidney diseases. Acta
med.hung. 14 no.3:303-311 '59.

1. Forschungsinstitut für Experimentelle Medizin der Ungarischen
Akademie der Wissenschaften und I. Medizinische Universitätsklinik,
Budapest.

(BENZOATES urine)

(KIDNEY DISEASES urine)

SOLTI, Ferenc; PETER, Agnes; SIMONYI, Gusztav; ISKUM, Miklos; REFI, Zoltan;
DUBSKY, Maria

Effect of strophanthin on the blood circulation and potassium
and sodium metabolism of the brain, also on cerebral venous
pressure. Ideg. szemle 13 no.3:85-90 Mr '60.

1. A Budapesti Orvostudományi Egyetem I. sz. Belklinikájának
(Igazgató: Dr. Ruzsnyak, István egyetem tanár) és Idegkörtani
Klinikájának (Igazgató: Dr. Horányi, Béla egyetemi tanár) közleménye.
(STROPHANTHIN pharmacol.)
(BRAIN pharmacol.)
(POTASSIUM metab.)
(SODIUM metab.)

FOLDI, Mihaly, dr.; STARK, Ervin, dr.; REV, Judit, dr.; MIHALY, Katalin, dr.;
HERMANN, Robert, dr.; REFI, Zoltan, dr.

Spontaneous excretion of benzoic acid in renal patients. Mag.
belorv.arch. 12 no.6:164-168 D '59.

1. A Magyar Tudomanyos Akademia Kiserleti Orvostudomanyi Kutato
Intezete es a Budapesti Orvostudomanyi Egyetem I. sz. Belklinikaja
(igazgato: Dr. Ruzsnyak Istvan egyetemi tanar) kozlemenye.
(KIDNEY DISEASES urine)
(BENZOATES urine)

SZABO, Gy., SOLTÍ, F., Rev.; RKFÍ, Z.; MEGYESI, K.

Effect of chlorpromazine on myocardial hypoxia. *Magy. belorv. arch.*
11 no.1:10-12 Feb 58.

1. A Budapesti Orvostudományi Egyetem I. sz. Belklinikájának (igazgató:
Rusznayak István dr. egyetemi tanár) közleménye.

(HEART, eff of drugs on

chlorpromazine on exper. myocardial anoxia in human volun-
teers (Hun))

(CHLORPROMAZINE, eff.

on exper. myocardial anoxia in human volunteers (Hun))

REFORMATSKAYA, A.P., kand.med.nauk

Epidemiological characteristics of sporadic cases of typhus fever in Alma-Ata between 1949 and 1955. Zdrav.Kazakh. 17 no.7:16-19 '57. (MIRA 12:6)

1. Iz kliniki infektsionnykh bolezney Kazakhskogo gosudarstvennogo meditsinskogo instituta im. V.M.Molotova. (ALMA-ATA--TYPHUS FEVER)

REFORMATSKAYA, A.F.

Clinical characteristics of typhus in Alma-Ata during 1949-55. N '56.
(MLRA 10:1)

1. Iz kliniki infektsionnykh bolezney Kazakhskogo meditsinskogo
instituta imeni V.M.Molotova.

(TYPHUS, epidemiology,
in Russia, in Alma-Ata (Rus))

REFORMATSKAJA, A. S.

"Sur l'equilibre dans les solutions. III. Solubilité et tension de la vapeur des solutions de l'oxyde d'éthylène dans l'eau et dans le dichlorethane." Kaplan, S. I. et Reformatskaja, A. S. (p. 545)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii). 1937, Volume 7, No. 2.

REFORMATS'KAIA, A. G.

TT.307 (Equilibrium in solution, III. The solubility and vapour pressure of solutions of ethylene oxide in water and in dichlorethane) O ravnovesii v rastvorakh. III. Rastvorimost' i uprugost' para rastvorov okisi etilena v vode i v dikhloretane. Zhurnal Obshchei Khimii, 7(2): 545-549, 1937.

REFORMATSKAYA, E. A.

Catalytic transformation of amines over aluminomolybdenum catalyst. A. E. Plate, M. B. Vol'pin, E. A. Reformat'skaya, and S. V. Zotova. *J. Gen. Chem. U.S.S.R.* 26: 785-90(1950)(English translation).—See *C.A.* 50: 14710f.

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REFORMATSKAYA, E. A.

Conversion of amines by alumina-molybdenum oxide catalyst. A. S. Platé, M. E. Volpin, E. A. Reformatkaya and S. V. Zotova (Zh. obsch. Khim., 1956, 28, 681-689). The initial amines were obtained by reduction of acetone, propaldehyde and cyclopentanone with compressed H_2 in presence of NH_3 and skeletal Ni catalyst. At temp. below 400° , with the Al_2O_3/MoO_3 catalyst, n-propylamine formed a mixture of primary, sec. and tert. amines, olefins and ammonia. At temp. higher than 400° propionitrile (I) formed with partial decomposition at 500° and formation of acetonitrile (II). At 480° , products were 67% II and 33% I with very small quantities of sec. and tert. amines. Reaction of di-n-propylamine was similar to that of n-propylamine at 500° except that II and I formation was 14 and 86% respectively. There was a marked increase in volatile materials, especially unsaturated hydrocarbons. In the presence of catalyst, however, isopropylamine conversion did not start with ketimine formation. At 500° , yield of II was 10%, with formation

of ammonia, propylene and hydrogenated and cracking products of the latter. The formation of II from isopropylamine was by dehydrogenation of amines with decomposition. cyclopentylamine is converted to cyclopentene with large quantities of gas reaction products; and this partially forms cyclopentane and cyclopentadiene. A. L. B.

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PLATE, A.F.; VOL'PIN, M.Ye.; REFORMATSKAYA, Ye.A.; ZOTOVA, S.V.

Catalytic conversions of amines over an aluminomolybdenum catalyst.
Zhur.ob.khim. 26 no.3:684-689 Mr '56. (MLRA 9:8)

1. Moskovskiy gosudarstvennyy universitet.
(Amines)

REFORMATSKIY, A. A. (Moscow)

"Translation 'sub Specie Structuralismi'"

Theses - Conference on Machine Translations, 15-21 May 1958, Moscow.

REFORMATSKIY, I.A.

GORSHKOV, V.K.; IVANOV, R.N.; KUKAVADZE, G.M.; REFORMATSKIY, I.A.

Yield of U^{235} fission products in the rare earth group. Atom.
energ. 3 no.7:11-14 J1 '57. (MLRA 10:7)
(Fission products) (Uranium--Isotopes)

MURIN, A. N., ERSHLER, B. V., KUKWADZE, G. M., ANIKHINA, M. P., GORSHKOV,
V. K., IVANOV, R. N., KRIZANSKIY, L. M. and REFORMATSKIY, I. A.

"Mass-Spectrometric Study of U^{233} , U^{235} and Pu^{239} Fission Products."

paper to be presented at 2nd UN Intl. Conf. on the peaceful uses of Atomic Energy,
Geneva, 1 - 13 Sep 58.

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William J. Hall, Jr., I. A., and John A. Hall, Jr., I. A., and John A. Hall, Jr., I. A., and John A. Hall, Jr., I. A.

"Mol Anal. Laboratory," a paper presented at the 14th IUPAC Conference, Geneva, Switzerland, 1955

APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0014445

YAKOVLEV, G.N.; DERGUNOV, Ye.P.; REFORMATSKIY, I.A.; DEDOV, V.B.

[Analytical hot laboratory] Gosiashchaia analiticheskaya laborato-
riia. Moskva, 1955. 15 p. (MIRA 14:7)
(Testing laboratories) (Nuclear research)

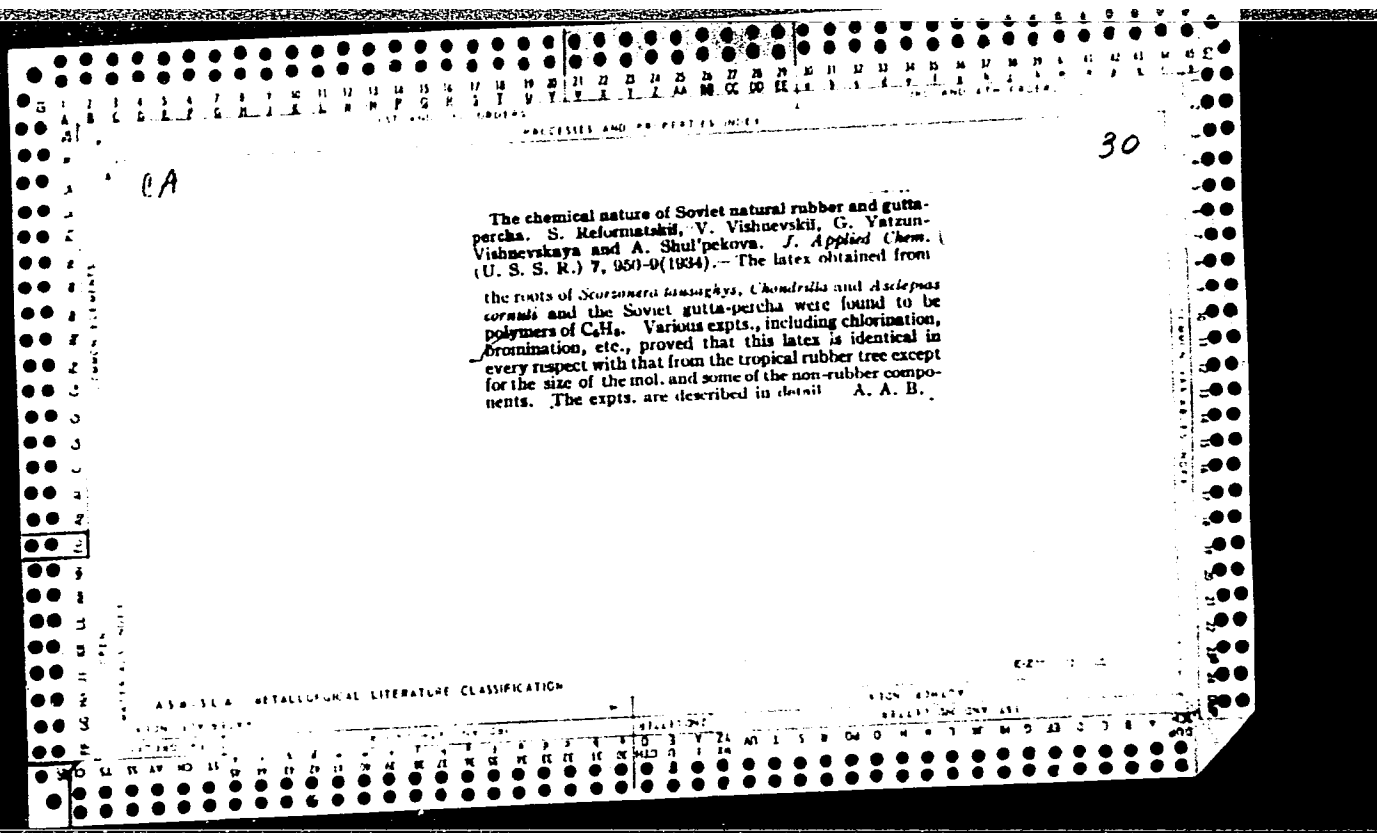
REFORMATSKIY, Igor' Aleksandrovich; PODOSHVINA, V.A., red.

[Laboratories for work involving radioactive substances]
Laboratorii dlia rabot s radioaktivnymi veshchestvami. Mo-
skva, Gosatomizdat, 1963. 127 p. (MIRA 17:4)

REFORMATSKIY, Igor' Aleksandrovich; POZOSHVINA, V.A., red.;
VLASOVA, N.A., tekhn. red.

[Laboratories for works with radioactive substances] Laboratorii dlia rabot s radioaktivnymi veshchestvami. Moskva, Gosatomizdat, 1963. 127 p. (MIRA 17:1)
(Laboratories--Safety measures)
(Radioactive substances)

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSING AND PROPERTIES INDEX																																																			
<div style="display: flex; justify-content: space-between;"> BC A-2-9 </div> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>Characteristics of U.S.S.R. natural composites and polymers. A. Kuznetsov, V. Vasyunov, G. L. Ivanov, V. V. and A. Kuznetsov. (J. Appl. Polym. Sci. 1968, 12, 1-10). No differences are found between the composition and behavior towards chemical reagents of (1) tropical origin and (2) material from Russian-grown plants (Tung, "Chamisso", etc.). R. T.</p> </div>																																																			
<div style="display: flex; justify-content: space-between;"> <div> <p>OPEN</p> <p>MATERIALS INDEX</p> </div> <div> <p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> </div> <div> <p>INDEX</p> </div> </div>																																																			



AUTHORS: Gorshkov, V.K., Ivanov, R.N., Kukavtze, G.M., 86-7-2/32
Reformatskiy, I.A.

TITLE: The Yield of Fission Products of U^{235} Within the Domain of Rare
Earths (Vykhod produktov deleniya U^{235} v redkosmel'noy oblasti)

PERIODICAL: Atomnaya Energiya, 1957, Vol. 3, No 7, pp. 11-14 (USSR)

ABSTRACT: The present paper describes the measuring of these yields by means
of the integral mass-spectrographic method, with the help of which
the relative share (in %) of several elements contained in the
sample can be determined simultaneously during the experiment.
This method permits the mass-spectroscopical measuring of the yields
on La^{139} , Pr^{141} , Pm^{147} and Pm^{149} . Working out this method and
measuring took place on a mass spectrograph with a resolving capaci-
ty of 1 : 800. First, the production of the samples is discussed.
The uranium preparation enriched somewhat with U^{235} was here irra-
diated with thermal neutrons in a reactor. The final results of
these mass-spectrographic measurements are shown in a table and are
compared with some data given in publications.
Lanthanum, praseodymium, promethium, samarium: The increased yield
of La^{139} can hardly be explained by means of the hitherto existing

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The yield of Fission Products of U^{235} Within the
Domain of Rare Earths

89-7-2/32

theoretical investigations concerning the course of the curve of the yields. The peak "composed" from Pm^{147} and Sm^{147} was separated on the basis of the difference between the sublimation temperatures of samarium and promethium. According to various details given concerning the above mentioned elements the authors compute the cross section of the absorption of neutrons for Pm^{147} and find:

$$\sigma_{147} = 90 \pm 20 \text{ barn.} \quad \sigma_{Sm}^{147} = 1000 \pm \text{barn.}$$

Neodym: The yields of: Nd^{143} and Nd^{144} given here are somewhat lower than those given in publications. Cerium: Two isotopes are contained mainly in the sample investigated here, namely Ce^{140} and Ce^{142} with the ratio of the masses $M_{140}/M_{142} = 1,082 \pm 0,029$. The lack of noticeable amounts of Ce^{144} is explained by their decay in Nd^{144} . Samarium: For the lower limit of the absorption cross section of Sm^{149} for thermal neutrons the value $58\,000 \pm 9000$ barn is found. The following composition of isotopes for samarium was found by the authors (in %):

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The Yield of Fission Products of U^{235} Within the
Domain of Rare Earths

86-7-2/32

Sm^{146} : 40 ± 3 ; Sm^{148} : 15 ± 2 ; Sm^{150} : 38 ± 3 ; Sm^{152} : 7 ± 2 .
There are 1 figure, 3 tables, and 6 references, 3 of which are
Slavic.

SUBMITTED: January 12, 1957

AVAILABLE: Library of Congress

Card 3/3 1. Uranium isotopes (Radioactive)-Fission 2. Rare
 earths-Mass spectra 3. Lanthanum isotopes (Radio-
 active)-Determination 4. Praeseodymium isotopes
 (Radioactive)-Determination 5. Promethium isotopes
 (Radioactive)-Determination 6. Samarium isotopes
 (Radioactive)-Determination 7. Neodym isotopes
 (Radioactive)-Determination

Rega, B.

✓147. TYPES OF POLISH COAL IN THE LIGHT OF MODERN VIEWS ON COAL STRUCTURE.
Rega, B. (Prace Glów. Inst. Gór. (Contr. chief Inst. Min., Stalinogrod),
Ser. B, 1954, Komunik. 152, 16pp.). Proximate and ultimate analyses were made
of nine peats, four brown coals and forty seven coals, and the vitrain and
fusain from a number of coals were separated and analysed. True densities of
typical solid fuels were calculated by R. Franklin's method and their structural
analyses by Van Krevelen's. Conclusions are drawn regarding the chemical
structure of Polish coals and suggestions made for future research. (L).

112-1-345

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957
Nr 1, p.58 (USSR)

AUTHOR: Regachev, A.V.

TITLE: On the Problem of Hydrological Design Parameters for
Small Rivers, the Left Shore Tributaries of the Samara
River (K voprosu o raschetnykh gidrologicheskikh
parametrakh dlya malykh rek - levoberezhnykh prito-
kov reki Samary)

PERIODICAL: Tr.Kuybyshevsk.inzh.-stroit. in-ta, 1956, Nr 3, pp.147-161

ABSTRACT: Results of determining the rate of runoff, the maximum
discharge, and the rates of sediments carried by the
Bezymyanka, S"yezzhaya, Vetlyanka and Chernovka Rivers,
left-shore tributaries of the Samara River, are pre-
sented. Basic hydrographic data for these rivers are
given as well as a description of water-stage recorder
installations, and the insufficiency of available hydro-
logical observations is noted (no observations were made
on sedimentation). The need of determining the rate of

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On the Problem of Hydrological Design Parameters for Small Rivers (Cont.)

runoff for these rivers not from direct observations but through indirect means is noted, namely: 1. from the map of average yields for several years prepared by B.D. Zaykov (1946); 2) by applying the data derived from the available short observation series to periods of long duration; 3) by the analogy method. Calculations made with all three methods are presented. For the second method, G.P. Ivanov's system was applied and the Yelshanskiy reservoir with an available series of observations for 60 years, was accepted as an analogy. Maximum design discharges were determined according to the formula of D.L. Sokolovskiy. In order to determine the rate of runoff of suspended matter a graph representing the relation between the discharge of suspended matter and water (with a linear relationship) was constructed. As a result of a thorough analysis of physical and geographical conditions

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112-1-345

On the Problem of Hydrological Design Parameters for Small Rivers (Cont.)

of the basins of the above-enumerated rivers and of the field hydrological material, the author established that the utilization of general formulas or maps (those of B.D. Zaykov, D.L. Sokolovskiy, G.I. Shamov, and others) leads to inaccurate results. The author suggests accepting the rated runoff as equal to 1.65 liters per second per 1 sq km instead of the 2 liters per sec per/sq km obtained from the map of B.D. Zaykov, and the rated discharge of suspended matter as 0.405 kg per cu m instead of 0.646 kg per cu m (as obtained from the data of G.I. Shamov).

Card 3/3

Bibliography: 11 titles.

Yu.M.S.

AID P - 2785

Subject : USSR/Chemistry

Card 1/1 Pub. 152 - 13/19

Authors : Regak, N. Ya. and N. I. Smirnov

Title : Adsorption of unsaturated gases by activated carbon.
Part II.

Periodical : Zhur. prikl. khim. 28, 4, 433-436, 1955

Abstract : The adsorption of mixtures of ethylene, propylene, butylenes, and divinyl was studied. Activated carbon AG was used as adsorbent. An equation formulated for the adsorption process was confirmed by the experiments. Three diagrams, 9 refs. (8 Russian: 1935-1955)

Institution : Chair of Technology of Synthetic Rubber of the Leningrad Technological Institute im. Lensovet.

Submitted : 0 31, 1953

REGAK, N Ya.

AID P - 2279

Subject : USSR/Chemistry

Card 1/1 Pub. 152 - 5/21

Authors : Regak, N. Ya. and N. I. Smirnov

Title : Study of adsorption processes. Part I.

Periodical: Zhur. prikl. khim., 28, no.3, 262-267, 1955

Abstract : Absorption of gases by activated carbon has been studied. Differential equations are given to characterize the absorption processes. Seven references (6 Russian: 1938-1951).

Institution: Chair of Technology of Synthetic Caoutchoucs of the Leningrad Technological Institute (im. Lensovet)

Submitted : 0 31, 1953

REGAK, I. N. Ya.

U.S.S.R.

Adsorption processes. I. N. Ya. Regak and N. I. Benčevitz (Leningrad Technol. ~~Instit.~~ ~~Leningrad~~). *Zhur. Priklad. Khim.* 28, 262-7 (1955); *J. Appl. Chem. U.S.S.R.* 28, 239-43 (1955) (Engl. translation).—Differential equations (vectorial) are developed describing adsorption processes of continuous systems of flowing gas and powd. solid. For specified initial and final states these equations are reduced to a function of dimensionless parameters. The driving force Δc , based on the difference in concn. of the 2 phases at the phase boundary is the only element entering the parameters that is difficult to obtain experimentally. This is overcome by the substitution of Δc as the difference between the static activity a_s , corresponding to the state at equil., and the amt. adsorbed a at any element of time t , so that at $t = 0$, $a = 0$ and $\Delta c = a_s$. Then $\Delta c = a_s / [2.3 \log \{a_s / (a_s - a)\}]$. I. Benčevitz.

CH

①

12

SLAVYANOV, Yu.N.; REGAK, N.Ya.; GVOZDEV, N.V.

Regeneration of alcohol from wastes of vegetable raw material. Med.
prom. 14 no.8:33-35 Ag '60. (MIRA 13:8)

1. Leningradskiy khimiko-farmatsevticheskiy institut i Leningradskiy
khimiko-farmatsevticheskiy zavod No.1:
(ALCOHOL) (DRUG INDUSTRY--BY-PRODUCTS)

SLAVYANOV, Yu.N.; REGAK, N.Ya.

"Reversed" rectification with the squeezing out of the solvent.

Izv.vys.ucheb.zav.;khim.i khim.tekh. 4 no.4:676-679 '61.

(MIRA 15:1)

1. Leningradskiy khimiko-farmatsevticheskiy institut, kafedra
protseessov i apparatov.

(Distillation, Fractional)

SLAVYANO, Yu.N.; REGAK, N.Ya; FILIPIN, N.A.

Construction of extractors of continuous action. Trudy Len.
khim-farm. inst. no.14: 107-112 '62 (MIRA 17:2)

REGAK, N.Ya; SLAVYANOV, Yu.N.

Distillation of alcohol from the products of the galenic industry. Trudy Len. khim.-farm. inst. no.14:82-86 '62
(MIRA 17:2)

SLAVYANOV, Yu.N.; REGAK, N.Ya.

Distillation of solvents directly from battery extractors.
Med. prom. 15 no.6:44-47 Jo '61. (MIRA 15:3)

1. Leningradskiy khimiko-farmatsevticheskiy institut.
(SOLVENTS)
(CHEMISTRY, MEDICAL AND PHARMACEUTICAL)

1. 1953, (LA SOCIÉTÉ DE LA CHASSE, Vol. 2, #3, Mar. 1953, Czechoslovakia)

SO: Monthly List of East European Accessions, Vol. 2, #3, Library of Congress, August 1953, Incl.

REGAL, V.

"Questions Connected With the Harrowing and Rolling of Clover and Alfalfa Grass Mixtures."
p. 1267 (ZA SOCIALISTICKE ZEMEDELSTVI, Vol. 3, No. 11, Nov. 1953) Praha, Czechoslovakia

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4,
April 1954. Unclassified.

REGAL, Vladimir, doc. dr.

Ecology of the ten most important meadow grasses in
Czechoslovakia. Rost výroba 10 no. 3:317-330 Mr '64.

1. Higher School of Agriculture, Department of Feeds,
Prague.

Regal, Vladimir

Alfalfa-grass mixtures. Vladimir Regal (Vysoká škola zemědělská, Prague, Czech.)—*Sofistist. zemědělství*, 2a, 7, 285-8(1957).—Pure alfalfa culture (I) produces 8% or 640 kg. digestible protein on 1 ha. yielding 8000 kg. hay. Alfalfa-grass mixt. (II) produces 6% or 480 kg. digestible protein on 1 ha. yielding 8000 kg. hay. In 2 years I accumulates 150 kg. of N and 85 kg. of H_2PO_4 on 1 ha. In 2 years

II accumulates only 50-60 kg. of N and 60 kg. of H_2PO_4 on 1 ha. The cultivation of I is highly recommended as compared with II which is recommended by Viljams.

Jan Miska

DEAN, ..

.. p. 123.

.. (..)

.. (..) Vol. 1, no. 1, pp. 1-10.

.. ..

REGAN, A.

Poisonous character of means for protecting plants. p. 47.

KEMIJA U INDUSTRIJI. (Društvo kemicara-tehnologa NHR) Zagreb, Yugoslavia,
Vol. 8, no. 2, Feb. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 6,
June 1959.

Uncl.

YUGOSLAVIA/Plant Diseases. Diseases of Cultivated Plants

0-3

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 44433

Author : Lusin V., Panjan M., Regan Mastnak A.

Inst : The Croatia Nature Society

Title : The Problem of Chemical Methods of Diagnosing Virus Diseases
in Young Fruit Cultures

Orig Pub : Glasnik biol. sek. Hrvatsko prirodosl. drustvo, 1953, (1955),
Ser. 2B, 7, 239-241

Abstract : No abstract

Card : 1/1

REGDON, Gyorgy

Dwelling house construction in Budapest from the point of view
of civil engineering. Magyar ipar 13 no.8/9:491-496 '64

REGG, Bela; SIMONCSICS, Jozsef

Modernization of Szabadsattyan-Tapolca railroad line. Vasut
M no.6:9-10 Je '64.

3(4)

SOV/6-52-4-17/20

AUTHOR: Regenzi, E. (Hungary)

TITLE: The Method Applied in Establishing the New Hungarian Triangulation Network of Highest Order (Metod, primenenny pri sozdanii novoy vengerskoy triangulyatsionnoy seti vysshego klassa)

PERIODICAL: Geodeziya i kartografiya. 1959. Nr 4, pp 62-75 (USSR)

ABSTRACT: A historical survey on triangulation in Hungary is first given here. All references were lost in 1945 and one had to start from the beginning. From 1949-52, the basic network of first order was established with average triangle sides of 30 km. The work according to the classical method proceeded very slowly. The principal causes for the slowness and increase in cost of the geodetic work in Hungary are two circumstances: the careful measurement of angles in points of first and second order takes, under atmospheric conditions, 2 - 4 weeks, and high signals must be built. The signals are built of pinewood which is very expensive in Hungary, and they must often be rebuilt after they have been destroyed in the time between their erection and the triangulation. Experience shows that it is convenient to build a wooden pyramid for the apparatus and a steel pyramid for the observer. As it is difficult

Card 1/3

SOV/6-59-4-17/20

The Method Applied in Establishing the New Hungarian Triangulation Network:
of Highest Order

for high signals to make them stable, it was attempted to obtain a sufficient view from signals as low as possible. This again made it necessary to establish the triangle network with shorter sides which, on the other hand, speeds up the observations and makes light signaling superfluous. All this led to the decision to renounce the principle of transition from large to small, and establish no separate networks of 1st, 2nd and 3rd order but to build a standard network with sides of 7 - 8 km in the whole country; the necessary accuracy must be secured by corresponding preliminary calculations. It is investigated whether in this way the same accuracy is attained as by the classical method. The results of the investigation show that the necessary number of working operations for the measurement of directions fixed for the triangulation of 3rd order offers the same accuracy for the fictitious network of 1st order as the classical method. A short survey on the development work of triangulation in Hungary is given here. The building of geodetic signals is first described, then the triangulation proceeding in 3 stages. In the first stage the points of the fictitious network of

Card 2/3

SOV/6-59-4-17/20

The Method Applied in Establishing the New Hungarian Triangulation Network of Highest Order

1st order are selected at intervals of about 30 km. To calculate the angles of the fictitious triangles, the networks of triangles filling up every large triangle are compensated individually. Compensation is done by the correlation method. Finally, the coordinates of the vertices of the large triangles, and then the angles of the fictitious triangles, are calculated. The second stage is the compensation of the fictitious network of first order within the provisional chain (karkasnaya tsep') carried out according to the method of coordinates. The final coordinates for all points of 1st order are obtained as a result. In the 3rd stage, the small triangles within the fictitious large triangles are compensated once more on the condition that the coordinates of the points of the fictitious network remain unchanged. To solve this task the method suggested by Engineer Henni was used. Besides the other conditions, also the condition of diagonals applies to this method (i.e. the length of the sides of the triangles of the fictitious network is invariable). In the last stage equations are solved which contain, besides the corrections of the measured values, also corrections of the values not measured. There are 7 figures and 4 tables.

Card 3/3

REGEDA, H.; PINNEKER, V.; DOLGUSHIN, G.

Characteristics of tillage in virgin lands. Zemledelie 26 no.9:
23-24 S '64. (MIRA 17:11)

1. Direktor sovkhoza "TSelinnyy" Russko-Polyanskogo proizvodstvennogo upravleniya (for Regeda).
2. Glavnyy agronom sovkhoza "TSelinnyy" Russko-Polyanskogo proizvodstvennogo upravleniya (for Pinneker).
3. Zaveduyushchiy Russko-Polyanskim sortouchastkom (for Dolgushin).

2

CA

REVEAL

Measurement of the electric conductivity of metals and alloys in a rotating magnetic field. A. R. Regel (Leningrad Phys.-Tech. Inst.). *Zhur. Tekh. Fiz.* 18, 1511, 20(1948).
A conducting sphere of radius R and elec. cond. σ , suspended in a uniform magnetic field H rotating at the frequency ω , is acted upon by a moment $M = (3\pi/2) (\sigma \omega H^2 R^3) f(t)$, where $t = \sqrt{2\pi\sigma R^2} \omega$, and the function $f(t) = [t \sinh 2t + 2 \sin 2t - (\cosh 2t - \cos 2t)] / t^3 (\cosh 2t - \cos 2t)$. This simplifies, for $t \ll 1$, to $M = (2\pi/15) \sigma \omega H^2 R^3 t^3$, and for $t \gg 1$, to $M = (3/4) \pi \sigma R^3 \sqrt{2\pi\sigma} \omega$. By expts. with a spherical ampul completely or partially filled with Hg, deviations from sphericity within the limits of -13 to $+2.5\%$ (expressed in deficit or excess of wt. relative to the wt. of the perfect sphere) entail an error of not over 1% . The rotating magnetic field is produced by 3 pairs of coils at 120° between their axes. The app. permits measurements of σ at temps. between 20 and 1000° , and on Hg, Sn, etc. As an application, the temp. coeff. of σ of solid In was detd. to 0.00478 degree at 100° , and that of liquid In, to 0.000462 degree between 160 and 660° . At melting, σ decreases by a factor of 2.12 .
N. Thom

REGEL, A. R.

180145

USSR/Electricity - Conductivity, Selenium Mar 51

"Electric Properties of Solid Solutions of Mercury Selenide and Selenium," A. I. Blum, A. R. Regel, Leningrad Physicotech Inst, Acad Sci USSR

"Zhur Tekh Fiziki" Vol XXI, No 3, pp 317-327

Tested elec cond of mercury selenide with small admixt of selenium within temp range from -190 to +850°C. Measured Hall's effect and differential thermoelec force within range of -180 to +200°C. Detd fusion point of mercury selenide on these bases to be $690 \pm 10^\circ\text{C}$. Detd limited soly of selenium in solid mercury selenide.

LC

180145

189T82

USSR/Nuclear Physics - Electron, Jul 51
Effective Mass of

"Effective Mass of Electrons for a Model of One
Conducting Zone," A. R. Regel, Leningrad Physico-
tech Inst, Acad Sci USSR

"Zhur Eksper i Teoret Fiz" Vol XXI, No 7, pp 845-
851

Regel gives simple formulas and prepares auxiliary
tables necessary for computing the "effective
mass" m^* of current carriers for arbitrary values
of introduced chem potential. Shows that "effec-
tive mass" of electrons in metals roughly equals

LC

189T82

USSR/Nuclear Physics - Electron, Jul 51
Effective Mass of (Contd)

mass of free electrons ($m/m_0 \approx 1 \pm 0.4$). Notes
tendency of m^* to decrease in substances with
homeopolar of metallic type of bond for $n < 10^{20}$.
He was assisted by Academicians A. F. Ioffe and
V. P. Zhurze. Submitted 28 Aug 50.

LC

189T82

Elum, A. I.

Phys/Physics - Semiconductors, Conductivity

Mar/Apr 52

"Study of Electric Conductivity of Semiconductors and of Intermetallic Alloys in Solid and Liquid States. I," A. I. Elum, N. P. Mokrovskiy, A. R. Regel;
Leninrad Phys-Tech Inst, Acad Sci USSR

"Iz Ak Nauk, Ser Fiz" Vol XVI, No 2, pp 139-153.

Study was started on suggestion of A. I. Ioffe. Analysis of data on processed samples (Ge, Te, Te * 10% Se, HgSe, HgTe, InSb) and from literature proved that conditions governing transition of electrons into "free state," enabling them to become current carriers, depend on close order of adjacent atoms. From this viewpoint a review of foreign literature was made. A. I. Ioffe sees no basic difference in formation of free electrons in solids and in liquids. Indebted to A. I. Ioffe and V. P. Zuzue.

PA 220736

REGEL, A. R.

USSR/Physics - Thermoelectricity Aug 52

"A Method for Rapidly Determining the Coefficient of Temperature Conductivity of Solids and Liquids," V. P. Zhuze, A. R. Regel, Leningrad Phys-Tekh Inst, Acad Sci USSR

"Zhur Tekh Fiz" Vol 22, No 8, pp 1376-1384

Authors state that all available methods require a long time for measurement. In developing a nonstationary method of determining the coefficient of temperature conductivity of solids and liquids, the authors endeavored

226T101

to attain reliability, rapidity and simplicity of measurement of small size samples. Received 8 May 52.

226T101

Kegel, A.R.

U S S R

Correlation between variations of density and electronic conductivity during the melting of substances with diamond or zinc blende structure. N. P. Mokrovskii and A. R. Kegel. *Zh. Tekh. Fiz.* 23, 1281-9 (1953); *Science* 117, 777 (1953).—Results are tabulated and plotted of measurements of ρ and thermal expansion coeffs. for Ge, GaSb, InSb, HgSe, and HgTe in both solid and liquid states. Correlations were found for the variations of ρ and elec. cond. during the melting of these substances. Results of measurements confirm the assumption that the nature of short-range order (hence that of the bond forces, too) determines the elec. properties of substances in both solid and liquid state.

K. L. C.

BB

for ①

Leningrad Phys. Tech. Inst., A S U S S R

REGEL, A. R.

USSR.

The electrical conductivity of liquid silicon. N. P. Mokrovskii and A. R. Regel. *Zhur. Tekh. Fiz.* 23, 770-782 (1953).—A report of expts. made in order to study the semiconductor properties of Si. The Si samples to be studied were cut from the middle part of a monolithic bar of com. Si (99.2% Si). Pieces of Si of known conds. were used as control samples. The sp. resistance was measured by the nonelectrode method at temps. from 20 to 300°. Results showed that the region of impurity cond. extended approx. to 800° and the region of natural cond. of the Si extended from approx. 900° to the m.p. From the sp. resistance vs. temp. relation, the dissoc. energy of the electrons was calcd. and found to equal 1.05 e.v., as compared to 1.12 e.v. given in the literature. A possible reason for the lower figure might be the large concn. of impurity present in the Si. Also the sp. resistance of the Si was somewhat larger than that obtained by extrapolation of the literature values. For molten Si, the sp. resistance decreased by about 20 times. In the liquid state the sp. resistance can be represented by the formula $\rho_{sp} = 81[1 + 0.0014(t - 1420)]$ microhm cm., where $t \geq 1420$. Gladys S. Macy.

REGEL, A. R. and BLUM, A. I.

"Study of the Thermoelectromotive Force of Alloys of Tellurium and Selenium in the Solid and Liquid States.," Zhur. Tekh. Fiz. 23, 783-7, 1953.

Report of an exptl. study of the effect of temp. on the thermo e.m.f. of Te and two of its alloys with Se (85% Te + 15% Se; 30% Te + 70% Se) in the temp. range from 100-500°. A diagram of the app. is provided. The expts. showed that, for melts of Te and its alloys with Se, the thermo emf. decreased. This confirms the idea of the increase of the metallic character of the bonds in these alloys during their melting. Electrical porperties of solid solutions of Te-Se.

USSR .

The electrical conductivity and viscosity in Te-Se melts. A. I. Blum and A. R. Regel. *Zhur. Tekh. Fiz.* 23, 964-75 (1953).—A report of a study of the temp. function of the sp. resistance and the viscosity of melts in the Te-Se system, in the temp. interval from the m.p. to 900°. The expts. showed a correspondence between the relations of the sp. resistance and viscosity to compn. that was explained from the point of view of the dynamics of change of the structure toward a more orderly system. A general continuity of the change in the properties of the Te-Se system was shown. In particular, at a compn. of 70% Se there was no great change in the elec. cond. on melting. Addn. of about 2% of Se produced an increase in the elec. cond. and a decrease of the viscosity. Gladys S. Macy

10000, H.K.

USSR

✓ The electrical conductivity of copper, nickel, cobalt, iron
and manganese in the solid and liquid states. N. P.
Mokrovskii and A. R. Regel. *Zhur. Tekh. Fiz.* 23, 2191-5
(1983).—The elec. cond., ρ , of Cu, Ni, Co, Fe, and Mn was
detd. in the solid and liquid state. Neither Perltz's
(C.A. 22, 1880) nor Mott's (C.A. 29, 7097) rules for the
change in ρ upon fusion can be applied to this group of
metals. A clear relation is found between the change in ρ
for these elements and their position in the periodic table,
i.e., the degree of filling of the d -shell. J. Boytar Leach

MA
82

REGL, A. R.

Distr: 4E4j

✓The relation between the structure of liquids and their electrical properties. A. R. Regel. *Sbornik 1954, 117-31; Referat. Zhur. Khim. 1956, Abstr. No. 25015.* Published data and new investigations show that the elec. properties of liquid metals differ little from those of solid metals, i.e. the metallic bond is still predominant and, in some semimetals, such as Bi, Sb, and Ga, even increases. This agrees with the insignificant structural change at melting observed by x-ray methods. In qual. analysis of the effect of melting on the elec. properties, both the solid and liquid structures should be considered. The similarity of the temp. effect on elec. cond. (σ), on the d. (ρ), and also other data on the structure, show a decided correlation. Substances of similar solid structure at melting may change their elec. properties and d. (which in a degree reflects structural changes) in different ways. These changes have a regularity related to the periodic law of Mendeleev. Melting of Si, Ge, GaSb, and InSb results in a sharp increase of σ and ρ which apparently is connected with rearrangement from a diamond structure to a greater packing characteristic for metals. Melting of HgSe results in sharp decrease of σ and ρ , attributed to the formation of mol. liquid. The relation of σ and the structure of substances with "linear homopolar bonds" is investigated on Se, Te, and the system Se-Te which forms a continuous series of solid solns. For a deep understanding of the elec. properties of substances in solid and liquid state, a detailed statistical analysis of the character of the "proximity order" is necessary. Inversely, study of the elec. properties of the solid or liquid substance may help in detg. the structure of the liquid. N. Vasilev

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REGEL, A. R.

USSR/Physics-Pulsating cathode-ray tube

FD-1238

Card 1/1 Pub. 153-22/22

Author : Barsukov and Regel, A. R.

Title : Cathode-ray tube as a pulsating light source

Periodical : Zhur. tekhn. fiz., 24, 1729-1730, Sep 1954

Abstract : Letter to the editor. After the authors terminated their study W. T. Link and D. Walker published their article on the same topic: "A method of testing the linearity of response of photomultipliers under pulsed conditions." J. Scientific Instr., 13, No 3, 110 (1954). One quoted reference.

Institution :

Submitted : April 14, 1954

Regel', A. R.

USSR/Physics - Semi-conductors

Card 1/1 Pub. 22 - 19/47

Authors : Bredov, M. M.; Komarova, R. F.; and Regel', A. R.

Title : Study of the change in the rectifying properties of metal-semi-conductor systems of point-contact couplings which take place due to irradiation of the semi-conductors by ions of alkali metals

Periodical : Dok. AN SSSR 99/1, 69-72, Nov 1, 1954

Abstract : Experiments with metal-semi-conductor systems of point-contact couplings are described. The experiments are intended to establish a certain dependence of the rectifying properties of semi-conductors on their degree of irradiation by ions of alkali metals. Results of the study are presented. One reference (1950). Table; graph; diagrams.

Institution : Laboratory of Semi-Conductors of the Acad. of Scs. of the USSR

Presented by : Academician A. F. Ioffe, June 14, 1954

REGEL, A. R.

Distr: 4E2c

"Akademiya Nauk S.S.S.R. Voprosy Teorii i Issledovaniya Poluprovodnikov i Protsessov Poluprovodnikovoi Metallurgii. (Problems in the Theory and Investigation of Semi-Conductors and Processes of Semi-Conductor Metallurgy). 28 x 13 cm. Pp. 96. Illustrated. 1955. Moscow: Izdatel'stvo Akademii Nauk S.S.S.R. (3 rbl.)

[Contents: A. F. Ioffe, "Some Problems in Semi-Conductor Physics"; A. R. Regel, "The Relation Between Electron Conductivity of Liquids and Their Structure"; N. A. Goryunova, "Substitutional Solid Solution in Compounds Having the Zinc-Blende Structure"; B. T. Kolomoys and N. A. Goryunova, "Electrical Properties and Structure of Some Ternary Semi-Conductor Systems"; D. A. Petrov, "Processes of Crystallization from Melts and Their Application in Semi-Conductor Metallurgy and Other Fields".]

REGEL', A. R.

"Certain Peculiarities of the Temperature Dependence of the Electrical Conductivity of Liquid Metals of the Second Group in the Period Table", a paper Presented at the second conference on the Liquid State of Matter, Kiev, 30 May to 3 June 1955, Usp. Fiz. Nauk, April 1955

REGEL, A.R.

USSR/Electricity - Semiconductors

G-3

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12190

Author : Kaganer, V.E., Regel', A.R., Sorokin, O.V.

Inst : -

Title : Effect of Ion Bombardment on the Detecting Properties of Semiconductors.

Orig Pub : Sb. statey Leningr. in-ta tochnoy mekhan. i optiki, 1955, vyp. 18, 126-141

Abstract : An investigation was made of the influence of ion bombardment (IB) on the voltage-current characteristics of a point contact Si, Ge, SiC, PbS, and SbZn with tungsten. The ion bombardment was carried out with ions of hydrogen, air, oxygen, benzine, tellurium, and manganese, in order to obtain p-n and p-n-p junctions on the surface of the crystals. The effect of ion bombardment on the rectifying properties of the crystals was established as a function of the initial treatment of the semiconductor, of the

Card 1/3

... or in combination with other types of surface treatment makes it possible to obtain good detectors. The best

Card 2/3

USSR/Physics - Bismuth alloys

FD-2402

Card 1/1 Pub. 153-6/21

Author : Ivanov, G. A., and Regel', A. R.

Title : Electrical properties of bismuth alloys. I. Solubility of admixtures and the character of their action upon the electrical properties of bismuth

Periodical : Zhur. tekhn. fiz. 25, 39-48, Jan 1955

Abstract : The authors investigate the action of Zn, Cd, Hg, Ga, In, Tl, Sn, Pb, As, Sb, S, Se, Te, and I upon the electrical properties of bismuth (namely, upon resistivity in ohm-cm; $R(H)$ in cgs; α in microvolts/degree; a in 1/degree) and show that a noticeable action is exerted only by admixtures of Sn, Pb, As, Sb, Se, and Te. They discuss certain ideas concerning the deficiencies of the Jones theory relative to the electrical properties of bismuth with admixtures, and point to the possibility of taking account of specifics in the changes in the character of the close order by atoms of the admixtures of various substances. (Note: $R(H)$ is the Hall constant.) Twenty-three references: e.g. S. T. Konobeyevskiy, Izvestiya Sekt. fiz.- khim. anal. AN SSSR, 16, 119, 1943.

Institution: --

Submitted : May 6, 1954

USSR/Physics - Bismuth alloys

FD-2403

Card 1/1 Pub. 153-7/21

Author : Ivanov, G. A.; and Regel', A. R.

Title : Electrical properties of bismuth alloys. II. Dependence of the electrical properties of bismuth alloys on concentration of admixtures

Periodical : Zhur. tekhn. fiz. 25, 49-65, Jan 1955

Abstract : The authors evaluate the solubility of Sn, Te, and As in bismuth in 1.5, 0.25, and not more than 1.0 atomic percent. They investigate the electrical properties of the alloys Bi-Sn, Bi-Te, Bi-Sb, Bi-As, Bi-Pb-Se, Bi-Te-Sn as functions of magnetic field strength and concentration of the admixtures. The analysis of the data indicates the deficiencies of the Jones model of bismuth, which takes into account only the valence of the admixtures, and points to the necessity for taking into account during an investigation of influence of admixtures upon the electrical properties of many semimetals and semiconductors the individual peculiarities in the action of various admixtures, which clearly appear among alloys of bismuth. The authors thank Academician A. F. Ioffe and Professor V.P. Zhuze. Twenty-four references: e.g. S. T. Konobeyevskiy, Uch. zap. MGU, 74, 17, 1944.

Institution: --

Submitted : June 17, 1954

REGEL, A.R.

537/311.33 : 546.621.86 1106
Effect of Impurities on the Electrical Conduction
Mechanism of AlSb: A. R. Regel & M. S. Sominski
(Zh. tekhn. Fiz., April 1955, Vol. 23, No. 4, pp. 768-770.)
Experimental evidence shows that an admixture of Ge
does not alter the conduction mechanism of AlSb while
admixtures of Sn, Pb, As, Bi, Se and Te transform it
into n-type. The rectifying properties of AlSb are also
greatly affected by impurities. A theoretical inter-
pretation of the results is presented.

630
Smw

USSR, Physics - Electrical properties

FD-3103

Card No. Pub. 153 - 2/24

Author : Zhur. V. P.; Regel', A. R.

Title : Electrical properties of alloys in the system NiTe-NiTe₂

Periodical : Zhur. tekhn. fiz., 25, No 6 (June), 1955, 973-983

Abstract : The authors investigate electrical conductivity, its temperature coefficient, thermoelectromotive force, and temperature conductivity of the system of alloys with composition from NiTe to NiTe₂. They note that the problem of clarifying the relation between electrical properties of chemical compounds and their crystallochemical characteristics is presently a pressing one. They acknowledge helpful discussions with Academician A. F. Ioffe, and help of scientific associates V. M. Sergeyev and Ye. L. Shturm and laboratory assistant V. M. Medvedev. Nine references.

Institution :

Submitted : February 1, 1955

FD-3171

USSR/Physics - Solid Solutions

Card 1/1 Pub. 153-1/21

Authors : Nikol'skaya, Ye. I. and Regel', A. R.

Title : Formation of solid solutions and magnetic susceptibility in the systems
HgTe-HgSe, HgTe- β HgS, HgSe- β HgS

Periodical: Zhur. tekhn. fiz., 25, No 8 (August), 1955, 1347-1351

Abstract : The authors describe the apparatus which they used in studying solid solutions and magnetic susceptibility of the above mentioned systems. The results are presented in graphic form. The authors conclude that annealing leads to a considerable variation in magnetic susceptibility, characterized by an increase in absolute value. The addition of even small amounts of HgTe and HgSe to cinnabar leads to a considerable increase of diamagnetism of the system after annealing. This is connected with the transition of cinnabar into metacinnabarite when HgTe and HgSe are added. The general course of the dependence of magnetic permeability upon the concentration of component original substances is typical for systems of continuous solid solutions.

Submitted : March 9, 1955

FD-3172

USSR/Physics - Solid Solutions

Card 1/1 Pub. 153-2/21

Authors : Nikol'skaya, Ye. I. and Regel', A. R.

Title : Some electrical characteristics of solid solutions HgTe-HgSe, HgTe- β HgS and HgSe- β HgS

Periodical: Zhur. tekhn. fiz., 25, No 8 (August), 1955, 1352-1356

Abstract : The authors discuss the results of investigations of the solid solutions given in the title. This article is a sequel to the preceding one, and considers specific resistance and its temperature coefficient, thermoelectromotive force and the Hall effect. The results are presented in graphical form. These graphs show the dependence of electroconductivity upon composition of solid solutions, dependence of the Hall coefficient upon composition, dependence of thermo e.m.f. and electronic mobility upon composition, and relative variation of specific resistance and Hall coefficient in dependence upon magnetic field intensity. The authors thank A. F. Ioffe and V. P. Zhuze.

Submitted : March 9, 1955

Some Peculiarities of the Temperature Dependence of the Density and Electrical Resistivity of Liquid Alloy of Tellurium with Selenium M. P. Mokrovsky and A. R. Regel (Zhur. Tekhn. Fiziki, 1956, 25, (12), 2093-2098). [in Russian]. At temp. just above the m.p. Te has a chain-like structure held together by homopolar bonds. As the temp. rises these break down and "metallization" begins until at 650° C. liq. Te behaves purely as a metal. The change in character of the bonds leads to a region of negative coeff. of thermal expansion and to a sudden fall in elect. conductivity and viscosity at ~460° C. Experiments on liq. 90:10 and 70:30 Te-Se alloys confirm the expected view that addn. of Se will spread the break-up of the homopolar bonds over a wider range of temp. because of the greater binding energy in the chains as a result of the presence of Se. 14 ref.

-A. F. B.

RG KLL
MT
PM

Regel, A. R.

Distr: 4E2c

Thermocouple. A. R. Regel and E. I. Nikol'skaya.
U.S.S.R. 102,692, May 25, 1956. Thermocouples having
a high e.m.f. and a low heat cond. are obtained from fused
and prolonged annealing in *vacuo* of solid solns. of Hg, Te
Hg, and Se (HgTe-HgSe); Hg, Te-Hg, and S (HgTe-
HgS); or Hg, Se-Hg, and S(HgSe-HgS). M. Hosh...

SUBASHIYEV, V.K., kand.fiz.-mat.nauk; IOFFE, A.P., akademik, glavnyy red.; SOMINSKIY, M.S., kand.fiz.-mat.nauk, zav.glavnogo red.; SHALYT, S.S., doktor fiz.-mat.nauk, red.; REGEL', A.P., kand.fiz.-mat.nauk, red.; SHAGURIN, K.A., inzh., red.; ACHKINADZE, Sh.D., inzh., red.; FREGER, D.P., tekhn.red.

[Semiconductor converters of solar energy] Poluprovodnikovye preobrazovateli solnechnoi energii. Leningrad, 1956. 58 p. (Leningradskii dom nauchno-tehnicheskoi propagandy. Poluprovodniki i ikh tekhnicheskoe primeneniye, no.9).

(MIRA 14:4)

(Solar batteries)

Regel, A.R.

USSR / Electricity

G

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9680

Author : Regel', A.R.

Inst : Institute of Semiconductors, Academy of Sciences USSR,
Leningrad

Title : Electrodeless Method of Measuring Electric Conductivity and
the Possibility of its Application for Problems in Physico-
Chemical Analysis.

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 6, 1271-1278

Abstract : A specimen in the form of solid sphere is suspended on a
tungsten or quartz filament in a rotating magnetic field
(H) produces by three coils, placed at an angle of 120° and
fed from a three-phase network. The electric conductivity
(σ) is determined from the magnitude of the moment of the
forces. The method makes it possible to carry out measure-

Card : 1/2

USSR / Electricity

G

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9680

Abstract : ments in the range from -190 to $2,000^{\circ}$ for specimens with $\sigma \geq 1 \text{ ohm}^{-1} \text{cm}^{-1}$ ($H = 500$ oersted, length of filament 30 cm , diameter of filament 30 microns). Further increase in the sensitivity to $10^{-1} \text{ ohm}^{-1} \text{cm}^{-1}$ is obtained either by increasing the frequency, the value of H , and the radius of the specimen, or else by switching the field in resonance with the oscillations of the suspension. The limits within the self-induction of the specimen can be neglected are established. The method is exceedingly sensitive to variations in the specimen radius, since $\sigma \sim R^2$. In some cases therefore, the error due to thermal expansion of the investigated substance can reach $15 \text{ -- } 20\%$. This method is applicable to ferromagnetic specimens only above the Curie point. The instrument makes it possible to determine the viscosity of molten masses and solutions.

Card : 2/2

USSR/Electricity and Semiconductors

6-3

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 7031

Author : Ablova, E.S., Yelrat'yevskaya, O.D., Regel', A.R.

Title : Electric Conductivity of Germanium-Silicon Alloys in Liquid State.

Orig Pub : Zh. tekhn. fiziki, 1956, 26, No 6, 1366-1368

Abstract : Investigation results are given on the electric conductivity of germanium-silicon alloys at high temperatures. Measurements were made in vacuum with the application of the method of rotating magnetic fields. The dependences of the width of the forbidden zone, of the value of the jump in electric conductivity upon melting, and of the maximum electric conductivity in the liquid state on the percentage ratio of the alloy component are all given.

Cerd : 1/1

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1680
 AUTHOR ELPAT'EVSKAJA, O.D., REGEL', A.R.
 TITLE On Some Possibilities of Measuring a Magnetic Field Strength with
 Thin-Film-Like Donors of HALL'S Electromotoric Force produced from
 HgSe, HgTe and their Solid Solutions.
 PERIODICAL Zhurn.techn.fis, 26, fasc.11, 2432-2438 (1956)
 Issued: 12 / 1956

For the production of donors of HALL'S electromotoric force, InSb, InAs, Ge, HgSe, HgTe, the solid solutions of HgSe - HgTe, Ag₂Te and Bi are, above all, suited. The possible applications of the HALL effect are above all determined by having to deal with a certain type of 4-pole, the reaction of which is practically inertialess up to frequencies of from 10^{11} to 10^{12} c. Some applications of such donors are given.

Summary: In the thin films of HgSe the mobility of electrons at room temperature attains $3000 \text{ cm}^2/\text{V}\cdot\text{sec}$. The concentration of the current carriers can, on this occasion, amount to from 10^{18} to 10^{17} cm^{-3} . Thin films having such properties permit the production of donors of electromotoric force, the sensitivity of which approaches that of donors of Ge- and InSb-monocrystals. Similar results are obtained also with thin films of the solid solutions HgSe - HgTe. The donors of HALL'S electromotoric force produced here had a sensitivity of from 20 to 40 microvolts/Ørstedt (at a width of 1 cm), and in certain cases up

Žurn.techn.fis, 26, fasc.11, 2432-2438 (1956) CARD 2 / 2

PA - 1680

to 100 microvolts/Ørstedt at room temperature without additional cooling and without any particular system of heat transfer. The temperature coefficient of the constant donor is small and usually does not exceed 0,02 volt/Ørstedt °C. The resistance of the donors may, within the range of from 20 to 2000 ohm.cm², easily be varied according to the thickness of the thin film and according to the technology of production, but operating currents at the donors are from 150 to 5 milliampère.

These donors offer, among others, the following advantages: It is possible to use them easily in narrow gaps of up to 50 microns, and in special cases also up to 10 microns, they are flexible without changing their characteristic, there is no rectification at the contact electrodes, stability is good, sensitivity with respect to the surrounding medium is low, and their simple construction makes it possible to produce donors of any shape at any size; material costs are comparatively low.

For the most simple type of the measuring device for magnetic field strength a thin-film-like donor of HALL'S electromotoric force, and as a sensitive indicator a transportable potentiometer is used. With such an apparatus it is possible to measure magnetic field strength of from some hundred Ørstedt up to 20000 Ørstedt with an accuracy of a few percent.

INSTITUTION:

VOGEI 111
SUBASHIYEV, Vagan Kasparovich, kand. fiz.-mat. nauk,; IOFFE, A.F., glavnyy
red.; SOMINSKIY, M.S., kand. fiz.-mat. nauk, red.; MASLAKOVETS,
Yu. P., doktor fiz.-mat. nauk, red.; SMOLENSKIY, G.A., doktor fiz.-mat.
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[Transistor diodes and triodes; point-contact diodes and triodes]
Poluprovodnikovye diody i triody; tochechnye diody i triody.
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(Poluprovodniki, no. 7). (MIRA 11:11)

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OSTROUMOV, Andrey Georgiyevich, inzh.; IOFFE, A.F., akademik, red.;
SOMINSKIY, M.S., kand.fiz.-mat.nauk, red.; MASLAKOVETS, Yu.P.,
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[Piezoelectric substances] P'ezoelektriki. Leningrad, Leningr.
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Leningr.dom nauchno-tekhn.propagandy. 1957. 36 p. (Poluprovodniki,
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(Bolometer)

RF 674, 44
SMOLENSKIY, Georgiy Anatol'yevich, doktor fiz.-mat.nauk; ISUPOV, Vladislav Aleksandrovich, inzh.; IOFFE, A.F., akademik red.; SOMINSKIY, M.S., kand.fiz-mat.nauk, red.; MASLAKOVETS, Yu.P., doktor fiz.-mat.nauk; SHALYK, S.S., doktor, fiz-mat.nauk; REBEL', A.R., kand.fiz.-mat.nauk; SUBSHIYEV, V.K., kand.fiz-mat.nauk; SHAGURIN, K.A., inzh.; ACHKINADZE, Sh.D., inzh., red.; FREGER, D.P., tekhn.red.

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VORONIN, Anatoliy Nikolayevich, inzh.; IOFFE, A.F., akademik, red.;
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1957. 43 p. (Poluprovodniki, no.13) (MIRA 11:3)
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100-1000
GELLER, Isaak Khaimovich, inzh.; MESKIN, Samuil Semenovich, inzh.; IOFFE, A.F., akademik, red.; SOMINSKIY, M.S., kand.fiz.-mat.nauk, red.; MASLAKOVETS, Yu.P., doktor fiz.-mat.nauk; SMOLENSKIY, G.A., doktor fiz.mat.nauk; SHALYT, S.S., doktor, fiz.-mat.nauk; REGEL', A.R., kand.fiz.-mat.nauk; SUBASHIYEV, V.K., kand.fiz.-mat.nauk; SHAGURIN, K.A., inzh.; ACHKINADZE, Sh.D, inzh, red; FREGER, D.P., tekhn.red.

[Semiconductor contact rectifiers] Poluprovodnikovye vypriamiteli.
Leningrad, Leningr.dom nauchno-tekhn.propagandy, 1957. 94 p.

(MIRA 10:12)

(Electric current rectifier)

REF ID: A 15

ZHUZE, Vladimir Panteleymonovich; IOFFE, A.F., akademik, glavnyy red.;
SOMINSKIY, M.S., kand.fiz.-mat.-nauk, red.; MASLAKOVETS, Yu.P.,
doktor fiz.-mat.nauk, red.; SMOLZENSKIY, G.A., doktor fiz.-mat.
nauk, red.; SHALYT, S.S., doktor fiz.-mat.nauk, red.; REGEL',
A.R., kand.fiz.-mat.nauk, red.; SUBASHIYEV, V.K., kand.fiz.-mat.nauk,
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[Semiconducting materials (semiconductor elements)] Poluprovodni-
kovye materialy (elementy - poluprovodniki). Leningrad, 1957.
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znaniy RSFSR, no.17) (MIRA 12:4)
(Semiconductors)

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1949
 AUTHOR ELPAT'EVSKAJA, O.D., REGEL', A.R.
 TITLE Some Special Features of the Electric Properties of HgSe- HgTe-
 Films.
 PERIODICAL Zhurn.techn.fis, 27, fasc.1, 45-50 (1957)
 Issued: 2 / 1957

At first a survey of the present stage of the problem is given. Dealing with the entire system of solid solutions HgSe-HgTe, the authors dealt with the closest attention with the properties of HgSe films, because they have formed the subject of the most intense study. The properties of the films of the entire system of the firm solutions HgSe - HgTe are essentially similar to the properties of HgSe films. The electric conductivity and the HALL effect of a group of transparent HgSe films (thickness from 0,1 to 6 microns) were measured. The films were produced by evaporation (in a vacuum) on a base of quartz, glass, mica, farfor, organic glass or getenacs (probably a material similar to farfor?). The material of these bases exercised but little influence on the properties of the films, and further glass and mica were mainly used as material for these bases. Electrodes of copper or silver were at first fixed on these bases, after which they were electrolytically coated with nickel or platinum. There follow some remarks concerning stability and reproducibility of results, as well as remarks on some peculiar features of the structure of the films. The following results were obtained from these investigations: The HgSe-HgTe films obtained by evaporation in a vacuum, in air and in steam differ only little with

REGELAR.

AUTHORS Gaybullayev, F., Regel', A.R. 57-9-11/40

TITLE Peculiarities of the Temperature Dependence of Specific Resistance in Liquid Eutectic Systems.
(Osobennosti temperaturnoy zavisimosti udel'nogo soprotivleniya zhidkikh evtekticheskikh sistem.)

PERIODICAL Zhurnal Tekhn. Fiz., 1957, Vol. 27, Nr 9, pp.1996-2005 (USSR)

ABSTRACT The electric conductivity of eutectics at temperatures ranging from room temperature to 1200°C was investigated in the case of the following systems:
Au-Sn, Pb-Te, Cu-Te, Ge-Te, Sn-Te, Cu-Sb, Bi-Te, Pb-Sn, Bi-Cd, Cd-Zn, Cd-Sn, Bi-Sn, Bi-Pb, Sn-Zn, Cd-Pb, Pb-Sb, Ag-Sb, Ag-Sn. It is shown that the dependence of electric conductivity on temperature has distinctly marked special points in the case of the following system:
Au-Sn, Pb-Te, Cu-Te, Ge-Te, Sn-Te, Cu-Sb, Bi-Te, Sn-Zn, Cd-Pb, Ag-Sb, Pb-Sb, Ag-Sn.
On the strength of the peculiarities in the course of temperature of electric conductivity it may be concluded that within this range of temperature a sufficiently marked melting transition from the quasieutectic structure to the homogeneous atomic solution occurs. The results obtained

CARD 1/2