

UNCLASSIFIED

PROCESSING DATE--30OCT70

2/2 019

CIRC ACCESSION NO--AP0124413

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. KEEPING 12 ML 40PERCENT FORMALIN WITH 17 G I, FLUORO, 1,1,4, TRINITRO, 4, AZABUTANE 3 HR AT 40DEGREES AND PH 6-7 (WITH ADDED NA SUB2 CO SUB3), THEN 24 HR AT 15-20DEGREES, GAVE, AFTER ACIDIFICATION TO PH 2-3, 96PERCENT (O SUB2 N) SUB2 CFCH SUB2 CH SUB2 N (NO SUB2) CH SUB2 OH (I), M. 37-8DEGREES. SIMILARLY WAS PREPD. 48PERCENT C (NO SUB2) SUB3 CH SUB2 N (NO SUB2) CH SUB2 OH (II), DECOMP. 75-6DEGREES, AND 95PERCENT (O SUB2 N) SUB3 C (CH SUB2) SUB2 N (NO SUB2) CH SUB2 OH, M. 78-9DEGREES. I AND ACCL-ALCL SUB3 4 HR AT 50DEGREES GAVE 92PERCENT RN (NO SUB2) CH SUB2 CL (R EQUALS CF (NO SUB2) SUB2 CH SUB2 CH SUB2), M. 44-5DEGREES. SIMILARLY WAS PREPD. 92PERCENT OF THE ANALOG WITH R EQUALS FC (NO SUB2) SUB2 CH SUB2, M. 62-3DEGREES; 93PERCENT R EQUALS (O SUB2 N) SUB3 CCH SUB2 (III), M. 58-9DEGREES; AND 93PERCENT R EQUALS (O SUB2 N) SUB3 CCH SUB2, M. 55-6DEGREES. II KEPT 2 DAYS IN ACCL GAVE 100PERCENT RN (NO SUB2) CH SUB2 OAC (R EQUALS (O SUB2 N) SUB3 CCH SUB2), M. 74-5DEGREES. III IN MEQN TREATED WITH AGNO SUB3 0.5 HR GAVE 87PERCENT RN (NO SUB2) CH SUB2 ONO SUB2 (R EQUALS (O SUB2 N) SUB3 CCH SUB2 CH SUB2), M. 97-8DEGREES. SIMILARLY WAS PREPD. THE ANALOG WITH R EQUALS (O SUB2 N) SUB3 CCH SUB2, M. 41-2DEGREES. FACILITY: INST. FIZ., MOSCOW, USSR.

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--30OCT70

1/3 - 018

TITLE--SYNTHESIS OF PRIMARY N,FLUORODINITROALKYL N,NITRAMINES --U-

AUTHOR--(03)-GAFUROV, R.G., KOREPIN, A.G., YEREMENKO, I.T.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (2), 442-3

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL SYNTHESIS, FLUORINATED ORGANIC COMPOUND, AMINE, FLUORONITRO COMPOUND, CHEMICAL DECOMPOSITION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1997/0848

STEP NO--UR/0062/70/000/002/0442/0443

CIRC ACCESSION NO--AP0119752

UNCLASSIFIED

2/3 018 UNCLASSIFIED PROCESSING DATE--30OCT70
CIRC ACCESSION NO--AP0119752
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ADDG. SLOWLY 7.5 ML HNO SUB3 (D.
1.51) TO 2.1 G FC(NO SUB2) SUB2 (CH SUB2) SUB2 NHAC IN AC SUB2 D AT
0DEGREES AND KEEPING 5 HR AT 15DEGREES GAVE 76PERCENT FC(NO SUB2) SUB2
(CH SUB2) SUB2 N (NO SUB2) AC (IA), M. 63-4PERCENT. KI AND (D SUB2 N)
SUB3 CCH SUB2 NHAC IN 12 HR IN 85PERCENT MECH GAVE 97PERCENT ACNHCH SUB2
(NO SUB2) SUB2 K (I), DECOMP. 225DEGREES, WHICH, SUSPENDED IN R SUB2 O
AT 0DEGREES AND TREATED 3 HR WITH 1:45F, N, GAVE 92.8PERCENT FC(NO SUB2)
SUB2 NEGATIVE CH SUB2 NHAC (II), M. 57-8DEGREES, WHILE REACTION OF THE K
SALT WITH AQ. H SUB2 SO SUB4 AT PH 2 AT 0DEGREES GAVE HC (NO SUB2)
SUB2 CH SUB2 NHAC (III), M. 58-9DEGREES. I AND BR, CH SUB2 CL SUB2 GAVE
KBR AND 100DEGREES BRC (NO SUB2) SUB2 CH SUB2 NHAC, M. 111-12DEGREES.
NITRATION IN AC SUB2 O OF II GAVE IN 10 HR 46PERCENT FC (NO SUB2) 2
NEGATIVE CH SUB2 N (NO SUB2) AC, M. 36.5-7.5DEGREES. SIMILARLY, III
GAVE 45PERCENT HC (NO SUB2) SUB2 CH SUB2 N (NO SUB2) AC, M. 73-4DEGREES.
IA AND 12PERCENT NH SUB4 OH AT 0DEGREES UNTIL DISSOLVED, THEN TREATED
WITH HCl TO PH 3 GAVE 96PERCENT RMND SUB2 (R EQUALS CF (NO SUB2) SUB2
(CH SUB2) SUB2), M. 56-7DEGREES. SIMILARLY WAS PREPD. 52PERCENT FC
(NO SUB2) SUB2 CH SUB2 ANALOG, DECOMP. 30DEGREES, WHICH WAS UNSTABLE IN
STORAGE. THE LATTER KEPT WITH 27PERCENT FORMALIN 6 HR AT 0-5DEGREES
GAVE 82PERCENT 1,FLUORO,1,1,3,TRINITRO,3,AZA,4,BUTANOL, M. 56-7DEGREES.

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3/3 018

UNCLASSIFIED

PROCESSING DATE--300CT70

CIRC ACCESSION NO--AP0119752

ABSTRACT/EXTRACT--THUS, IF THE R GROUP IN RNHAC HAS A STRONG I EFFECT, THE DEGREE OF AMMONIZATION OF THE N ATOM BECOMES HIGH ENOUGH TO LOWER ITS REACTIVITY WITH ELECTROPHILIC AGENTS, WHILE INTRODUCTION OF F INTO THE ADJACENT POSITION LOWERS THE I EFFECT OF R, MAKING POSSIBLE N, NITRATION.

FACILITY: INST. KHIM. FIZ., MOSCOW, USSR.

UNCLASSIFIED

KORESHKOV, A. A.

DJURNAL RITMIV OF THE ELECTROENCEPHALOGRAPHY (EMG) SHIRING A PERIOD OF 72 HOURS SLEEPLESSNESS

Article by A. A. Korshkov, Moscow, *Russkoe Psichicheskoye Nauchnoye Izvestiye*, Russian, Vol 6, No 1, pp 38-62, 1972, submitted for publication 19 July 1971

EMG 812 822 7992-06:612 821 7-066

5 FEB 2 1973
191 (100) 1973

Abstract: The author studied EEG diurnal rhythms during a period of 72 hours sleeplessness to which ten healthy individuals were subjected. These and further studies have shown that test subjects with a stable rhythm of cerebral bioelectric activity can adapt less well and those with an unstable rhythm of activity can adapt better to altered work and rest schedules.

Numerous studies have been devoted to an investigation of human cerebral bioelectric activity under ground conditions when there are ordinary diurnal schedules (V. A. Adamovich, P. I. Gulyayev; M. M. Livshov; A. A. Gankin; H. A. Gavrilova; H. B. Danilova, V. V. Zolotarev, and others). According to data published by some authors (V. B. Bakin, et al.; A. A. Korshkov; A. H. Litov, 1966; V. I. Myasnikov, Davids), the EEG of healthy individuals subjected to prolonged isolation is characterized with a change in the di-rhythm with a tendency to its synchronization with a well-expressed amplitude modulation of an increase in the number of slow waves, as well as a disorganization of the rhythm with a decrease in their amplitudes. In addition, during the time of a change in the daily schedule there was a decrease in duration, a poor sense of expression and a rapid extinction of the reaction of assimilation of the external stimuli and also a weakening of the reaction of assimilation of the rhythms of light flickerings.

This paper gives data from a study of the biopotentials of the large hemispheres of the brain during a 72-hour period of wakefulness of subjects during confinement to an isolation chamber. The cerebral biopotentials were registered at 0600, 1000, 1400, 1800 and 2200 hours Moscow time.

The subjects were investigated in a darkened chamber while their eyes were closed. Cerebral electric activity was registered using a pen-recording

USSR

UDC: 8.74

KORESHKOV, G. G.

"A Program for Constructing Structural Regression Models"

Tomsk, Kibernetika i vuz--sbornik (Cybernetics and Higher Education--collection of works), vyp. 5, 1972, pp 158-168 (from RZh-Kibernetika, No 5, May 73, abstract No 5V789 by the author)

Translation: The paper describes a program for realizing the two-step method of least squares in evaluating the coefficients of structural models in ALPHA language. The method is briefly described.

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UDC: 8.74

USSR

KORESHKOV, G. G.

"Error Detection Program in Regression Models"

V sb. Kibernetika i vuz (Cybernetics and the Institution of Higher Education--collection of works), vyp. 4, Tomsk, Tomsk University, 1971, pp 200-211 (from RZh-Kibernetika, No 4, Apr 72, Abstract No 4V560)

[no abstract]

1/1

Immunology

UDC 576.858.7(07).3-036.22+616-022.14

USSR

POZODINA, V. V., KORESHKOVA, G. V., BOCHKOVA, N. G., SENEETA, N. B., and
MEDVEDEVA, G. S., Institute of Poliomyelitis and Viral Encephalitis,
Academy of Medical Sciences USSR

"Mixed Arbovirus Infections (the Diagnostic, Genetic, and Vaccine Aspects of
the Problem"

Tashkent, Meditsinskiy Zhurnal Uzbekistana, No 8, Aug 73, pp 89-90

Abstract: The ecology of arboviruses permits a combined source of infection. Simultaneous infection with Japanese encephalitis and other group A and B arboviruses were observed. Features in the growth of experimental mixed infections were studied for group A (Sindbis + Geta, group B (West Nile + Japanese encephalitis), and group A + B (West Nile + Sindbis). Several different immunological phenotypes were observed and characterized. The interaction of the individual virus type in a mixture may be related to its phenotype. Differences were observed in the experimental A + B mixtures.

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KORETS, V. F.

JPRS 53334

10 June 1971

SOME EFFECTS DURING THE PASSAGE OF RADIO WAVES THROUGH THE REGION OF AN EXPLOSION

Article by V. A. Vel'min, V. F. Korets, Yu. A. Medvedev and B. M. Litmanov. Moscow, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, Moscow, No. 2, 1971, pp 136-139

In this article we describe and interpret certain nonstationary effects observed in the passage of radio waves through the region of an explosion.

This interaction between radio waves and the region of an explosion is of interest in connection with the fact that study of such interaction may yield data on the processes within the explosion which could be obtained in no other way. The electromagnetic probe method possesses an unquestioned advantage over other methods (such as the simple probe method) in that, being essentially active, it does not exert a disturbing influence during the measurements (weak field).

In Figure 1, devoted to the interaction of radio waves of the centimeter range with the region of an explosion, it is shown that the specific shock wave is opaque, provided its velocity exceeds 2.4 km/sec. With any decrease in velocity, however, the shock wave becomes increasingly transparent. After a time, evidently, products of the explosion absorb their energy, and the interaction of the waves with the explosion region becomes more complicated: apart from purely diffraction effects, such as appear so long as the shock wave remains ideally conductive, there arise in direct passage of the radio beams through the products of the explosion, and this in turn raises the question of the relative role of such effects in the mechanism of the interaction of radio waves and explosion products. If the explosion happens to be irradiated exclusively through the lateral section of the beam, and if at the point of the explosion a small number of terminal Fresnel spots exists, then enlargement in the region of the explosion will result in absolute superimposing of the Fresnel zones, which will lead to oscillation of the energy flow at the point of receiver. The oscillation period being determined by the speed of overlapping of

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USSR

UDC 634.2:582.281.14:635.655

KORETSKIY, P. M., Ukrainian Scientific Research Institute of Horticulture,
Kiev

"Inoculation of Soybeans With Peronospora"

Leningrad, Mikologiya i Fitopatologiya, No 4, 1971, pp 395-398

Abstract: The possibility of infecting soybeans with Peronospora in various developmental phases, from swelling of the seeds to formation of the beans, was determined. An inoculum from conidia and oospores was applied to seeds, leaves, and roots. During the period of seed swelling and germination, diffuse infection was effected both by conidia and oospores. The nature of the infection was determined by the age and physiological condition of the plants (intensity decreased with age). When shoots of the cotyledons were infected as they emerged on the soil surface, most of the plants were diffusely infected. Thereafter infection was only local. Mature plants could be infected only through the leaves. The number of diseased plants and the intensity of injury increased the longer drops of the inoculum remained in contact with the leaves.

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UNCLASSIFIED

PROCESSING DATE--02OCT70

1/2 018

TITLE--SOLUBILITY IN A COBALT NITRATE, AMMONIUM NITRATE AND WATER SYSTEM AT 20 DEGREES -U-

AUTHOR--(03)-ALIMOVA, L.N., ~~KORE, D.M.~~ LEBEDEVA, N.O.

K

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. KHIM. (LENINGRAD) 1970, 43(2), 458-9

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--TERNARY FLUID SYSTEM, AQUEOUS SOLUTION, SOLUBILITY, AMMONIUM NITRATE, COBALT COMPOUND, PHASE COMPOSITION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1987/0349

STEP NO--UR/0080/10/043/002/0458/0459

CIRC ACCESSION NO--AP0104285

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--02UCT70

272 018
 CIRC ACCESSION NO--A0104285
 ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN THIS SYSTEM, SOLID CO(ND
 SUB3)SUB2 .6H SUB2 IS EQUIL. WITH AN AQ. SOLN. THE COMPN. OF WHICH
 VARIES IN THE RANGE CO(ND SUB3)SUB2 47.96 PLUS NH SUB4 NO SUB3 3.9 WT.
 PERCENT TO CO(ND SUB3)SUB2 41.5 PLUS NH SUB4 NO SUB3 27.7 WT. PERCENT.
 AT AQ. PHASE COMPNS. OF CO(ND SUB3)SUB2 40.4 PLUS NH SUB4 NO SUB3 29.8
 WT. PERCENT TO CO(ND SUB3)SUB2 5.95 PLUS NH SUB4 NO SUB3 58.42 WT.
 MIXT. OF BOTH SALTS WAS IN PHASE EQUIL. WITH SOLNS. CONTG. 40.7-40.8 WT.
 PERCENT CO(ND SUB3) SUB2 AND 28.2-29.3 WT. PERCENT NH SUB4 NO SUB3.

UNCLASSIFIED

Acc. Nr:

1P0047171

Ref. Code: UR 0246

PRIMARY SOURCE: Zhurnal Nevropatologii i Psikhatrii, 1970,
Vol 70, Nr 2, pp 216-217

A MIXED FORM OF RECKLINGHAUSEN'S DISEASE

L. M. Korganova

The author describes a rare case of a mixed form of Recklinghausen's disease, which was encountered in the pathomorphological department of a general hospital in Rostov/Don. This case was the first during 25 years on a material of 17 000 post-mortems. Brief literary data on the pathogenesis of the disease and its form are given in the report. The neurofibromas found in the morphological studies of the author were located in the left cerebellar hemisphere, in the lungs and subcutaneous cellular tissue of the lumbar region. In a detailed histological study of the neurofibromas special attention was attracted to an unusual structure of the tumorous nodes in the lungs with peculiar glandular-like passages in the node tissue. This again confirms the assumption that the neurinomas in Recklinghausen's disease should be attributed to the hamartoma type.

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19790666

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UDC 621.317.421

USSR

MELIK-SHAKHNAZAROV, V. P., VOLKOV, I. I., BARANOV, A. J. and ~~MOEGANOVA, O. S.~~

"Device for Measuring the Induction of Constant Magnetic Fields"

Moscow, Izmeritel'naya Tekhnika, No 6, 1972, pp 51-52

Abstract: A uniquely designed, self-compensating device for measuring the induction of constant magnetic fields, operating on the basis of a commercially available Hall generator, has been developed by the authors at the "Information Measurement Engineering" department of the Kuybyshev Polytechnical Institute. This device does not possess the drawbacks of the devices conventionally used for this purpose, such as manual balancing and thermal stabilization of the Hall generator, and a value of the electrical output signal which is insufficient for automatic signal measurement and recording.

The specifications are: measurement limits - 0.001, 0.01, 0.1 T; basic error, not taking into account the error of the output instrument, about 1%; nominal output current - 3 mA; pass band - 1 Hz; supply voltage 220V \pm 10%, 50 Hz. The device is made from series-produced, domestically manufactured subassemblies and parts, and is suitable for extensive application in various branches of the electrical engineering industry, as well as for development.

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USSR

MELIK-SHAKHNAZAROV, V. P., et al., Izmeritel'naya Tekhnika, No 6, 1972,
pp 51-52

and research on various automation and information-measurement facilities.
2 figures. 4 references.

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1/2 029 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--CLINICAL AND EXPERIMENTAL STUDIES ON THE IMMUNOLOGY OF MYOCARDIAL
INFARCTION -U-
AUTHOR--(05)-KORGE, K., HANSON, H., HERING, L., LIPSO, E., NARAMAA, S.
COUNTRY OF INFO--USSR *K*
SOURCE--Z. GESAMTE INN. MED. IHRE GRENZGEB. 1970, 25(1), 18-22
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--IMMUNOLOGY, MYOCARDIUM, HEART DISEASE, HEMAGGLUTINATION, TEST,
HISTAMINE, WHITE RAT, GAMMA GLOBULIN

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1998/0218

STEP NO--GE/0094/70/025/001/0018/0022

CIRC ACCESSION NO--AP0120916

UNCLASSIFIED

2/2 028

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--A0120916

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PATIENTS WITH (A) FRESH MYOCARDIAL INFARCTS, (B) MYOCARDIAL INFARCTS AFTER PROLONGED SURVIVAL, (C) STENOCARDIA, (D) OTHER HEART DISEASES, (E) UNRELATED DISEASES, (F) HEALTHY CONTROLS GAVE: POS. (TITER 1 TO 16 OR HIGHER) HEMAGGLUTINATION REACTIONS BY THE METHOD OF BOYDEN WITH EXTS. PREPD. FROM INFARCTED HEART MUSCLE IN 44.7, 31.0, 21.9, 18.7, 9.2, AND 3.6PERCENT OF CASES, RESP. POS. REACTIONS BY LATEX AGGLUTINATION WERE GIVEN BY 41.5, 47.0, 33.3, 32.0, 28.2, AND 5.3PERCENT, RESP., OF GROUPS (A) TO (F). THE CORRESPONDING VALUES BY AN INTRACUTANEOUS TEST WERE 40.3, 16.6, 35.0, 12.9, 8.8, AND 0PERCENT. A SINGLE CASE OF MYOCARDIAL INFARCT GAVE A POS. AGAR PRECIPITIN TEST. LOWER TITERS WERE RECORDED WITH EXTS. OF HEALTHY THAN IN THOSE OF INFARCTED HEART MUSCLE. INTRACUTANEOUS REACTIONS SOMETIMES BECAME POS. 20-40 DAYS AFTER INFARCTION. HISTAMINE BINDING BY SERUM WAS DEPRESSED IN 35 OF 37 CASES OF MYOCARDIAL INFARCT, IN 13 OF 32 CASES OF STENOCARDIA, BUT IN ONLY 9 OF 119 NORMAL BLOOD DONORS. SEROTONIN BINDING BY SERUM WAS DEPRESSED IN 11 OF 57 CASES OF STENOCARDIA, IN 4 OF 40 CASES OF MYOCARDIAL INFARCT IMMEDIATELY, IN A FURTHER 15 CASES 15-20 DAYS AFTER INFARCTION. REPEATED INJECTIONS OF 2-4 MG-KG ADRENALINE OR OF 15 MG-KG ISOPRENALINE INDUCED PROGRESSIVE DIFFUSE OR FOCAL NECROSIS, RESP., IN THE HEARTS OF WHITE RATS; TRANSIENT AUTOANTIBODIES AGAINST HEART MUSCLE APPEARED IN 27-32PERCENT OF THE RATS. INDIRECT IMMUNOFLOURESCENCE INDICATED BINDING OF GAMMA GLOBULINS TO INTERSTITIAL CONNECTIVE TISSUE BUT NOT TO MUSCLE CELLS.

FACILITY: LEHRSTUHL INNERE MED., STAATLICHEN UNIV. TARTU, TARTU, USSR.

UNCLASSIFIED

USSR

UDC: 51.621.391

PAKHOMOV, V. I., KORICHNEV, L. P., and MOSKVITINA, A. A.

"Computing the Transmission Time of a Codogram With a Random Choice of Nonstationary Channels"

Tr. Ryazan. radiotekhn. in-ta (Transactions of the Ryazan Radio Engineering Institute) No 30, 1972, pp 208-213 (from RZh-- Matematika, No 7, 1973, Abstract No 7V455)

Translation: The transmission of information over shortwave channels of a communication whose characteristics vary with time is considered. The average time for transmitting a certain amount of information is computed as a function of the permissible number of errors for the transmission time with the use of an algorithm for channel switching (an infinite number of channels, the characteristics of each varying in time and describable by some model, is available).
Yu. Pyatoshin

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USSR

UDC: 51:621.391

PAKHOMOV, V. I., KORICHNEV, L. P., MOSKVITINA, A. A.

"On Calculating the Time of Transmission of a Codogram in a System With Random Selection of Nonstationary Channels"

Tr. Ryazan. radiotekhn. in-ta (Works of Ryazan Radio Engineering Institute), 1972, vyp. 30, pp 208-213 (from RZh-Kibernetika, No 7, Jul 73, abstract No 7V455 by Yu. Pyatoshin)

Translation: The paper deals with transmission of information over short-wave communications channels whose properties vary with time. The average time of transmission of a certain amount of information is calculated as a function of the permissible number of errors during the transmission time using a certain channel switching algorithm (an infinite number of communications channels are available which vary their properties with time and are described by a certain model).

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USSR

UDC: 621.391.519.2

PAKHOMOV, V. I., KORICHNEV, L. P.

"Evaluating the Effectiveness of Compression of a Set of Wiener Signals"

Tr. Ryazansk. politekhn. in-ta (Works of the Ryazan Polytechnical Institute), 1970, vyp. 23, pp 148-158 (from RZh-Radiotekhnika, No 7, Jul 70, Abstract No 7A30)

Translation: The authors consider the effectiveness of an algorithm for compression of an assemblage of Wiener measurement signals based on analysis of all signal increments at the instant or readout. It is shown that when this algorithm is used the coefficient of compression of the assemblage is greater than 1, i. e. that this algorithm is more effective than compression algorithms based on analysis of the properties of the individual signals. One illustration. N. S.

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USSR

K UDC: 621.391:519.2

PAKHOMOV, V. I., KORICHNEV, L. P.

"Investigation of Interference Stability in the Case of Compression of Signals With Interference"

Tr. Ryazansk. radiotekhn. in-ta (Works of the Ryazan Radio Engineering Institute), 1970, vyp. 23, pp 158-164 (from RZh-Radiotekhnika, No 7, Jul 70, Abstract No 7A19)

Translation: The paper deals with the interference stability of an algorithm proposed by the authors for compression of an assemblage of independent measurement signals of the Wiener type with respect to additive interference in the form of normal white noise. The threshold of the interference increments is given by a constant equal to half the quantization step. It is shown that this algorithm has filtering properties. Two illustrations, bibliography of four titles. N. S.

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USSR

UDC 621.373.029.7

BORISOV, V. S., KORIDALIN, V. YE.

"Study of the Intensity Fluctuations of the Induced Emission of a Gas Laser in Low and Infralow Frequency Ranges"

Moscow, Radiotekhnika i elektronika, Vol XVII, No 2, 1972, pp 425-426

Abstract: Results are presented from experimental studies of the intensity fluctuations of the induced emission of a gas laser in the 0.1-10 hertz range. Distribution curves were calculated from the results on a digital computer, and good agreement was detected with normal gaussian distribution. A curve is presented corresponding to a gas discharge tube current of 14 milliamps and another for 9 milliamps. The magnitude of the intensity fluctuations of the induced laser radiation increased as the frequency dropped, and at $f = 0.1$ hertz it reached $\sim 2 \cdot 10^{-3}$ of the mean value of the radiation intensity of the laser. The measurements were performed in a broad frequency band. An expression is presented for the mean square noise current.

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1/2 021 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--CIS AND TRANS, BETA, SUBSTITUTED ALPHAS, VINYL FERROCENES. CONFIGURATION
OF TRISUBSTITUTED ETHYLENES -U-
AUTHOR-(02)-KORIDZE, A.A., GURIN, S.P.

COUNTRY OF INFO--USSR

SOURCE--J. ORGANOMETAL. CHEM. 1970, 22(1), 157-69

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--FERROCENE, ETHYLENE, NITRILE, THIN LAYER CHROMATOGRAPHY,
PROTON, MAGNETIC RESONANCE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0616

STEP NO--NE/0000/70/022/001/0157/0169

CIRC ACCESSION NO--AP0119528

UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119528

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A CONVENIENT APPROACH TO THE NITRILES OF ALPHA,BETA,UNSATO. FERROCENECARBOXYLIC AND 1,1 PRIME-FERROCENEDICARBOXYLIC ACIDS HAS BEEN WORKED OUT. IT INVOLVES THE CONDENSATION OF ACYLFERROCENES WITH MEQN AND SUBSEQUENT DEHYDRATION OF THE BETA, HYDROXYNITRILES PRODUCED. ISOMERIC UNSATO. NITRILES WERE ISOLATED IN SOME SES, AND WERE SEPD. BY THIN LAYER CHROMATOG. THEY DISPLAYED SUBSTANTIALLY DIFFERENT ALPHA(H SUB2,5) PROTON SHIELDINGS IN THE SUBSTITUTED CYCLOPENTADIENYL RING. THIS PHENOMENON WAS USED FOR ELUCIDATING THE CONFIGURATIONS OF SOME ALPHA-VINYLFERROCENES TRIPLY SUBSTITUTED AT THE DOUBLE BOND. FORMAL REDOX POTENTIALS WERE DETD. FOR ALPHA-VINYLFERROCENES CONTG. NO SUB2, C IS IDENTICAL TO N, AND AC GROUPS IN THE BETA POSITION. THESE DATA, TOGETHER WITH THOSE OF PMR AND THE R SUHF VALUES OBTAINED MAY BE EMPLOYED FOR THE ASSIGNMENT OF ISOMERS TO THE CIS OR TRANS SERIES. FACILITY: INST. ORGANIC ELEM. COMP., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 612.821.7+612.822.3

ONTANI, T. N., KORIDZE, M. G., and KAVKASIDZE, M. G., Laboratory of Comparative Neurophysiology, Institute of Physiology, Academy of Sciences Georgian SSR, Tbilisi

"On the Character and Significance of the Dynamics of the Electrical Activity of the Neocortex and the Hippocampus During the Paradoxical Phase of Sleep"

Leningrad, Fiziologicheskii Zhurnal SSSR imeni I. M. Sechenov, Vol 59, No 8, Aug 73, pp 1168-1175

Abstract: The dynamics of the electrical activity of various regions of the neocortex and hippocampus were studied in cats during the paradoxical phase of sleep, using spectral analysis and integration of the EEG, ECG and electrical activity of optical and jugular muscles. Changes in the electroencephalogram, electrohippogram, and somatic and vegetative patterns are said to imply a division of paradoxical sleep into two stages. The first stage is characterized by desynchronization of neocortical activity, occurrence of pontogenicule-occipital spikes in the visual cortex and some association and projection areas, abrupt augmentation of hippocampal theta activity with depression of other slow waves, and somatic and vegetative signs of emotional stress.

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USSR

ONTANI, T. N., et al., Fiziologicheskii Zhurnal SSSR imeni I. M. Sechenov, Vol 59, No 8, Aug 73, pp 1168-1175

In the second stage the hippocampal theta rhythm is depressed simultaneously with either a suppression of slow waves or an increase in the delta rhythm. Neocortical synchronization of slow waves develops, as shown by the predominance of alpha activity and concomitant reduction of stress signs. These findings are said to suggest that the reciprocally interrelated midbrain and mesencephalic structures must be responsible for the regulation of the two stages of paradoxical sleep. In addition the first stage is considered to correlate with emotional tension, and the second stage with its relief.

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USSR

UDC 612.822.3+154.2

ONIANI, T. N., KORIDZE, M. G., and ABZIANIDZE, Ye. V., Laboratory of Comparative Neurophysiology, Institute of Physiology, Academy of Sciences Georgian SSR, Tbilisi

"Electroencephalographic and Vegetative Correlates of Emotional Reactions"

Leningrad, Fiziologicheskii Zhurnal SSSR imeni I. M. Sechenova, Vol 58, No 7, 1972, pp 1,040-1,049

Abstract: Changes occurring in the electroneocorticogram, electrohippocampogram, and heart rate during the development of various motivational-emotional reactions were investigated in cats with chronically implanted stereotaxic electrodes. Emotional reactions were evoked by electrical stimulation of the reticular formation, central gray matter, and hypothalamus. Intensification of the hippocampal theta rhythm with either an increase or a decrease in heart rate was the most characteristic electroencephalographic correlate of feeding, drinking, and defensive emotional reactions. On the other hand, electrical stimulation of the hypothalamus (ventromedial nucleus and the anterior region) inducing inhibition of natural behavior, including spontaneous feeding and drinking, resulted in inhibition of the hippocampal theta rhythm.

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Acc. Nr: AP0047253

Ref. Code: UR 0606

PRIMARY SOURCE: K Urologiya i Nefrologiya, 1970, Nr 1,
PP 48-51

FLUORESCENT CYTOLYTIC STUDIES IN THE DIAGNOSIS OF CHRONIC
PROSTATITIS

G. G. Korin

Summary

Fluorescent microscopy of the prostate gland has an advantage over routine microscopy of crude and stained preparations of the secretion: along with other composites of the secretion this method enables to judge the state of the epithelial cells. This gives a better understanding of the inflammatory process in the gland. The method shows that increased leukocyte count and reduction of the number of lipid granules is not a sufficient evidence for making the diagnosis of prostatitis, without changes of epithelial cells characteristic of inflammation. Fluorescent microscopy can serve for determination of the course of chronic prostatitis, and of the time for suspension of its treatment. Being simple and accessible, this method may be recommended for wide practical use in urology.

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REEL/FRAME
19790760

PI 2

172 018 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--PRESERVATION OF THE TUNICA VAGINALIS PROPRIA IN OPERATIONS ON THE
TESTICLE -U-
AUTHOR--KORIKOV, M.L.
COUNTRY OF INFO--USSR *K*
SOURCE--UROLOGIYA I NEFROLOGIYA, 1970, NR 3, PP 48-50
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--SURGERY, REPRODUCTIVE SYSTEM
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1998/0182 STEP NO--UR/0606/70/000/003/0048/0050
CIRC ACCESSION NO--AP0120880
UNCLASSIFIED

2/2 018

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0120980

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FOLLOWING CHANGES OCCUR AFTER THE OPERATION OF EXCISION OR EVERSION OF THE TUNICA OF THE TESTICLE: SCARS, CIRCULATORY DISTURBANCES, DEGENERATION OF THE PARENCHYMA OF THE TESTIS WITH REDUCTION OF ITS FUNCTION. TO AVOID THESE COMPLICATIONS IN COMMUNICATING HYDROCELE AN OPERATION WAS CARRIED OUT WITH PRESERVATION OF THE TUNICA VAGINALIS PROPRIA IN 200 PATIENTS. PROCESSUS VAGINALIS WAS CROSS SECTIONED; THE DISTAL END WAS EXPOSED UP TO THE TESTES, THEN CUT, THE FLUID WAS REMOVED AND THE OPENING IN THE TUNICAE WAS CLOSED BY CATGUT SUTURES. THERE WAS NO RECURRENCE OF HYDROCELE FOR 2 OBSERVATION YEARS. IN OPERATIONS FOR CRYPTORCHISM IN 89 PATIENTS THE TESTICLE WAS BROUGHT DOWN INTO THE SCROTUM WITH THE TUNICA VAGINALIS PROPRIA. FAVORABLE RESULTS WERE OBTAINED IN ALL THE CASES; THERE WAS NO HYDROCELE AND THE TESTICLE IN THE TUNICA SHOWED BETTER DEVELOPMENT.

UNCLASSIFIED

MORIN, A.I.

51125 1982 6-73

2

71-9. USE OF ZONE EQUIVATION FOR ALLOYING THE SEMICONDUCTOR In_2Te_3

Article by L. P. Gal'chikovskiy, A. I. Korin, Eliz'ben' Novosibirsk. III
Department for Protection of the State Secret (Moscow Polytechnical Institute, Kristallin 1, Sverdlovsk
Russian, 12-17 June, 1972, p. 81)

The method of zone equilibration was used to alloy the semiconductor In_2Te_3 with copper. The peculiarities of the structure and certain physical parameters of the alloyed specimens were investigated for different equilibration conditions. The optimal conditions were found which make it possible to obtain uniform single-phase specimens of In_2Te_3 alloyed with copper in the concentration range of 1-9 atomic percent.

The data obtained indicate that the zone equilibration is an effective method of alloying semiconductors of the type of In_2Te_3 .

1/2 028 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--DEPENDENCE OF RESIDUAL STRESSES IN A GLASS FIBER REINFORCED PLASTIC
BINDER ON HARDENING CONDITIONS -U-
AUTHOR-(05)-ABIBOV, A.L., TITARENKO, G.S., KORINOVASOVA, M.YU., ZHERDEV,
YU.V., ZAKHAROV, A.M.
COUNTRY OF INFO--USSR

SOURCE--MEKH. POLIM. 1970, 6(1), 176

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--GLASS FIBER, REINFORCED PLASTIC, RESIDUAL STRESS, POLYMER
BINDER/(U)EDTIO PLASTIC

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/0516

STEP NO--UR/0374/70/006/001/0176/0176

CIRC ACCESSION NO--AP0107121

UNCLASSIFIED

272 028

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0107121

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RESIDUAL STRESSES IN AN EDT-10
COMP. (I) WERE STUDIED AS A FUNCTION OF THE HARDENING TEMP. (UNDER
ISOTHERMAL CONDITIONS) AND OF THE EXPTL. TEMP. FOLLOWING SUPPLEMENTAL
HEATING. THE NO. OF ISOCHROMES STEADILY DECREASED WITH HEATING REACHING
0 AT A TEMP. (FIXED STRUCTURE TEMP.) WHICH EXCEEDED THE HARDENING TEMP.
BY 8-10DEGREES, SUGGESTING THE COMPLETE DISAPPEARANCE OF STRAIN IN I.
THE HARDENING TEMP. WAS PROPORTIONAL TO THE FIXED STRUCTURE TEMP. AT
85-180DEGREES.

UNCLASSIFIED

1/2 033 UNCLASSIFIED PROCESSING DATE--11DEC70
TITLE--RESULTS OF THE MEASUREMENT OF RADIO WAVE ABSORPTION IN THE
IONOSPHERE BY THE AL METHOD -U-
AUTHOR--KORINEVSKAYA, N.A.
COUNTRY OF INFO--USSR
SOURCE--MORPHOLOGY OF THE QUIET AND PERTURBED IONOSPHERE (MORFOLOGIYA
SPKIDINGI I VAZMUSHCHENNOI IONOSFERE). (A70-36064 13-13) TSYGANGVA.
DATE PUBLISHED-----70
SUBJECT AREAS--ATMOSPHERIC SCIENCES, ASTRONOMY, ASTROPHYSICS
TOPIC TAGS--RADIO WAVE ABSORPTION, IONOSPHERE, SOLAR ACTIVITY, SUNSPOT
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY FICHE NO----FD70/605329/809 STEP NO--UR/0000/70/001/000/0107/0122
CIRC ACCESSION NO--AT0141683
UNCLASSIFIED

212 033

UNCLASSIFIED

PROCESSING DATE--11DEC70

CIRC ACCESSION NO--AT0141683

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RESULTS OF DIURNAL AND MIDDAY MEASUREMENTS OF RADIO WAVE ABSORPTION IN THE IONOSPHERE PERFORMED AT A FREQUENCY OF 2.2 MHZ AT ALMA-ATA DURING THE PERIOD FROM 1964 THROUGH 1967. THE EXISTENCE OF A WINTER ABSORPTION ANOMALY AT ALMA-ATA LATITUDES, ESPECIALLY DURING THE MAXIMUM SOLAR ACTIVITY YEAR, IS CONFIRMED. HIGHER ABSORPTION FLUCTUATIONS ARE NOTED IN WINTER, ESPECIALLY IN THE WINTER OF 1965. IT IS THEORIZED THAT THE ALTITUDE OF THE ABSORPTION REGION IS 70 TO 80 KM IN WINTER AND FALL AND IS 60 TO 70 KM IN SUMMER. A FORMULA IS GIVEN FOR THE DEPENDENCE OF THE ABSORPTION INTENSITY ON THE AMOUNT OF SUNSPOTS.

UNCLASSIFIED

1/2 .020 . UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--VINYL FLUORIDE -U-
AUTHOR--KORINKO, V.A., LEVINSKIY, M.I., CHAYKA, YE.A., ENGLIN, A.L.
COUNTRY OF INFO--USSR
SOURCE--USP. KHIM. 1970, 39(1), 94-111
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--VINYL COMPOUND, FLUORINATED ORGANIC COMPOUND, POLYMER PHYSICAL
PROPERTY, POLYMERIZATION, POLYVINYL FLUORIDE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1984/1696 STEP NO--UR/0076/70/039/001/0024/0111
CIRC ACCESSION NO--AP0100293
UNCLASSIFIED

2/2 020

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0100293

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A REVIEW WITH 299 REFS DESCRIBING THE PREPN., PROPERTIES, POLYMN, AND COPOLYMN. OF VINYL FLUORIDE. THE PROPERTIES AND USES OF POLY (VINYL FLUORIDE) ARE ALSO DESCRIBED.

0123

UNCLASSIFIED

USSR

UDC 617-001.28-07:616-008.932.691-074

PETROSYAN, E. P., KORINTELI, V. I., and YARKONENKO, S. P., Institute of Experimental and Clinical Oncology, Academy of Medical Sciences USSR

"Kinetics of Changes in Endogenous SH-Groups in Primary Processes of Radiation Damage"

Moscow, Meditsinskaya Radiologiya, Vol 17, No 7, Jul 72, pp 29-32

Abstract : By using a specially designed semi-automatic set-up, changes in the content of endogenous SH-groups in a rat spleen homogenate were determined directly during irradiation of the latter with gamma-rays. The homogenate was prepared in an Ar atmosphere. The concentration of SH-groups was determined by automatic titration. Irradiation was accompanied by a decrease in the level of SH-groups, which reached its lowest point (corresponding to a decrease by 20%) upon absorption of a dose of approximately 500 rad. Further increases in the absorbed dose up to 2500 rad did not produce any significant additional changes in the SH-group level. No more than 20% of the SH-groups were converted, because simultaneous reduction of the disulfide groups that formed took place. After irradiation had been stopped, intensive regeneration of the SH-groups occurred, with the initial level being restored in 20 min. The phenomena in question, although observed in experiments with a homogenate consisting of destroyed cells, probably did not differ from those taking place during irradiation in vivo in view of the fact that most

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USSR

PETROSYAN, E. P., et al., Meditsinskaya Radiologiya, Vol. 17, No 7, Jul 72,
pp 29-32

enzymes are extremely resistant to the effects of radiation.

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Composite Materials

K

UDC 661.191.001.011.03

USSR

KORITSINA, M. V., KUKHAMSKAYA, E. V., and SHERIK, Yu. I., Institute of Silicate Chemistry imeni I. V. Grebenshchikov, Leningrad, Academy of Sciences USSR

"Grafting of Polydimethylsiloxane Macromolecules Onto Surface of Glass Fiber by Thermal Shock Method"

Leningrad, Zhurnal Prikladnoy Khimii, Vol 43, No 9, Sep 70, pp 2350-2354

Abstract: The article describes results of experiments on the grafting of glass in polydimethylsiloxane by the thermal shock method, i.e., by rapidly cooling specimens of alkali-free glass or glass fiber from temperatures of 500-550 to 25° in a toluene solution of polydimethylsiloxane. The hydrophobization of the glass and glass fiber is due to chemical grafting of macromolecules of the organosilicon polymer onto the surface of the glass. The organosilicon film obtained in this way on the glass fiber surface is resistant to thermooxidative degradation up to 450° and endows the glass fiber with high dielectric properties.

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1/2 025 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--HOMOLYTIC DECOMPOSITION OF PEROXYDISUCCINIC ACID --U--
AUTHOR--(03)--NIKISHIN, G.I., KORITSKIY, A.T., STAROSTIN, YE.K.
COUNTRY OF INFO--USSR
SOURCE--IZV. AKAD. NAUK SSSR, SER, KHIM. 1970, (3), 586-91
DATE PUBLISHED--70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL DECOMPOSITION, SUCCINIC ACID, ACETIC ACID, BENZENE,
PROPANOL, ESTER, EPR SPECTRUM, UV LIGHT, CHEMICAL KINETICS, CHEMICAL
REACTION MECHANISM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--2000/0731

STEP NO--UR/0062/70/000/003/0586/0591

CIRC ACCESSION NO--AP0124401

UNCLASSIFIED

2/2 025

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--A0124401

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. KINETIC DATA WERE PRESENTED FOR THE DECOMP. OF THE TITLE ACID (I) RUN IN THE TEMP. RANGE 67-90DEGREES EITHER ALONE OR WITH ADDITIVES SUCH AS ACOH, C SUB6 H SUB6, ISO-PROH, OR I DI-ME ESTER. IN ACOH THE RATE CONST. FOR DECOMP. OF I HAD THE FOLLOWING VALUES (K TIMES 10 PRIMENEGATIVE5 SEC PRIMENEGATIVE1): 75DEGREES 3.98, 80DEGREES 7.23, 85DEGREES 10.87, 90DEGREES 22.5; ITS DI-ME ESTER GAVE THE VALUES OF 3.7, 7.13, --, AND 22.48 UNDER THESE CONDITIONS AND ITS RATE OF DECOMP. WAS APPRECIABLY LOWER IN C SUB6 H SUB6. EPR SPECTRA WERE SHOWN FOR THE SPECIMENS OF I SUBJECTED TO UV ILLUMINATION AT LOW TEMPS. ALONE OR IN ACOH. DECOMP. OF I BY THE THERMAL ROUTE IN ACOH OR C SUB6 H SUB6 WAS FIRST ORDER IN RESPECT TO THE PEROXIDE. IN UV LIGHT THE RADICAL NATURE OF THE REACTION WAS CONFIRMED. REACTION SCHEMES WERE PROPOSED. FACILITY: INST. ORG. KHIM. IM. ZELINSKOGO, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 621.791.921

YUZVENKO, YU. A., PASHCHENKO, M. A., and KORITSKIY, G. G., Institute of Electric Welding imeni Ye. O. Paton, Academy of Sciences Ukrainian SSR

"Application Characteristics of High-Melting Compounds for Arc Welding"

Kiev, Avtomaticheskaya Svarka, No 2, 1973, pp 1-4

Abstract: An all-weld metal produced by electrodes GK-15 (85% Cr_3C_2 and 15% Ni), GK-30 (70% Cr_3C_2 and 30% Ni) with metalloceramic core and EO wire consisting of 60% Cr_3C_2 powder enclosed in a nickel shell was studied in the perpendicular and horizontal cross-sections. The obtained results were compared with the metalloceramic alloys KKhN-15, KKhN-30, KKhN-40, and KKhN-50 containing from 50 to 85% Cr_3C_2 and 15-50% Ni. The microstructure of the all-weld metal consisted of the primary carbides and eutectic carbides. The ditrigonal shape of the primary carbides distorted by various growth defects was characteristic for Cr_3C_2 and Cr_7C_3 carbides. The total concentration of carbides was close to that in the electrodes. The ratio between volumes of the solid solution and eutectic carbides always remained at 5 : 1. Sizes and shape of carbide grains in the parallel and perpendicular cross-sections differed considerably. The columnar structure was characteristic for the

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USSR

YUZVENKO, YU. A., et al, Avtomaticheskaya Svarka, No 2, 1973, pp 1-4

parallel cross-sections, and disoriented for the perpendicular cross-sections. The size of the carbide phase and the total structure of the all-weld metal differed from that of metalloceramic alloys. Sizes of the primary carbides in the weld metal were by one order larger than in the alloys. When BO wire was used for welding of steel the built-up metal contained a noticeable amount of Cr_7C_3 carbide in addition to Cr_2C_2 , which was alloyed with iron and nickel. In some cases up to 50% of the electrode carbide was transformed into Cr_7C_3 carbide, with 15-20% Fe and some amount of free carbon. When high-melting compounds (borides, carbides, silicides, and others) are introduced into the molten bath they undergo dissolution, either partial or complete, in the alloy matrix which becomes alloyed with boron, chromium, carbon, and silicon. This could lead to brittleness of the obtained alloy and appearance of cracks. The wear-resistance of the weld metal was much lower compared with the metalloceramic alloys. In order to eliminate the undesirable characteristics of the weld metal produced by the above electrodes, it is recommended to use induction and electroslag welding with a comparatively low linear welding energy, as well as to use liquid addition and penetrating agents. In the case of arc welding

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USSR

YUZVENKO, YU. A., et al, Avtomaticheskaya Svarka, No 2, 1973, pp 1-4

the high-melting metal should be supplied as an addition agent (powders, rods, mixtures) at the end of the molten bath. The use of high-melting compounds in electrodes is undesirable.

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USSR

UDC 621.777.07.001.5 3

GUN, G. Ya., POLUKHIN, P. I., YAKOVLEV, V. I., YUROV, Yu. V., KORITSKIY,
G. M., PRUDKOVSKIY, B. A., and KUCHERYAYEV, B. V.

"Experimental Investigation of Speed Distribution During Pressing in Multi-
channel Matrices"

Plasticheskaya Deformatsiya Metallov i Splavov, Moscow, No 64, "Metallurgiya,"
1970, pp 177-184

Translation: Results are given of experimental studies to determine the
speeds of metal flow into a matrix with several channels, which form an
established profile divided by crosspieces. Six figures and three tables.

1/1

USSR

UDC 621.762.04:620.17

FEDORCHENKO, I.M., KOPKH, L. M., FUGINA, L. I., PANFILOVA, I. A. and
RUDENKO, V. N., Institute of Problems of Material Science, Academy of
Sciences Ukrainian SSR

"Effect of Technological Factors on the Durability of Sulfidized Iron-
Graphite"

Kiev, Poroshkovaya metallurgiya, No 3, 1972, pp 99-105

Abstract: The strength properties of cermet materials after sintering are governed not only by the composition of the mixture but by a variety of technological factors as well. Varying the alloying efficiency of iron particles with carbon will almost double the strength of sulfidized iron-graphite; raising the dispersity of the starting powders four-fold may increase the material's strength by 30%; reducing the porosity from 30 to 1% will increase the strength characteristics of the material four to five times. Addition of zinc sulfide to alloy the particle contacts with zinc will raise the integral hardness by almost 30%. It has been established that the mechanism of strengthening cermet materials during plastic deformation is determined primarily by the material's initial porosity. (5 illustrations, 2 tables, 11 bibliographic references)

1/1

USSR

UDC 621.762.5

KORKH, L. M., RUGINA, L. I., PEREPELRIN, A. V., and FEDORCHENKO, I. M.,
Institute of Problems of Material Science, Academy of Sciences Ukr SSR

"Processes Occurring During Sintering of Iron-Graphite Containing Zinc Sulfide"

Kiev, Poroshkovaya Metallurgiya, No 1 (97), Jan 71, pp 18-22

Abstract: A study was made of the behavior of zinc sulfide -- one of the basic components introduced into iron-graphite cermets materials to improve their antifriction properties. The paper includes a study of the effect of porosity on the variation in chemical composition of $ZnGr3Ts4$ materials during sintering. The effect of temperature, isothermal holding time, moisture of the protective environment, and its composition (argon, hydrogen) on the intensity of weight loss of the zinc sulfide placed in the heating zone in powdered form was also studied.

It was found that during heating in hydrogen, zinc sulfide can partially decompose. With an increase in the hydrogen temperature and humidity the decomposition intensity increases. During sintering of $ZnGr3Ts4$ in
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USSR

KORKH, L. M., et al, Poroshkovaya Metallurgiya, No 1 (97), Jan 71, pp 18-22

hydrogen, the decomposition products of the zinc sulfide interact with the surface of the iron particles to form iron sulfide and their solid solution in zinc sulfide. At a sintering temperature above 975°C, a liquid phase is formed in the material -- a sulfide-carbide eutectic enveloping the surface of the iron particles -- which during sintering under pressure gives the material its fibrous structure. With a decrease in porosity, the content of sulfur and zinc in the sintered ZnGr3Tss4 material increases. Thus, the nonporous material contains twice as much sulfur and six times more zinc than the material with a porosity of 20 percent.

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USC: None

KORAKHABYAN, S. A.

"Generation of Hard Quanta in Electrical Undulators"

Yerevan, Izvestiya Akadmir Nauk, Armyanskoy SSR, Vol 5, No 6,
1970, pp 418-424

Abstract: The problem of the radiation of particles traveling at speeds approaching that of light in a transverse sinusoidal electric field is considered. The assumption is made that the energy of the particles is constant. A formula is obtained for the n -th harmonic of the radiation which shows that the lower frequency limit is independent of the energy, whereas the upper limit is proportional to the square of the energy. Integrating the expressions for each harmonic between these limits, the author obtains an expression for the full energy radiation per unit path of particle travel. For his numerical calculations, he used the electron computers Razdan-3 and Razdan-2. He also obtains an expression for

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USSR

KORKHMAZIAN, N. A., *Izvestiya Akadmiir Nauk, Armyanskoy SSR*,
Vol 5, No 6, 1970, pp 418-424

the full quantum number per unit path of particle travel, a number independent of the particle energy for each harmonic as well as for the whole radiation. For heavy particles, the number of quanta drops substantially, and magnetic instead of electric undulators can then be used. The author is connected with the Yerevan State University.

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- 82 -

USSR

UDC 539.292:548.73

NEMOSHKALENKO, V. V., GORSKIY, V. V., and KORUKISHKO, R. P.,
Institute of Metal Physics, Academy of Sciences of the USSR

"X-Ray-Spectral Study of the Electron Structure of Nickel and
Aluminum Atoms in the System of Binary Nickel-Aluminum Alloys"

Sverdlovsk, Fizika Metallov i Metallovedeniye, Vol 31, No 3,
Mar 71, pp 634-637

Abstract: Single-phase alloys of nickel with 25, 50, 60, and 75 at. % Al were studied. The emission K spectra of nickel and aluminum were studied and compared with the L spectra presented in the literature. The data produced indicated that the formation of aluminides in the nickel-aluminum system involves a significant redistribution of electrons between the atoms of aluminum and nickel. In contrast to aluminides of the first half of the period, nickel aluminides apparently include both covalent bonds and ionic bonds, the share of ionic bonds being quite high in comparison with the iron-aluminum and cobalt-aluminum systems studied earlier. The change in the form of the Al K β x band in the nickel-aluminum system indicated that, in contrast to the

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USSR

NEMOSHKALENKO, V. V., et al., Fizika Metallov i Metallovedeniye.
Vol 31, No 3, Mar 71, pp 634-637

to the other systems, localization of all p electrons does not occur, some of them supporting conductivity together with the s electrons and participating in the formation of ionic bonds between the atoms of the alloy components.

2/2

USSR

UDC 658.562.011.56

KORKONOSOV, V.P., and PERESYPKIN, A.V."Stability of Radioisotopic Relay-Type Instruments"

V sb. Tochnost' radioelektron. apparatury (Accuracy of Electronic Equipment -- Collection of Works), Sb. 1, Moscow, 1971, pp 167-168 (from RZh-Avtomatika Telemekhanika i Vychislitel'naya Tekhnika, No 1, Jan 72, Abstract No IA576 by B.U.)

Translation: In the operation of radioisotopic relay-type instruments (RRI) the stability of their parameters during variations in the ambient temperature and supply voltage is of particular importance. Since the radioactive radiation sources used in RRI do not depend on these factors, the principal cause of RRI instability is the instability of the detection unit and electronic relay unit. The instability of the detection unit is determined entirely by the instability of the radiation detector that is used. Current RRI most often use scintillation gas-discharge counters as the radiation detector. The instability of detection units (DU) with scintillation counters reaches 20%, while with gas-discharge counters it reaches 10%. The instability of the relay unit depends on the method of processing the statistical information coming from the DU. The use of the discrete information processing method as the basis of relay unit construction is promising from the standpoint of increasing

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USSR

KORKONOSOV, V. P., et al, Technost' radioelektron. apparatury, Sb. 1, Moscow 1971, pp 167-168

RRI stability. A description is given of a relay unit which is based on the discrete information processing method. The instability of its thresholds does not exceed 10% over the entire temperature variation range and does not exceed 1% for supply voltage variations in the range of minus 15% to plus 10% of the rated voltage.

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USSR

K
UDC: 620.193.27

YANDUSHKIN, K. N., and KORKOSH, S. V., Central Scientific Research Institute of Shipbuilding Technology

"Corrosion of Copper-Nickel Sea-Water Pipes"

Moscow, Zashchita Metallov, Vo. 6, no. 4, Jul-Aug 70, pp 429-433

Abstract: A study was made of corrosion distribution over standard elements of copper nickel pipes: branch pipes, elbows, flange couplings, pipes with a pinch (0.1 of the inner diameter of the pipe). The test duration was 6000 hours and the sea-water flow rate was 3, 5, and 7 m/sec. The branch pipe appeared to be subjected to most intensive pitting corrosion. The pits were cavity shaped with maximum depth near the weld. The weld itself showed no appreciable corrosion. A similar picture of corrosion failures was observed at pipe joints tested at current flow rates of 3 and 5 m/sec. The maximum cavity depth in 6000 hours of testing at a flow rate of 7 m/sec was 1.64--2.85 mm and at 3 and 5 m/sec -- 0.25 to 0.64 and 1.24 to 1.48 mm, respectively. Elbows with a bend radius of 2 outer diameters showed pitting corrosion at the area of the bend; the cavity depth was 3.4 mm. Pitting corrosion areas were observed near local obstacles, such as pinches, projecting weld joints, etc.

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1/2 006 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--EFFECT OF ORGANIC SOLVENTS ON THE KINETICS OF THE AQUATION OF
COBALT(III) TRANS BROMO AND IODOSULFITOOXIMINES --U-
AUTHOR--SYRISOVA, G.P., KORLETYANU, L.N., NGUYEN, S.L.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(2), 475-9

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ORGANIC SOLVENT, COBALT COMPLEX, IMINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1987/0306

STEP NO--UR/0078/70/015/002/0475/0479

CIRC ACCESSION NO--AP0103961

UNCLASSIFIED

2/2 006 UNCLASSIFIED PROCESSING DATE--11SEP70
CIRC ACCESSION NO--AP0103961
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RATE OF AQUATION OF TRANS (CDX/ISO
SUB3)(DH) SUB2) PRIME2 NEGATIVE, X EQUALS CL, BR (OR I AND DH EQUALS
MEC(:NDH)C(:NO PRIME NEGATIVE)ME, DECREASED WITH INCREASING CONCEN. OF
ORG. SOLVENT (MEOH, ETOH, ETHYLENE GLYCOL, DIOXANE) IN THE REACTION
MEDIUM. THE VALUES OF DELTA S NOT EQUAL TO, LOG A, AND ARRHENIUS
EQUATIONS FOR THE REACTIONS AT DIFFERENT CONCNS. OF ORG. SOLVENTS ARE
TABULATED.

UNCLASSIFIED

USSR

UDC 535.215

KORLYAKOV, YE. D., Leningrad Higher School of Naval Engineering

"Photovoltaic Effect of Ice"

Tomsk, Izvestiya Vysshikh Uchebnykh Zavedeniy -- Fizika, No 5, 1972, pp 151-152

Abstract: The article describes some results of a study of the photovoltaic effect of ice. The same measuring procedure was used as in studies of the Becquerel effect and mechanovoltaic effect in water. Measuring electrodes were frozen into an electrolyte in a refrigerating unit at -8° C. The base between measuring electrodes was 3 cm, illumination 500 lx. The parabolic interpolation method was used to analyze the results, with calculations limited to a first-order parabolic equation with determination of root-mean-square deviation. V. KHOTIMSKIY's tables were used to facilitate the calculations, which were performed on a Promin'-2 computer. As in the case of the photovoltaic effect in aqueous solutions, the character of variations in the potential difference between the measuring electrodes depends on the character of the treatment of the latter, how long they are in air and in the electrolyte, and the duration and intensity of preillumination.

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USSR

UDC 547.341

KORMACHEV, V. V., MERKULOV, A. V., and KUKHTIN, V. A., Chuvash State
University imeni I. N. Ul'yanov

"Reaction of Phosphorus Pentachloride With Alkadienes"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 10, Oct 73, pp 2157-2159

Abstract: The reaction of phosphorus pentachloride with 2,4-hexadiene was investigated. The addition products of phosphorus pentachloride with butadiene, isoprene, and 2,4-hexadiene were decomposed with a solution of white phosphorus in phosphorus trichloride yielding 4-chloro-2-alkenyldichlorophosphines. These products were reacted with alcohols and mercaptans in presence of triethylamine to yield dialkoxy (dialkyldithio) 4-chloro-2-alkenylphosphonites.

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- 26 -

USSR

UDC 547.341

NASAKIN, O. Ye., KORMACHEV, V. V., MIKHAYLOV, Z. I., and KUNHTIN, V. A.,
Chuvash State University imeni I. N. Ul'yanov

"Reaction of Di(β -chloroethyl) Vinylphosphonate With Trialkylsilyl-
alkanethiols"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 12, Dec 73, pp 2786-2787

Abstract: Di(β -chloroethyl) vinylphosphonate reacts easily with tri-
alkylsilylalkanethiols under UV light for 18-20 hrs at 30-35° yielding
di(β -chloroethyl) β -(trialkylsilylalkylthio)ethylphosphonates, as a
result of an anti-Markovnikov's addition.

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- 40 -

UDC: 632.95

USSR

KORMACHEV, V. V., TSIVUNIN, V. S., ZARETSKIY, Ya. S., KOREN', N. A.

"A Method of Synthesizing Dialkyl (Monothiodialkyl) Esters of β -Methyl- γ -chloropropenylphosphonic Acid"

USSR Author's Certificate No 308013, filed 27 Dec 68, published 7 Sep 71
(from RZh-Khimiya, No 15, Aug 72, Abstract No 15N495P)

Translation: Compounds of the general formula $RO(RX)P(O)CH=C(Me)CH_2Cl$ (I) (R = alkyl, X=O, S) with insecticidal activity and low toxicity for warm-blooded animals are synthesized by reacting β -methyl- γ -chloropropenylphosphonic (thiophosphonic) acid chlorides with alcohols in the presence of tertiary amines. Nineteen and eight tenths grams of $Cl_2P(O)CH=C(Me)CH_2Cl$ is added with cooling to 7.9 grams of absolute ethanol, 13.6 grams of pyridine and 75 ml of absolute ether. The liberated pyridine hydrochloride is filtered, the filtrate is vacuum distilled, and 11.8 grams of I is isolated (R = Et, X = O), yield 55%, melting point 129-31^o/3, n_D^{20} 1.4622, d_4^{20} 1.1954. Other compounds of general formula I are obtained analogously (given are R, X, yield in %, melting point in ^oC/mm, n_D^{20} and d_4^{20}): n-Pr, O, 46.5, 140-1/4, 1.4611, 1.1289; n-Bu, O, 43.9, 140-2/1.0, 1.4629, 1.0706; Et, S, 40.0, 114-6/0.5, 1.5103, 1.2461; n-Pr, S, 41.2, 124-6/0.5, 1.5180, 1.1917; n-Bu, S, 39.8, 136-7/0.3, 1.5129, 1.1501; n-C₆H₁₁, S, 4.12, 157-9/0.5, 1.4995, 1.0949.

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Organophosphorous Compounds

USSR

UDC 546.322'26.118.07

KORMACHEV, V. V., TSIVUNIN, V. S., ZARETSKIY, YA. S., and KOZEN', N. A.

"A Method of Making Dialkyl (Monothiodialkyl) Esters of β -Methyl- γ -Chloro-propenylphosphonic Acid"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 21, Jul 71, Author's Certificate No 308013, Division C, filed 27 Dec 66, published 1 Jul 71, p 79

Translation: This Author's Certificate introduces a method of making dialkyl (monothiodialkyl) esters of β -methyl- γ -chloropropenylphosphonic acid. As a distinguishing feature of the patent, β -methyl- γ -chloropropenylphosphonic (thiophosphonic) acid chlorides are interacted with alcohols in the presence of tertiary amines in an inert organic solvent with subsequent isolation of the goal product by conventional methods.

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USSR

UDC 547.341.

KORMACHEV, V. V., TSIVUNIN, V. S., KOREN', M. A., Kazan' Chemical-
Technological Institute imeni S. M. Kirov, Kazan, Ministry of
Higher and Secondary Specialized Education RSFSR

"Reaction of Phosphorus Pentachloride With Metallyl Chloride"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 9, Sep 70,
pp 1989-1992

Abstract: Phosphorus pentachloride reacts in the cold with metallyl chloride forming a complex, which on treatment with SO₂ or H₂S converts to dichloroanhydrides of β -methyl- γ -chloropropenylphosphonic (I) or thiophosphonic acids. Chlorination of (I) gives a dichloroanhydride of β -methyl- α, γ -dichloropropenylphosphonic acid. The preceding reactions give several esters of β -methyl- γ -chloropropenylphosphonic and thiophosphonic acids, the physical properties of which are tabulated. Dialkyl ethers and the dichloroanhydride of (I) react with sodium alkoxide forming dialkyl esters of β -methyl- γ -alkoxypropenylphosphonic acids. Reacting the dialkyl esters of (I) with diethylamine give dialkyl esters of β -methyl- γ -diethylamino-propenylphosphonic acid.

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USSR

UDC 547.341

KORMACHEV, V. V., TSIVUNIN, V. S., KOREN', N. A., Kazan' Chemical-
Technological Institute imeni S. M. Kirov, Kazan, Ministry of
Higher and Secondary Specialized Education RSFSR

"Reaction of Phosphorus Pentachloride With Ethylmethallyl Ether"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 6, Aug 70,
pp 1711-1713

Abstract: Reaction of phosphorus pentachloride with ethylmethallyl ether in benzene at 0 - -5° gives a complex which may be decomposed with SO₂ to yield a dichloroanhydride of β-methyl-γ-chloro-γ-ethoxypropenylphosphonic acid (I), b.p. 115-117°/2mm, d_4^{20} 1.3117, n_D^{20} 1.4862. When (I) is reacted with sodium alkoxides, dialkoxyphosphone-β-methylethylalkylacryl acetals are obtained. Heating these acetals for 50 hours at 100° with isoprene, an equimolar amount of water, traces of hydrochloric acid, and hydroquinone does not yield any products of the expected diene synthesis, only β-dialkoxyphosphane-α-methylacroleins. Reaction of the latter products with 2,4-dinitrophenylhydrazine gives the corresponding 1/1 hydrazones.

UDC 547.361.341.297.07

USSR

KORMACHEV, V. V., TSIVUNIN, V. S., ZARETSKIY, YA. S., and KOREN', N.A.

"A Method of Synthesizing β -Methyl- γ -chloropropenylphosphonyl
(Thiophosphonyl)Dichlorides"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obratzyy, Tevarnyye
Znaki, No 18, 1970, Author's Certificate No 271517, filed 27 Dec
68, p 24

Abstract: This Author's Certificate introduces a method of synthe-
sizing β -methyl- γ -chloropropenylphosphonyl (thiophosphonyl)
dichlorides. As a distinguishing feature of the patent, phos-
phorus pentachloride is interacted with methallyl chloride with
subsequent decomposition of the resultant adduct by sulfur
dioxide or hydrogen sulfide with cooling and isolation of the
goal product by conventional methods. 2. The method described
in (1) is distinguished by cooling to $-5 - 0^{\circ}\text{C}$.

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Oncology

USSR

UDC 616-006

KORMAN, D. B., BULAYEVSKIY, N. L., and EMANUEL, H. M., Institute of Chemical Physics, Academy of Sciences, USSR

"On the Evaluation of the Efficacy of Antitumor Chemotherapy by Patient Survival"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Biologicheskaya, No 4, 1971, pp 596-606

Abstract: The paper examines the quantitative evaluation of the efficacy of patient treatment on the basis of the supposition that the survival of a patient is determined by the formula $t_m = \tau \gamma$, where t_m is the duration of life from the beginning of therapy until death, τ is the time when the tumor is doubled, and γ is the tumor's growth factor which depends on the size of the tumor at the beginning of therapy and at the time of death. It is assumed that effective therapy prolongs life by destroying part of the tumor cells. Two plans of treatment were considered. With a one-time therapy course the following quantitative parameters were determined: number of patients sensitive to the preparation; number of patients cured as a result of its use; number of patients whose life was prolonged as a result, and the extent of such

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USSR:

KORMAN, D. B., et al., Izvestiya Akademii Nauk SSSR, Seriya Biologicheskaya, No 4, 1971, pp 596-606

prolongation; and the average decrease in size of the tumor from the effect of the therapy. The second plan of treatment (therapy continuous up to time of death) makes it possible by comparing the survival of treated and control patients to determine the proportion of tumor cells destroyed by the preparation at any instant and to establish the time of onset of resistance to the preparation. Investigation by comparison consists of several stages: 1) forming a test group and control group of patients, selected with a similar extent of the process; 2) determination of a reliable difference in the survival in these groups; 3) determination of quantitative characteristics of the direct effect of the preparation on the tumor. Survival of a group of patients is characterized by three parameters: number of cured patients, mean logarithm of period of survival, and standard deviation of the log-normal distribution of such period. There are as yet not enough data on survival of patients treated with chemotherapy, but its widespread use should soon yield the necessary data for evaluation of its effectiveness.

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Acc. Nr:

AP0049172

Abstracting Service:
CHEMICAL ABST. 5-70

Ref. Code:

4R0080

103961e Physicochemical properties of 1,4-tetra- and 1,8-octamethylene diisocyanates. Zhuravlev, E. Z.; Voronina, T. L.; Fereslegina, L. S.; Kormushechikina, A. I.; Konstantinov, I. I. (Inst. Appl. Chem. Acad. Sci. Dzerzhinsk, USSR). Zh. Prikl. Khim. (Leningrad) 1970, 43(1), 169-63 (Russ). From temp. dependence of mol. vols. in $(CH_2)_n(NCO)_2$ with $n = 4$ or 8, as well as from temp. dependence of their d., viscosity and n , it was concluded that the contribution of methylene groups to mol. vols. depends not only on the temp. but also on their location in the mol. Activation energy of flow is increased by 120 cal/mole per CH_2 in the 20-50° interval and by 90 in the 50-80° interval. The NCO group contribution is 2700 cal/mole and 2350 cal/mole, resp. Thus, these isocyanates have a degree of interaction or conjugation not only within NCO groups but also between the terminal NCO groups, which declines with increasing value of n . G. M. Kosolapoff

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KORN, M. Ya.

SPNS 55478
27 MAY 1972
UDC 57.086.8

AN ATTACHMENT FOR LASER MICROIRRADIATION FOR THE BIOLOGICAL MICROSCOPE

[Article by M. Ya. Korn, Institute of Epidemiology and Microbiology named N. P. Gamaleya of the USSR Academy of Medical Sciences, Moscow, Moscow, Bulletin Eksperimental'noy Biologii i Meditsiny, Russian, No 10, 1971, submitted 27 November, 1970, presented by G. V. Vygodchikov, Academician of the USSR Academy of Medical Sciences, pp 117-118]

An attachment was designed for the biological microscope which makes it possible to transform the microscope into a device for laser microirradiation. The attachment was built on the principle of the dome-tically produced luminescent illuminator 01-17 by replacing the interference color-selective plate with an analogous plate having other characteristics, and by having an additional sliding eyepiece. The attachment is easily mounted on any biological microscope and makes it possible, together with microirradiation, to conduct observation and microphotography at any microphoto setting. (Bull. exper. biol., 1971, No 10, p 117)

Microirradiation has been widely used in recent years for its effect on treated cells and cell structures [1, 2]. Comparatively simple devices of special laser microscopes are usually adapted for this purpose [3, 4]. In some studies, one of the eyepieces of a tri-ocular microscope was used for laser microirradiation, and the two others, for observation and for microphotography [5].

The attachment, which makes it possible for any biological microscope to be easily transformed into a device for microirradiation was built on the principle of the dome-tically produced luminescent epa-illuminate 01-17 by a comparatively simple alteration. This alteration consists of replacing the interference color-selective plate, designed to reflect the light-actuating luminescence on an object, with an analogous plate which selectively reflects the spectral region of laser radiation

AA0046402- KORNAUKHOVA N. N.

Soviet Inventions Illustrated, Section II Electrical, Derwent,

1/70

241727 TURBINE FLOWMETER contains housing (1), turbine (2), elastic brackets (3), flow directing part (4), electro-pneumatic transformer (5), ring (6), synchronous motor (7), back flow directing part (8), diaphragm (9), and arm (10). The ring (6) is made from the material with a large coefficient of thermal expansion. With the increase of temperature it reduced the gap between the ring and the hub of the turbine to compensate for the change in viscosity and density of fluid.

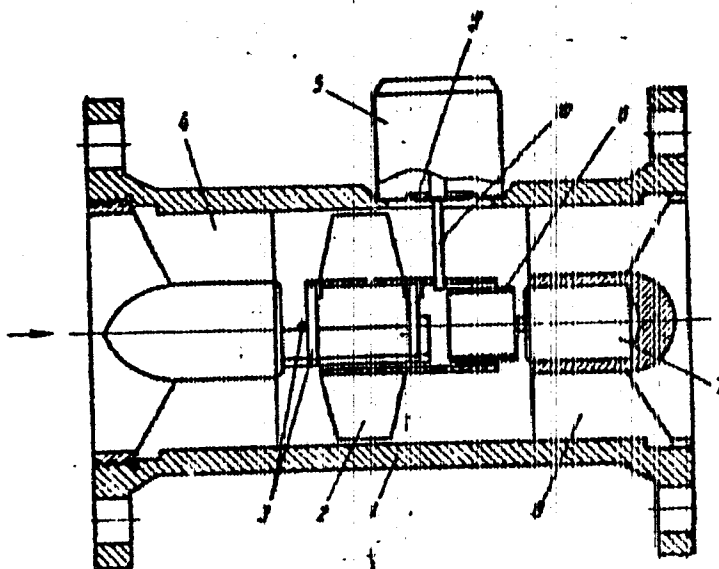
17.1.68 as 1210257/18-10.V.P.SUVOROV et al.THERMAL POWER ENG.RES.INST. (25.8.69) Bul 14/18.4.69. Class 42e. Int.Cl.G 01f.

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AUTHORS: Suvorov, V. P.; Komarovskiy, V. A.; Komlyakov, V. A.; Kornaukhova, N. N.

Gosudarstvennyy Nauchno - Issledovatel'skiy Institut Teploenergeticheskogo
Priborostroeniya

19781598

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KORNDORF S.F.

Acc. Nr.: AP0046400

Ref. Code: UR 0115

USSR

UDC 621.383:531.717

KORNDORF, S. F., and VEDENOV, V. M.

"Photoelectric Method for Control of Rectilinearity"

Moscow, Izmeritel'naya Tekhnika (Measurement Technology), No 1, 1970, pp 30-31

Translation: The article substantiates a photoelectric method for control of rectilinearity using a system of rectangular mirrors and position-sensitive photo-detectors. It was shown that the proposed method enables continuous space and time control of profile rectilinearity of an object directly in linear units. A description is given of an experimental unit in which the energy axis of a laser is used as a straight line specimen. The experimental results of investigation of the unit are presented. (2 figures)

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21 12

Reel/Frame
13781743

USSR

UDC: 771.5

BALABUKHA, N. A., ~~KOENDORE, V. A.~~, PAVLOVA, R. A., All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleev

"A New Standard for the Method of Resolvometric Testing, and Modern Projection Resolvometers"

Leningrad, Issledovaniya v Oblasti Opticheskikh i Svetovykh Izmereniy, Trudy Metrologicheskikh Institutov SSSR, No 114(174), 1970, pp 96-103

Abstract: The article reviews the new State Standard GOST 2819-68 for the method of resolvometric testing of black-and-white and color photographic materials on a transparent base with a resolution of up to 1200 lines/mm. Resolvometric tests of photographic materials with resolutions up to 600 lines/mm should be done with a type OS-16 microscope objective with a number aperture of 0.3. Projection resolvometers type SR-17 and RP-2 are recommended for this resolution range. For testing high-resolution materials, a type OS-8 microscope objective should be used with a number aperture of 0.65 and a type RP-2M resolvometer. The types of presently used resolvometers and the RP-2M resolvometer are described, and the characteristics of the Ascheulov test transparencies used in the resolvometers are given. Fig. 7, bibl. 21.

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USSR

UDC 542.48

DYABLO, V. V., ZASTAVNYUK V. K., KARDASEVICH, O. A., and KORNEICHEV, A. I.
"Calculation of Optimal Parameters of Thermal Distillation Equipment for
Salt Water With Maximum Evaporation"

Moscow, Vodostabzheniye i Sanitarnaya Tekhnika, No 6, 1971, pp 4-8

Abstract: The basic problem facing design of novel desalination equipment is the selection of optimal parameters assuring production of fresh water at minimal cost. A method is reported for determination of such optimal parameters for multiple stage desalination units with maximum evaporation in which the concentration of the solution is brought to about the crystallization point of various salts. To prevent accumulation of sediment on heating surfaces hydrophobic heat carrier is used. An apparatus consisting of the main heater, heat exchange chamber, evaporation chamber, condenser and a pump, and the principles of operation are described in detail. Formulas have been developed, which were solved using the ETRVM "Minsk-22" system. Optimal parameters for desalination equipment have been reported graphically.

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USSR

UDC 66.048

KORNEICHEV, A. I., and DYABLO, V. V.

"Optimal Parameters of Thermal Desalination Plants"

Moscow, Vodostabzheniye i Sanitarnaya Tekhnika, No 8, 1970, pp 1-4

Abstract: Since desalination plants based on the distillation principle are still the most economical (in fact, the only) means of removing salt from large amounts of water, selection of their parameters represents a critical problem. As a guide for this purpose, the authors combine a number of physical (purpose of plant, temperature, use of adaptive evaporation or sudden boiling) and economic factors, to arrive at formulas for selecting optimal parameters. The paper is accompanied by full derivations and a sample calculation.

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USSR

UDC 546.161.541.183.12

KORNELLI, M. E., OLENOVICH, N. L., ENNAN, A. A., SURANOVA, Z. F., KUSHNIR, A. A., and MIKHAYLOVINA, S. K.

"Sorption of Fluoride Ion on Anionite EDE-10F in the Hydroxyl Form"

Kiev, Ukrainskiy Khimicheskiy Zhurnal, Vol 38, No 11, 1972, pp 1172-1174

Abstract: The sorption of fluorine from solutions of NaF and HF by the anionite EDE-10F in the hydroxyl form was studied. Resin in the hydroxyl form, air dried, was loaded into a polyethylene column, and sorption was accomplished by passing solutions of NaF and HF at varying rates of filtration. The anionite was then washed, first with distilled water and then with solutions of either NaOH or KOH. The degree of charging of the ionite during sorption from acidic solutions is significantly higher than that from weakly alkaline solutions (NaF). During the washing of the resin with water there appears a quantity of fluorine which cannot completely be attributed to the hydrolysis of the resin. This is brought about by molecular sorption or desorption from the sorbed material. The first filtrate fractions during elution with alkali have an acidic reaction, which points to desorption into solution of an acidic difluoride ion, which in the process of sorption is taken up by the resin. This is 1/2

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USSR

KORNELLI, M. E., et al., Ukrainskiy Khimicheskiy Zhurnal, Vol 38, no 11, 1972, pp 1172-1174

supported by the bimodality of the elution curve during desorption with alkali, suggesting the presence in the ionite phase of 2 types of ions (F^- and HF_2^-).

By selecting the type of eluent and its concentration in solution during desorption of the fluoride ion from EDE-10pi resin, one can obtain concentrated solutions of metal fluorides. Thus EDE-10P can be used for concentration of fluoride ions in analytical and applied chemistry.

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Pharmacology and Toxicology

USSR

UDC 616.9-022.38-07:616.453-008.6-072.7

REBENOK, Zh. A., and KORNELIYUK, G. P., Chair of Infectious Diseases, Belorussian Institute for Advanced Training of Physicians, Minsk Infection Hospital

"Glucocorticoid Function of the Adrenals in Cases of Food Poisoning"

Moscow, Sovetskaya Meditsina, No 5, 1972, pp 69-71

Abstract: In spite of the fact that symptoms of adrenal insufficiency have been noted in cases of food poisoning and therapists use glucocorticoids in treatment, glucocorticoid function with this disease has been little studied. A group of 113 food poisoning cases were tested for 17-hydroxycorticosteroids (17-HCS) in urine. The cases were of diverse etiology (Staphylococcus, Salmonella and others) with a typical clinical syndrome of food poisoning: acute gastroenteritis and circulatory disorders. A significant decrease in excretion of 17-corticosteroid paralleled the severity of the disease. Even with steroid therapy, excretion of 17-HCS was still significantly less than normal. After ACTH injections, however, the excretion of 17-HCS increased more in the ill persons than in healthy persons, comparing their initial levels of excretion. The low level of 17-HCS may be explained by a complex hormonal situation: a sharply increased tissue demand for glucocorticoids
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USSR

REBENOK, Zh. A., and KORNELYUK, G. P., Sovetskaya Meditsina, No 5, 1972, pp 69-71

and insufficient stimulus, that is, disorder in the regulatory system of hypothalamus -- hypophysis -- adrenals. In severe cases this results in acute adrenal insufficiency. Glucocorticoid therapy of severe forms of food poisoning is indicated.

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- 36 -

USSR

UDC 615.281.8:547.678.3

YERMOL'YEVA, Z. V., Academician of the Academy of Medical Sciences USSR, KORNEYEVA, L. Ye., BALEZINA, G. I., NIKOLAYEVA, O. D., GVAZAVA, I. S., and FADEYEVA, L. L., Institute of Virology imeni D. I. Ivanovskiy of the Academy of Medical Sciences USSR and the Chemical Therapy Group of Academician of the USSR Academy of Medical Sciences Z. V. Yermol'yeva

"Tyleron as an Interferon Inductor"

Moscow, Antibiotiki, Vol 18, No 6, Jun 73, pp 517-520

Abstract: In the current investigation the harmlessness, interferonogenic activity, and protective action (against infectious viral diseases) of tyleron hydrochloride were tested by administering the drug to white mice hypodermically and orally and to monkeys orally. It was established that there is no toxic effect from various dosages of tyleron hydrochloride with either method of introduction. A marked interferonogenic action was obtained where tyleron hydrochloride was given to mice in dosages of 5, 10, and 20 mg/kg and where 25 mg/kg were administered to monkeys. Oral administration proved more beneficial, while no difference was found between a dosage given in one part daily and given in three equal parts daily. Combining tyleron and prodigiozan made it possible to cut the dosage of 1/2

USSR

YERMOL'YEVA, Z. V., et al., Antibiotiki, Vol 18, No 6, Jun 73, pp 517-520

tyleron in half and increased the titer and length of interferon circulation in the blood by 50%. Tyleron was found to have a marked protective effect for influenza pneumonia in mice, despite low titers of circulating interferon. On the basis of this investigation, tyleron hydrochloride may be recommended as an effective interferon inductor.

2/2

- 22 -

KORNEV, L.N.

SPNS 59268
6 73

111-6. STUDY OF THE INTERFACIAL LAYERS OF GERMANIUM OBTAINED FROM EXPANSION:

Article by L. N. Kornev, S. A. Tolstopyanov, G. A. Kuznetsov, L. N. Kornev, E. A. Kabanov, G. A. Korovin, III Sbornik po Protsessam Rosta i Stirovaniya Poluprovodnikov, Krasnoyarsk, Krasnoyarsk, Krasnoyarsk, 12-17 June 1971, p. 171.

1. Layers of germanium were grown by the hydrolysis method in a reactor with high frequency heating and in a metal reactor with direct filament heating on strongly alloyed germanium substrates.

2. The alloyed layers of germanium were grown from a mixture of hydrolyzed germanium with fibrous or phosphorus.

3. The morphology, the structure and the electrical parameters of the germanium layers were investigated as functions of the crystallization conditions: the growth temperature, the hydrolysis concentration, the linear flow rate, and the state of the substrate surface.

USSR

UDC 576.85(478)

MARITS, A. A., CHASHCHINA, I. N., CHERVINSKAYA, S. I., ELKIS, K. U., KORNES, R. V., BELYAYEVA, N. S., CHEBAN, Ye. D., KOTSEFAN, A. S., DOBRUSKINA, S. V., GURCHIOGLUYANTS, L. V., and MIKHAYLOVA, A. A., Moldavian Scientific Research Institute of Hygiene and Epidemiology and Kishinev Sanitary Epidemiological Station

"Fermentation Reaction Types and Colicinogenic Properties of Shigella Sonnei Circulating in the City of Kishinev, and Determining Their Sensitivity to Antibiotics"

Kishinev, Zdravookhraneniye, No 5, Sep/Oct 71, pp 7-9

Abstract: The Shigella sonnei strain accounted for 97.9-99 percent of the cases of dysentery in Kishinev in 1968-70. The object of this study was to identify the types of fermentation reactions of Shigella sonnei isolated in 1968-70 (4,507 cultures), and to study their colicinogenic properties and sensitivity to antibiotics. Shigella bacilli isolated from victims in 1968 were found to be primarily fermentation type II (71.4 percent); in 1969-70, type I bacilli predominated (66.4-94.1 percent); Shigella type III was most frequently isolated from the healthy. The results of studies on colicin production showed that, of 922 cultures, 842 were inactive with respect to E. coli K-12 and E. coli B and ϕ ; 76 cultures were colicin type K-12; 4, colicin type ϕ .
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USSR

MARITS, A. A., et al., Zdravookhraneniye, No 5, Sep/Oct 71, pp 7-9

Among the K-12 type cultures, 54 percent were fermentation type I; 44.3 percent were type II; and 1.2 percent were type III. The cultures isolated in 1969 exhibited a gradual decrease of strains sensitive to levomycetin, and a growing number of strains sensitive to neomycin and monomycin.

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- 30 -

USSR

UDC 616.935:576.8

MARITS, A. A., CHASHCHINA, I. N., CHERVINSKAYA, S. I., ~~FRANKE, M. H.~~, ~~EDLYAYEVA,~~
N. S., CHEBAN Ye. D., KOZDZAN, A. S., KONNES, R. B., ~~BOHLOSHENI, S. V.~~,
GURCHIOGLUYANTS, L. V., and MELANIOTI, A. A., Moldavian Scientific Research
Institute of Hygiene and Epidemiology, and Kishinev Sanitary Epidemiological
Station

"Enzymatic Types of Sonnei Dysentery Pathogens Circulating in Kishinev"

Kishinev, Zdravookhraneniye, No 3, May/June 1970, pp 43-49

Abstract: The number of *Sh. Sonnei* strains isolated in Kishinev in 1968 was more than four times greater than in 1957. Many healthy individuals are carriers of these bacteria. A total of 1,714 cultures of *Shigella Sonnei* were investigated to determine their morphological, peptolytic, antigenic, and other properties, including their ability to ferment sugars to acids. Pathogens were classified into three enzymatic types. Type I -- cultures ferment rhamnose within the first 24 hours of incubation at 37°C, but do not ferment xylose for a week; type II -- cultures ferment rhamnose with a delay (after three to four days), or do not ferment either rhamnose or xylose; type III -- cultures ferment both sugars within the first 24 hours. Of the 1,714 cultures investigated, 72.6% belonged to type II, 21.5% to type I, and 7.1% to type III. The tests are fairly easy and can be performed in routine clinical laboratories.

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1/2 014 UNCLASSIFIED PROCESSING DATE--1900770
 TITLE--A CATHODE WITH SLITS FOR THE ELECTROCHEMICAL POLISHING OF GEARS -U-
 AUTHDR--(04)-GOROBETS, G.K., KUZAMIN, N.F., ~~KOHNEV, A.D.~~, COURTISOV, N.I.
 COUNTRY OF INFO--USSR *R*
 SOURCE--MUSCOW, STANKI I INSTRUMENT, NO 2, 1970, PP 27-28
 DATE PUBLISHED-----70

SUBJECT AREAS--MECH., IND., CIVIL AND MARINE ENGR
 TOPIC TAGS--METAL POLISHING, ELECTROCHEMICAL MACHINING, GEAR CUTTING
 MACHINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
 PROXY REEL/FRAE--1993/1777

STEP NO--0070121770/000700270027/0028

CIRC ACCESSION NO--AP0114276
 UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0114276

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE BENEFITS ACCORDING FROM THE ELECTROCHEMICAL POLISHING OF GEARS ARE NULLIFIED WHEN A CONVENTIONAL FLAT OR ANNULAR CATHODE IS USED, DUE TO APPROXIMATE DOUBLING OF THE TOOTH PROFILE ERROR AS A RESULT OF THE FORMATION OF AN EXCESSIVELY LARGE FLANK. A CATHODE WITH SLITS IS PROPOSED, WHICH PROVIDES FOR INVARIABILITY OF THE TOOTH PROFILE IN POLISHING. A DESCRIPTION OF THE CATHODE IS PRESENTED, AND ITS OPERATION IS DESCRIBED. WHEN GEARS WERE ELECTROCHEMICALLY POLISHED WITH THE USE OF SUCH A CATHODE, WITH A CURRENT DENSITY OF 160 A-DM² AND A TEMPERATURE OF 55 DEGREES C, A PROFILE WAS OBTAINED, THE ERROR OF WHICH CORRESPONDS ESSENTIALLY TO THE INITIAL GRINDING ERROR OF THE TOOTH PROFILE.

UNCLASSIFIED

Powder Metallurgy

UDC: 669.243.73-492

USSR

TSYLOV, B. A., KORNEV, A. V., and IVLEV, V. S.

"Investigating the Process of Obtaining Light Powders by the Thermal Breakdown of Carbonyl Nickel"

Moscow, Tsvetnyye Metally, No 8, Aug 70, pp 26-27

Abstract: A study was made of the process of obtaining light powders by the thermal breakdown of carbonyl nickel. The purpose of the investigation was to determine the optimal starting conditions for the equipment and to study the interrelationship of the parameters in the starting and operating periods of the process. The possibility of intensifying the process without additional heating of the pulverizing equipment was also looked into. The operations involved in the investigation were done with equipment consisting of a pulverizer, a vaporizer, and a thermal-exchange device. These were parallel operations, each being carried out on individual sets of this equipment and under the following conditions: the temperature of the heated gas was held constant and the pressure in the equipment kept within

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USSR

TSYLOV, B. A., et al., Tsvetnyye Metally, No 8, Aug 70, pp 26-27

150-170 mm (water column); tests of the powder were taken hourly from each of the systems; with a bulk-weight increase of more than 0.5 g/cm³, the productivity of the equipment was lowered by reducing the vaporizing rate of the carbonyl nickel, as a result of which the temperature of the pulverizer's upper zone increased with a drop in the powder's bulk weight; with a reduction in the bulk weight below 0.3 g/cm³, the same action occurred in reverse order. After completion of the operations, the equipment was opened and the roofs of the four pulverizers were found to be overgrown with deposits of nickel powder to various extents, depending on the operation period, which differed for each system. A photograph of the deposits on the inner roof of one of the pulverizers is shown.

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1/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70
 TITLE--COLORED ANTISTATIC RUBBERS BASED ON POLAR RUBBER AND AMMONIUM
 THIOCYANATE -U-
 AUTHOR--(02)-KVARDASHOV, V.P., KORNEV, A.YE.
 COUNTRY OF INFO--USSR
 SOURCE--KAUCH. REZINA 1970, 29(3), 47
 DATE PUBLISHED-----70
 SUBJECT AREAS--MATERIALS
 TOPIC TAGS--ANTISTATIC ADDITIVE, ELASTOMER, AMMONIUM COMPOUND,
 THIOCYANATE, NITRILE RUBBER/(U)SKN26 NITRILE RUBBER
 CONTROL MARKING--NO RESTRICTIONS
 DOCUMENT CLASS--UNCLASSIFIED
 PROXY REEL/FRAME--2000/0848 STEP NO--UR/0138/70/029/003/0047/0047
 CIRC ACCESSION NO--AP0124513
 UNCLASSIFIED

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2/2 018

UNCLASSIFIED

PROCESSING DATE--30JCT70

CIRC ACCESSION NG--AP0124513

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A NOVEL METHOD DEVELOPED FOR THE
PREPN. OF ANTISTATIC ELASTOMERS FROM POLAR SKN-26 RUBBER AND 10 PARTS NH
SUB4 SCN IMPROVED THEIR CHEM. STABILITY. FACILITY: MOSK. INST.
TONKUI KHIM. TEKHNOL. IM. LOMONOSOVA, MOSCOW, USSR

UNCLASSIFIED

1/2 017 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--ELECTRICAL PROPERTIES OF CURED RUBBERS BASED ON BUTADIENE NITRILE
RAW RUBBER VULCANIZED BY TETRAMETHYLTHIURAM DISULFIDE --U--
AUTHOR--(02)--KVARDASHOV, V.P., KORNEV, A.YE.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., KHIM. KHIM. TEKHNOL. 1970, 13(1),
116-18
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--ELECTRIC PROPERTY, BUTADIENE, NITRILE RUBBER, VULCANIZATION,
ORGANIC SULFUR COMPOUND, THIOCYANATE, ELECTRIC CURRENT, PHTHALIC
ANHYDRIDE, HYDROQUINONE, HEXAMETHYLENETETRAMINE/1015KN26 NITRILE RUBBER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/0781

STEP NO--UR/0153/70/013/001/0116/0118

CIRC ACCESSION NO--AP0124450

UNCLASSIFIED

2/2 017

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124450

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SKN-26 RUBBER (1) VULCANIZED WITH (ME SUB2 NCS) SUB2 S SUB2 AT 143DEGREES HAD A MARKEDLY LOWER ELEC. BULK RESISTANCE (RHO) DUE TO THE FORMATION OF A CHARGE TRANSFER COMPLEX BETWEEN THE DECOMP. PRODUCTS OF ME SUB2 NCS SUB2 H. AN ELEC. CURRENT FLOWING THROUGH 1 VULCANIZATES WAS A LINEAR FUNCTION OF VOLTAGE. INTRODUCTION OF PHTHALIC ANHYDRIDE, BZOH, (PHNH) SUB2 C4NH, HEXAMETHYLENETETRAMINE, HYDROQUINONE, OR IODINE CAUSED A FURTHER DECREASE IN RHO. FACILITY: MOSK. INST. TONKOI KHIM. TEKHNOL. IM. LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 025 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--SCIENTIFIC WORK DONE IN THE PROBLEM LABORATORY OF THE RUBBER
TECHNOLOGY DEPARTMENT OF THE M. V. LOMONOSOV INSTITUTE OF FINE CHEMICAL
AUTHOR--(04)-KORNEV, A.YE., KAPLUNOV, YA.N., GLAGOLEV, V.A., BUKANOV, A.M.

COUNTRY OF INFO--USSR

SOURCE--KAUCH. REZINA 1970, 29(4), 39-42

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--VULCANIZATION, FILLER, ELECTRIC CONDUCTIVITY, ELASTOMER,
ADHESIVE, SCIENTIFIC R AND D, RUBBER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAE--1997/0534

STEP NO--UR/0138/70/029/004/0033/0042

GIRC ACCESSION NO--AP0119453

UNCLASSIFIED

2/2 025

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0119453

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A REVIEW WITH 25 REFS. TOPICS INCLUDE THE INFLUENCE OF VARIOUS VULCANIZATION RECIPE INGREDIENTS AND FILLERS ON PROPERTIES OF RUBBERS, RESINOUS MIXTS., AND RESINS; ELEC. CONDUCTING ELASTOMERS; USE OF ELASTOMERS AS ADHESIVES; AND TECHNOL. PROCESSES SUCH AS RESIN REGENERATION. FACILITY: MOSK. INST. TONKOI KHIM. TEKHNDL. IM. LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED

Acc. Nr: **APC049802** - Abstracting Service:
CHEMICAL ABST. 5-70

Ref. Code:

W/P 0138

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101498k Rubber-to-plastic bonding in the vulcanization process. Glagolev, V. A.; Il'in, N. S.; Korney, A. E.; Puzrin, B. S. (Mosk. Int. Tekhnol. Tekhnol. in. ~~U.S.S.R.~~ USSR). *Kauch. Rezina* 1970, 29(1), 30-2 (Russ). Natural rubber and synthetic rubbers (Nairit, SKN-26, and SKL-3) were bonded to polyamide, polycarbonate films or glass cloth laminate surfaces with Leikonat (isocyanate adhesive). The bonding of these rubbers to polyethylene or polypropylene required the pretreatment of their surfaces with aq. KMnO₄ soln. Diagrams show the changes of adhesion between these rubbers and polymers in the 20-140° range. CPJR

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REEL/FRAME
19801724

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