USSR

GRIN', V. T., IVANOV, M. YA., KRAYKO, A. N. (Moscow)

"Investigation of the Dynamics of Braking Flow of an Ideal Gas With a Closing Shock Wave"

Moscow, Mekhanika Zhidkosti i Gaza, No 4, Jul-Aug 70, pp 23-32

Abstract: The article deals with the problem of unsteady flow in an axially symmetrical channel with the centerbody in supersonic flow at the inlet and a given pressure (constant with respect to profile and variable with respect to time) in the plane of the outlet. Under steady conditions the closing shock wave is situated below the minimum profile (throat) of the channel. The calculations were carried out by a two-dimensional variant of a difference method, i.e., the equations of unsteady axially symmetrical flow were integrated. At the same time, the difference network was so selected (one cell between the channel walls) that the obtained results are closer to a unidimensional approximation. For the explanation of a series of effects detected in the calculation process (resonance, attenuation of high-

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GRIN', V. T., et al, Mekhanika Zhidkosti i Gaza, No 4, Jul-Aug 70, pp 23-32

frequency oscillation), use was made of solutions obtained on the basis of a linear approximation and a nonlinear approximation of the theory of small perturbations. 9 figures, 12 bibliographic entries.

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UDC 681.332.65

USSR

KRAYKOV, N. N.

"Device for Multiplication of Binary and BCD Codes by Factors"

USSR Author's Certificate No 27114, Filed 17/09/68, Published 19/08/70 (Translated from Referativnyy Zhurnal Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 5, 1971, Abstract No 5B234P)

Translation: There is a well-known device for multiplication of binary and BCD codes by a factor, containing binary and BCD counters, a cycle pulse generator, a code input unit and coefficient input unit, a control unit, tubes and an operation flip-flop. The output of the BCD counter is connected to the ones input of the operation flip-flop, the outputs of which are connected to the control inputs of the two tubes. The other inputs of these tubes are connected to the output of the cycle pulse generator and the output of the coefficient input unit respectively, while the outputs of the tubes are connected to the input of the BCD counter. The input of the binary counter is connected to the cycle pulse generator; the outputs of each digit of this counter are connected to the coefficient input unit; and the busses of the unit for input of codes are connected through the tubes to the ones setting input of the BCD and binary counters; the control

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201610008-1"

USSR

KRAYKOV, N. N., USSR Author's Certificate No 27114, Filed 17/09/68, Published 19/08/70 (Translated from Referativnyy Zhurnal Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 5, 1971, Abstract No 5B224P)

inputs of the tubes are connected to the control unit. The purpose of the invention is to allow multiplication by a binary code. In order to achieve this, the device contains a control flip-flop and switch, controlled by the "0" output of this flip-flop. The "1" output of the control flip-flop is connected to the coefficient input unit. The input of the control flip-flop is connected to the output of the operation flip-flop, the digits of the factor register are connected through a switch to the inputs of the coefficient input unit, the high-order digit of the factor register is connected to the bus controlling the output of the first flip-flop of the binary counter, while each subsequent digit is connected to a bus controlling the output of the next flip-flop in the direction of increasing digit order. 1 fig.

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Acc. Nr.: AP0046773

Ref. Code: UR0113

USSR

UDC 62-752.63.008.5

KRAYNEV, A. L., Ural Auto Plant

"A Meter for Measuring Radial Forces of Collar Seals"

Moscow, Avtomobil'naya Promyshlennost' (Motor Vehicle Industry), No 1, 1970, p 37

Translation: A study was conducted of the design and performance of a meter for fast measurement of the magnitude of forces of collar working edge pressing against the packed shaft and of the radial forces thereby initiated on the meter. (2 illustrations)

REEL/FRAME
19790077

USSR UDC 537.226.33:535.551

KAMZINA, L. S., KRAYNIK, N. N., GENE, V. V., and MYL'NIKOVA, I. Ye., Institute of Semiconductors, USSR Academy of Sciences

"Elasto-Optical Effect in Ferroelectric Materials With a Diffused Phase Transition"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol 35, No 9, Sep 71, pp 1862-1864

Abstract: The authors investigate the elasto-optical effect in ferroelectric materials with diffused phase transition $PbMg_{1/3}Nb_{2/3}O_3$(PMN) and $PbZn_{1/3}Nb_{2/3}O_3$(PZN). They determine the magnitude of the half-wave mechanical stresses in the wavelength band of 4000-7000 Å and measure the variation with temperature of the piezooptical coefficients $\pi_{11}-\pi_{12}$. They also find the dependence of the slope of the double refraction Δn on the size of the mechanical load in the area of diffusion of the phase transition. The authors find that a study of the elasto-optical properties of perovskite type ferroelectric materials permits a better understanding of the nature and character of the diffused phase transition and enables the researcher to distinguish the true electro-optical effect in the total effect; they

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KAMZINA, L. S., et al., Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol 35, No 9, Sep 71, pp 1862-1864

feel that such investigations are of great practical significance. They show graphically the temperature boundary of diffusion for PMN and PZN. The article contains 3 illustrations, 1 table, and 4 bibliographic entries.

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USSR UDC 621.771.01

VYDRIN, V. N., FEDOSIYENKO, A. S., and KRAYNOV, V. I.

"Protsess nepreryvnoy prokatiki" (Continuous Rolling Process), Moscow, Izd-vo "Metallurgiya," 1970, 456 pp

Abstract: Regularities of continuous rolling on a smooth barrel and in roll passes under conditions of cold and hot deformation are discussed on the basis of a unique methodology. Special features of the operation of continuous mills are considered and algorithms describing the process of continuous rolling on equipment of various types are presented. Technological foundations for the automation of continuous mills are established. Particular attention is given to processes taking place in the deformation source which determine the operating conditions of continuous mills.

The book is intended for engineers involved with the technology, equipment, and automation of rolling mills and also for scientific personnel and students at higher educational institutions. 130 figures, 31 tables, 146 references.

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USSR

VYDRIN, V. N., et al., "Protsess nepreryvnoy prokatiki" (Continuous Rolling Process), Moscow, Izd-vo "Metallurgiya," 1970, 456 pp

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VYDRIN, V. N., et al., "Protsess nepreryvnoy prokatiki" (Continuous Rolling Process), Moscow, Izd-vo "Metallurgiya," 1970, 456 pp

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USSR

VYDRIN, V. N., et al., "Protsess nepreryvnoy prokatiki" (Continuous Rolling Process), Moscow, Izd-vo "Metallurgiya," 1970, 456 pp

1/1 008 UNCLASSIFIED PROCESSING DATE--23OCT7C

TITLE--SYNTHESIS OF O HIPPURYL, DELTA GUANIDINO ALPHA L HYDROXYVALERIC ACIC O HIPPURYL L ARGININIC ACID -U-

AUTHOR-(03)-KRAINOVA, B.L., KIPORENKO, S.S., CHAMAM, YE.S.

COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(3), 708-9

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ALIPHATIC HYDROXY CARBOXYL ACID, GUANIDINE, BENZENE DERIVATIVE, AMINE DERIVATIVE

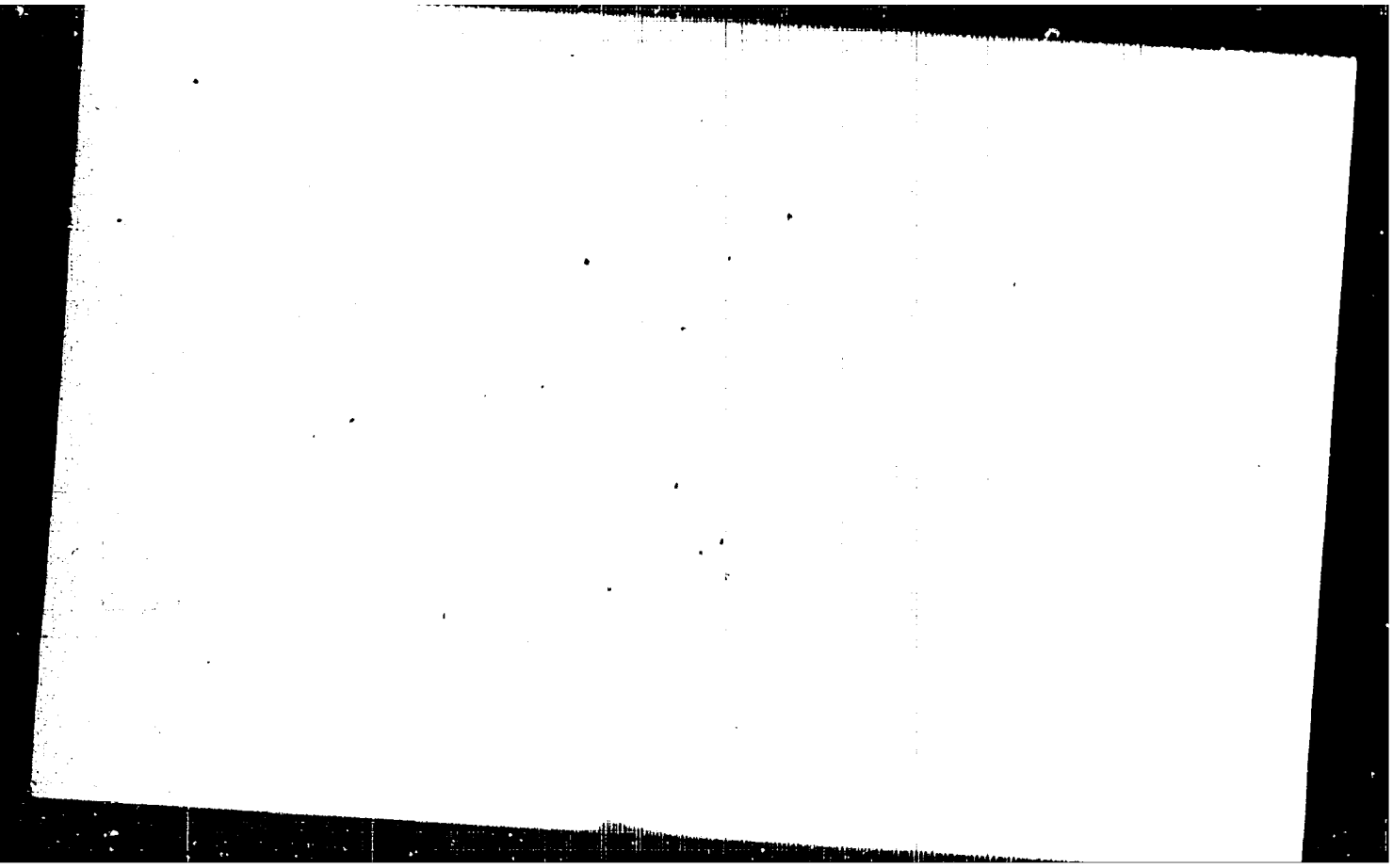
CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/2015 STEP NO--UR/0079/70/040/003/0708/0709

CIRC ACCESSION NO--AP0120658

UNCLASSIFIED



APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201610008-1"

UDC 621.32.032.75

USSR

RODICHEV, Yu. M., CHEMERIS, A. N., PEREVORUKHOV, G. I., AMEL'YANOVICH, K. K., PODGORNYY, L. N., KRAYNOVA, E. A., (Kiev)

"Supporting Power of Spherical Ceramic Shells Under External Pressure"

Kiev, Problemy Prochnosti, No 8, 1972, pp 26-29.

Abstract: Results are presented from tests of spheres of an aluminum ceramic under external pressure conditions. It is established that the initial geometric imperfections of the shells, characteristic for ceramic technology, have just as great an influence on the stability of ceramic spheres as on metallic spheres. The high strength of the aluminum ceramic in the shells, evidenced both with single-cycle and repeated-cycle applications of external pressure, is noted. It is remarked that an earlier work [Stachiv, I. D., "Design Parameters for Glass and Ceramic Underwater Structures," Ceramic Age., Vol 81, No 6, 1965] recommends that k be taken as 0.7 in the Zoll formula for critical pressure. The results of this study show that the value of k for spheres with deviations typical for ceramic technology may be lower. The following formula is recommended for aluminum ceramic spheres with h/R ratios of 40:

$$P_{cr} = \frac{0.55-0.40}{\sqrt{1-\mu^2}} E (h/R)^2. \quad (6)$$

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UDC 621.32.032.75

RODICHEV, Yu. M., CHEMERIS, A. N., PEREVORUKHOV, G. I., AMEL'YANOVICH, K. K., PODGORNYY, L. N., KRAYNOVA, E. A., Kiev, Problemy Prochnosti, No 8, 1972, pp 26-29.

The ceramic spheres are found to be capable of withstanding compressive stresses of up to 70% of the ultimate strength without residual changes in shape or dimensions, as long as the walls of the spheres do not have significant thickness variations.

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USSR

UDC 621.32.032.75

RODICHEV, Yu. M., CHEMERIS, A. N., PEREVORUKHOV, G. I., AMEL'YANOVICH, K. K., PODGORNYY, L. N., KRAYNOVA, E. A., (Kiev)

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Kiev, Problemy Prochnosti, No 8, 1972, pp 26-29.

Abstract: Results are presented from tests of spheres of an aluminum ceramic under external pressure conditions. It is established that the initial geometric imperfections of the shells, characteristic for ceramic technology, have just as great an influence on the stability of ceramic spheres as on metallic spheres. The high strength of the aluminum ceramic in the shells, evidenced both with single-cycle and repeated-cycle applications of external pressure, is noted. It is remarked that an earlier work [Stachiw, J. D., "Design Parameters for Glass and Ceramic Underwater Structures," Ceramic Age., Vol 81, No 6, 1965] recommends that k be taken as 0.7 in the Zolli formula for critical pressure. The results of this study show that the value of k for spheres with deviations typical for ceramic technology may be lower. The following formula is recommended for aluminum ceramic spheres with R/h ratios of 40:

$$P_{cr} = \frac{0.35\text{-}0.40}{\sqrt{1-\mu^2}} E (h/R)^2. \quad (6)$$

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USSR

UDC 621.32.032.75

RODICHEV, Yu. M., CHEMERIS, A. N., PEREVORUKHOV, G. I., AMEL'YANOVICH, K. K., PODGORNYY, L. N., KRAYNOVA, E. A., Kiev, Problemy Prochnosti, No 8, 1972, pp 26-29.

The ceramic spheres are found to be capable of withstanding compressive stresses of up to 70% of the ultimate strength without residual changes in shape or dimensions, as long as the walls of the spheres do not have significant thickness variations.

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USSR

UDC 539.12.08

KEIRIM-MARKUS, I. B., KOROLEVA, T. V., KRAYTOR, S. N., and USPENSKIY, I. N.

"The Characteristics of the DIMA Personal Neutron Track Dosimeter"

Moscow, Atomnaya Energiya, Vol 34, No 1, Jan 73, pp 11-15

Abstract: The characteristics of the DIMA personal neutron dosimeter, consisting of track detectors of fission fragments from Np^{237} beyond a 0.1 g/cm^2 B^{10} filter and U^{235}, are investigated. They include the sensitivity of the dosimeter, its reading dependences on the distance from the human body surface and the radiation incidence angle, and the influence of the neutron spectrum on the track level. The characteristics of the DIMA personal neutron track dosimeter are shown for five types of neutron spectra and dosimeter locations. The average value of the track level, 2.3 mrad/track·mg Np^{237}, has a dispersion of ±8% and is shown to correspond to the calculated value of 2.2 mrad/track·mg Np^{237}. Four figures, two tables, six formulas, fourteen bibliographic references.

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USSR

UDC 539.1.074.3

KRAYTOR, S. N., KOSHAYEVA, K. K.

"The Scintillation Characteristics of the FS-1 Zinc Sulfide Luminophore"

Khar'kov, Monokristally, Stsintillyatory i Organicheskiye Lyuminofory -- Sbornik (Monocrystals, Scintillators, and Organic Luminophores -- Collection of Works), No 5, 1970, pp 101-105 (from Referativnyy Zhurnal, Metrologiya i Izermitel'naya Tekhnika, No 12, 1970, Abstract No 12.32.1501.)

Translation: The scintillation characteristics of the FS-1 luminophore in the case of excitation by α-particles were measured with account taken of weakening of the scintillations in the luminophore layer. It is shown that in this case the relationship of the scintillation amplitude to the energy of the α-particles is linear in the range of 2.5-5.0 mev, and that the light output of this range is constant. The relationship of the scintillation amplitude to the thickness of luminophore FS-1 has been calculated and experimentally measured for α- particles with an energy of 4.65 and 3.3 mev. The obtained results are compared with the data of some other works. 4 figures. 5 bibliographic entries.

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1/2 038 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--ELECTRICAL AND OPTICAL PROPERTIES OF STRONTIUM TITANATE SEMICONDUCTOR SINGLE CRYSTALS -U-

AUTHOR-(05)-ROZHDESTVENSKAYA, M.V., SHEFTEL, I.T., STOGOVA, V.A., KOZYREVA, M.S., KRAYUKHINA, E.K.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970, 12(3), 873-8

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--SEMICONDUCTOR SINGLE CRYSTAL, STRONTIUM COMPOUND, TITANATE, SEMICONDUCTOR CONDUCTIVITY, TEMPERATURE DEPENDENCE, ELECTRON MOBILITY, PHASE TRANSITION, HALL EFFECT, IMPURITY LEVEL, CERIUM, NIOBIUM, PEROVSKITE, ABSORPTION SPECTRUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1987/1994 STEP NO--UR/0181/70/012/003/0873/0878

CIRC ACCESSION NO--AP0105068

UNCLASSIFIED

2/2 038 UNCLASSIFIED

CIRC ACCESSION NO--AP0105068 PROCESSING DATE--23OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RESULTS ARE GIVEN OF THE MEASUREMENTS OF THE TEMP. DEPENDENCE OF ELEC. COND. (SIGMA) AT 300-78DEGREESK FOR SRTIO SUB3 CRYSTALS DOPED WITH VARIOUS AMTS. OF CE AND NB AND ALSO REDUCED IN H. FOR CRYSTALS DOPED WITH CE, THE TEMP. DEPENDENCE OF MOBILITY IS GIVEN. DECREASE IN SIGMA WITH INCREASING TEMP. IS A RESULT OF DECREASED MOBILITY OF CHARGE CARRIERS. THE PRESENCE OF BREAKS IN THE TEMP. DEPENDENCE OF SIGMA IS RELATED TO THE DISTORTION OF THE LATTICE OF SRTIO SUB3 ON COOLING AND TO THE PHASE TRANSITION AT 110DEGREESK. MEASUREMENTS OF THE HALL EFFECT AT ROOM TEMP. SHOWED THAT THE HALL CONCN. OF CHARGE CARRIERS IN CRYSTALS WITH VARIOUS CONTENTS OF CE AND NB PRACTICALLY COINCIDES WITH THE IMPURITY CONCN. DETD. BY SPECTRAL ANAL. IT IS ASSUMED THAT CE PRIME3POSITIVE REPLACES SR PRIME2POSITIVE AND NB PRIME5POSITIVE REPLACES TI PRIME4POSITIVE IN THEPEROVSKITE LATTICE, THUS CREATING 1 FREE ELECTRON. FOR THIS SERIES OF CRYSTALS, ABSORPTION SPECTRA WERE INVESTIGATED. IN THE CASE OF DOPING WITH CE, THE ABSORPTION COEFF. DEPENDS ON THE CONTENT OF THE DOPING IMPURITY. AT THE ABSORPTION MAX. AT WAVELENGTHS OF 0.5 AND 1.2 MU, THE ABSORPTION COEFF. DEPENDS LINEARLY ON THE CONCN.

UNCLASSIFIED

1/2 008 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--SYNTHESIS AND SOLVOLYSIS OF SOME DERIVATIVES OF 1 BROMOMETHYL ADAMANTANE -U-

AUTHOR-(03)-DANILENKO, G.I., KRAYUSHKIN, M.M., SEVOSTYANOVA, V.V.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (2), 444-5

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL SYNTHESIS, BROMINATED ORGANIC COMPOUND, ADAMANTANE, HYDROXYL RADICAL, SOLVENT ACTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0849 STEP NO--UR/0062/70/000/002/0444/0445

CIRC ACCESSION NO--AP0119753

UNCLASSIFIED

2/2 008 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0119753

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HEATING 1,PHENYL,3,ADAMANTANECARBOXYLIC ACID WITH MEOH CONCD. H SUB2 SO SUB4 4 HR GAVE 90PERCENT ME ESTER, B SUB1 169-70DEGREES, WHICH LIALH SUB4-ET SUB2 O 1 HR GAVE 92PERCENT 1,PHENYL,3, (HYDROXYMETHYL) ADAMANTANE, M. 73-4DEGREES. THIS 45PERCENT HBR IN ACOH GAVE THE 3, (PROMOMETHYL) ANALOG, M. 72-3DEGREES. HEATING 1,BROMO,3, (BROMOMETHYL) ADAMANTANE 3 HR AT 100DEGREES WITH 85PERCENT HCO SUB2 H GAVE 85PERCENT 1,HYDROXY,3, (BROMOMETHYL) ADAMANTANE, M 88DEGREES, WHICH REFLUXED WITH SOCL SUB2 0.5 HR GAVE 1,CHLORO,3, (BROMOMETHYL) ADAMANTANE, M 104DEGREES. 1,BROMO,3, (BROMOMETHYL) ADAMANTANE IN COND. H SUB2 SO SUB4 WAS TREATED AT OODEGREES WITH CL SUB2 C:CH SUB2 AND KEPT 1 HR AT ROOM TEMP. TO GIVE 65PERCENT 1, (BROMOMETHYL) 3, ADAMANTANEACETIC ACID, M 124-5DEGREES, WHICH WAS CONVERTED AS ABOVE INTO ME ESTER, B SUB2 113-15DEGREES. KINETIC DATA ARE REPORTED ON THE SOLVOLYSIS OF 3 SUBSTITUTED 1, (BROMOMETHYL) ADAMANTANES IN 80PERCENT AQ. DIOXANE AT 150DEGREES (CF. K. ET AL., 1969); RATE CONSTS. (K TIMES 10 PRIME5 MIN PRIMENEGATIVE1) WERE TABULATED FOR INDICATED SUBSTITUENTS: H, 3.47; PH, 2.34; OH, 1.89; P,O SUB2 NC SUB6 H SUB4, 1.43; CO SUB2 H, 1.46. FACILITY: INST. ORG. KHIM. IM. ZELINSKOGO, MOSCOW, USSR.

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--13NOV70

1/2 025

TITLE--GEOCHEMICAL COMPARISON OF CRUDE OILS FROM THE UKRAINIAN PLATFORM -U-

AUTHOR-(03)-POKFIRYEV, V.D., KRAYUSHKIN, V.A., KALAKOV, S.

COUNTRY OF INFO--USSR

SOURCE--DOPOV. AKAD. NAUK UKR. RSR, SER. B 1970, 32(4), 327-9

DATE PUBLISHED-------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, MATERIALS

TOPIC TAGS--CRUDE OIL, GEOCHEMISTRY, VANADIUM, NICKEL, OPTIC PROPERTY, CHEMICAL COMPOSITION, GEOGRAPHIC LOCATION, PETROLEUM DEPOSIT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3005/2005 STEP NO--UR/0462/70/032/004/0327/0329

CIRC ACCESSION NO--AT0133840
UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--13NOV70

2/2 025

CIRC ACCESSION NO--AT0133840

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. OIL IS PRODUCED FROM THE UPPER EOCENE AND PALEOCENE FORMATIONS IN THE TITLE FIELD. BOTH PETROLEUMS HAVE A NEARLY SIMILAR SET OF TRACE ELEMENTS IN THEIR ASHES, A V-NI RATIO OF 0.4 AND 0.6, D. OF 0.8707 AND 0.8735, RESIN CONTENT OF 14 AND 15.3PERCENT, ASH CONTENT OF 0.1o66o AND 0.0107PERCENT, AND SIMILAR OPTICAL ACTIVITY. THE HIGHER ASH CONTENT IN EOCENE OILS WAS ATTRIBUTED TO A POSSIBLE SECONDARY ASSIMILATION OF ASH ELEMENTS FROM SEDIMENTARY FORMATIONS DURING MIGRATION OF OIL OVER A LONGER DISTANCE. ALL THIS INDICATED A SINGLE DEEP SEATED SOURCE FROM WHICH BOTH PETROLEUMS MIGRATED VERTICALLY ALONG THE FAULT ZONES. FACILITY: INST. GEOL. NAUK, KIEV, USSR.

UNCLASSIFIED

1/2 023 UNCLASSIFIED PROCESSING DATE--11DEC70

TITLE--GEOCHEMICAL ASPECTS OF PETROLEUM MIGRATION IN THE SOVIET VOL POOL -U-

AUTHOR-(03)-PORFIRYEV, V.B., KRAYUSHKIN, V.A., KAZAKOV, S.B.

COUNTRY OF INFO--USSR

SOURCE--DOPOV. AKAD. NAUK UKR. RSR, SER. B 1970, 32(5), 398-400

DATE PUBLISHED-------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, MATERIALS

TOPIC TAGS--PETROLOGY, GEOCHEMISTRY, PETROLEUM DEPOSIT, GEOGRAPHIC LOCATION, CHEMICAL COMPOSITION, CRUDE OIL, NICKEL, VANADIUM, COPPER, MAGNESIUM, IRON, LEAD, ZINC, SILVER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY FICHE NO----FD70/605060/F05 STEP NO--UR/0442/70/032/005/0398/0400

CIRC ACCESSION NO--AT0144415
UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--11DEC70

2/2 023

CIRC ACCESSION NO--AT0144415

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE COMMON ORIGIN OF ALL OILS IN THE TITLE POOL AND THE VERTICAL MIGRATION FROM SOURCE ROCKS INTO CORRESPONDING TRAP STRUCTURES WERE PROVEN BY GEOCHEM. STUDY OF OILS FROM 9 DEPOSITS. THE SET OF CHEM. ELEMENTS, CHARACTERIZING THE AT. SPECTRAL COMPN. OF ASHES FROM OILS, IS SIMILAR FOR ALL 9 PRODUCTIVE HORIZONS STARTING FROM OLIGOCENE FORMATIONS IN THE BORISLAV UNDERTHRUST TO MIOCENE RESERVOIR ROCKS IN BORISLAV ANTICLINE. NI, V, CU, CO, MO, FE, AG, PB, AND ZR WHICH ARE PRESENT AS ORGANOMETALLIC COMPDS. OF PORPHYRIN TYPE, HAVE GENETIC CORRELATION SIGNIFICANCE, SUGGESTING THAT ALL OILS WERE DELIVERED INTO RESERVOIR ROCKS FROM A SINGLE DEEP SEATED SOURCE ROCK. FACILITY: INST. GEOL. NAUK, KIEV, USSR.

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE-- 11DEC70

1/3 031

TITLE--ASH COMPOSITION OF CRUDE OILS FROM THE PRESENT STAGE OF PRIPYAT BASIN -U-

AUTHOR-(03)-PORFIRYEV, V.B., KRAYUSHKIN, V.A., KAZAKOV, S.B.

COUNTRY OF INFO--USSR

SOURCE--DOPOV. AKAD. NAUK UKR. RSR, SER. B 1970, 32(2), 121-4

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--PETROLEUM DEPOSIT, GEOGRAPHIC LOCATION, CRUDE OIL, COMBUSTION PRODUCT, CHEMICAL COMPOSITION, VANADIUM, ZINC, IRON, COBALT, CALCIUM, SILVER, CHROMIUM, BARIUM, COPPER, LEAD

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY FICHE NO----FD70/005060/E07 STEP NO--UR/0442/70/012/002/0121/0124

CIRC ACCESSION NO--AT0144401

2/3 031 UNCLASSIFIED PROCESSING DATE--11DEC70

CIRC ACCESSION NO--AT0144401

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ELEMENTARY COMPN. OF ASH OBTAINED FROM CRUDE OILS OF 5 WELLS OF THE RECHITSA OIL FIELD AND OF A WELL OF THE OSTASHKOVITSE OIL FIELD, RECENTLY DISCOVERED IN THE PRIPYAT BASIN OF BELORUSSIA, IS TABULATED. THE D. OF THE RECHITSA PETROLEUMS VARIES FROM 0.852 TO 0.866, THE AV. TAR CONTENT IS 20 VOL. PERCENT, AND THE ASH CONTENT IS 0.0099-0.018 WT. PERCENT. THE D. OF THE OSTASHKOVITSE PETROLEUM IS 0.8200, THE TAR CONTENT 12 VOL. PERCENT AND THE ASH CONTENT 0.002 WT. PERCENT. THE MAIN COMPONENT OF THE ASH WAS NI; FROM 31.4 TO 83.5PERCENT IN RECHITSA SAMPLES, AND 28.7PERCENT IN THE OTHER. NEXT IN THE ORDER OF CONCN. WAS NA; FROM 2.0 TO 25.1PERCENT IN THE RECHITSA SAMPLES, AND 21.5PERCENT IN THE OSTASHKOVITSE SAMPLE. CONCNS. OF V, ZN, FE, CO, AND CA VARIED IN MOST CASES FROM 1 TO 5.2PERCENT. ALSO PRESENT WERE AG (10+110 TIMES 10 PRIME NEGATIVE5PERCENT), AL (0.11-0.65PERCENT), BA (0.012-0.31PERCENT), CO (0.16-0.70), CR (0.07-1.07), CU (0.018-0.-72PERCENT), LA (0.003-0.006PERCENT), MG (0.12-0.57 IN RECHITSA SAMPLES, BUT 3.4PERCENT IN THE OSTASHKOVITSE SAMPLE), MN (0.021-0.080PERCENT), MO (0.0016-0.0056), PB (0.029-0.10PERCENT), SI (GREATER THAN 3.0PERCENT IN ALL SAMPLES), SN (0.019-0.026PERCENT), SR (0.020-0.132PERCENT IN RECHITSA SAMPLES, BUT 0.25PERCENT IN THE OSTASHKOVITSE SAMPLE), TI(0.019-0.036PERCENT), AND ZR (0.0009-0.0016). BE WAS DETD. ONLY IN ONE OF THE RECHITSA SAMPLES (6.3 TIMES 10 PRIME NEGATIVE5PERCENT), WHILE BI WAS PRESENT IN ANOTHER RECHITSA ASH (9.2 TIMES 10 PRIME NEGATIVE4 PERCENT). THE V-NI RATIO VARIED FROM 0.011:1 TO 0.95:1 IN THE RECHITSA SAMPLES, AND IT WAS 0.0045:1 IN THE OSTASHKOVITSE SAMPLE.

UNCLASSIFIED

3/3 031 UNCLASSIFIED PROCESSING DATE--11DEC70

CIRC ACCESSION NO--AT0144501

ABSTRACT/EXTRACT--ALL OF THE PETROLEUMS STUDIED WERE CONSIDERED TO BE GENETICALLY RELATED AND DERIVED FROM A COMMON DEEP FORMATION POOL. ONLY BE, BI, MO, SN, AND ZR COULD NOT BE CONSIDERED AS THE INVARIABLE COMPONENTS OF THESE PETROLEUMS. GEOL. CROSS SECTIONS ARE REPRODUCED WHICH GIVE, TO A CERTAIN EXTENT, AND EXPLANATION OF THE ENRICHMENT OF THE CRUDE OIL IN THE ASH COMPONENTS DURING ITS MIGRATION. A CONNECTION WITH THE CARBONATE COLLECTORS OF THE SEMILUTSK-BOREG-VORONEZH HORIZON OF THE UPPER DEVONIAN FRASNIAN STAGE IS DISCUSSED AND CONSIDERED POSSIBLE. FACILITY: DERZH. NAUK.-DOSLID. PROIEKT. INST. NAFTODOBUV. PROM., KIEV, USSR.

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--16OCT70

1/2 013

TITLE--EFFECT OF MELANOIDIN FORMATION ON THE ACID RESISTANCE OF MALT BETA AMYLASE -U-

AUTHOR-(03)-ZHEREBTSOV, N.A., KHARIN, S.YE., KRAYUSHKINA, E.A.

COUNTRY OF INFO--USSR

SOURCE--PRIKL. BIOKHIM. MIKROBIOL. 1970, 6(1), 51-7

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--INHIBITION, AMYLASE, HEPARIN, PROTEIN

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/0962 STEP NO--UR/0411/70/006/001/0051/0057

CIRC ACCESSION NO--AP0109119

UNCLASSIFIED

2/2 013 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0109119

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE INHIBITORY EFFECTS OF MELANOIDINS ON BETA AMYLASE SEEM TO BE RELATED TO THE POLYANION NATURE OF THESE COMPDS. BETA AMYLASE ACTIVITY IN ACID MEDIA HAS STRONGLY REDUCED BY OTHER ACIDIC HIGH MOL. WT. COMPDS., INCLUDING HEPARIN, TANNIN, AND PROTEIN DEAMINATED BY THE VAN SLYKE METHOD. INHIBITION OF MALT BETA AMYLASE BY HIGH MOL. WT. ACIDIC COMPDS. SEEMS TO DECREASE WITH INCREASING CONCN OF H PRIME POSITIVE. FACILITY: VORONEZH TECHNOL. INST., VORONEZH, USSR.

UNCLASSIFIED

Theoretical Automation

USSR

KMC 8.74

KRAYZMER, L. P., MATYUKHIN, S. A., and MAYORKIN, S. G.

"Memory of Cybernetic Systems (Principles of Mnemonics)"

Pamyat' kiberneticheskikh sistem (osnovy mnemologii) (cf. English above), Moscow, "Sov. Radio," 1971, 399 pp, ill. 1 r. 29 k. (from Rzh-Matematika, No 5, May 72, Abstract No 5V479K by V. MIGHEYEV)

Translation: The work sets forth the principles of mnemology -- the body of knowledge about the memory of cybernetic systems. Questions of the organization, structure, and functioning of the memory of technical and biological systems are dealt with. The book consists of 12 chapters. In Chapter I the authors note the important role of the memory in cybernetic systems and examine the principles of information accumulation and certain questions of terminology. Chapter II gives a general survey of ideas about memory and data-storage devices, beginning with the precybernetic period. Chapter III presents basic parameters, a classification, and comparative characteristics of technical storage devices with human memory. Chapter IV discusses the question of a material medium as an information file. Chapter V is devoted to the classification and general characteristics of biological and technical storage elements. Chapter VI presents concepts of the neuron networks of living organisms and the

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USSR

KRAYZMER,L. P., et al., Pamyat' kibernetícheskikh sistem (memory memories) "Sov. Radio", 1971, 399 pp.

idea of a trace in biological neuron networks and artificial networks of formal neurons. It also presents basic circuits of technical storage units. Chapter VII considers the structural peculiarities of the memory of computers, and questions of the localization and hierarchy of human memory. Chapter VIII discusses questions of data input and output in biological and technical memory systems. Chapter IX gives a characterization of read-only memories (ROMs) considers the question of employing holographic methods of data representation in ROMs, and gives a description of genetic memory. Chapter X is devoted to questions of information retrieval in the memory. Chapter XI sets forth questions of the operating stability of storage units, informational reliability of the memory, and structural redundancy in storage units. Chapter XII considers the prospective lines of further research and development in the field of technical and biological memory devices.

2/2

UDC: 8.74

USSR

KRAYZMER, L. P., MATYUKHIN, S. A., MAYOROKIN, S. G.

"[redacted]mory in Cybernetic Systems (Principles of Mnemolo[illegible])"

Pamyat' kiberneticheskikh sistem (osnovy mnemologii) (cf. English above), Moscow, "Sov. radio", 1971, 399 pp, ill, 1 r. 29 k. (from RZh-Kibernetika, No 5, May 72, Abstract No 5V479 K)

Translation: The book presents the principles of mnemology -- the study of memory in cybernetic systems. Problems of the organization, structure and functioning of memory in technical and biological systems are considered from common procedural standpoints. The book consists of twelve chapters. In chapter I the authors note the important part played by memory in cybernetic systems, consider the principles of accumulating information, and discuss certain questions of terminology. Chapter II contains a general survey of the concepts of memory and data storage devices beginning with the precybernetic period. Chapter III gives the basic parameters, classification and comparative characteristics of technical storage devices and the human memory. In chapter IV the problem of a material medium as an accumulator of information is discussed. Chapter V is devoted to classification and to the common characteristics of biological and technical

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USSR

KRAYZMER, L. P. et al., Pamyat' kiberneticheskikh sistem (osnovy mnemologii), Moscow, "Sov. radio", 1971

memory elements. Chapter VI deals with the concepts of neuron networks in animate organisms, the idea of a trace in networks of biological neurons and artificial networks of formal neurons, as well as presenting basic circuits for technical memory units. Chapter VII examines the particulars of memory structure in cybernetic systems, memory structure in computers, and problems of localization and hierarchy in the human memory. In chapter VIII, problems of input and output of information in biological and technical memory systems are discussed. Chapter IX gives the characteristics of permanent memory devices, examines the question of using holographic methods of data representation in permanent memories, and describes the genetic memory. Chapter X deals with problems of data retrieval in a memory. Chapter XI takes up problems of operational stability of a memory device, informational reliability of a memory, and structural redundancy in a memory device. Chapter XII examines prospects for the development of further research and advance in the field of technical and biological memory units. V. Mikheyev.

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USSR UDC:621.791.052.01:620.192.4:669.15-194

SHRON, R. Z., NIKANOROVA, N. I., KRECHET, L. E., Urals Heat-Engineering Institute, ZEMZIN, V. N. and ZHITNIKOV, N. P., Central Boiler and Turbine Institute

"Influence of Dispersion Hardening on the Tendency of Welded Joints in Chrome-Molybdenum-Vanadium Steels Toward Brittle Rupture at High Temperatures"

Moscow, Svarochnoye Proizvodstvo, No 12, Dec 73, pp 1-5

Abstract: This work studies the influence of dispersion hardening on the ductility and tendency toward brittle rupture at high temperatures of welded joints in steels types 12KhlMF and 15KhlM1F. This study showed the influence of dispersion hardening in heated areas on the tendency of these alloys to local brittle ruptures during heat treatment and use in the untempered and low-tempered states. Heat treatment with high tempering increases ductility and the brittle-rupture resistance of these alloys. To prevent brittle rupture, the holding temperature of steam pipes during heat treatment should be at least 720° C.

1/1

Welding

USSR UDC: 621.791.052:669.295:620.192.4

KRECHETOV, A. D., SINDYUKAYEV, N. P. (Engineers) and [illegible]OVINKINA, T. P.

"Structure and Properties of a Welded Joint of VT6S Titanium Alloy"

Moscow, Svarochnoye proizvodstvo, No 1, Jan 72, pp 21-22

Abstract: The central purpose of this study was the structure and properties of a welded joint of VT6S titanium alloy made by various welding techniques including continuous arc welding, indirect pulsed arc welding, and two-sided pulsed arc welding. The microstructure of the weld metal is identical in all three methods and comprises α+α'-phases. The grain size in the transition zone is the same in all welds. However, two-sided pulsed arc welding shows a finer grain in the center of the weld than the other two welding methods. The microhardness of the weld metal is almost identical in all cases and amounts to 329-358 kg/mm^2. The strength of welds produced by two-sided pulsed arc welding is 92-96% of that of the base metal. The bend angle is nearly identical in all cases and is slightly higher than the minimum permissible for the base metal. Pulsed arc welding appears to improve the forming, structure, and properties of welds of VT6S titanium

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USSR

KRECHETOV, A. D. (Engineer), et al, Svarochnoye proizvodstvo, No 1, Jan 72, pp 21-22

alloy. The best over-all results were obtained with two-sided pulsed arc welding. (3 illustrations, 2 tables, 3 bibliographic references).

2/2

USSR UDC 621.791.753.042.93.01.024.2:669.245

KAZAKOV, YU. V., Engineer, TOSHCHEV, A. M., Engineer, BELEN'KIY, A. M., Candidate of Technical Sciences, KRECHETOV, A. D., Engineer, and SAKOKHVALOV, O. A., Engineer

"Structure and Properties of Joints Obtained by Pulse Arc Welding of Thin-Walled Nickel Alloy Parts"

Moscow, Svarochnoye Proizvodstvo, No 4, Apr 71, pp 35-36

Abstract: Results are presented of comparative studies of the structure and properties of welded joints obtained in welding EP199 alloy and Ep222 steel 1 to 2 mm thick by a continuous and pulsed arc in an argon atmosphere with a nonconsumable electrode. It is shown that pulsed arc welding makes it possible to improve weld formation and the mechanical properties of welded joints of EP199 alloy and EP222 steel.

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USSR UDC: 621.791.75:669.715

KAZAKOV, Yu. V., KRECHETOV, A. D., Kuybyshev, BELEN'KIY, A. M., and TOSHCHEV, A. M., Kazan'

"Characteristics of Arc Welding Aluminum Alloy Parts Differing in Gage"

Kiev, Avtomaticheskaya Svarka, No 11, Nov 70, pp 51-53

Abstract: The conditions for shaping welds of aluminum alloys of difference gages are much more complex than those for steel. The intensive heat transfer to the mass of a heavy aluminum part requires a considerable increase in linear welding energy. The shielding action of the gap markedly weakens the heat transfer from the edge of the thin part. Quality joints of parts of different gages may be produced by either limiting or completely eliminating the direct action of the arc on the thin edge. The simplest joint meeting this condition is an edge joint. A new technology of welding is described using a shielding shoulder to produce a lap joint. It is based on a shoulder made on the heavy-gage part, with the height of the shoulder greater than the length of the arc. The shoulder protects the thin edge from the direct action of the arc. The thin edge is fused by

USSR

KAZAKOV, Yu. V., et al, Avtomaticheskaya Svarka, No 11, Nov 70, pp 51-53

the heat given off by the molten metal of the shoulder. Various types of shielding shoulders are described.

2/2

USSR UDC: 621.376.22(088.8)

KRECHETOV, A. D., PUS', V. V.

"An Amplitude Modulator"

USSR Author's Certificate No 270005, filed 21 Mar 67, published 4 Aug 70 (from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1D303 P)

Translation: This Author's Certificate introduces an amplitude modulator based on a tube with secondary emission. The device contains a modulating signal source, a master harmonic oscillator, and a bias source. To improve the dynamic control characteristic of the modulation coefficient, a load in the form of a resonance tank is connected in the dynode circuit of the tube, while the modulating signal source and the master harmonic oscillator are connected to the control grid of the tube through a blocking capacitor. One illustration, V. P.

1/1

USSR"

KRECHETOVA, L., "Izvestiya," Supernumerary correspondent

"The Live Filters"

Moscow, Izvestiya, 3 Jan 74, p 2

Translation: The sewage Treatment Plant of enterprises of the Ministry of the Meat and Dairy Industry of Kirgizia, situated in Talas and Chu valleys of Issyk-Kul'skaya Oblast of Kirgizia, has received an unusual freight, viz., cellophane sacs with Tubifex oligochaete worms.

Scientists of the Institute of Biology and of the Institute of Physiology and Experimental Pathology of the Alpine Region, of the Republic Academy of Sciences, have decided to utilize the ability of oligochaete worms to purify polluted drainage waters.

"The purification of water with oligochaete worms, biological ponds, and so-called filtration beds, are ways and means of solving one of the most important problems of the protection of water bodies from pollution," says A. Konurbayev, Deputy Director of the Institute of Biology. "Besides, the breeding of oligochaete worms promises another benefit: nitrogen and phosphorus which they produce constitute an excellent fertilizer for the fields, and oligochaete worms themselves are a valuable and inexpensive feeding stuff for the fry of fish breeding farms.

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1/2 023 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--PRECIPITATING ANTIGEN IN THE BLOOD OF MICE INFECTED WITH ARBOVIRUSES -U-

AUTHOR-(04)-GAYDAMOVICH, S.YA., KRECHETOVA, N.A., LVOVA, A.I., MELNIKOVA, YE.E.

COUNTRY OF INFO--USSR

SOURCE--VOPROSY VIRUSOLOGII, 1970, NR 3, PP 337-341

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ARBOVIRUS, ANTIGEN, MOUSE, BLOOD SERUM, VENEZUELAN EQUINE ENCEPHALITIS VIRUS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1835 STEP NO--UR/0402/70/000/003/0337/0341

CIRC ACCESSION NO--AP0125446

UNCLASSIFIED

2/2 023 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125446

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE POSSIBILITY OF USING THE AGAR GEL DIFFUSION TEST FOR DETECTION OF VIRUS (ANTIGEN) IN THE BLOOD ON EXPERIMENTAL ARBOVIRUS INFECTION WAS STUDIED. TWELVE ARBOVIRUSES WERE TESTED. THE ANTIGEN WAS THE NATIVE BLOOD SERUM FROM INFECTED SUCKLING MICE COLLECTED AT THEHEIGHT OF THE DISEASE, WHILE IMMUNE ASCITES TO THE CORRESPONDING VIRUSES WERE USED AS THE SOURCE OF ANTIBODY. POSITIVE RESULTS WERE OBTAINED WITH SENLIKI, PIKSUNA, VENEZUELAN EQUINE ENCEPHALOMYELITIS AND UUKUNIEMI VIRUSES. DETECTION OF ANTIGEN IN THE BLOOD SERUM DEPENDS UPON THE LEVEL OF VIREMIA AND CAN BE REGULARLY ACHIEVED AT A VIRUS TITER IN THE BLOOD OF LG 8 LD $0350-0.02 ML. FACILITY: INSTITUT VIRUSOLOGII IMENI D. I. IVANOVSKOGO AMN SSSR, MOSKVAAA.

UNCLASSIFIED

1/2 025 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--MAIN PROBLEMS OF LABOUR HYGIENE AT FLAX MILLS -U-

AUTHOR--KRECHKOVSKIY, YE.A.

COUNTRY OF INFO--USSR

SOURCE--VRACHEBNOYE DELO, 1970, NR 3, PP 145-147

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--TEXTILE INDUSTRY, ATMOSPHERIC POLLUTION, INDUSTRIAL HYGIENE, INDUSTRIAL MEDICINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1986/0672 STEP NO--UR/0475/70/000/003/0145/0147

CIRC ACCESSION NO--AP0102656

UNCLASSIFIED

2/2 025 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0102656

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. LABOUR CONDITIONS AT MODERN FLAX MILLS ARE DESCRIBED. THE NOXIOUS PROPERTIES OF THE FLAX DUST ARE ANALYSED. QUANTITATIVE DATA OF AIR POLLUTION AT FLAX MILLS ARE PRESENTED. A BRIEF ANALYSIS IS GIVEN OF MORBIDITY AMONG THE FLAX PROCESSING WORKERS WITH TEMPORARY LOSS OF WORKING CAPACITY. HYGIENIC MEASURES ARE SUGGESTED.

UNCLASSIFIED

Heat Treatment

USSR

UDC 669.15-194:669.26'74'295-15:
620.17

KHECHMER, V. G., Karaganda Polytechnic Institute

"Heat Treatment of Steel 40KhGSTF in the A_{c_1}-A_{c_3} Interval"

Moscow, Izvestiya Vysshikh Uchebnykh Zavedeniy -- Chernaya Metallurgiya, No 8, Aug 73, pp 133-134

Abstract: The properties of a new steel, 40KhGSTF, were investigated particularly impact strength and hardness after heat treatment in the intercritical A_{c_1}-A_{c_3} interval. Chemical composition of this new steel was (in %): 0.37 C, 1.53 Cr, 1.07 Mn, 0.82 Si, 0.13 Ti, 0.13 V, 0.036 P, and 0.046 S. From dilatometric studies it was found that phase transformations in this steel occur at 780-860°C. It was established that after quenching from 950° C, repeated quenching from 800°C and tempering at 200°, impact strength amounts to 10 kgf-m/cm^2 while after conventional quenching and tempering this value is only 5 kgf-m/cm^2. After repeated hardening from 800° C irreversible temper brittleness at tempering temperatures of 300-350°C only slightly appears and impact strength amounts to 10-12 kgf-m/cm^2 as compared to steel 30KhGSA, when treated by the same mode, which is only 6 kgf-m/cm^2.
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USSR

KRECHMER, V. G., Izvestiya Vysshikh Uchebnykh Zavedeniy -- Chernaya Metallurgiya, No 8, Aug 73, pp 133-134

Repeated quenching from 820°C increases hardness but reduces impact strength. This phenomenon is explained by the presence of martensite in the structure. Thus, heat treatment of steel 40KhGSTF in the inter-critical interval of A_{c_i}-A_{c_3} is effective for repeated quenching from 800°C and makes it possible, due to the presence of ferrite, to increase impact and diminish the tendency toward irreversible temper brittleness. One figure, four bibliographic references.

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USSR

UDC 669.14.018.25'8.2+669.14.018.29

KRECHMER, V. G., PAISOV, I. V.

"Type KhGSTF Steel"

Moscow, Stal', No 2, Feb 73, pp 163-164.

Abstract: The Karaganda Metallurgical Combine has developed a new steel, type KhGSTF, in structural (0.35-0.42% C) and tool (0.45-0.50% C) versions. The technology of manufacture of rolled (or forged) products and heat treatment is presented. The mechanical properties and purposes of the new steel are noted. The use of low-alloy steels such as KhGSTF has yielded a significant economic savings. Chemical composition of the steel is: structural, 0.35-0.42% C, 1.20-1.50% Cr, 1.0-1.20% Mn, 1.20-1.50% Si, 0.05-0.10% Ti, 0.08-0.15% V, $\leq$ 0.03% S, $\leq$ 0.3% P; tool, 0.48-0.50% C, Cr, Mn, Si same as structural, 0.10-0.15% Ti, 0.10-0.20% V, S and P same as in the structural version.

1/1

USSR UDC: 519.2

KREDENTSER, B. P.

"Determining Some Characteristics of Random Processes Which Describe the Functioning of Momentary-Action Systems With Regard to Reliability"

Kibernet. i vychisl. tekhn. Resp. mezhved. sb. (Cybernetics and Computer Technology. Republic Interdepartmental Collection), 1972, vyp. 18, pp 113-119 (from RZh-Kibernetika, No 5, May 73, abstract No 5V360 by I. Kovalenko)

Translation: The following two problems of reliability theory are solved: 1. The functioning of a system is described by a semi-Markov process with a finite number of states; demands arrive in accordance with Poisson law. It is required to find the Laplace-Stieltjes transformation of the time before arrival of the first demand at the instant when the process is in a fixed ("refusal") set of states. 2. Functioning of the system follows a homogeneous Markov process with a finite number of states; demands form a recurrent stream independent of this

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USSR

KREDENTSER, B. P., Kibernet. i vychisl. tekhn. Resp. nezhved. sb., 1972, vyp. 18, pp 113-119

process. It is required to find the characteristic which is analogous to that described for the first case.

UDC: 8.74

USSR

SHISHONOK, N. A., KREDENTSER, B. P.

"Use of a Digital Computer for Analysis of the Operational Reliability of Radio Electronic Systems"

V sb. Osnovn. vopr. teorii i praktiki nadezhnosti (Basic Problems in the Theory and Practice of Reliability--collection of works), Moscow, "Sov. radio", 1971, pp 264-285 (from RZh-Kibernetika, No 1, Jan 72, Abstract No 1V1067)

Translation: A procedure is considered for using statistical modeling in analyzing the reliability of radio electronic systems. A brief classification of systems is given, and their operational reliability indices are presented together with generalized flowcharts of algorithms for evaluating the reliability of simple and complex systems. Practical use of the algorithms is illustrated by examples. Authors' abstract.

1/1

USSR

UDC 621.396.6.019.3

DOVGAL', S. I., KREDENTSER, B. P., MARAKHOVSKIY, A. YE.

"Analyzing the Operational Quality of Electronic Circuits by Statistical Modeling With the Computer"

Kiev, Izvestiya VUZ -- Radioelektronika, Vol 13, No 7, 1970, pp 868-873

Abstract: Although a good many papers have been devoted to the problem of the operational reliability of electronic circuits subject to gradual breakdown, a complete method of analysis of parametric reliability has yet to be developed. The purpose of this article is to consider an engineering method for investigating the problem by reliability criteria which are to a large extent free from the limitations of existing methods. The object of this investigation are elementary functional units such as inverters, flip-flops, phantastrons, amplifiers, and the like. The method proposed for this investigation can also be used for more complex units. Four stages are outlined for statistically testing mathematical models of the unit under investigation using universal digital computers: first, finding a mathematical description of the circuit, obtaining initial data for the laws of distribution of all primary parameters, and establishing the conditions of normal circuit operation; second, formalizing the process of the circuit

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USSR

DOVGAL', S. I., et al., Izvestiya VUZ -- Radioelektronika, Vol 13, No 7, 1970, pp 868-873

operation and constructing the mathematical model; third, developing modeling algorithms and their programs for the computer; fourth, repeatedly realizing the modeling algorithm on the computer in imitation of the circuit assembly. The method was verified by investigating a transistor switching circuit with the Ural-2 computer; a derivation of the mathematical description of the circuit for that investigation is given. The authors conclude that statistical modeling combined with analytic methods and extensive experimentation is effective in analyzing the quality of electronic circuit operation.

1/2 015 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--RELATION BETWEEN THE FUNDAMENTAL MATRICES OF SOLUTIONS TO PARABOLIC AND ELLIPTICAL SYSTEMS WITH A BESSEL OPERATOR -U-

AUTHOR-(02)-KREKHIVSKIY, V.V., MATIYCHUK, M.I.

K

COUNTRY OF INFO--USSR

SOURCE--AKADEMIIA NAUK UKRAINS'KOI RSR, DOPOVIDI, SERIIA A - FIZIKO-TEKHNICHNI I MATEMATICHNI NAUKI, VOL. 32, MAR 1970, P 210-214

DATE PUBLISHED----MAR70

SUBJECT AREAS--MATHEMATICAL SCIENCES

TOPIC TAGS--BOUNDARY VALUE PROBLEM, MATHEMATIC MATRIX, PARABOLIC BODY, BESSEL FUNCTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1646 STEP NO--UR/0441/70/032/000/0210/0214

CIRC ACCESSION NO--AT0118625

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--20NOV70

2/2 015

CIRC ACCESSION NO--AT0118625

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DEVELOPMENT OF PROCEDURES FOR CONSTRUCTING FUNDAMENTAL MATRICES IN SOLVING THE BOUNDARY VALUE PROBLEM OF A B-PARABOLIC SYSTEM OF EQUATIONS IN A 1-4 APACE WITH A BESSEL OPERATOR. A RELATION IS ESTABLISHED BETWEEN THESE FUNDAMENTAL MATRICES AND THOSE OF CORRESPONDING B ELLIPTICAL SYSTEMS. SEVERAL PERTINENT THEOREMS ARE FORMULATED AND PROVED IN THE PROCESS. FACILITY: CHERNIVETS'KII DERZHAVNII UNIVERSITET, CHERNOVTSY, UKRAINIAN SSR.

UNCLASSIFIED

USSR UDC 621.396.677.3

BEY, N. A., ZIMIN, D. B., KREKSTUNOV, V. M., LOSEV, V. S., SEMENOV, Ye. G.

"An Element for a Reflecting Antenna Array"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 23, Aug 71, Author's Certificate No 310326, Division H, filed 8 Dec 69, published 26 Jul 72, p 170

Translation: This Author's Certificate introduces an element for a reflecting antenna array which operates with arbitrarily polarized signals. The element consists of a phase shifter, radiators with superimposed phase centers, and sections of transmission line. As a distinguishing feature of the patent, the design is simplified by using in the element a feed-through phase shifter and two radiators with orthogonal polarization characteristics connected to the two outputs of the phase shifter by sections of transmission line which pass signals with fixed polarization.

1/1

USSR

UDC 621.372.81.09

VESELOV, G. I., KREKHTUNOV, V. M.

"Characteristic Oscillations in an Infinite System of Open Dielectric Waveguides"

Moscow, Radiotekhnika, Vol 25, No 8, 1970, pp 52-58

Abstract: Open dielectric waveguides have received wide attention in antenna-waveguide technique for use as smooth delay systems. The purpose of this paper is to obtain a rigorous solution to the problem of an infinite system of equidistant and coplanar waveguides of this type. The authors consider the system cross section involving the following parameters: the waveguide radius, the distance between the axes of neighboring waveguides, the parameters of the waveguide material, and the parameters of the surrounding medium. Finding the components of the electromagnetic field in the waveguides, they derive expressions for the field and obtain the dispersion equation determining the propagation constants of the characteristic oscillations. They show that, with an increase in the distance between the waveguides, the dispersion equation transforms to an equation for various types of waves in a uniform open dielectric waveguide. The relationships and dispersion characteristics they obtain for the fundamental asymmetrical wave through an approximation equation may be useful for determining the electrodynamic characteristics of a system of closely spaced waveguides. 1/1

Thermomechanical Treatment

USSR UDC 621.771.073.8.9

KREKNIN, L.T., SHAVRIN, O.I., TREFILOV, V.G., DMITROV, L.N., ERYMIDIN, V.V., and TOKAREV, P.S., Izhevsk Metallurgical Plant

"Thermomechanical Treatment of Cold Rolling Rollers"

Moscow, Metallurg, No 9, Sep 71, pp 31-32

Abstract: A method of high-temperature thermomechanical treatment of cold rolling rollers 20-40 mm in diameter is described. The HRC hardness obtained is not less than 60-62 and the depth of the hardened layer is about 4-5 mm. By varying process parameters, any desired layer depth can be obtained. A comparison of microstructure of samples after thermomechanical treatment at a depth of 5 mm and after conventional high-frequency hardening at 1.5-3 mm shows that in the latter case the martensite needles are smaller.

1/1

USSR UDC 535.361.1

ZUYEV, V. Ye., KREKOV, G. M., POPKOV, A. I., Institute of Optics of the Atmosphere, Siberian Department of the Academy of Sciences of the USSR

"Statistical Evaluation of Deformation of a Light Pulse in Laser Ranging of Plane-Stratified Clouds"

Tomsk, Izvestiya VUZov: Fizika, No 2(129), 1973, pp 50-53

Abstract: Statistical sampling techniques are used to analyze the information contained in the reflected pulse when lasers are used for cloud ranging. The proposed Monte Carlo algorithm can be used to account for (1) the complex boundary conditions which arise when a divergent, spatially bounded light beam propagates in a laminar, nonhomogeneous scattering medium, and (2) for the nonstationary nature of the process. The results of the study show that converting measured time functionals to the properties of the scattering system investigated requires a preliminary detailed analysis of direct relations by numerical experiments and asymptotic methods.

1/1

USSR UDC 621.373.826:550.3

RANAKH, V. A., KREKOV, G. M., and MIRONOV, V. L.

"Numerical Investigation of the Degree of Coherence in a Gaussian Beam Field Propagated in a Turbulent Atmosphere"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl. (Tenth All-Union Conference on the Propagation of Radio Waves; Report Theses--collection of works) "Nauka," 1972, pp 191-195 (from RZh--Radiotekhnika, No 10, 1972, Abstract 10D359)

Translation: Results of the computation of the degree of coherence are put in the form

$$\gamma(x,\vec{R},\vec{\rho}) = \frac{|\Gamma_2(x,\vec{R},\vec{\rho})|}{\langle I(x,\vec{R}+\vec{\rho}/2)\rangle^{\frac{1}{2}}\langle I(x,\vec{R}-\vec{\rho}/2)\rangle^{\frac{1}{2}}},$$

where Γ_2 is the coherence function in integral form, and $I\langle x,\vec{R}\pm\vec{\rho}/2\rangle = \Gamma_2(x,\vec{R}\pm\vec{\rho}/2,0)$ are the average intensities. It is established that no dependence of $\gamma(x,R,\rho,\Psi)$ on the position

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USSR

BANAKH, V. A., et al., V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl., "Nauka," 1972, pp 191-195

of the observation points relative to the beam center exists up to values of R equal to the diffraction radius of the beam. The length of coherence drops off with increasing focal length of the beam. Three illustrations, bibliography of five. A. L.

2/2

USSR UDC 625.78.018.1(088.8)

KREMENA, V. P., PETROV, Yu. V., TRUSHECHKIN, N. P.

"Device for Determination of Velocity in Wind Tunnels"

USSR Author's Certificate No 307343, filed 15/10/69, published 8/09/71. (Translated from Referativnyy Zhurnal, Raketostroyeniye, No 4, 1972, Abstract No 4.41.169 P from the Resume).

Translation: A device for determination of velocity in shock tunnels containing a standard frequency generator, switch, counter and two master sensors, differing in that in order to eliminate losses of information resulting from the effects of electromagnetic interference, for example when operating with electric-discharge tubes, as well as interference from the reflected wave, the permit and forbid inputs of the switch are connected to sensors through the blocking unit and an OR circuit, the cross section of the tunnel between the diaphragm and the sensors contains an additional sensor which is connected through an AND circuit to the permit input of the blocking unit, the second input of the OR circuit and the zero-setting circuit of the counter, while the second input of the AND circuit is connected through a pulse expander to the starting device of the tunnel. 1 Figure.

1/1

USSR UDC 621.317.794

KREMENCHUGSKIY, L. S., ROYTSINA, O. V., SAMOYLOV, V. B.

"A Thermal Receiver for the Measurement of Radiation by the Comparison Method"

Leningrad, Optiko-Mekhanicheskaya Promyshlennost', No 12, Dec 70, pp 11-14

Abstract: An analysis is given of the operation of a thermal receiver for the measurement of electromagnetic radiation by the comparison method. The receiver operates on the basis of a modulated radiation flux, and employs the electrical replacement of this flux by the power of the alternating-current joule loss. It is shown that receiver sensitivity depends on the thickness of the dielectric layer, the thermophysical properties of the dielectric layer and the characteristics of the sensitive element. The measurement installation used with the receiver is described. Some data are given on a pyroelectric receiver that operates on the basis of a sinusoidally modulated radiation flux. 3 figures, 1 table, 8 bibliographic entries.
1/1

UDC: 621.317.783(088.8)

USSR

GASSANOV, L. G., KARUSHKIN, N. F., KREMENCHUGSKIY, L. S., YASHCHISHIN, P. I.

"An SHF Power Meter"

USSR Author's Certificate No 263697, filed 25 Jun 68, published 24 Jun 70 (from RZh-Radiotekhnika, No 12, Dec 70, Abstract No 12A323 P)

Translation: This Author's Certificate introduces an SHF power meter which contains a pyroelectric radiation receiver made in the form of a matched absorbing load, and also a calibrated power source. As a distinguishing feature of the patent, precision is improved and provision is made for absolute measurements of SHF power by using a receiver of emission in the optical range as one side of the pyroelectric pickup, and a receiver of SHF emission as the other side. E. L.

1/1

USSR

UDC 621.396.67.001.5

KREMENETSKIY, S. D., RADTSIG, YU. YU., SKACHKOV, V. A.

"Theory and Practice of Plane Curvilinear Radiator Design"

Moscow, Radiotekhnika i elektronika, No 10, 1970, pp 2068-2070

Abstract: The authors assert that there is very little material in the literature on the theory of design of such antennas of the more complex form, primarily due to the mathematical difficulties involved. The need for shifting antennas along the curvilinear surfaces of aircraft gives impetus to the study of plane curvilinear radiators. Also, the development of the theory of this type of radiator is of interest since it is directly connected with the theory of cylindrical antennas. This article considers the following three problems: the design of radiators for a given azimuthal or meridional component of the electric field in any vertical or horizontal plane; the design of radiators for the given electric field components in an arbitrary vertical or horizontal plane, i.e., for a given directional diagram vector; the design of radiators for the given electric field components in several planes. Experimental and computed data are compared.

1/1

USSR

UDC 621.374.325.001

KREMER, I.YA., KARPUKHIN, Vyach.I. [Members, Scientific-Technical Society Of Radio Engineering, Electronics, And Communications imeni A.S. Popov]

"Measurement Of Nonenergy Parameter Of Radio Signal With A High Level Of Additive And Modulating Noise"

Radiotekhnika, Vol 27, No 6, June 1972, pp 11-15

Abstract: A method is considered for determining the probability of accurate measurement and of false readouts of a discrete nonenergy parameter (time of arrival, frequency) at a high level of additive and modulating noise. An example of the use of the method is presented. 2 fig. 6 ref. Received, 23 June 1970; after abridgement, 27 October 1971.

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UDC 8.74

USSR

VENETSKIY, I. G., KREMER, N. SH., and MIRONSHNIKOVA, M. M.

"Giving Entrance Examinations with the 'Minsk-22' Computer"

Mat. v shkole (Mathematics in the School) 1972, No 1, pp 39-44 (from RZh-Matematika, No 7, 1972, Abstract No 7V631)

Translation: A method is described for giving entrance exams with the help of the "Minsk-22" electronic computer. According to this method, a separate card bearing problems chosen by a sensor of pseudo-random numbers from a reserve recorded on magnetic tape is printed and issued to each matriculant by the machine. A program provides a sequence of problems of a certain complexity from specified subjects of a course in elementary mathematics. The place of the matriculant in the hall is also determined by random choice. In order to reduce the number of errors in the perforated answers to the problems and to shorten the time for checking the examination results, all the problems are made up so that the answers are in integers or in tenths, with no variable, π, or units of measurement. It was noted that these examinations pointed up the following advantages of this method of taking entrance examinations over the traditional scheme: 1) the standardization of requirements for all matriculants; 2) the high objectivity of the evaluations; 3) the elimination of difficulties, particularly the mechanical work of the instructor in correcting written material and oral examinations;

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USSR

VENETSKIY, I. G., et al., Mat. v shkole, 1972, No 1, pp 39-44 (from RZh-Matematika, No 7, 1972, Abstract No 7V631)

4) a notable reduction in subject committees; 5) the absence of unusual circumstances in the examination, of direct contact between the matriculant and the machine; 6) the high efficiency with which the examination was conducted (issuing a card with 20 problems took 45 seconds, a card with 5 problems, 25 seconds; the punching of the answers and the distribution of the results to 500 people took 2.2 hours); 7) the answer is written and can thus be controlled by the instructor; 8) a large number of problems given to the matriculant reduces to a minimum the element of randomness in evaluating its significance; 9) the high efficiency of the system permits conducting all theexaminations during the morning hours; 10) the high centralization of the direction of the work by the reception and subject committees. V. Mikheyev

2/2

USSR

UDC: 621.396.677:621.391.82

KREMER, I. Ya.

"Concerning the Influence of Modulating (Multiplicative) Interference on Signal Processing in a System Comprised of a Phased Antenna Array and a Receiver"

Moscow, Radiotekhnika i Elektronika, Vol 17, No 9, Sep 72, pp 1823-1830

Abstract: The author considers distortions in the radiation pattern of phased antenna arrays caused by rapid fluctuations in the phase and amplitude of the received signals due to modulating (multiplicative) interference. It is shown that this interference, as a source of distortions of the radiation pattern, has specific singularities which make it necessary to deal with the antenna-receiver system as a whole rather than with the antenna array in isolation when considering the radiation pattern. Expressions are found which define the antenna radiation pattern in the antenna-receiver system in the presence of modulating interference. Factors are analyzed which influence the degree to which the pattern is distorted.

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USSR

UDC 8.74

VENETSKIY, I. G., KREMER, N. SH., MIROSHNIKOVA, M. M.

"Entrance Exam Procedure Using the Minsk-22 Computer"

Mat. v shkole (Mathematics in School), 1972, No 1, pp 39-44 (from RZh-Kibernetika, No 7, Jul 72, Abstract No 7V631)

Translation: A procedure is described for entrance exams using the Minsk-22 computer. In accordance with this procedure, for each person who has finished secondary school the machine prepares, prints out and sends an individual note with the problems selected by the random number generator from a library recorded on magnetic tape. The program provides for the sequence of generating problems of defined complexity from the given divisions of the elementary mathematics course. The place of the graduate in the room is also determined randomly. In order to decrease the number of errors in punching the answers to the solved problems and to reduce the time of checking the examination results, all the problems are compiled so that the answer to any of them will be an integer or a decimal fraction without naming the variable, the number π, the notation for the measurement units, and so on. It is noted that the exams revealed the following advantages of the given entrance exam procedure

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USSR

VENETSKIY, I. G., et al., Mat. v shkole, 1972, No 1, pp 39-44

by comparison with the traditional one: 1) standardization of the requirements on all the graduates; 2) high objectivity of the evaluation; 3) elimination of the tedious, to a significant degree mechanical work of teachers with respect to checking written work and for the oral examination procedure; 4) significant reduction of the subject commissions; 5) insurance of the usual situation at the exams; absence of direct contact of the graduate with the machine; 6) high operativeness of giving the exam (generation of a sheet of 20 problems takes 45 seconds, a sheet of 5 problems, 25 seconds, and punching the answer and generating the results for 500 people takes 2.2 hours); 7) the response presents a written solution which can be checked by the teacher; 8) a large number of problems presented to the graduate reduces the element of chance when evaluating his skills to a minimum; 9) high operativeness of the system permits all the exams to be given in the morning; 10) high centralization of administration of the work of the acceptance and subject commissions.

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1/2 011 UNCLASSIFIED PROCESSING DATE--03OCT70

TITLE--HEAT STABILIZATION OF POLY(ETHYLENE TEREPHTHALATE) ACCOMPANIED BY AN INCREASE IN MOLECULAR WEIGHT -U-

AUTHOR-(03)-VASILYEV, YU.P., KREMER, YE.B., AIZENSHTEYN, E.M.

COUNTRY OF INFO--USSR

SOURCE--KHIM. VOLOKNA 1970 (2) 15-17

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--THERMAL STABILITY, POLYETHYLENE TEREPHTHALATE, MOLECULAR WEIGHT, CARBONATE, PHENOL, PHOSPHORIC ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1092/1514 STEP NO--UR/0183/70/000/002/0015/0017

CIRC ACCESSION NO--AP0112508

UNCLASSIFIED

2/2 011 UNCLASSIFIED PROCESSING DATE--020CT70

CIRC ACCESSION NO--AP0112508

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE OPTIMUM AMT. OF (PHO) SUB2 C) (I) USED TO INCREASE THE THERMAL STABILITY AND MOL. WT. OF POLY(ETHYLENE TEREPHTHALATE) (II) IS 2PERCENT ADDED TO THE POLYMER MELT, WHICH IS THEN KEPT IN VACUO 20 MIN AT 275DEGREES. PROPOSED REACTION SCHEMES EXPLAINING THESE INCREASES INVOLVE BLOCKING END OH GROUPS AND JOINING POLYMER CHAINS BY CARBONATE BONDS, GIVING PHENOL AS A BY PRODUCT. THE SCHEMES ARE SUPPORTED BY USE OF II SUB3 PO SUB4 OR H SUB3 PO SUB3 TO BLOCK THE END OH GROUPS, WHICH REDUCES THE EFFECTIVENESS OF I, AND BY THE INCREASING CO SUB2 H-OH END GROUP RATIO WITH INCREASING MOL. WT. OF II STABILIZED BY I. STABILIZATION BY PHENOXY RADICALS FROM THERMAL DECOMPN. OF I IS SUPPORTED BY LESS EFFECTIVE STABILIZATION BY (PO3) SUB2 CO OR PHENOL.

UNCLASSIFIED

USSR

UDC 612.015:615.739:577.158

VITOLIN', S. P., STEPCHKOV, K. A., FRANK, YE. L., and [illegible]ENER, YU. N., Riga Medical Institute and All-Union Scientific Research Institute for the Biosynthesis of Proteins

"Utilization of Nonnutritive Proteins in Human and Animal Nutrition. II. Yeast Proteins as a Source of Nutritive Nitrogen"

Riga, Izvestiya Akademii Nauk Latviyskoy SSR, No 2, 1971, pp 71-77

Abstract: The nutritive value of yeast preparations obtained by enzyme hydrolysis from Torula utilis in combination with various bread grains was studied in weanling rats. The growth of rats fed yeast, wheat flower, and fibrin (4:5:1 or 5:4:1) enriched with methionine was virtually indistinguishable from the control which received casein. A combination of yeast and barley groats or rice (6:4) manifested a much higher anabolic efficiency than did casein. The animals gained 48 and 38 g, respectively, in 10 days compared with 31 g in the control kept on the casein diet. A combination of whole blood proteins, yeast, and casein (3:4:3) or 5:4:1) resulted in weight gains equal to those produced by casein alone. It would appear, therefore, that nonnutritive proteins can be converted into nutritive forms and that the biological efficiency of plant proteins can be enhanced by combining them with a nonnutritive substance like yeast. 1/1

1/2 021 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--DIOLS AS A SOURCE OF ENERGY IN ORAL AND PARENTERAL ALIMENTATION -U-

AUTHOR-(03)-KREMER, YU.N., VITOLINYA, S.P., FRANK, YE.L.

COUNTRY OF INFO--USSR

SOURCE--VOPROSY PITANIYA, 1970, NR 3, PP 62-67

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--POLYHYDROXY ALIPHATIC ALCOHOL, DIET, ANIMAL PHYSIOLOGY, RAT, DOG

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1998/0003 STEP NO--UR/0244/70/000/003/0062/0067

CIRC ACCESSION NO--AP0120703

UNCLASSIFIED

2/2 021 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0120703

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECTIVENESS OF USING 1,3,BUTANDIOL (BD) AND 1,2,PROPANDIOL (PD) AS A SOURCE OF ENERGY IN ORAL FEEDING WAS STUDIED ON WEANED RATTLINGS. BOTH DIOLS, LIKE SORBITE (SORBITOL), REPLACED (IN TERMS OF ISOCALORIES) 10 OR 20PERCENT OF SACCHAROSE IN SEMISYNTHETIC ANIMAL RATIONS. THE LATTER WERE GIVEN FOR 10 DAYS. THE WEIGHT GAIN OF THE ANIMALS KEPT ON A DIET CONTAINING BUTANDIOL (10 OR 20PERCENT) WAS NOT INFERIOR TO THAT IN ANIMALS OF CORRESPONDING CONTROL GROUPS. THE GROWTH RATE OF RATTLINGS IN WHOSE RATION 10PERCETN OF SACCHAROSE WAS REPLACED BY PD WAS HIGHER AND OF THOSE WITH 20PERCENT REPLACEMENT LOWER THAN IN THE CASE OF CONTROL DIET. THE TEN PERCENT OF SORBITE WHICH SUBSTITUTED CORRESPONDING AMOUNTS OF SACCHAROSE PRODUCED A MARKED INHIBITION OF GROWTH, WHILE A 20PERCENT REPLACEMENT RESULTED IN DEATH OF THE ANIMALS. INTRAVENOUS INJECTION TO DOGS OF A BD OR PD MIXTURE WITH GLUCOSE (IN A RATIO OF 1:1 IN TERMS OF CALORIES) AT THE RATE OF 50 GREAT CALORIES PER 1 KG OF BODY WEIGHT SHOWED THE NITROGEN BALANCE FIGURES TO BE NOT ANY LOWER THAN AFTER INTRODUCTION OF CALORIES EQUIVALENT AMOUNTS OF GLUCOSE, THIS PROVING THAT BOTH DIOLS ADMINISTERED PARENTERALLY ARE WELL ASSIMILATED BY THE CANINE ORGANIZM AS A SOURCE OF ENERGY. FACILITY: KAFEDRA BIOKHIMII I TSENTRAL'NAYA N-I LABORATORIYA RIZHSKOGO MEDITSINSKOGO INSTITUTA.

UNCLASSIFIED

USSR

UDC 621.039.524.034.3

NESTERENKO, V. B., KHOREV, V. I., KREMESHNYY, A. I., SOKOL'CHIK, V. A.

"Gas Loop Devices Using a Dissociating Heat Exchange Agent"

Dissotsiiruyushch. gazy kak teplonositeli i rab. tela energ. ustanovok -- V sb. (Dissociating Gases as Heat Transfer Agents and the Working Medium of Power Plants -- Collection of Works), Minsk, Nauka i tekhn. Press, 1970, pp 161-165 (from RZh-Elektrotekhnika i Energetika, No 5, May 1971, Abstract No 5U189)

Translation: Two loop devices designed for studying dissociating heat exchange agents, testing building materials and reserve testing of fuel elements are described. The loop devices are located in the research (IRT-2,000) reactor of the Nuclear Power Institute of the Belorussian SSR Academy of Sciences. The characteristic features inherent in the loop devices operating on the dissociating heat exchange agent are reflected. There are two illustrations and a one-entry bibliography.

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USSR

UDC 521.122 + 546.732'131 + 547.496.3

ALEKSENKO, V. A., DULOVA, V. I., and KREMLEV, M. M., Dnepropetrovsk Chemical-Technological Institute imeni F. E. Dzerzhinskiy

"Complex Formation of $CoCl_2$ With N-Aryl-N'-diphenoxythiophosphonothioureas"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 10, Oct 73, pp 2211-2216

Abstract: A series of novel N-aryl-N'-diphenoxythiophosphonothioureas has been synthesized and their ionization constants have been determined. The complex formation of these phosphonothioureas with $CoCl_2$ in acetone has been investigated spectrophotometrically. It has been shown that the graduated instability constants of these complexes are correlated with Hammett's constants. Some of the complexes formed have been isolated; their structure and properties have been studied, the IR spectra were reported.

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USSR

UDC 632.95

KREMLEV, M. M., BIBA, A. D.

"Procedure for Obtaining Arenesulfonyltrichloromethanesulfenylamides"

USSR Author's Certificate No 301330, filed 19 Nov 69, published 21 Jun 71 (from RZh-Khimiya, No 6(II), Jun 72, Abstract No 6N548P)

Translation: Arenesulfonyltrichloromethanesulfenylamides with the general formula $RSO_2NHSCCl_3$ (I R = aryl) which can be used as physiologically active compounds and in the synthesis of compounds with the 1,3-dithietidin structure are obtained by the reaction of arenesulfonylamide with trichloromethanesulfonylchloride (II) in a dry organic solvent in the presence of NEt_3 (III) with subsequent separation of the I. Benzenesulfonylamine in the amount of 31.4 grams is put in a 500 milliliter flask, dissolved with heating in 250 ml of dry C_6H_6, the flask temperature is kept below 30°. Twelve hours later the mass is heated (40-60°) for 2 hours. The precipitate is separated, the C_6H_6 is evaporated in a vacuum, and the oily product obtained is dissolved in 300 ml of ether. The ether solution is washed with 2 × 250 ml of water and dried over Na_2SO_4 and evaporated under vacuum. After 5-6 hours, the product is crystallized; 24.5 g of I (R = Ph) is obtained with a melting point of 101° (heptane). The I is obtained analogously (R, the yield in percent, the melting point is °C are given): p-$CH_3C_6H_4$, 57, 119-21; p-ClC_6H_4, 60, 133-4°; p-BrC_6H_4, 47, 130-1.

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USSR

UDC 547.269.352.1

BIBA, A. D., KREMLEV, M. M., ROSITSKIY, A. A., Dnepropetrovsk Chemical-Technological Institute imeni F. E. Dzerzhinskiy

"Synthesis of Bis-trichloromethyl Sulphenyl Esters of Arensulphonyl-Imino-Dithiocarbonic Acids"

Kiev, Ukrainskiy Khimicheskiy Zhurnal, Vol XXXVII, No 5, 1971, pp 472-474

Abstract: A procedure is proposed for synthesis of previously unknown bis-trichloromethyl sulphenyl esters of arensulphonyl-imino-dithiocarbonic acids (I) consisting in the interaction of $ClSCCl_3$ with dipotassium salts of arensulphonyl-imino-dithiocarbonic acids (II). A number of new salts of (II) were also obtained. Tables of the mentioned salts and esters are presented including the physical and chemical characteristics of these compounds. The structure of the esters was confirmed by infrared spectra of the compounds in which there were intense $\nu(N=C)$ bands in the 1,530 and 890 cm^{-1} range and $\nu(SO_2)$ in the 1,330, 1,165 cm^{-1} range and no absorption band in the 3,600-3,200 cm^{-1} range (no N-H-bond). When testing the compounds as insecticides on rice weevils, they gave positive results.

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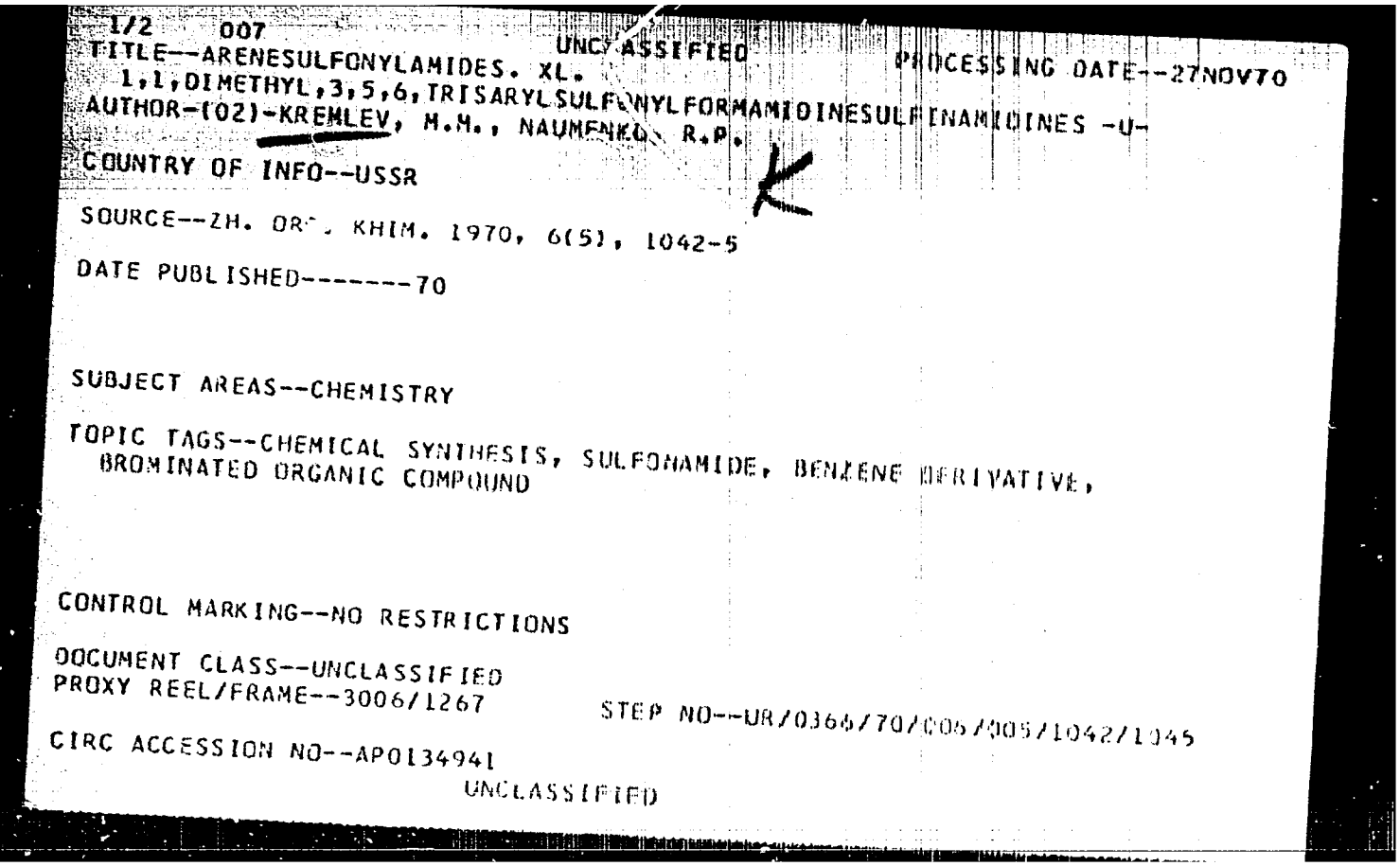
APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R002201610008-1"



1/2 007 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--ARENESULFONYLAMIDES. XL. 1,1,DIMETHYL,3,5,6,TRISARYLSULFONYLFORMAMIDINESULFINAMIDINES -U-
AUTHOR-(02)-KREMLEV, M.M., NAUMENKO, R.P.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(5), 1042-5

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL SYNTHESIS, SULFONAMIDE, BENZENE DERIVATIVE, BROMINATED ORGANIC COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3006/1267 STEP NO--UR/0366/70/006/005/1042/1045

CIRC ACCESSION NO--AP0134941

UNCLASSIFIED

2/2 007 UNCLASSIFIED PROCESSING DATE--27NOV70
CIRC ACCESSION NO--AP0134941
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE REACTION OF ME SUB2 NC(:NSO SUB2 R)SNA WITH R PRIME1 SO SUB2, NCL SUB2 GAVE (ME SUB2 NC(:NSO SUB2 R)S) SUB2 AND ME SUB2 NC(:NSO SUB2 R)S(NNA, SO SUB2 R PRIME1):NSO SUB2 R PRIME1 (I) (R AND R PRIME1 GIVEN): P,MEC SUB6 H SUB4, PH; P,ORC SUB6 H SUB4, PH; M,O SUB2 NC SUB6 H SUB4, PH; P,MEC SUB6 H SUB6, PH; P,ORC SUB6 H SUB4, P,MEC SUB6 H SUB4; PH, P,MEC SUB6 H SUB4; AND PH, PH. THE ACTION OF STRONG ACIDS ON I GAVE ME SUB2 NC(:NSO SUB2 R)S(NHSO SUB2 R PRIME1):NSO SUB2 R PRIME1. I ARE N SUBSTITUTED DERIVS. OF H SUB2 NC(:NH)S(NH SUB2):NH (II), WHICH IS UNSTABLE AND WAS NEVER ISOLATED. THE NAME FORMAMIDINE, SULFINAMIDINE IS PROPOSED FOR II.
FACILITY: ONEPROPTETROVSK. KHIM.-TEKHNOL. INST., ONEPROPETROVSK, USSR.

UNCLASSIFIED

1/2 007 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--ARENESULFONYLAMIDES. XXXV. PREPARATION OF AROMATIC ALDEHYDES AND KETONES -U-

AUTHOR-(02)-KREMLEV, M.M., ZLOTCHENKO, S.I.

K

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(4), 793-4

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SULFONAMIDE, ALDEHYDE, AROMATIC KETONE, ORGANIC SYNTHESIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1992 STEP NO--UR/0366/70/006/004/0793/0794

CIRC ACCESSION NO--AP0125581

UNCLASSIFIED

2/2 007 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125581

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CONVERSION WAS CARRIED OUT OF RCH SUB2 R PRIME1 TO RCOR PRIME1. E.G. PRME, PHSO SUB2 NHNA, AND PHSO SUB2 NCL SUB2 WERE REFLUXED IN PHCL TO GIVE PHCH:NSO SUB2 PH (I), PHSO SUB2 NH SUB2, AND NACL. THE TREATMENT OF I WITH WATER GAVE (34.6PERCENT) PHCOPH AND PHSO SUB2 NH SUB2. OTHER RCOR PRIME1 WERE PREPD. ANALOGOUSLY IN 24.5-78.9PERCENT YIELDS (R AND R PRIME1 GIVEN): 2,MEC SUB6 H SUB4, H; 3,MEC SUB6 H SUB4, H; 4,MEC SUB6 H SUB4, H; 2,4,ME SUB2 C SUB6 H SUB3, H; 3,5,ME SUB2 C SUB6 H SUB3, H; 4,ISO,PRC SUB6 H SUB4, H; 2,NAPHTHYL, H; PHCHME, ME; PH, ME. ALL RCOR PRIME1 (R PRIME1 EQUALS H) WERE OXIDIZED WITH AIR TO THE CORRESPONDING ACIDS; 2,4,DINITROPHENYL-HYDRAZONES OF THESE COMPDS. WERE ALSO PREPD.

UNCLASSIFIED

UDC 669.15:[illegible]

USSR

KROTKOVA, Ye. Ye., [illegible], [illegible], I. S.

"Properties and Structure of 40Kh Steel with Thermoultrasonic [illegible]"

Moscow, Metallovedeniye i Termicheskaya Obrabotka Metallov, No 11, [illegible], pp 64-65

Abstract: A study was made [illegible] electrically smelted steel of the following composition: 0.43% C; 0.64% Mn; 0.3[illegible] Si; 0.96% Cr; 0.05% Ni; [illegible] P; and 0.020% [illegible]. The application of ultrasound ([illegible] kc, amplitude [illegible]) in the process of tempering at 100-500° C results in higher hardness and [illegible] resistance of 40Kh steel, which can be explained by the different [illegible] of martensite decomposition and the [illegible] of the carbide phase. [illegible] tempering does not eliminate the irreversible temper brittleness, [illegible] the extent of the zone -- 200° C as compared to 350° C at ordinary tempering. Minimum impact toughness is observed at 350° C regardless of the type of tempering.

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USSR

UDC: 681.121.842

KREMLEVSKIY, P. P., DYUDINA, I. A.

"Use of Standard Diaphragms for Measurement of Moist Steam Flow"

IV Vses. Nauch.-Tekhn. Seminar. Metody i Pribory Dlya Izmereniya Raskhodov i Kolichestv Zhidkosti, Gaza i Para [Fourth All-Union Scientific and Technical Seminar on Methods and Devices for Measurement of Flow Rates and Quantities of Fluid, Gas and Vapor -- Collection of Works], Tallin, 1972, pp 17-22 (Translated from Referativnyy Zhurnal Metrologiya i Izmeritel'naya Tekhnika, No 3, 1973, Abstract No 3.32.702)

Translation: As a result of theoretical and experimental studies, the following conclusions are drawn: 1. In measuring the flow of moist steam using a standard diaphragm, one can use the ordinary flow formula under the condition of application of correction factor K, the value of which is presented. 2. The formula for flow rate of moist steam yields, as a particular case, the generally known formula for measurement of flow rate of single-phase media. 3. As moist steam moves through a diaphragm, the particles of moisture, the density of which is several hundred times greater than that of the vapor, are not accelerated and pass through the aperture of the diaphragm at their initial velocity. 2 tables.

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USSR UDC: 681.121

KREMLEVSKIY, P. P.

"Problems of Metrology in the Area of Measuring Rates of Flow of Liquids and Gases"

V sb. Tochnoye izmereniye raskhodov i kolichestv veshchestv (Precision Measurement of Rates of Flow of Substances and Their Quantities--collection of works), Vyp. 122 (182), Moscow-Kazan', 1970, pp 13-17 (from Ref Zh-Metrologiya i Izmeritel'naya Tekhnika, No 9, Sep 70, Abstract No 9.32.709)

Translation: The author discusses two groups of problems: the first--maintaining unity of measurements and providing for checking instruments; second--improving methods of measurements now in existence, and developing new methods in addition to these. The author shows that the coordinated efforts of a number of agencies and organizations are necessary for the successful solution of these problems, especially scientific enterprises and the Committee of Standards, Measures and Measuring Instruments Associated with the Council of Ministers of the USSR.

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1/2 022 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--EXPERIMENTAL ACUTE HEPATIC INSUFFICIENCY IN DOGS -U-

AUTHOR-(05)-LOPUKHIN, YU.M., DUBROVSKIY, A.K., KUZNETSOV, V.N., KREMLI, S.M., KHOVANSKAYA, M.G.

COUNTRY OF INFO--USSR

SOURCE--EKSPERIMENTAL'NAYA KHIRURGIYA I ANESTEZIOLOGIYA, 1970, NR 3, PP 25-29

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--DOG, LIVER FUNCTION, CARBON TETRACHLORIDE, BLOOD CHEMISTRY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1897 STEP NO--UR/0481/70/000/003/0025/0029

CIRC ACCESSION NO--AP0129249

UNCLASSIFIED

2/2 022 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0129249

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN VIEW OF THE FACT THAT UP TO THE PRESENT TIME THERE EXISTS NO SATISFACTORY METHOD OF INDUCING HEPATIC COMA THE AUTHORS CARRIED OUT THREE PRINCIPAL SERIES OF EXPERIMENTS: 1. DEVASCULARIZATION OF THE LIVER WITH PRELIMANRY ESTABLISHMENT OF PORTOCAVAL ANASTOMOSIS. 2. INJECTION OF HEPATOTROPIC POISON (CARBON TETRACHLORIDE) INTO THE BLOOD CHANNEL. 3. LIGATION OF THE HEPATIC ARTERY, BILE DUCTS WITH INTRODUCTION INTO THEM OF CARBON TETRACHLORIDE. EXPERIMENTS WERE CONDUCTED 47 MONGREL DOGS UNDER MORPHINE HEXANAL ANESTHESIA. THE DEVELOPMENT OF HEPTIC INSUFFICIENCY WAS EVALUATED BY THE CLINICAL COURSE, BIOCHEMICAL INDICES OF THE BLOOD (AMMONIUM, UREA, SUGAR, BILIRUBIN, LACTIC ACID) AND MORPHOLOGICAL STUDY OF THE LIVER. THE AUTHORS ARRIVED AT THE CONCLUSION THAT THE MOST COMPLETE SYMPTOM COMPLEX OF ACUTE HEPATIC INSUFFICIENCY IN DOGS WAS OBTAINED ONLY IN THE THIRD SERIES. AMMONIUM TOWARDS THE 3RD-5TH DAY INCREASED UP TO 1.8 PLUS OR MINUS 0.13 MGPERCENT (P SMALLER THAN 0.02); UREA DECREASED DOWN TO 19.0 PLUS OR MINUS 0.73 (P SMALLER THAN 0.02); BILIRUBIN UP TO 2.4 PLUS OR MINUS 0.003 (P SMALLER THAN 0.001); LACTIC ACID INCREASED UP TO 57.0 PLUS OR MINUS 0.001); SUBSEQUENTLY THE BIOCHEMICAL INDICES STEADILY DETERIORATED. THE CLINICAL PICTURE AND SEVERE MORPHOLOGICAL AFFECTION OF THE LIVER SUPPLEMENTED THE BIOCHEMICAL INDICES OF THE BLOOD. THIS MODEL OF ACUTE HEPATIC INSUFFICIENCY ENABLES TO STUDY THE FUNCTIONAL ACTIVITY OF ISOLATED HOMO OR HETEROLIVER. FACILITY: LABORATORIYA PERESADKI ORGANOV TSENTRAL'NOY NAUCHNO-ISSLED. LABORATORII II MOSKOVSKOGO MEDITSINSKOGO INSTITUTA IM. N. I. PIROGOVA.

UNCLASSIFIED

USSR

UDC 669.018.2:620.17

GELLER, Yu. A., GORGOZIANI, A. G., and KREMNEV, L. S., Moscow Machine Tool Institute

Moscow, Izvestiya Vysshikh Uchebnykh Zavedeniy, Chernaya Metallurgiya, No 7, 1972, pp 131-134

Abstract: A study was made of the strength and viscosity of R18 (high-tungsten), R6M5 and R3M3 (tungsten-molybdenum), R9K9 (cobalt), and R14F4 (high-vanadium) high-cutting steels at temperatures up to 625°C. The results are discussed by reference to diagrams showing that at 20°C the strength of R6M5 steel is 6-10% higher than R18 steel, the strength of R9K5 and R14K4 steels decreases at 525-625°C with the same intensity as that of R6M5 steel, and the viscosity of R6M5 steel is 30-40% higher than that of R18 steel. The increase in strength at higher temperatures is more intensive in tungsten-molybdenum steels with a relatively low quantity of residual carbide phase and less intensive on R18 steel with a high quantity of carbides. The impact ductility increases with rising temperature, depending on the composition of the solid solution; the increase is higher in high-cutting steels alloyed with molybdenum or cobalt. Cobalt steels are recommended for cutting under conditions of developing adhesion wear. Vanadium steels are best used for cutting conditions without extensive heating. Three figures, two bibliographic references.

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USSR UDC: 669.14:669.112.227.34:546.26:548.73

KREMNEV, L. S., ADASKIN, A. M., BOGOLYUBOV, A. V., Moscow Machine-tool Institute

"Determination of Concentration of Carbon in the Martensite of Steels Using the Asymmetry of Reflection Lines"

Moscow, Zavodskaya Laboratoriya, No. 9, 1971, pp 1086-1090

Abstract: A method has been developed for determining the concentration of carbon in the martensite of alloy steels, based on the dependence of the asymmetry of reflection lines on the spacing between doublets. The profile of the martensite line was approximated by analytic functions. The difference in the areas of the reflection lines located to the left and right of the ordinate of the center of gravity of the line is used to calculate the parameters of the component doublets and the shift between doublets. A theorem is proven, stating that in the case of coincidence of the sums of the ordinates of the doublets with the ordinates of an experimental profile of the reflection line, the expansion is unique. Dependences are produced for determination of the error in expansion and conditions of applicability of the method.

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Acc. Nr. AP0049426 Abstracting Service: CHEMICAL ABST. 5-70 K Ref. Code 4R 0129

102895z Optimum carbon content in high-speed steels.

Kremney, L. S.; Addaskin, A. M.; Geller, Yu. A. (Mosk. Stankoinstrum. Inst., Moscow, USSR). *Metalloved. Term. Obrab. Metal.* 1970, (1), 25–31 (Russ). The effect was investigated of C content on properties and transformations of W and W–Mo steels. Steel compns. were: steel R18 W 17.0–17.9, Cr 4.1–4.3, V 1.1–1.2, and C 0.65–1.04%; steel R 12 W 11.6–12.6, Cr 3.5–3.6, V 1.55–1.7, and C 0.77–1.30%; steel R 12F3 W 12.0–13.0, Cr 3.8–4.0, V 2.6–2.7, and C 0.97–1.45%; steel R6M3 W 6.2–6.4, Mo 3.2–3.6, Cr 3.0–3.5, V 2.1–2.2, and C 0.95–1.13%, and steel R6M5 W 5.8–6.3, Mo 5.2, Cr 4.2–4.4, V 2.0–2.1, and C 0.75–1.09%. Secondary hardness and red-hardness of high speed steels increases up to a detd. near quasi-eutectic C concn., higher than in std. steels. Further increasing of C lowers max. hardness as well as red-hardness. Max. hardness and red-hardness were obsd. with R18 and R12 steels contg. ~1% C, for R12F3 steel contg. 1.15% C, and for W–Mo steels contg. 1.05–1.10%. In this case hardness attains HRC 65.5–67.

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REEL/FRAME
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and red-hardness (for hardness HRC 60) 625-635°, i.e., values which are usually obtained for highly alloyed V-steels R9F5 and R14F4 with poorer grinding qualities. In steels with higher C, absence of ferrite, after heating to temps. above the pearlite transformation region, provides better dissoln. of carbides. In these steels pptn. of carbides during tempering takes place in a narrower temp. interval, hence the carbides are more dispersed and homogeneous in compn. and size, than in steels with lower C content. Increased C content to 1.0-1.05% is advisable for W-Mo steels, and partly also for R6M5 steel, particularly when they are used instead of highly alloyed V steels, because of their better mech. properties and grinding ability. Jiri Bečvář

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19801263

1/2 007 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--INTENSIFICATION OF THE FINISHING OF A CUT STAPLE FIBER -U-

AUTHOR-(05)-KRENNEV, O.A., BORDVSKIY, V.K., SATANOVSKIY, A.L., KIGEL, T.B., BUGAYCHUK, N.F.

COUNTRY OF INFO--USSR

SOURCE--KHIM. VOLOKNA 1970, (2), 53-5 (RUSS)

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--RAYON, TEXTILE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1661 STEP NO--UR/0183/70/000/002/0053/0055

CIRC ACCESSION NO--AP0125283

UNCLASSIFIED

2/2 007 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0125283

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CON. CONTINUOUS WASHING OF RAYON STAPLE WITH OIL, NAOH SOLN. AT 78DEGREES REQUIRES 135 SEC TO REDUCE ITS S CONTENT BELOW 0.075PERCENT. THE INSERTION OF ROLLERS, WHICH COMPRESS THE STAPLE PERIODICALLY DURING ITS PASSAGE THROUGH THE BATH, AND TEMP. INCREASE TO 95DEGREES REDUCED THIS TIME TO 20-5 SEC. THE WASHING TIME WAS ALSO REDUCED TO 15-20 SEC WHEN VIBRATIONS OF 200 CYCLES-MIN AND 50 MM AMPLITUDE WERE APPLIED TO THE WASH SOLN. HELD AT 80DEGREES. BOTH OF THESE METHODS INCREASED PRODUCTIVITY. THE VIBRATIONS GAVE SOFTER, EASIER TO DRY FIBERS. FACILITY: INST. TEKH. TEPLOFIZ., KIEV, USSR.

UNCLASSIFIED

BOV/19-59-7-354/369

15(4)

AUTHORS: Kremnev, O.A., Borovskiy, V.R., Krostash, M.D., Petrusha, G.I., Tyumenev, Ya.K., Burova, V.M., Timofeyeva, Yu.A. and Zapol'skiy, I.A.

TITLE: A Method of Drying Cocoons

PERIODICAL: Byulleten' izobreteniy, 1959, Nr 7, pp 72-73 (USSR)

ABSTRACT: Class 82a, 8. Nr 119141 (605185 of 1 August 1958). A method of drying cocoons, with the temperature of the drying agent falling in the drying process. The drying is carried out in a two-zone dryer and with artificial moistening of the drying agent being fed into the chamber. In the first zone, the drying agent has temperature of 125°C and 25% humidity, and in the second zone, a temperature of 95°C and 35 to 40% humidity.

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