VESELOVSKAYA, M.M.; LAPINSKAYA, T.A.

Pre-Cambrian formations of the eastern slope of the Voronezh nose. Trudy VNIGNI no.36:231-239 '63. (MIRA 17:9)

LAPINSKAYA, T.A.; CHARYGIN, A.M.

New data on the petrography of the crystal basement in the Volga Valley portion of Volgograd Province. Trudy MINKHiGP no.43: 246-260 '63. (MIRA 17:4)

LAPINSKAYA, T.A.; BOGDANOVA, S.V.; ZHURAVLEV, Ye.G.

Petrography and tectonic features of the crystal basement in the Volga-Ural oil- and gas-bearing region. Trudy MINKHiGP no.43: 280-297 '63. (MIRA 17:4)

MIKHAYLOVA, Nelli Aleksandrovna; LAPINSKAYA, T.A., otv. red.

[Characteristics of the quartz of a Devonian terrigenous formation and its possible source material] Kharakteristika kvartsa terrigennoi tolshchi devona i vozmozhnykh istochnikov ego snosa. Moskva, Izd-vo "Nauka," 1964. 69 p. (MIRA 17:8)

L 3074-66 EPA(s)-2/EWT(m)/EPF(n)-2/EWP(t)/EWP(b) IJP(c) JD/WW/JG

AM5024744 BOOK EXPLOITATION UR/ 553.495

Danchev, Vladimir Ivanovich; Lapinskaya, Tat'yana Aleksandrovna

Deposits of radioactive raw materials (Mestorozhdeniya radioaktivnogo syr'ya) Moscow, Izd-vo "Nedra," 1965. 252 p. illus., biblio., tables. 2000 copies printed

TOPIC TAGS: prospecting, radioactivity, natural uranium, geologic exploration

PURPOSE AND COVERAGE: This textbook is intended for students at schools of higher education for oil- and mineral-prospecting, and may also be useful to geologists, geophysicists- and others engaged in geological exploration. It provides information on modern theories of the formation of radioactive deposits, and describes the largest deposits and those most clearly characterizing a given genetic group. The book deals mainly with the description of uranium deposits suitable for industrial use. The description of endogenic deposits, which is more detailed, includes the research results of the authors, A. A. Saukov, V. M. Popov, P. P. Zabarinskiy, I. Ye. Smorchkov, and

Card 1/2

L 3074-66
AM5024744

V. I. Kazanskiy read some parts of the book and provided comments.

TABLE OF CONTENTS:

SUB CODE: NP SUBMITTED: 22Feb65 NO REF SOV: 101

OTHER: 025

Card 2/2

DANCHEV, Vladimir Ivanovich; LAPINSKAYA, Tat'yana Aleksandrovna; IONEL', A.G., ved. red.

[Deposits of radioactive raw materials] Mestorozhdeniia radioaktivnogo syr'ia. Moskva, Nedra, 1965. 253 p. (MIRA 18:7)

LAPINSKAYA, T.A.; KUZNETSOV, V.G.

Correlation of the zone of the Kama-Kinel' depression with the tectonics of the crystalline basement. Dokl. AN SSSR 164 no.5:1125-1128 O '65. (MIRA 18:10)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti. Submitted April 13, 1965.

S/844/62/000/000/070/129
D204/D307

AUTHORS: Lapinskaya, Ya. M., Khenokh, M. A., Votinov, M. P., Yevdokimov, V. F. and Antuf'yev, V. V.

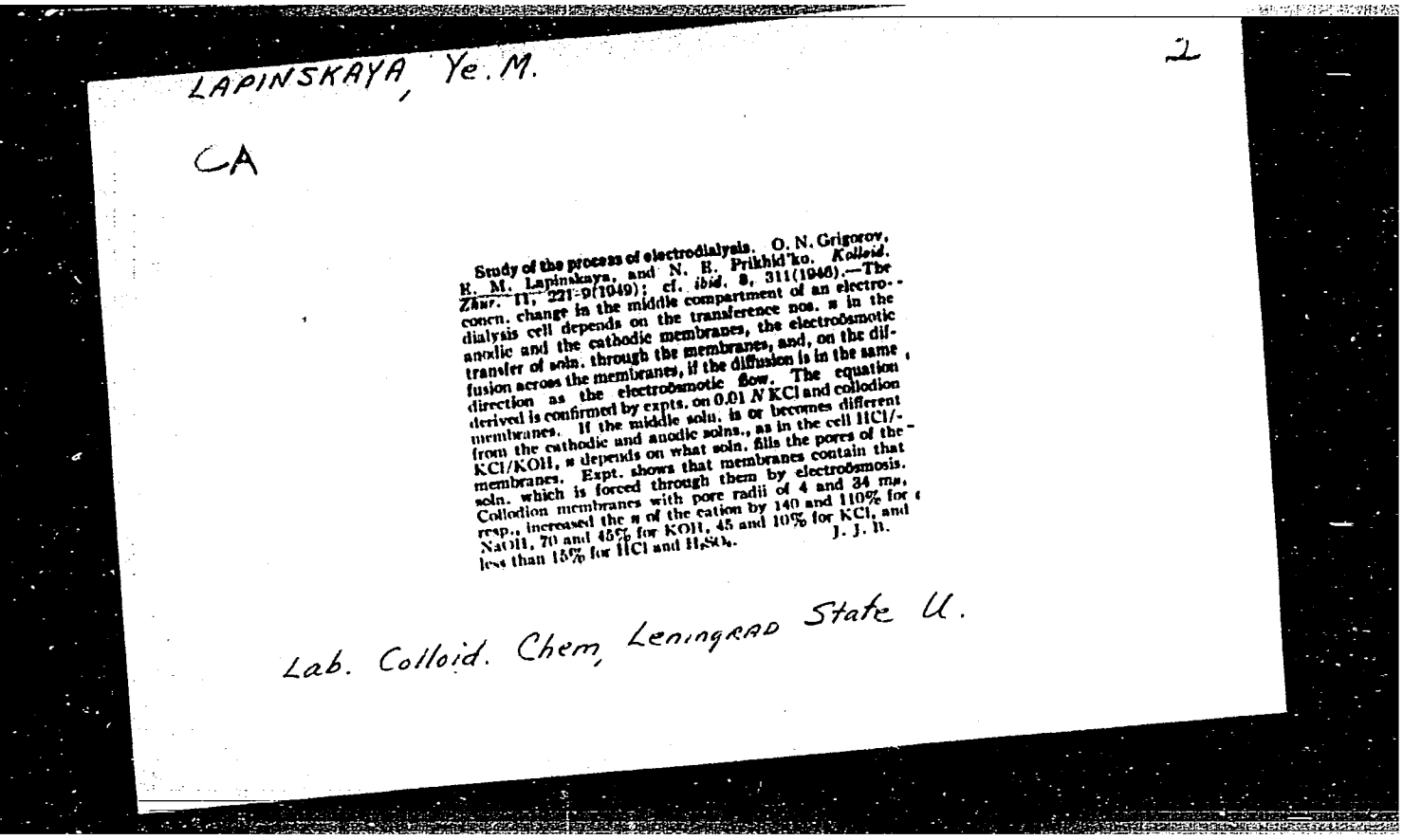
TITLE: The action of γ radiation of Co^{60} on solid hippuric acid

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 403-408

TEXT: The effects of γ radiation on hippuric acid, benzoic acid, and glycine were studied in the presence of air. PhCOOH gave rise to PhCOO· only, and glycine was radiolyzed to NH_3 and CH_2O, the extent of decomposition increasing with increasing dose of irradiation. Hippuric acid itself turned pink on exposure to γ rays, but the color disappeared on recrystallization or on heating to 130°C. The physical properties of hippuric acid remained unchanged after irradiation. The EPR sepctrum showed 5 lines which corresponded to a H interacting with the N-nucleus and two other protons. The intensity of the lines rose with increasing dose. On heating the irradia-

Card 1/2

Car



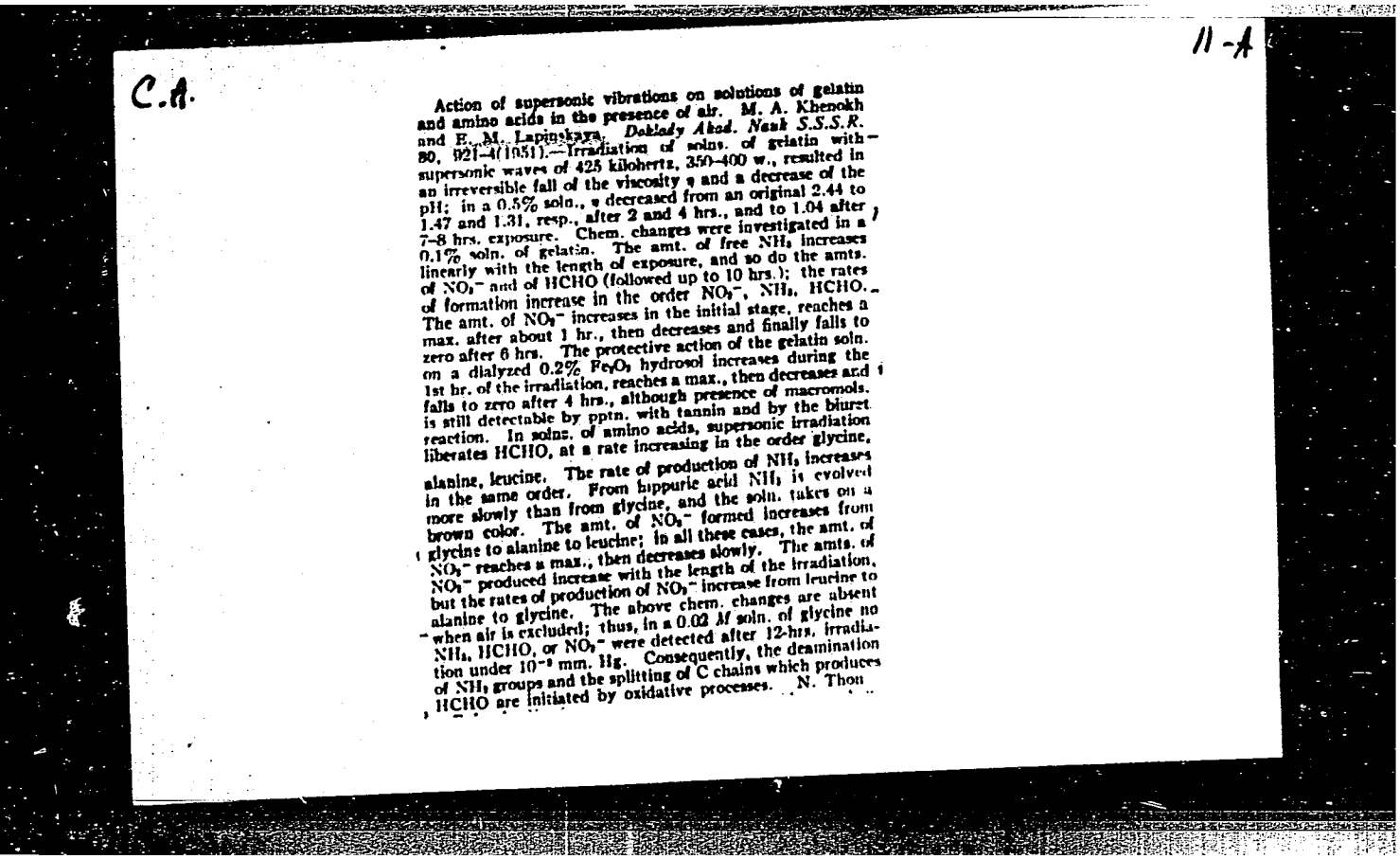
LAPINSKAYA, Ye. M.

2

CA

Study of the process of electrodialysis. O. N. Grigorov, E. M. Lapinskaya, and N. B. Prikhid'ko. *Kolloid. Zhur.* 11, 221-9(1949); cf. *ibid.* 8, 311(1946).—The concn. change in the middle compartment of an electrodialysis cell depends on the transference nos. *n* in the anodic and the cathodic membranes, the electroösmotic transfer of soln. through the membranes, and, on the diffusion across the membranes, if the diffusion is in the same direction as the electroösmotic flow. The equation derived is confirmed by expts. on 0.01 *N* KCl and collodion membranes. If the middle soln. is or becomes different from the cathodic and anodic solns., as in the cell HCl/KCl/KOH, *n* depends on what soln. fills the pores of the membranes. Expt. shows that membranes contain that soln. which is forced through them by electroösmosis. Collodion membranes with pore radii of 4 and 34 mμ, resp., increased the *n* of the cation by 140 and 110% for NaOH, 70 and 45% for KOH, 45 and 10% for KCl, and less than 15% for HCl and H_2SO_4. J. J. B.

Lab. Colloid. Chem, Leningrad State U.



11-A

C.A.

Action of supersonic vibrations on solutions of gelatin and amino acids in the presence of air. M. A. Khenokh and E. M. Lapinskaya. *Doklady Akad. Nauk S.S.S.R.* 80, 921–4(1951).—Irradiation of solns. of gelatin with supersonic waves of 425 kilohertz, 350–400 w., resulted in an irreversible fall of the viscosity η and a decrease of the pH; in a 0.5% soln., η decreased from an original 2.44 to 1.47 and 1.31, resp., after 2 and 4 hrs., and to 1.04 after 7–8 hrs. exposure. Chem. changes were investigated in a 0.1% soln. of gelatin. The amt. of free NH_3 increases linearly with the length of exposure, and so do the amts. of NO_3^- and of HCHO (followed up to 10 hrs.); the rates of formation increase in the order NO_3^-, NH_3, HCHO. The amt. of NO_3^- increases in the initial stage, reaches a max. after about 1 hr., then decreases and finally falls to zero after 6 hrs. The protective action of the gelatin soln. on a dialyzed 0.2% Fe_2O_3 hydrosol increases during the 1st hr. of the irradiation, reaches a max., then decreases and falls to zero after 4 hrs., although presence of macromols. is still detectable by pptn. with tannin and by the biuret reaction. In solns. of amino acids, supersonic irradiation liberates HCHO, at a rate increasing in the order glycine, alanine, leucine. The rate of production of NH_3 increases in the same order. From hippuric acid NH_3 is evolved more slowly than from glycine, and the soln. takes on a brown color. The amt. of NO_3^- formed increases from glycine to alanine to leucine; in all these cases, the amt. of NO_3^- reaches a max., then decreases slowly. The amts. of NO_3^- produced increase with the length of the irradiation, but the rates of production of NO_3^- increase from leucine to alanine to glycine. The above chem. changes are absent when air is excluded; thus, in a 0.02 *M* soln. of glycine no NH_3, HCHO, or NO_3^- were detected after 12-hrs. irradiation under 10^{-3} mm. Hg. Consequently, the deamination of NH_2 groups and the splitting of C chains which produces HCHO are initiated by oxidative processes. N. Thon

LAPINSKAYA, E. M.

mem (3)

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Electronic Phenomena and Spectra

Oxidation of alcohols under the influence of supersonic vibrations. E. M. Lapinskaya and M. A. Khenokh (P. F. Lesgaft Natural Sci. Inst., Leningrad). *Zhur. Obshchei Khim.* 23, 1464–8(1953).—When 0.1–1.0% aq. MeOH solns. are subjected to 300-kilocycle ultrasound at about 40° the concn. of CH_2O formed gradually increased with duration of exposure, the rate being generally increased by increase of concn. of MeOH in the original soln. In addn., HNO_2 and HNO_3 are formed, owing to oxidation of the dissolved air. The concn. of HNO_2 rises for about 0.5 hr., after which it begins to decline through oxidation to HNO_3, the max. being about 0.2 mg./100 ml. The concn. of HNO_3, however, steadily rises with time of exposure. The max. concn. of CH_2O formed is about 16 mg./100 ml. when the initial MeOH concn. is about 10%; at other concns. the amt. of CH_2O formed is very significantly lower. In 3-hr. exposures the following concns. of aldehydes, NO_2, and NO_3 ions were produced from 0.02*M* MeOH, EtOH, PrOH, and BuOH solns.: MeOH 5.8 mg./100 ml., trace, 0.96 mg./100 ml.; EtOH, 7.98, trace, 0.4; PrOH 16.5, none, 0.2; BuOH 19.4, none, 0.14. When glycine is added to aq. MeOH (0.1%), the oxidation of MeOH under ultrasound is retarded, the effect being parallel to increase of glycine concn. (to about 0.04 molar). When lactose or glucose is added to aq. MeOH, a similar effect is observed and the amt. of CH_2O formed is reduced. When dil. CH_2O solns. are subjected to prolonged ultrasound exposures, oxidation to HCO_2H occurs, which is progressive with time; glycine retards this oxidation as well.
G. M. Kosolapoff

MF 7-13-54

The action of ultrasonics on proteins and amino acids. E. M. Lapinskaya, A. N. Mironova, and M. A. Khenokh. *Doklady Akad. Nauk S.S.S.R.* 94, 109-12(1954); cf. *C.A.* 44, 405g; 46, 1605g.—Exposures of proteins and amino acids to ultrasonic vibrations of 300-kc. frequency was made in aq. soln., and the products were examd. as to their absorption spectra to observe any changes. As albumin is subjected to ultrasonic treatme[illegible] 3 hrs. there occurs a steady increase of its absorption m[illegible] 250–330 mμ but no new peaks appear. Casein behaved similarly; products of treatment of gelatin showed no change in absorption spectrum, except for increased intensity of absorption. Both albumin and casein develop continuous absorption at the long-wave end of the spectrum. Phenylalanine increases the intensity of its absorption max. at 220–270 mμ, while tyrosine shows a similar increase at 260–290 mμ. A weak wide band at 300–360 mμ appears. Only after 10 hrs.' exposure does this wide band begin to obscure the characteristic absorption band of phenylalanine; the shape of the absorption curve remains unchanged. Neither glycine nor alanine showed absorption both before and after a 7-hr. exposure, while leucine showed an increase of absorption intensity; when all 3 acids are present in the soln. the exposure to ultrasound causes increase in absorption intensity but without definite bands. Exposure of pure aq. C_6H_6 to ultrasound at 18–20° resulted in development of brown color and acidity which could be titrated with NaOH; these changes are accompanied by change in the absorption spectrum with general widening and decrease of peak intensity in the range of 230–270 mμ, for 15 min., after which the entire level of absorption rises significantly. The changes observed in the proteins are analogous to those produced in the aromatic ring of the hydrocarbon or the aromatic acids.

G. M. Kosolapoff

TRANS - M-145, 7 Feb 55

LAPINSKAYA, Ye M

USSR/Chemistry - Biochemistry

Card 1/1 Pub. 22 - 37/54

Authors : Khenokh, M. A., and Lapinskaya, Ye. M.

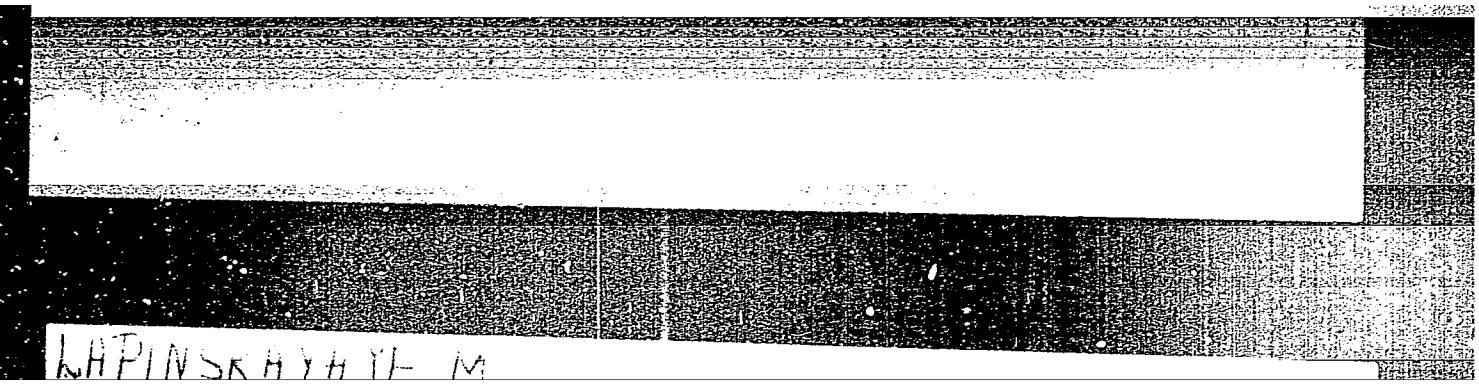
Title : Effect of beta-radiation of the radioactive P^{32} isotope on amino acids

Periodical : Dok. AN SSSR 102/5, 993-996, Jun 11, 1955

Abstract : Using a P^{32} compound in the form of a salt solution (Na_2HPO_4) as a source of beta-rays the authors investigated the direct effect of these rays on certain amino acids. Results indicate that the chemical processes occurring under the effect of P^{32} radiation cause deamination of the NH_2-group, NH-bond and splitting of the carbon chain in amino acids and in gelatin as well. Sixteen references: 12 USSR and 4 USA (1930-1954). Graphs.

Institution : The P. F. Lesgaft State Natural Sciences Inst.

Presented by : Academician L. A. Orbeli, February 4, 1955



Effect of γ-radiation of radioactive cobalt on proteins and amino acids. M. A. Khenokh and E. M. Lapinskaya (P. F. Lesgaft State Sci. Research Inst. Natural History, Leningrad). *Doklady Akad. Nauk S.S.S.R.* 110, [illegible] (1956).—Irradiation of proteins and amino acids in soln. with γ-radiation from Co^{60} was examd. Solns. of albumin and casein show increased absorption in 240-300-mμ range with increased dose of radiation, but no new absorption max. are produced. In gelatin the latter passed into insol. gel form after a radiation of 11.6 × 10[illegible] e.v./ml. at 50-60°; only after considerable heating did the gel reenter the soln.; this may be the result of cross-linking of the protein macromols. under attack of γ-radiation. Irradiations of solns. of alanine and leucine and glycine gave CH_2O (the smaller the acid, the greater is the yield of CH_2O); intensity of absorption in the 230-300-mμ region rose but no new maxima formed in cases of the above 3 amino acids. With cystine soln. the intensity of absorption in this region declined with irradiation. Absorption by phenylalanine and tyrosine increases with irradiation, but no new maxima form. Irradiation of aq. C_6H_6 led to increased intensity of absorption in the 230-260-mμ region, although the spectrum now extended to the 260-280-mμ band with some sharp bands at 269 and [illegible]; this indicates formation of PhOH, and a new band at 345 [illegible]. The irradiation produced CH_2O in yield of 0.2 mole per [illegible]. Thus the irradiation of proteins and amino acids [illegible] rupture of C—C bonds and hydroxyla[illegible] tion of [illegible].

G. M. Kosolapoff

LAPINSKAYA, Ye. M., and KHENOKH, M. A.

"Action of Co^{60} γ-Radiation on Proteins and Amino Acids,"

paper presented at the 1st All-Union Conference on Radiation Chemistr y 27 March - 2 April 1957.

P. F. Lesgart State Natural Sciences Inst, Leningrad.

LAPINSKAYA, Ye.M., SYTINSKIY, I.A.

Variation of ion transfer numbers in pores of isolated guinea pig skin under different physiological conditions [with summary in English]. Biofizika 3 no.3:371-374 '58 (MIRA 11:6)

1. Gosudarstvennyy yestestvenno-nauchnyy institut im. P.F. Lesgafta, Leningrad.
(SKIN)
(ELECTROPHYSIOLOGY)

79-28-3-31/61

AUTHORS: Khenokh, M. A., Lapinskaya, Ye. M.

TITLE: The Effect of the γ-Radiation of Radioactive Cobalt (Co^{60}) on the Aqueous Solutions of Aromatic Hydrocarbons (Deystviye γ-izlucheniya radioaktivnogo kobal't ta (Co^{60}) na vodnyye rastvory aromaticheskikh uglevodorodov)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 698-703 (USSR)

ABSTRACT: Based on their own works on the investigation of the effect of ionizing radiation (refs, 10, 11) and of ultrasound on organic compounds the authors exposed the saturated aqueous solutions of benzene, toluene and phenol to the action of γ-radiation of Co^{60} (~ 2 C) at 15± 2°C. The water taken for this had been distilled three times and the experiments were repeated 3-5 times. It was shown that under the action of γ-radiation an hydroxilation of the six-membered nucleus takes place in benzene solutions, the phenol yield being 1,31 of the molecule/100 eV, and at the formed formaldehyde 0,07 of the molecule /100 eV. After the irradiation an absorption with a maximum at 348 mμ was formed within the

Card 1/3

The Effect of the γ-Radiation of Radioactive Cobalt (Co^{60}) 79-28-3-31/61
on the Aqueous Solutions of Aromatic Hydrocarbons

spectrum of benzene, within the range of from 305-380 mμ. In the toluene solutions the radiation effect was accompanied by the formation of a phenol compound with a yield of 0,56 of the molecule/100 eV, and of formaldehyde, with a yield of 0,16 of the molecule/100 eV. The effect of the γ-radiation did not show any changes within the spectrum of toluene within 230-280 mμ; after the exposure, however, an absorption within the interval of waves lengths of from 320-380 mμ appeared with a maximum at 353-354 mμ. An effect of the γ-radiation on the absorption spectrum of the phenol solution could not be found. The absorption spectra of the benzene- and toluene solutions which had been treated with the Fenton activator (Fentona) differ from the spectra of the irradiated solutions. The differences in absorption bands show in the benzene solution within the range of 305-308 mμ, in the toluene solution, however, within the whole range under investigation (230-380 mμ). There are 6 figures and 23 references, 11 of which are Soviet

Card 2/3

The Effect of the γ-Radiation of Radioactive Cobalt (Co^{60}) on the Aqueous Solutions of Aromatic Hydrocarbons

79-28-3-31/61

ASSOCIATION: Gosudarstvennyy yestestvenno-nauchnyy institut imeni P. F. Lesgafta (State Natural Science Institute imeni P. F. Lesgaft)

SUBMITTED: December 1, 1956

Card 3/3

AUTHORS: Khenokh, M. A., Lapinskaya, Ye. M. 79-28-3-32/61

TITLE: The Change of Proteins and Aminoacids Under the Action of Ultrasonic Oscillations (Izmeneniye belkov i aminokislot pod vliyaniyem ul'trazvukovykh kolebaniy)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 704-710 (USSR)

ABSTRACT: The present report mentions the experimental results on the effect of sound on proteins and aromatic as well as on aliphatic amino acids. This is a continuation of the investigations carried out by the authors concerning the effect of ultrasound and nuclear radiations on the molecular compounds and their elementary members.
From 2.10^{-2} - 2.10^{-3} molar solutions amounting to 25 ml, of amino-acids and 0.5 % solutions of protein were subjected to the action of ultrasound with a frequency of 435 kcycles at 38-40°C. The effect of ultrasonic oscillations on the solutions of protein, casein, gelatin of the aliphatic and aromatic aminoacids was investigated. It showed that under the action of sound an absorption increase of ultra-

Card 1/3

violet light within the range of from 230-300 mμ takes place in the protein solutions without the formation of new absorption bands. In the gelatin solutions the sound effect caused an immediate change of the viscosity, a decrease of pH % and a decomposition of the molecules under the formation of ammonia and formaldehyde. The effect of ultrasound destroys the molecules. It was shown that the longer the chain of the aliphatic aminoacids the greater is the decomposition under the action of sound. The effect of ultrasound brings about the decomposition of the imidazol ring in hystidine, and in hippuric acid it leads to a rupture in the binding $CO-NH_2$ the amino acid becoming free. The oxidation effect of ultrasound causes the destruction of cystein under the formation of cystine which, however, with further sound effect also decomposes.
There are 9 figures, 1 table, and 17 references, 14 of which are Soviet.

The Change of Proteins and Aminoacids Under the Action of Ultrasonic Oscillations 79-28-3-32/61

ASSOCIATION: Gosudarstvennyy yestestvenno-nauchnyy institut imeni P. F. Lesgafta (State Natural Science Institute imeni P.F. Lesgaft)

SUBMITTED: February 7, 1957

Card 3/3

LAPINSKAYA, Ye. M.

AUTHORS: Getsova, A. B., Lapinskaya, Ye. M., Khenokh, M. A. 20-1-22/58

TITLE: The Development of Eggs in Antheraea Pernyi Under the Influence of Ultrasonic Treatment (Vliyaniye ul'trazvuka na razvitiye yaits dubovogo shelkopryada).

PERIODICAL: Doklady AN SSSR 1958, Vol. 118, Nr 1, pp. 78-79 (USSR)

ABSTRACT: According to the references in literature ultrasonic oscillations can influence the development of the seeds of various plants as well as stimulate the development of various animals. In this connection the authors tried to determine if ultrasound can be used for the acceleration of the development of the eggs of antheraea pernyi, which would be of practical importance. The sound treatment was carried out at various stages of development of the embryo and the duration of exposure to this treatment was also different. As experimental material served the eggs of antheraea pernyi of the first generation of spring 1956. The eggs were exposed to sound treatment in a test glass with destilled water at temperatures of from 13 - 15°. Also the treatment of the control eggs is described. From the time of hatching as well as from the number of surviving caterpillars the influence of the ultrasonic oscillations on the velocity of development as well as on the rate of surviving

Card 1/3

embryos was determined. The ultrasonic oscillations were produced by means of an ultrasound generator (300 - 400 Watt, 125 kc). The influence of the duration of exposure on the velocity of development of embryos is mentioned in a table. Especially in the begin of the development (on the first day) the ultrasonic oscillations have a stimulating effect. Most stimulating is a from 2 - 3 minutes lasting exposure. The exposure at the begin of the development shortens the fortnight-long development of embryos by 3 days, i. e. 21 %. With an exposure of 60 and 90 minutes the stimulating effect of ultrasound decreases to 8,3 %. Also during the development of the embryonal band ultrasound has a stimulating effect. But an exposure carried out during blastokinesis leads to the death of the embryo. An exposure of the eggs of from 1 - 30 minutes has the most stimulating effect. Therefore ultrasonic oscillations can accelerate the development of the eggs of the antheraea pernyi. There are 16 references, 11 of which are Slavic.

The Development of Eggs in Antheraea Pernyi Under the Influence of Ultrasonic Treatment. 20-1-22/58

ASSOCIATION: Zoologic Institute AN USSR (Zoologicheskiy institut Akademii nauk SSSR). Institute for Evolution-Physiology imeni I. M. Sechenov AN USSR (Institut evolyutsionnoy fiziologii imeni I. M. Sechenova Akademii nauk SSSR).

PRESENTED: August 8, 1957, by L. A. Orbeli, Academician.

SUBMITTED: August 1, 1957

AVAILABLE: Library of Congress

Card 3/3

VOTINOV, M.P.; LAPINSKAYA, Ye.M.; KHENOKH, M.A.; YEVDOKIMOV, V.F.; ANTUF'YEV, V.V.; STAFEYEV, A.V.

Electron paramagnetic resonance spectra of hippuric acid irradiated by gamma rays of Co^{60}. Radiobiologiia 1 no.1:149-150 '61. (MIRA 14:7)

1. Politekhnicheskiy institut im. M.I.Kalinina i Institut tsitologii AN SSSR, Leningrad.

(PARAMAGNETIC RESONANCE AND RELAXATION)
(HIPPURIC ACID)
(GAMMA RAYS—PHYSIOLOGICAL EFFECT)

LAPINSKAYA, Ye.M.; KHENOKH, M.A.; YEVDOKIMOV, V.F.

Radiochemical transformation pf phenylalanine. Radiobiologiia 1 no.5:694-700 '61. (MIRA 14:11)

1. Institut tsitologii AN SSSR, Leningrad.
(ALANINE) (RADIOCHEMISTRY)

L 35083-65

ACCESSION NR: AR5005400 S/0299/64/000/019/R025/R025

SOURCE: Ref. zh. Biologiya. Sv. t., Abs. 10R176

AUTHOR: Lapinskaya, Ye. M.; Danilova, L. N.

TITLE: Effect of deep cooling on actomyosin gels

CITED SOURCE: Sb. rabot. In-t tsitol. AN SSSR, no. 4, 1963, 14-26

TOPIC TAGS: actomyosin, gel, cooling, freezing, adenosine triphosphatase, structural property, mechanical property, syneresis

TRANSLATION: Changes taking place in the structural framework of actomyosin gels as a result of cooling to -20, -78, and -196° were investigated. Freezing produces changes in the structural-mechanical properties of actomyosin gels in 0.6 M KCl. The nature of the changes depends on cooling time and not on temperature. During the freezing process adenosine triphosphatase activity changes and gel solubility decreases. In nonsaline solutions actomyosin melting leads to syneresis and protein coagulation; the addition of glycerine prevents these changes. The authors assume that the changes in gel properties under cooling action are related to rearrangement of the gel

Card 1/2

L 35083-65

ACCESSION NR: AR5005400 0

structural framework and property changes of the structural elements themselves. Bibliography 22 titles. O. Nedelina.

SUB CODE: LS ENCL: 00

Card 2/2

LAPINSKAYA, Ye.M.; DANILOVA, L.N.

Influence of extremely low temperatures on actomyosin gels.
Sbor. rab. Inst. tsit. no.4:14-26 '63 (MIRA 17:3)

L 7999-66 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) IJP(c) JD

ACC NR: AP5026533 SOURCE CODE: UR/0286/65/000/019/0073/0073

INVENTOR: Lanskaya, K. A.; Gorchakova, E. N.; Surovtseva, Ye. D.; Lapitskaya, Ye. M.; Malysheva, V. P.; Zemzin, V. N.; Smirnova, I. D.

TITLE: Ferritic steel. Class 40, No. 175238 [announced by the Central Scientific Research Institute of Ferrous Metallurgy im. I. P. Bardin (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 73

TOPIC TAGS: steel, ferritic steel, heat resistant steel, silicon containing steel, manganese containing steel, chromium containing steel, molybdenum containing steel, vanadium containing steel, niobium containing steel, tungsten containing steel

ABSTRACT: This Author Certificate introduces a ferritic steel containing silicon, manganese, chromium, molybdenum, vanadium, niobium, and tungsten. In order to increase the rupture and creep strength, the steel has the following composition in %: 0.08—0.15 C, 0.4—1.0 Si, 0.4—1.0 Mn, 2.0—10.0 Cr, 0.5—2.0 Mo, 0.15—0.50 V, 0.5—1.5 Nb, and 6—10 W.

[WW]

SUB CODE: MM/ SUBM DATE: 09Apr64/ ATD PRESS: 4145

Card 1/1 nw

UDC: 669.15-194.57

LAPINSKAYTE, Ya. S.

Cand Biol Sci - (diss) "Bottom-living fauna of ponds of "Rita Ausma", its dynamics and role in the nutrition of carp." Vil'nyus, 1961. 19 pp; (Ministry of Higher and Secondary Specialist Education USSR, Vil'nyus State Univ imeni V. Kapsukas); 260 copies; price not given; (KL, 6-61 sup, 208)

LAPINSKI, A., mgr., inz.; CYMBRYKIEWICZ, Z., mgr., inz.

Resistors from carbon plates. Przegl elektrotechn 38 no.4:175-176 Ap '62.

1. Zaklad Materialoznawstwa Elektrotechnicznego.

L 61712-65 EWP(e)/EPA(s)-2/EWP(w)/EPF(c)/EWP(1)/EWA(d)/EPA(w)-2/T/EWP(t)/EWP(z)/
EWP(b) Pr-4/Ps-4/Pt-7 IJP(c) JD/WW/JG/WH

ACCESSION NR: AT5015231 PO/2530/64/012/041/0059/0076
621.3.066:621.315.5:669.22.73

AUTHOR: Chmielewski, Jan (Khmelevski, Ya.) (Master engineer); Lapinski, Adam (Master engineer)

TITLE: Silver-cadmium oxide electrical contacts

SOURCE: Warsaw. Instytut Elektrotechniki. Prace, v. 12, no. 41, 1964, 59-76

TOPIC TAGS: electric contact, silver contact, cadmium oxide contact, cermet contact, alloy oxidation, alloy hardness, alloy conductivity, alloy mechanical property

ABSTRACT: The paper reports an experimental investigation of the properties of electrical contacts made of the following materials: Ag, AgCd9 (an Ag-Cd alloy containing 9% cadmium), AgCd11 (an Ag-Cd alloy containing 11% cadmium), oxidized AgCd9, oxidized AgCd, and Ag-CdO cermet. The tested samples were in the form of wires 2 mm in diameter. The AgCd9 and AgCd11 alloys were prepared by the Instytut Metali Niezelaznych (Institute of Nonferrous Metals). The effect of diffusive oxidation on the mechanical properties of the materials was investigated, as well as the structure and mechanical properties of AgCd9 and AgCd11 wires oxidized internally. The thickness of the oxidized layer on AgCd9 and AgCd11 wires was measured after varying periods at 800C. The depth

Card 1/3

L 61712-65
ACCESSION NR: AT5015231

of the hardness of AgCd9 and AgCd11 wires on the distance below the surface was determined after the wires were kept at 800C for 9 hours. The tensile strength and elongation under load of AgCd9 and AgCd11 wires was determined before and after oxidation. The following were also determined: Electrical conductivity of AgCd9 and AgCd11 wires as a function of oxidation time at 800C; The effect of the number of electrical junctions on the wear and resistance of contacts made of Ag, Ag-Cd, oxidized Ag-Cd and Ag-CdO; The structure of oxidized Ag-Cd and Ag-CdO cermet contacts before work and after 100,00[illegible] junctions; The hardness of Ag, Ag-Cd, oxidized Ag-Cd and Ag-CdO cermet contacts [illegible] work and after 100,000 junctions. The experimental results, summarized in a table, sho[illegible] distinct differences in the properties of the materials. The results are discussed [illegible] number of conclusions drawn. It is noted that silver has the greatest conductivity [illegible] contact resistance in its initial state. Because of arcing, the loss of mass of silver [illegible] tacts becomes appreciable after 100,000 junctions. In contacts made of silver, the thick[illegible] ness of the layer of decreased hardness is much greater than in contacts made of the other materials. After work, the Ag-Cd alloys used showed a small contact resistance, small loss of mass and somewhat greater hardness than the other materials tested. Although oxidation of the Ag-Cd alloys decreased the mechanical strength and plasticity, it increased their conductivity and decreased their mass loss and the thickness of the layer of decreased hardness. Ag-CdO cermet contacts showed a significant increase in contact resistance

Card 2/3

L 61712-65

ACCESSION NR: AT5015231

after 100,000 junctions, and greater loss of mass than those made of the other materials. In the concluding section of the paper, the authors discuss the advantages of contacts made of oxidized Ag-Cd alloy and make several recommendations concerning their use and production. Its particular usefulness for low-voltage low-power applications is noted. Orig. art. has: 14 figures and 4 tables.

ASSOCIATION: Zaklad Materialoznawstwa Elektrotechnicznego, Instytut Elektrotechniki, Warsaw (Department of Electrical Engineering Materials Science, Institute of Electrical Engineering)

SUBMITTED: 10Mar64 ENCL: 00 SUB CODE: EE, MM

NO REF SOV: 000 OTHER: 008

electrical alloys

Card 3/3

LAPINSKI A. Z. Panstwowego Zakladu Higieny. Filia w Gdansku. O odmianie sluzowej paleczki ropy blekitnej (Ps. aeruginosa var. mucosa) A mucous variant of Ps. aeruginosa Medycyna Doswiadczalna i Mikrobiologia, Warsaw 1949, 1/2 (223-252) Tables 9 Illus. 2

Gram-negative, rod-shaped, pigment-producing organisms were isolated several times from the CSF in a case of purulent meningitis in an infant. A constant, characteristic feature was their growth in a mucoid form. Capsules were not found. Spontaneous dissociation in mucoid and non-mucoid variants occurred easily. Biochemical reactions were identical with those of Ps. aeruginosa stock strains.

Cross-reactions were observed in agglutination tests. A serologically active polysaccharide was isolated from the mucoid form.

Meisel - Warsaw

So: Medical Microbiology and Hygiene, Section IV, Vol 3, No. 1-6

LAPINSKI, A.;SACEWICZOWA, A.

Laboratory and epidemiological investigations on the appearance of Salmonella derby in the Gdansk region. Med. dosw. mikrob., Warsz. 4 no. 3:316 1952. (CIML 23:3)

1. Summary of work progress presented at 11th Congress of Polish Microbiologists held in Krakow May 1951. 2. Gdansk.

LAPINSKI, Adam; SWICOWA, Klementyna, A.; KRZYMOWSKA, Aleksandra; SUCINSKA, Danuta; WITKOWSKA, Barbara

Salmonella and Shigella in etiology and diarrhea in children in Gdansk region. Med dosw. mikrob. 8 no.3:299-306 1956.

1. Z Wojewwodzkiej Stacji Sanitarno-Epidem. w Gdansku i I Kliniki Chorob Dzieci AM w Gdansku.

(SALMONELLA INFECTIONS, in infant and child, causing diarrhea (Pol))
(SHIGELLA, infections, causing diarrhea in child. (Pol))
(DIARRHEA, in infant and child, caused by salmonella & Shigella infect. (Pol))

LAPIŃSKI, A.

EXCERPTA MEDICA Sec.4 Vol.11/4 Med.Microb. etc. April58

870. SEROLOGICAL REACTIONS IN DIAGNOSIS OF S. TYPHI MURIUM INFECTIONS IN INFANTS - Odczyny serologiczne w rozpoznawaniu zakażeń pał. S. typhi murium u niemowląt - Łapiński A., Świcowa K.A., Grabowska A., Krzymowska A., Kurdwanowski J. and Witkowska B. Woj. Stacji San.-Epid., Gdańsk - MED. DOŚW. MIKROBIOL. 1957, 9/2 (155-166) Tables 5

585 cases were investigated serologically (in 124 infants S. typhi murium was demonstrated; in 461 infants no clinical or bacteriological evidence of this infection was present). Somatic antigen as well as flagellar antigens 'i' and '1, 2, 3' were used in agglutination tests. Results obtained with flagellar 'i' antigen were the most reliable. By means of the agglutination test with flagellar 'i' antigen (titre of 1:80 or more) the diagnosis was possible in about 52% of the cases. In the controls those titres were obtained in only 5 out of 461 cases. (IV, 20)

IAPINSKI, Adam; WIRKOWSKA, Barbara

New type of Salmonella isolated in the Gdansk region. Med. dosw. mikrob. 9 no.3:259-260 1957.

1. Z Wojewodzkiej Stacji Sanitarno-Epidemiologicznej w Gdansku Dyrektor: dr J. Rychard.
(SALMONELLA,
STRAIN 6,7:1, v:Z6, isolation from feces (Pol))

LAPINSKI, Adam; WITKOWSKA, Barbara

Unusual types of Salmonella isolated in Gdansk Province in the years 1955 to 1956. Przegl. epidem., Warsz. 11 no.3:221-230 1957.

1. Z Wojewodzkiej Stacji Sanitarno-Epidemiologicznej w Gdansku.
(SALMONELLA
isolation of unusual strains (Pol))

MARKS-ZAKRZEWSKA, A.; LAPINSKI, A.; FILIPOWICZ, A.; GRABOWSKA, U.; RENKIELSKA, H.; WITKOWSKA, B.

Significance of agglutination reactions in dysentery in children. Pediat. polska 34 no.2:145-152 Feb 59.

1. Z II Kliniki Chorob Dzieci A. M. w Gdansku Kierownik: doc. dr med. A. Marks-Zakrzewska i z Wojewodzkiej Stacji Sanitarno-Epidermiologicznej W Gdansku Dyrektor: dr med. A. Lapinski. Adres: Doc. dr med. Marks- Zakrzewska, Warszawa, ul. Sienna 60.

(DYSENTERY, BACILLARY, in inf. & child,
fecal agglut. test (Pol))
(AGGLUTINATION,
Shigella agglut. test of feces in dysentery in child. (Pol))

BILLEWICZ, Irena: LAPINSKI, Adam: WITKOWSKA, Barbara

Diagnostic criteria in bacillary dysentery. Przegl.epidem. 14 no.3: 313-319 '60.

1. Z Kliniki Chorob Zakaznych A.M. w Gdansku, Kierownik prof. dr W.Bincer i z Pracowni Mikrobiologii WSSE w Gdansku Kierownik: dr A.Lapinski
(DYSENTERY BACILLARY diag)

PTA LAPINSKI, J.

5

1155 621 793.002.5

Lapinski J. Type GPM-L 2 Metal-Spraying Gun of Polish Manufacture.

„Pistolet do metalizacji GPM-L-2 produkcji krajowej". Przegląd Techniczny No 5, 1951, pp. 226–229, 5 figs., 1 tab.

Constructional details and principles of operation of the spray-gun for metallising wire. Advantage of this type of gun; superiority over foreign-made guns, particularly in high performance. List of wires for spray-metallisation and the purposes for which they are used.

LAPINSKI, J.

Spray metalization as a means of economy. p. 180.

PRZEGLAD SPAWALNICTWA. (Stowarzyszenie Inzynierow i Techników Mechanikow Polskichs i Instytut Spawalnictwa) Warszawa, Poland. Vol. 7, no. 7/8, July/Aug. 1955.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 2, Feb. 1959

Uncla.

LAPINSKI, J.

676.2.052.1 Wstl

Polish Technical Abst. 2428
No. 4, 1953
Mechanics, Electro-technics, Power

Lapinski J. New Trends in Paper Machine Design.
Nowe tendencje w budowie maszyn papierniczych. Przeglad Papierniczy. No. 1, 1953, pp. 4-12, 17 figs.
Width of paper machines. Problems connected with the raising of machine speed. Maximum speed attainable. Modern stock feed to the sieves, cushioned speed and pressure stock feed. Developments in the design of sieves. Breast roll and sieve tables. Suction boxes. Two- and three-chamber suction rolls. Automatic delivery machines. Vacuumatic delivery of paper sheet from the sive. Motor driven dandy rolls. Sieve shaking. Supplementary stock feed to flat sives. Pulp preparation.

LAPINSKI, J.

"New Trends in the Design of Papermaking Machines" II. p. 198 (Przeglad Papierniczy, Vol. 9, No. 7, 7/1953, Lodz)

SO: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Congress, February, 1954, Uncl.

LAPINSKI, J.

POL.

3379 676.2.022

Lapiński J. Fundamental Phenomena in Web Formation on Paper Making Machines.

„Podstawowe zjawiska przy formowaniu wstęgi papieru na maszynie papierniczej". Przegląd Papierniczy. No. 7, 1954, pp. 198—204.

The author deals with the phenomena occurring in hollanders – variations in internal structure, on the surface of the fibres — and the phenomenon of swelling of the fibres in water which occurs, in this instance, in three forms — colloidal, capillary and assimilated. The author next reviews the sequence of processes occurring as the pulp passes through the individual elements of the paper making machine, that is to say — through the wet-end where the fibres are matted to form the web, and through the dry-end in which a series of press rolls remove the water from the web

LAPINSKI, J.

The conditions of the development of a papermaking-equipment factory in Poland.

P. 217 (PRZEGLAD PAPIERNICZY) Lodz, Poland Vol. 13, no. 7, July 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5. 1958

COUNTRY : Poland H-2
CATEGORY :

ABS. JOUR. : RZKhim., No. 21 1959, No. 75118

AUTHOR : Lapinski, J.
INST. : Not given
TITLE : Hydraulic Cyclones

ORIG. PUB. : Przeglad Papiern, 15, No 4, 105-109 (1959); No 5, 141-146 (1959)

ABSTRACT : The principle and theory of operation of hydraulic cyclones are described with special emphasis on the equations for natural and forced circulation and on the physical foundations for the separation of the solid phase. The effect of various factors on the efficiency of the hydraulic cyclones is discussed.

From author's summary

CARD: 1/2

LAPINSKI, Marian

LAPINSKI, Marian

Miernictwo teletransmisyjne. Warszawa, Państwowe Wydaw. Techniczne, 1953. 269 p. (Biblioteka wiedzy telekomunikacyjnej) [Measuring in Teletransmission; a Textbook for Engineers and for Higher Technical Schools. Index]

SO: Monthly List of East European Accessions, Library of Congress, Vol. 2, No. 10, October 1953. Unclassified.

LAPINSKI, M.

"Phase fault localizers for cables." p. 383. (PRZEGLAD TELEKOMUNIKACYJNY. Vol. 27, No. 12, Dec. 1954. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4, No. 4. April 1955. Uncl.

LAPINSKI, MARIAN.

Miernictwo teletransmisyjne. Wyd. 2. Warszawa, Wydawn. Komunikacyjne, 1955. 434 p. (Measuring in teletransmission. 2d ed. bibl., diagrs., graphs, index, tables)

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956

6(4,7); 9(6,7) PHASE I BOOK EXPLOITATION POL/2370

Łapiński, Marian, Docent of the Warsaw Polytechnicum.

Urządzenia pomiarowe teleelektryki (Telemeters) Warsaw, Wydawnictwa komunikacyjne, 1958. 406 p. Errata slip inserted. 2130 copies printed.

Reviewer: Wacław Żochowski, Master of Engineering; Scientific Ed.: Edward Kowalczyk; Tech. Ed.: Władysław Olkiewicz.

PURPOSE: This book is intended for engineers dealing with communications, automatic control, and power engineering.

COVERAGE: The author discusses circuits and principles of operation of devices used in telecommunications and automatic control. He describes voltage and current stabilizers, amplifiers, oscillators, switching circuits, computing devices and discriminators and presents their operating characteristics. No personalities are mentioned. There are 70 references: 30 Soviet, 14 Polish, 24 English and 2 German.

Card 1/18

TABLE OF CONTENTS:

Telemeters

POL/2370

AVAILABLE: Library of Congress

Card 18/18

JP/ajr
10-23-59

LAPINSKI, Marian, doc.

"Stroboscopes" by Jerzy Rutkowski. Reviewed by Marian Lapinski. Pomiary 8 no.3:[illegible] Mr '62.

ŁAPIŃSKI, Marian

Transient phenomena in vacuum tube peak-type voltometers for pulse measurements. Inst. łaczn. prace 9 no.1:3-62 '62

LAPINSKI, T.; PERKOWSKI, Z.

"Trends in the development of the cable industry."

p. 8 (Tele-Radio) Vol. 3, no. 1, Jan. 1958
Warsaw, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

LAPINSKI, Tadeusz, mgr inz.

Development trends of technological progress in telecommunication cables. Przegl telekom 35 no.1:8-12 Ja '62.

1. Centralne Biuro Konstrukcji Kablowych, Warszawa.

LAPINSKI, Tadeusz, mgr inz.

Conductors with teflon insulation. Przegl telekom 34 no.10:289-291 O '62.

1. Centralne Biuro Konstrukcji Kablowych, Warszawa.

LAPINSKI, Zbigniew

A case of 2 interlaminar cysts connected by a duct. Gin.polska 31 no.6:637-640 N-D '60.

1. Ze Szpitala Miejskiego w Lowiczu Dyrektor Szpitala: dr J. Kaczorowski Oddzial Ginekologiczno-Poloznicky Ordynator Oddzialu: dr J. Fajer.

(UTERUS dis)

41996
S/262/62/000/018/004/007
I007/I207

76.7/7.7

AUTHOR: Lapiński, Z.

TITLE: Measurement and calculation of fatigue stresses in blades of aircraft gas-turbines at resonance oscillations

PERIODIAL: Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustanovki, no.18, 1962, 32, abstract 42.18.176 (Wytrzymałość zmeczeniowa tworzyw i elementów metalowych, Warszawa, 1961, 81-94 [Polish])

TEXT: A method is suggested of calculating the natural oscillation frequency for blades of variable cross section; the method takes into account the rotational speed of the rotor, rigidity of blade fastening, their profile angle, and manufacturing technology. Two groups of forces are shown to generate low- and high-frequency resonance oscillations. Methods for their complete or partial elimination are outlined. Ample description is given of the method for determining the oscillation frequency on an operating turbine, by measuring the stresses appearing in the blades, with loop-type strain gages having resistance wires of 0.4 mm thickness. The stresses are measured at 3-5 points of the cross section along the blade. At stresses of 15-20 kg/cm^2

Card 1/2

S/262/62/000/018/004/007
I007/I207

Measurement and calculation...

and at 750°C, operation time of the strain gage varies from 5 to 16 min. The spot where the strain gage is fastened is coated with a refractory cement; the blades together with the strain gage, prior to their fastening to the rotor disc, are raised in an electric furnace to the working temperature of the turbine. Technique and methods are described of strain-gage measurements by means of two types of oscilloscopes; cathode-ray, and loop type. A method is described for calculating the stresses according to strain gage measurements, and a practical example is given of calculation for a disc with 64 blades. The safety factor for fatigue stresses is usually taken as 2.5 to 2.8, depending on the blade profile. This factor may be determined from the sum of static and dynamic stresses. The calculation method is illustrated by graphs and schematical diagrams. [Abstracter's note: Complete translation.]

Card 2/2

P/008/62/000/001-2/004/006
A107/A126

26082

26.1122

AUTHOR: Łapiński, Zdzisław, Master of Engineering

TITLE: Measurement and computation of vibration stresses in aircraft turbine blades. Part I

PERIODICAL: Technika lotnicza, no. 1-2, 1961, 16 - 18

TEXT: Turbine engines have 60 - 80 blades on one disk. The author discusses difficulties in measuring stresses in the turbine blades rising in limited use of tensiometers caused by high temperature at resonance stress conditions. As a maximum, 21 tensiometers can be connected to the oscillograph; a special testing method must be developed to avoid losses of results. Usually 5 tensiometers are attached on each blade, to ensure proper results of investigations. Measuring of blade vibrations on working turbines are performed by resistance tensiometers with 5 + 10 mm limits, attached to the blades by 0.04 mm diameter chrome-nickel wires. It is essential to know the distribution of vibrations along the blade profile for the first stresses (Fig. 1). The maximum values are obtained on the edge of the float (C) on the tip of the blade which is farthest from the axis (B) and on the blade root edge (A). Point C shows a maximum vibra-

Card 1/3

tion stress. The tensiometers are attached at point B. The stresses in point B and C are expressed by

$$C = \frac{Y_C}{Y_B} \cdot \cdot \cdot \cdot \cdot \cdot \quad (1)$$

where Y_B and Y_C are the distances of points B and C from the neutral axis according to Figure 1. The tensiometers are attached at distances of 90°, i.e., at 0, 90, 180 and 270°. The working time of a tensiometer is 5 + 15 mm at a temperature of 750°C and an intensity of ± 15 + 20 kg/mm^2. The tensiometers are attached to the blades with fire-proof cement having similar characteristics as the blades, whereas the heat resistance of the chrome-nickel wires should be 700 - 900°C. The tensiometers which are insulated are double connected with the oscillographs, whereas the mass is connected with the collector ring. Minus connections should be connected separately with minus rings of the collector. The connections between tensiometers and turbine disks are insulated by asbestos. To avoid disconnections 2, 3, 4 or 6 brushes are fixed on collector rings. All brushes from one ring are connected by one wire with the oscillograph. The measurings are performed by two oscillographs, one screen cathode oscillograph and one knot oscillograph. First observations are made by the screen cathode oscillographs followed by notes on a tape. The measurements are repeated 2 + 3 times. There are 5 figures.

Card 2/3

P/008/61/000/003-4/002/002
A058/A126

AUTHOR: Łapinskiy, Zdzisław, Master of Engineering

TITLE: Measurement and calculation of the vibration stresses in aircraft gas turbine blades, Part II

PERIODICAL: Technika Lotnicza, no. 3-4, 1961, 47-52

TEXT: In the first part of this article a method of tensometric measurement was presented of the stresses caused by vibration at some rotating combustion turbine blades. In the present part of this article a method of calculation of maximum stress at the blades is given based on conducted measurement. This method of calculation is based on the probability theory. The author presents also two methods of calculation for maximum stresses at the blades of a turbine wheel. Both are based on measurement of the stresses of some of the blades. The first method is based on an average value of the test specimen $\bar{x}$ and an average deviation of the test specimen S_n, the other method is based on empiric dependence. The results obtained by applying both methods are compared. The author refers to a work on subject calculation published by K. R. Nair in "Biometrika" and to a book published by Professor J. Oderfeld. The blades of the investigated air-

Card 1/2

Measurement and calculation ...

craft turbine were made of alloy steel with addition of nickel chromate and molybdenum. There are 4 figures and 4 tables.

Card 2/2

LAPINSKI, Z.

S/264/62/000/012/001/002
D036/D114

AUTHOR: Łapiński, Zdzisław

TITLE: Fatigue strength in aircraft building

PERIODICAL: Referativnyy zhurnal, Vozdushnyy transport, no. 12, 1962, 7-8, abstract 12A54 (Prace Inst.loth., no. 14, 1961, 44 pp., illust. [Pol.; summaries in Russ., French, Eng. and Ger.])

TEXT: Two methods are expounded for calculating the permissible service life of aircraft structures, subject to fatigue strength conditions, which consider the essential (and at the present time virtually ineradicable) scattering of the characteristics of (a) the recurrence of external loads and (b) the fatigue strength of the structure. In the first method, the permissible service life is determined on the basis of tests made on specimens or structural elements with several constant values of the recurrent load amplitude, and data on the spectrum of these loads, whereby the linear theory of the summation of fatigue-induced faults is used. To reduce the required number of test specimens, the fatigue curve $\sigma - N$ is presented in analytical form, under the assumption that the para-

Card 1/3

meter C in the fatigue curve equation $\sigma = bN^{-C} + Z$ is a constant and does not depend on the fatigue destruction probability P at a given value of σ. This supposition permits reducing the number of specimens or structural elements required for the testing by approximately one half for $P = 10 \div 100\%$ and by approximately 20-10 times for $P = 0.01 \div 10\%$. The so-called main load spectrum, obtained by rejecting very small and very large loads from the complete spectrum, is introduced into the calculation. Loads resulting in stresses below the endurance limit are considered as very small loads, and loads produced by air gusts with a velocity of over 10 m/sec are considered as very large loads. If the very small loads are neglected, it is possible to obtain a 20% increase in the permissible service life of the aircraft. It is shown that the scattering of the fatigue strength σ at a given value of N almost always has a normal or normally-logarithmic distribution, whereas scattering of N at a given value of σ does not normally obey the normal law. Scattering of the σ values is considerably less than scattering of the N values. Recommendations are made for determining the N scattering characteristics, the $\sigma - N$ curve being used for calculating the fatigue limit. It is recommended to calculate the assemblies and connections of aircraft structures basing on a given value of σ, not of N, since under low stresses, usually caused

Fatigue strength in aircraft building

S/264/62/000/012/001/002
D036/D114

by gusts of air, the σ - N curve is almost parallel to the axis of N, and in this case it is very difficult to correctly select the distribution function for N. In the second method, the permissible service life is determined by the results of programmed fatigue tests of the specimens or elements with a changing load amplitude. The use of this method is illustrated by an analysis of the results of programmed load tests of 5 wings. Criteria are given for selecting the number of program blocks into which the complete spectrum of recurrent loads is divided, and also the number of steps into which the loads are divided within each such block. [Abstracter's note: Complete translation.]

Card 3/3

LAPINSKI, Zdzislaw, mgr. inz.

Strength of constructions operating in fatigue conditions.
Techn lotn 16 no.10:226-236 O '61.

29098
P/008/61/000/011/001/002
D265/D305

10.6000 2607 1327 2707

AUTHOR: Łapinski, Zdzisław, Engineer

TITLE: Stability of mounted orthotropic sandwiched panels under compression

PERIODICAL: Technika lotnicza v. 16, no. 11, 1961, 258 - 262

TEXT: The method of determining the critical buckling force for an orthotropic 3-layer sandwiched panel is described. The panel consists of PVC foam forming the core stiffened on both sides by bakelite impregnated birch wood facings banded to the core by phenol - formaldehyde adhesive. The panel is resiliently mounted on its edges and the compressive forces applied along the grains of the facing materials. Elastic deformations are considered throughout. Two dimensional stress distribution is assumed for the orthotropic facing material (i.e. σ_x, σ_y, and τ_{xy}), and the isotropic core apart from constant stresses τ_{xy}, τ_{xz}, and τ_{yz} can take the normal stresses σ_x and σ_y - the panel being compressed along x-x axis. The Kirchoff-Love hypothesis is applied for the panel facings andlinear strain distribution across the core

Card 1/9

Stability of mounted ...

thickness is assumed. The experimental methods of determining the Young modulus E and shear modulus G for PVC is described (E = 800 kg/cm^2, G = 280 Kg/cm^2). The expression for the critical buckling force is obtained by considering the differential equations for the stresses and strains prevailing in each layer of the panel and by finding the variation of the total potential energy stored in 3 layers which is equal to the variation of the compressive force applied. The critical force is given in a form convenient for practical calculations in terms of the coefficient of critical stress (k) as a function of the rartio b/a (b - length, a - width of the panel) for various non-dimensional factors (S) depending on the panel's flexural rigidity, referred to the shearing stiffness of the core. 4 graphs of k vs. b/a are given, obtaining thus a series of curves for various S. The method of using these graphs is explained by an example. There are 11 figures.

Card 2/2

P/008/61/000/012/002/003
D265/D302

3.2200

AUTHOR: Łapinski, Zdzisław, Master of Engineering

TITLE: The problem of rocket flight in a gravitational field

PERIODICAL: Technika lotnicza, no. 12, 1961, 299-303

TEXT: The author describes the ballistic laws applied to rocket flights and gives the equations of paths of rockets in earth's gravitational system and under the influence of the gravitational fields of other planets. The velocities of projection, and paths of rockets with times of circling in elliptical orbits are given. Space travel is also discussed in the light of Einstein's special theory of relativity. Various possibilities of space travel are considered together with their advantages. The aims of sending artificial satellites into space are enumerated and a list of all types of satellites sent into space is given in chronological order. A table giving the parameters of celestial bodies which are of interest for space travel is included. There are 7 figures and 1 table.

Card 1/1

LAPINSKI, Z., mgr. inz.

Stability of flat and sweeped plates under operation of various loads on cover. Techn lotn 16 no.12:2 of cover, 320, 3-4 of cover, D '61.

LAPINSKI, Z., mgr. inz.

Assistance of "Technika Lotnicza" in designing. Durability of rectangular plates. Pt. 2. Techn lotn 17 no.5:2 of cover, 160, 3-4 of cover My '62.

LAPINSKI, Zdzislaw, mgr inz.

Selection of testing loads in laboratory fatigue research.
Pt. 1. Techn lotn 17 no.9:261-265 S '62.

LAPINSKI, Zdzislaw, mgr inz.

Selection of test loads in laboratory fatigue research. Pt. 2.
Techn lotn 17 no.10:297-305 O '62.

LAPINSKI, Z., mgr inz.

Geometrical coefficient of concentration of stresses. Techn lotn 17 no.12: 2 of cover, 3-4 of cover D '62.

LAPINSKI, Z., mgr inz.

Geometrical coefficient of stress concentration. Techn lotn 18 no.1:2 of cover Ja '63.

LAPINSKI, Z., mgr inz.

Geometrical coefficient of stress concentration. Pt.2. Techn lotn 18 no.2:2 of cover, 64, 3 of cover F '63.

LAPINSKI, Zdzislaw

Procedure in surgery of the biliary tract. Wiadomosci lek. 7 no.3: 161-168 Mar. 54.
(BILIARY TRACT, surgery.)