"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMCHENKO, N.V

17

PHASE I BOOK EXPLOITATION SOV/5488

Moscow. Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorskiy institut khimicheskogo mashinostroyeniya.

Materialy v khimicheskom mashinostroyenii (Materials in Chemical Machine Building) Moscow, Informatsionno-izdatel'skiy otdel, 1960. 143 p. (Series: Its: Trudy, vyp. 34) 3,000 copies printed.

Sponsoring Agency: Gosudarstvennyy komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu and Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorskiy institut khimicheskogo mashinostroyeniya NIIKhIMMASh.

Ed. (Title page): V. K. Fedorov, Candidate of Technical Sciences; Editorial Council: Chairman: V. B. Nikolayev; Deputy Chairman: Yu. M. Vinogradov, Candidate of Technical Sciences; B. N. Borisoglebskiy, A. N. Goncharov, Yu. G. Popandopulo, I. N. Yokalov, Candidate of Technical Sciences, and G. M. Yusova, Candidate of Technical Sciences; Ed.: V. I. Glukhov; Tech. Ed.: P. A. Vahivtsev.

PURPOSE : This collection of articles is intended for technical personnel in chemical machine building and other branches of the machine and instrument industry.

COVERAGE: The collection deals with the results of investigations on the mechanical, corrosive, and engineering qualities of certain alloys. Also discussed are heat-treatment regimes, the phase composition of stainless steels, methods of checking products, and new designs of apparatus used in checking. References accompany each article.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

S/887/61/000/000/065/069
E202/E155

AUTHORS: Khimchenko N.V., and Prikhod'ko V.N.

TITLE: Method of determining the depth of intercrystallite corrosion.
A.c. no.117892, cl.42, 46_{06} (z. no.602602 of June 24,1958)

SOURCE: Sbornik izobreteniy; ul'trazvuk i yego primeneniye. Kom. po delam izobr. i otkrytiy. Moscow, Tsentr. byuro tekhn. inform., 1961, 94.

TEXT: The method is used in corrosion tests, and its main feature consists in determining the depth of metal corrosion according to the degree of scattering of the ultrasonic oscillations which in turn is calculated from the ratio of the amplitudes of the echo signals before and after corrosion tests. This ratio and the depth of the inter-crystallite corrosion are connected by a unique relation which is determined by a metallographic method. The tests are carried out on standard metal samples which during the corrosion tests are subjected to boiling in a standard solution. Using the relation between the depth of corrosion and the echo signals, it

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is possible to determine comparatively quickly the tendency of the metals under test toward inter-crystallite corrosion. The experiments have established, for instance, that in stainless steel an ultrasonic frequency of 10 Mc/s serves to determine the extent of penetration of the inter-crystallite corrosion to a depth of 30 - 40 μ.

[Abstracter's note: Complete translation.]

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

NAZAROV, S.T.; SHRAYBER, D.S.; YEREMIN, N.I.; ROZHDESTVENSKIY, S.M.; KHIMCHENKO, N.V.; LESNICHENKO, I.I., red. izd-va; UVAROVA, A.F., tekhn. red.; SOKOLOVA, T.F., tekhn. red.

[Modern methods of nondestructive testing]Sovremennye metody kontrolia materialov bez razrusheniia. Pod red. S.T.Nazarova. Moskva, Mashgiz, 1961. 285 p. (MIRA 15:7)

1. Moskovskiy dom nauchno-tekhnicheskoy propagandy im. F.E. Dzerzhinskogo.

(Nondestructive testing)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

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SOKOLOV, V.S.; GORAZDOVSKIY, T.Ya., kand. tekhn. nauk, nauchnyy red.; KHIMCHENKO, N.V., kand. tekhn.nauk, nauchnyy red.; TATOCHENKO, L.K., kand. tekhn. nauk, nauchnyy red.; IGLITSYN, I.L., red. izd-va; LARIONOV, G.Ye., tekhn. red.

[Flaw detection in materials] Defektoskopiia materialov. Izd.2., perer. Moskva, Gos. energ. izd-vo, 1961. 326 p. (MIRA 15:3)
(Nondestructive testing)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMCHENKO, N.V.; GOZAK, V.P.; SHEKHTMAN, A.G.

Ultrasonic flaw detection in high-strength cast iron. Lit. proizv. no.8:9-13 Ag '61. (MIRA 14:7)
(Cast iron--Testing)
(Ultrasonic testing)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMCHENKO, N.V.

Ultrasonic structure control of high-strength iron castings. Lit. proizv. no.6:30-31 Je '62. (MIRA 15:6)
(Cast iron--Testing) (Ultrasonic testing)

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S/184/62/000/003/003/004
D040/D113

18.8300

AUTHORS: Khimchenko, N.V., Candidate of Technical Sciences, and Prikhod'ko, V.N., Engineer

TITLE: Measuring intercrystalline corrosion by the eddy currents method

PERIODICAL: Khimicheskoye mashinostroyeniye, no. 3, 1962, 35-37

TEXT: A method and instrument are described by which the depth of intercrystalline corrosion on the metal surface can be determined using a coil supplied with alternating current andcausing opposite eddy currents in the metal. The described instrument, TM-57 (TM-57) magnetic thickness meter developed by the Central Scientific Research Laboratory of Gosgortekhnadzor, comprises a 2 Mc oscillator, a tube voltmeter and a feed unit consisting of ferro-resonance and voltage stabilizers and a rectifier. The high-frequency field of the inductive pickup produces eddy currents in the metal surface. The current value depends on the metal conductivity, which in turn depends on the degree of intercrystalline corrosion. The opposite magnetic fields in the pickup and in the eddy currents result in a drop in inductive resistance at the pickup, which disturbs the

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resonance and reduces the current in the pickup circuit. The current drop is measured by the tube voltmeter with a microammeter for dial indicator. The TM-57 has been tested on 1Kh18N9T (1Kh18N9T) steel specimens. Grain size, α-phase content, surface finish and other factors affected the readings. Grain size variations within 50 μ did not cause any great errors in corrosion depth determination; at less than 0.4% α-phase content, the maximum error was 2.6%, after polishing and grinding it was about 2%, and in a rolled metal surface it reached 24.8%. The relative error depends on the upper limit of the set measurement range, and a calibrated curve with an upper limit of 40-50 μ is recommended for measuring initial corrosion depth (20-30 μ). The maximum relative error will then be 4-5%, which suffices for industrial measurements. There are 4 figures.

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B108/B138

AUTHORS: Khimchenko, N. V., and Prikhod'ko, V. N.

TITLE: Ultrasonic detection of intercrystalline corrosion

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 1, 1962, 68-70

TEXT: The authors propose a method of estimating the extent of intercrystalline corrosion by an ultrasonic analyzer designed at the NIIKhIMMASh (N. V. Khimchenko and V. N. Prikhod'ko. Zavodskaya laboratoriya, v. 25, no. 7, 836 (1959)). This device supplies longitudinal, transverse, and surface ultrasonic waves of 0.7-11.2 Mc/sec. The method is based on determination of the intercrystalline corrosion coefficients $k_1 = Ah_n/A_o$. Ah_n is the amplitude of the ultrasonic signal received from a sample, the subscript denoting depth of corrosion. Thus A_o is the signal amplitude from an uncorroded specimen. These coefficients have to be determined for standard specimens with known depth of corrosion. The initial state of corrosion ($> 30\ \mu$) can be detected by means of transverse, and the depth of corrosion by surface waves. Accuracy is sufficient for

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Ultrasonic detection of ...

laboratory requirements. There are 1 figure, 1 table, and 6 Soviet references.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorskiy institut khimicheskogo mashinostroyeniya (All-Union Scientific Research and Design Institute of Chemical Machine Building)

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L 63148-65 EWT(d)/EWT(m)/EWP(e)/EWP(k)/EWA(c)/EWP(h)/ETC(m)/EWP(b)/EWA(d)/EWP(l)/
T/EWP(v)/EWP(t) WW/HH/JD

ACCESSION NR: AP5015100 UR/0381/65/000/002/0047/0055

AUTHOR: Khimchenko, N. V.; Prikhod'ko, V. N.

TITLE: Equipment for ultrasonic structural analysis of metals and welded joints

SOURCE: Defektoskopiya, no. 2, 1965, 47-55

TOPIC TAGS: ultrasonic equipment, structural analysis

ABSTRACT: This article describes ultrasonic apparatus designed for structural analysis of metals developed both in the SSSR and abroad. An attenuation meter made by the Austrian firm of Paul Krettz is used to evaluate [illegible] in the 1-25 mc range. Hans Ulrich Richter has patented an ultrasonic method and apparatus for measuring grain size. The Leningrad Electro-Technical Institute has developed a flaw detector (UZDS-1a) [illegible] by an attenuator in the [illegible] inhomogeneities of the [illegible] manner. A method for measuring the damping factor of ultrasonic oscillations in brass at frequencies of 1.0, 2.25, 5.0, 7.9 and 10 mc is described. Work has been done at the All-Union Institute of railroad transport on the development of equipment and methods for measuring [illegible] in the ori-

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L 63448-65

ACCESSION NR: AP5015100

ented structure of hardened metal. New comparative methods of ultrasonic structural analysis of metals and experimental samples of devices with wide bands are described as well as industrial models of an ultrasonic wide range device (USAD-61) for [illegible] quality control of welded compounds. Possible applications of these devices [illegible]ssed. Orig. art. has: 7 figures.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorskiy institut [illegible]heskogo mashinostroyeniya (All-Union Design Scientific Research Institute of [illegible] Machinery)

[illegible] 19Feb65 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 011 OTHER: 002

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L 46594-66 EWT(d/EWT(m)/EWP(c)/EWP(v)/T/EWP(t)/ETI/EWP(k)/EWP(l) LJP(c) JD/HM
ACC NR: AP6012586 SOURCE CODE: UR/0314/66/000/004/0033/0036

AUTHOR: Bobrov, V. A. (Engineer); Khimchenko, N. V. (Candidate of technical sciences)

ORG: none

TITLE: Nondestructive methods for the testing of chemical equipment made of two-layer metals

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 4, 1966, 33-36

TOPIC TAGS: ultrasonic flaw detector, metal test, flaw detection, CHEMICAL PLANT EQUIPMENT

ABSTRACT: One of the basic defects found in chemical equipment made of two-layer metals is the separation of the cladding layer from the base. The article discusses nondestructive methods for the testing of such equipment, surveys the available ultrasonic equipment, describes the experience with ultrasound accumulated at the NIIkhimmash, and outlines the procedure for color defectoscopy of two-layer metals by means of dyes developed at the same institute (N. V. Khimchenko, L. I. Podlesnaya, Author's certificate No.150690 dated

Card 1/2 UDC: 620.179:621.9-419.

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ACC NR: AP6012586

March 8, 1962, Byulleten' izobreteniy, 1962, No.19). The authors recommend overall testing by ultrasound, followed by more detailed color control of suspected regions. Layers produced by hot stamping should be completely checked by ultrasound devices. Orig. art. has: 5 figures.

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 011

Card 2/2 afs

Card 1/1 UDC: 620.179.16

CIA-RDP86-00513R000722020003

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHITCHENKO, T. and others.

All-Union Communist Party (Bolshevik) - Party Work

"Team-work between insurance activist units and physicians," V pom. profaktivu 13, No. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, May 1952, Unclassified.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

CHUMAKOV, Yu.I.; MARTYNOVA, E.N.; ZINOV'YEVA, L.M.; KHIMCHENKO, T.V.

2,6-Dialkoxy-3-(1'-alkoxyalkyl)tetrahydropyrans and alkyl pyridines based on them. Zhur. ob. khim. 34 no.10:3511 O '64. (MIRA 17:11)

1. Kiyevskiy politekhnicheskiy institut.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMCHENKO, V.A., inzh.

Filter protection for high-voltage electric equipment in mines. Ugol'.prom. no.4:58-60 Jl-Ag '62. (MIRA 15:8)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut.
(Electricity in mining)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

BOLDYREV, V.I.; KHIMCHENKO, V.A., starshiy nauchnyy sotrudnik

Selecting an overcurrent protection system for mine transformers. Bezop. truda v prom. 8 no.10:40-41 O '64. (MIRA 17:11)

1. Nachal'nik laboratorii Makeyevskogo nauchno-issledovatel'skogo instituta po bezopasnosti truda v gornoy promyshlennosti (for Boldyrev).
2. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut (for Khimchenko).

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KAPUSTKINA, T.V.; MENDLIN, M.S.; NIKITENKO, A.A.; SANNIKOVA, L.K.; KHIMCHENKO, V.F. (Ruhezhnoye)

Hygienic working conditions and workers' health in the production of phthalic anhydride. Gig.truda i prof.zab. 3 no.1:28-31 Ja-F '59. (MIRA 12:2)

1. Rabochaya poliklinika pri khimkombinate.
(PHTHALIC ANHYDRIDE)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

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L 1444-65 EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/EPR/EPA(w)-2/EWP(j)/T/EWP(b)
Pc-4/Pr-4/Ps-4/Pt-10/Pu-4/Pab-10 AFWL/SSD/AEDC(a)/ASD(p)-3 WW/RM/WH
ACCESSION NR: AP4046892 S/0191/64/000/010/0003/0005

AUTHOR: Natanson, E. M.; Khimchenko, Yu. I.; Kharitinich, N. Ye.; Ul'berg, Z. R.

TITLE: Thermal oxidative degradation of metallic polymers based on polystyrene

SOURCE: Plasticheskiye massy*, no. 10, 1964, 3-5

TOPIC TAGS: thermal oxidative degradation, oxidative degradation temperature, differential thermal analysis, thermal stability, metal polymer, manganese, bismuth, thermogram, surface interaction, chemisorption

ABSTRACT: The presumably inhibiting effect of highly dispersed manganese and bismuth on the thermal oxidative degradation of polystyrene was investigated by differential thermal analysis, using a photorecording pyrometer. Half-gram batches were used for samples. The construction of the apparatus is schematically presented. A uniform heat supply was achieved by means of a voltage regulator. With this apparatus, it is possible to obtain thermograms of the investigated [illegible] in a vacuum, in an inert atmosphere, and in air. Aluminum

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ACCESSION NR: AP4046892

oxide roasted to 1000C was used as a standard. Measurements were made in the interval 20—500C at a heating rate of 10C/min, and the products of the interaction of highly dispersed manganese and bismuth particles with polystyrene macromolecules were investigated at the moment of their formation. The molecular weights and yields of the products were determined. Thermographic results showed the dependence of the oxidative degradation temperature of polystyrene on its content of highly dispersed manganese and bismuth. From 0.6 to 1.5% manganese or bismuth increased the oxidative degradation temperature from 280—285C to 329—337C. The effect of these highly dispersed metals is explained by the interaction between the surface of their particles and the isolated monomer units of polystyrene macromolecules. The chemisorption of free macroradicals on the surface of bismuth and manganese particles leads to a more uniform distribution of metal particles in polystyrene. Homogeneous biphasic systems called metal polymers are formed. The increase in the oxidative degradation temperature is due to the decreased mobility of polystyrene macromolecules caused by their interaction with metal. Orig. art. has: 5 figures and 1 table.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

L 14459-65
ACCESSION NR: AP4046892

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00

SUB CODE: GC, MT NO REF SOV: 002 OTHER: 010

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

UL'BERG, Z.R.; KHIMCHENKO, Yu.I.; SHVETS, T.M. [Shvets', T.M.]

Metallized polymers on the basis of colloidal lead. Dop. AN URSR no.11:1486-1489 '65.

(MIRA 18:12)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

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L 52722-65 EPA(s)-2/EWT(m)/EPF(c)/EWG(m)/EPA(w)-2/EWP(j)/T Pc-4/Pab-10/
PmH/WW/RM

ACCESSION NR: AP5014527 UR/0060/65/027/003/0412/0416

AUTHOR: Natanson, E. M.; Chernogorenko, V. B.; Khimchenko, Yu. T.; Anistratenko

TITLE: Interaction of macromolecules of natural rubber and isobutylene with particles of nickel and cobalt as they are formed at the cathode

SOURCE: Kolloidnyy zhurnal, v. 27, no. 3, 1965, 412-416

TOPIC TAGS: metallopolymer, natural rubber, isobutylene, colloidal nickel, colloidal cobalt, semiconductor, organic semiconductor

ABSTRACT: New "metallopolymers," interaction products of natural rubber and polyisobutylene with colloidal nickel and cobalt in a two-layer electrolytic bath, were their optimum preparative conditions determined, and their properties The products were black materials, rubber-like at low metal content and above 60% metal. With regard to electrical conductivity, the products ies at low metal concentrations, and semiconductors at high concentrations. Swelling tests showed that rubber adsorbed ci-

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L 52722-65
ACCESSION NR: AP5014527

rectly on the surface of colloidal metal particles did not swell, which apparently indicates the high strength of the bond. IR spectra of such rubber, however, did [illegible] from IR spectra of nonfilled rubber. The experimental results are interpreted in terms of the formation of various types of network structure. [illegible] and 3 figures. [SM]

ASSOCIATION: Institut obshchey i neorganicheskoy khimii, AN UkrSSR, Kiev (Institute of General and Inorganic Chemistry, AN UkrSSR)

SUBMITTED: 02Aug63 ENCL: 00 SUB CODE: OC, IC

NO REF SOV: 009 OTHER: 000 ATD PRESS: 4011

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L 62474-65 EWT(m)/EPF(c)/EWP(j)/T/EWP(t)/EWP(b) IJP(c) JD/WW/RM

ACCESSION NR: AP5020229 UR/0069/65/027/004/0573/0577
541.66.092.2/.4

AUTHOR: Natanson, E. M.; Khimchenko, Yu. K.; Ul'berg, Z. R.; Khari-tinich, N. Ye.

TITLE: The effect of colloidal lead on the thermooxidative degradation of polystyrene

SOURCE: Kolloidnyy zhurnal, v. 27, no. 4, 1965, 573-577

TOPIC TAGS: polystyrene, thermal degradation, thermal stability, heat resistant polymer, organometallic polymer

ABSTRACT: The purpose of this work was to show the relationship between the content of colloidal metal particles in a polymer and its oxidative degradation temperature. Colloidal lead was introduced into polystyrene to the extent of 4.5 to 45.53% by two-phase electrolysis, using a rotating cathode. Colloidal lead from the lead formate bottom phase was introduced into the top phase consisting of a 2% solution of polystyrene in toluene, containing 0.3% oleic acid. The dispersed phase was caused to coagulate from the toluene solution

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by the addition of a 2—3-fold excess of methanol. The coagulated product was dried under vacuum for 20 hr at 80C and then subjected to differential thermal analysis. It was shown that increasing content of colloidal lead in polystyrene results in progressively rising temperatures of oxidative degradation. The view of some authors that the presence of fillers leads to lower softening temperatures of polymers is applicable only to systems in which there is no firm bonding between the macromolecules of the polymer and the surface of the filler particles. In the polystyrene-colloidal lead system, on the other hand, a strong molecular lattice interspersed [illegible] idal lead particles is formed. Polystyrene macromolecules [illegible] ess mobile, with noticeable effect on the softening temperature [illegible] inetics of oxidative degradation. An additional explanation [illegible] served effect lies in the assumption that the colloidal [illegible] rticles promote the decompositions of hydroperoxides formed in [illegible] course of oxidative degradation. Orig. art. has: 5 figures and [illegible]

[VS]

ASSOCIATION: Institut obshchuyi neorganicheskoy khimii AN UkrSSR, Kiev (Institute of General and Inorganic Chemistry, AN UkrSSR)

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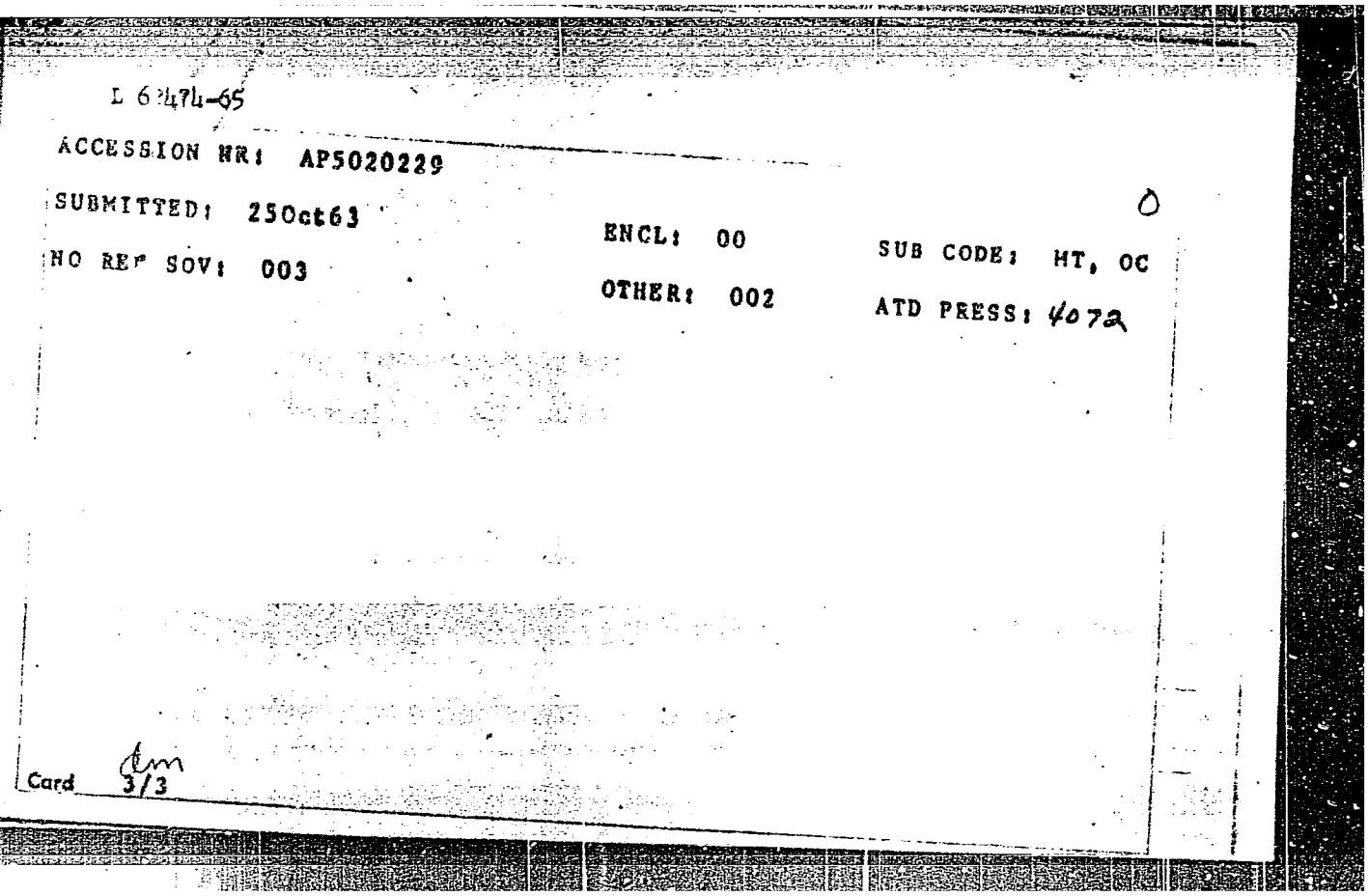

L 62474-65

ACCESSION NR: AP5020229

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L 22533-65 EWT(m)/EPF(c)/EPA(w)-2/EWP(j)/T Pc-4/Pab-10/Pr-4 RM/RWH/WW

ACCESSION NR: AP4047960 S/0020/64/158/005/1162/1165

AUTHOR: Natanson, E. M.; Khimchenko, Yu. I.; Shvets, T. M. 15

TITLE: The mechanism of the reaction of polymers with colloidal metal particles at the moment of their formation on the cathode

SOURCE: AN SSSR. Doklady*, v. 158, no. 5, 1964, 1162-1165

TOPIC TAGS: natural rubber, polyisobutylene, carboxylate rubber, epoxy resin, colloidal iron, polymer colloidal metal reaction, IR spectrum

ABSTRACT: The reaction of polyisobutylene, 15 natural rubber, 15 carboxylate rubber 15 and epoxy resin with colloidal iron particles at the instant of their formation on [illegible] was investigated in order to explain the mechanism of the interaction of the polymer with the active surface of the metal particles. IR spectra of the reaction products of polyisobutylene or natural rubber with colloidal iron obtained electrolytically in the presence of oleic acid were the same as spectra of films of the pure polymers, indicating the macromolecules did not contact direct-

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L 22533-65

ACCESSION NR: AP4047950

ly with the surface of the colloidal metal particles but reacted with the oleic acid adsorbed on this surface. In the case of carboxylate rubber and of the epoxy resin the C=O and CH_2-CH groups decreased as the colloidal iron concentration increas-
O
ed, indicating reaction similar to chemosorption of the polar fixing group with the colloidal particle surface. These results were confirmed by desorption studies of the polymer-colloidal iron reaction products. polyisobutylene and natural rubber were reversibly adsorbed while the carboxylate rubber and the epoxy were irreversibly adsorbed on the iron particle surface. Orig. art has: 4 figures

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk UkrSSR (Institute of General and Inorganic Chemistry, Academy of Sciences, UkrSSR)

SUBMITTED: 28Apr64 ENCL: 00
SUB CODE: MT, GC NO REF SOV: 005 OTHER: 000

Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

L 14490-66 EWP(e)/EWT(m)/ETC(F)/EWG(m)/EWP(j)/T/EWP(z)/EWP(b)/ETC(m)-6

ACC NR: AT6006252 (A) IJP(c) SOURCE CODE: UR/0000/65/000/000/0119/0124

DS/JD/WW/DJ/GS/RM

AUTHOR: Natanson, E. M.; Khimchenko, Yu. I.; Ul'berg, Z. R.

ORG: Institute of General and Inorganic Chemistry, AN UkrSSR, Kiev (Institut obshchey i neorganicheskoy khimii AN UkrSSR)

TITLE: Curing of epoxy resins with colloidal lead

SOURCE: AN UkrSSR. Modifikatsiya svoystv polimerov i polimernykh materialov (Modification of the properties of polymers and polymeric materials). Kiev, Naukova dumka, 1965, 119-124

TOPIC TAGS: epoxy resin, colloidal lead, curing organic semiconductor, antifriction material, shielding material

ABSTRACT: A study has been made of the curing of ED-5 epoxy-bisphenol A resin with colloidal lead. Collodial lead particles were formed in the resin by two methods developed by the authors: 1) electrolysis of aqueous solutions of lead formate in the presence of toluene solutions of the resin, and 2) thermal decomposition of lead formate in the resin. Interaction of polar epoxy groups with active centers on the fresh surface of colloidal lead results in the formation of two-phase homogenized, stably aggregated systems. The preparation of systems containing 14 parts by weight of lead by the electrolytic method (1) or 2 to 5% lead by the thermal method (2) are briefly described in the source. Heating of the

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L 14490-66

ACC NR: AT6006252

5

systems to about 210C causes curing of the resins. Epoxy resins cured with colloidal lead can find widespread application as antifriction, current conductive, and γ-radiation shielding materials. Orig. art. has: 4 figures. [BO]

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

L 23193-66 EWT(m)/EWP(j)/T/EWP(t)/ETC(m)-6 IJP(c) JD/WW/RM

ACC NR: AP6009492 UR/0020/66/167/001/0128/0131

AUTHOR: Natanson, E.M.; Khimchenko, Yu.I.; Kompaniyets, V.A.

ORG: Institute of General and Inorganic Chemistry, AN UkrSSR (Institut obshchey i neorganicheskoy khimii AN UkrSSR)

TITLE: Metallopolymers based on epoxy resins and colloid copper

SOURCE: AN SSSR. Doklady, v.167, no.1, 1966, 128-131

TOPIC TAGS: polymer chemistry, epoxy plastic, copper compound

ABSTRACT: The starting materials for the experiments were copper formate and ED-5 epoxy resin, in compositions with 5, 10, 20, 30, 40, and 50% copper (calculated as metallic copper). It was established that decomposition of the copper formate occurs at a temperature of 186-190°. The article gives thermograms with differential curves for epoxy resin with different copper contents. At a temperature of 190° (the decomposition temperature of copper formate) there is a well marked exothermic effect, the intensity of which increases with the copper concentration. It was established that the reinforcing of an epoxy resin with colloid copper is accompanied by a decrease in the content of epoxy groups. Thus, the residual content of epoxy groups in the sample with 30% copper,

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L 23193-66

ACC NR: AP6009492

after heating for 2 hours at 210°, was 16% of the original content. The interreaction of an epoxy resin with colloid copper can lead to the formation of the corresponding macromolecules. Experiments were carried out to explore the possibility of using the method of electron paramagnetic resonance to study the reactions of epoxy resin with colloid copper particles at the moment of their formation, by the thermal method. The investigations were made on a PE1301 apparatus in the temperature interval from 20 to 300°. Based on the results of these experiments, the article gives curves showing the change in the concentration of the radicals formed as a function of temperature, and the kinetics of the formation of the radicals at 230°. Orig. art. has: 3 figures.

SUB CODE: 07/ SUBM DATE: 09Jun 65/ ORIG REF: 006/ OTH REF: 005

Card 2/2 BK

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

ACC NR: AP6013882 (A) SOURCE CODE: UR/0073/65/031/011/1164/1167

AUTHOR: Khimchenko, Yu. I.; Ul'berg, Z. R.; Prikhod'ko, G. P.; Ivanova, Ye. I.; Kabakchi, A. N.; Meleshevich, A. P.; Natanson, E. M.

ORG: Institute of Physical Chemistry im. L. V. Pisarzhevskiy, AN UkrSSR (Institut fizicheskoy khimii AN UkrSSR)

TITLE: Effect of gamma irradiation on the structure of epoxy resin and metallopolymers based on epoxy resin

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 31, no. 11, 1965, 1164-1167

TOPIC TAGS: gamma irradiation, irradiation effect, epoxy plastic, metallopolymer material, IR spectroscopy, resin

ABSTRACT: Infrared spectroscopy in the range of 600-2000 cm^{-1} was used to determine the effect of Co^{60} gamma radiation on ED-5 epoxy-diane resins and on metallopolymers from these resins containing 1 and 6% copper and 5% lead. In the resins, a new band (corresponding to carbonyl groups) was found at about 1720 cm^{-1} which increased substantially in intensity as the irradiation was continued. At the same time, the integral intensity of the 915 cm^{-1} band decreased. This is thought to be due to the opening of epoxy rings with the formation of carbonyl groups:

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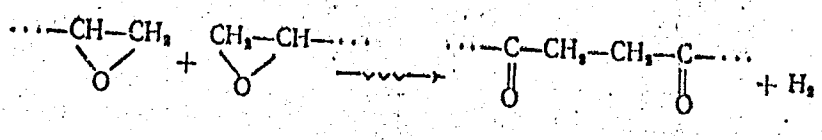
ACC NR: AP6013882



A dose of $4 \cdot 10^{18}$ rad was found to decrease the content of epoxy groups by 23-25% in the ED-5 resin. Introduction of colloidal copper and lead leads to a greater reduction in the number of epoxy groups (40% for 1% copper, 55% for 6% copper, and 60% for 5% lead). This suggests that during the irradiation, the colloidal metals cause an increase in molecular weight at the expense of the opening of epoxy rings. Orig. art. has: 3 figures.

SUB CODE: 07,11/ SUBM DATE: 30Jun64/ ORIG REF: 005

Card: 2/2 MCP

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

L 37642-66 EWT(m)/EWP(v)/EWP(j)/T IJP(c) DS/WW/RM

ACC NR: AP6017100 (A) SOURCE CODE: UR/0226/66/000/001/0029/0034

AUTHORS: Natanson, E. M.; Khimchenko, Yu. I.; Ul'berg, Z. R.; Shvets, T. M. 49 B

ORG: Institute of General and Inorganic Chemistry AN UkrSSR (Institute obshchey i neorganicheskoy khimii AN UkrSSR)

TITLE: Organometallic polymers based on epoxy-dian resin ED-5 and colloidal lead 15 15

SOURCE: Poroshkovaya metallurgiya, no. 1, 1966, 29-33

TOPIC TAGS: organometallic compound, adhesive, organic synthetic process, electrochemistry, epoxy resin, epoxy plastic/ED-5 epoxy resin

ABSTRACT: The conditions for and the mechanism of interaction of colloidal lead (I) and epoxy-dian resin ED-5 (II) to form organometallic polymers were studied. It was established in a previous work by E. M. Natanson, Yu. I, Khimchenko, and T. M. Shvets (DAN SSSR(v pechati)) that the adhesive power of the epoxy resin is directly related to the number of epoxy rings which open upon reacting with the metal. Organometallic polymers were obtained by the electrolytic method described by E. M. Natanson (Kolloidnyye metally, Izd-vo AN UkrSSR, K., 1959). The effect of the current density, concentration of the electrolyte and the polymer, temperature, and speed of the cathode rotation upon the composition of organometallic polymers was investigated. It was established by means of infrared spectroscopy that the polar groups of II react with the surface particles of I at the instant of their appearance

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SUB CODE: 07/ SUBM DATE: 26Oct65/ ORIG REF: 003/ OTH REF: 004

Card 2/2 vmb

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMCHENKOV, A.A.

Cableway. Der. prom. 13 no.6:27-28 Je '64. (MIRA 17:6)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMCHENKOV, A.A.

Machine for joining bottom boards of casks. Der. prom. 12 no.1:23 Ja '63. (MIRA 16:5)

(Barrels)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMCHENKOV, A.A.

Light-dark device instead of a pattern. Der. prom. 12 no.7: 30 Jl '63. (MIRA 16:8)

1. Kaliningradskiy bondarno-tarnyy zavod.
(Barrels)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KLIMEK, M

SCIENCE

Periodicals: BIOLOGIA Vol. 10, no. 6, 1955

KLIMEK, M.: SIMKOVIC, D.: SPACKOVA, J.: Use of extract from a human placenta in cultivation in vitro. I Cultivation of chicken fibroblasts in a medium containing an extract from of placenta. p. 754.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 5, May 1959, Unclass.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KLIMEC, M.

CZECHOSLOVAKIA / General Problems of Pathology. U
Immunity.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41864.

Author : Oravec, O., Holoubek, V., Kovarova, V., Klimec, M., Bazany, M.

Inst : Not given.

Title : The Properdin System in a Tumorous Disease. IV. The Level of Properdin in Guinea Pigs Treated with Cortisone, X-rays and with Herpes Virus.

Orig Pub: Neoplasma, 1957, 4, No 1, 7-9.

Abstract: The investigations were conducted in connection with the effectiveness of experiments on hetero-transplantation of tumors with application of cortisone and X-ray irradiation. Guinea pigs were injected, for a period of 5 days, with 2.5 mg of cortisone acetate intra-abdominally, or were once irradiated with 600 r, or were infected intrader-

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

THURZO, Viliam, MUDr.; SLABEYCIUSOVA, Maria, MUDr; KLIMEK, Milos, MUDr.; KOVAROVA, Valeria, MUDr

New filtrable fowl tumor. Cesk.onkol. 1 no.3-4:230-234 1954.

1. Issledovatel'skii institut Onkologii, Bratislava, ul. Cs. armady 17.

(NEOPLASMS, experimental,
myxosarcoma, filtrable in fowl)
(MYXOSARCOMA, experimental,
filtrable in fowl)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KLIMEK, M

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Pharmaceuticals, Cosmetics, Perfumes

(3) nuc Sci

The combination of berberine with the nuclear structures. Miloš Klimek and Vladimír Drašil (Masaryk Univ., Brno). *Československ. Biol.* 2, 93–7(1953).—The reactions between berberine and nuclear components were studied by means of paper electrophoresis and of polarography. Methyl green, pyronine, or bromophenol blue served as indicators of the movement of berberine both alone and in combination with deoxyribonucleic acid (DNA), pentosenucleic acid, proteins, and protamines. Since only DNA changed the direction of travel of berberine (toward the anode), it was concluded that berberine reacts merely with this compd. (its lower polymers).
Oldrich Scheek

6-16-54

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KLIMEK, M.; DRASIL, V.

On the binding of berberine with nuclear structures. Chekh.biol. 2 no.2:97-101 Ap '53. (MLRA 7:2)

1. Institut obshchey biologii meditsinskogo fakul'teta universiteta im. Masarika, Brno. (Berbering)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KLIMEK, Miros; SIMKOVIC, Dusan

Amitotic division. Cesk. biol. 4 no.10:607-612 Nov 55.

1. Vyzkumny ustav onkologicky, Bratislava.
(CELL DIVISION,
amitotic)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KLIMEK, M.; HRSTKA, V.; BUCKO, A.

24-Hour radioiodine test of the effect of diet on iodine accumulation in the thyroid. Cesk. gastroenter. 11 no.5:325-328 5 Sept 57.

1. Ustav pre vyskum vyzivy ludu v Bratislave, riaditel Dr. A. Bucko Vyskumny ustav onkologicky v Bratislave, riaditel clen koresp. SAV Dr. V. Thurzo. M. K. ul. Ceskoslovenskej armady 17.

(THYROID GLAND, metab.
iodine accumulation, eff. of diet in rats, 24-hour radioiodine determ. (Cz))
(IODINE, metab.
accumulation in thyroid, eff. of diet in rats, 24-hour radioiodine determ. (Cz))

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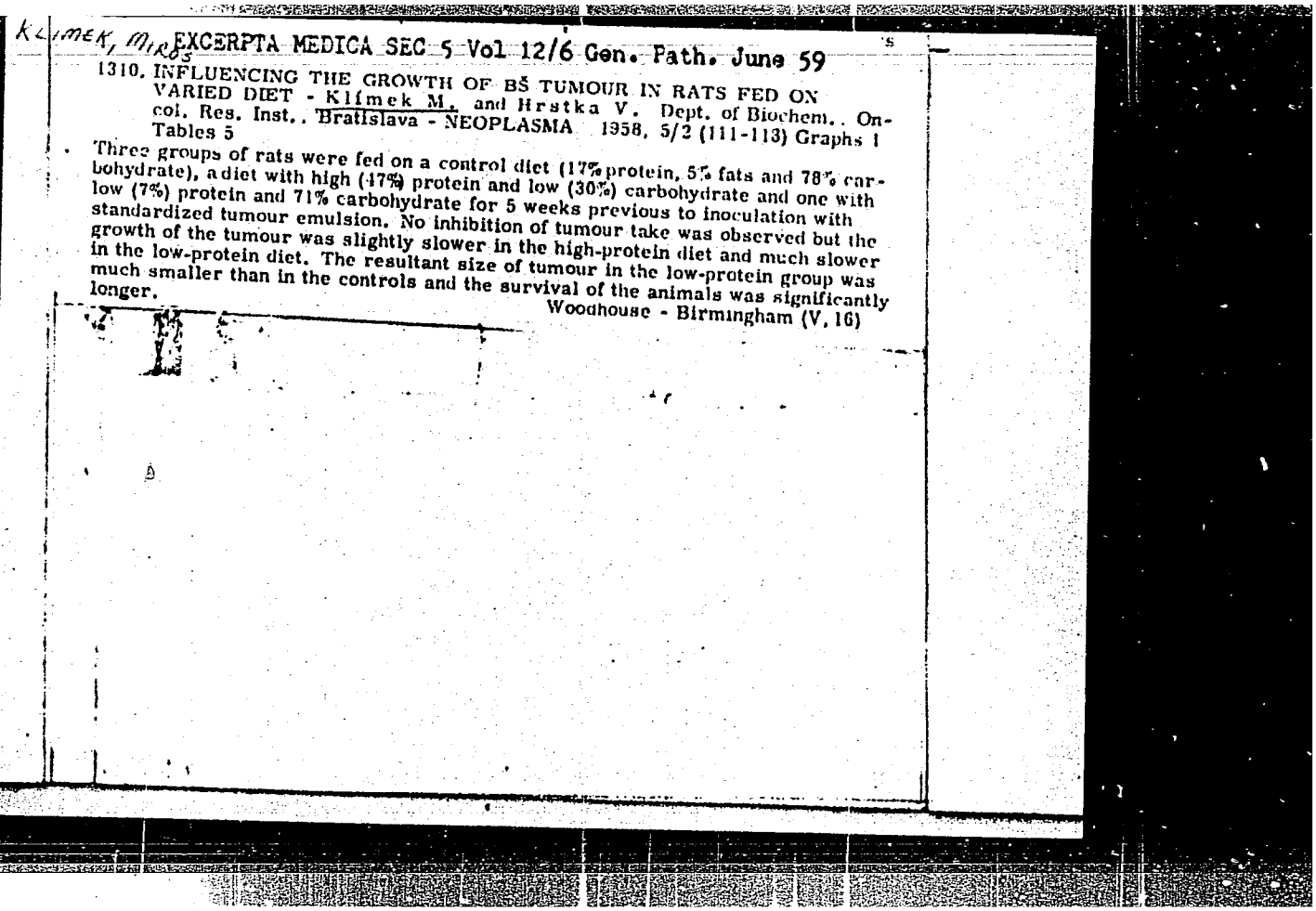

KLIMEK, M.

EXCERPTA MEDICA SEC 5 Vol 12/6 Gen. Path. June 59

1310. INFLUENCING THE GROWTH OF BŠ TUMOUR IN RATS FED ON VARIED DIET - Klímek M. and Hrstka V. Dept. of Biochem., Oncol. Res. Inst., Bratislava - NEOPLASMA 1958, 5/2 (111-113) Graphs 1 Tables 5

Three groups of rats were fed on a control diet (17% protein, 5% fats and 78% carbohydrate), a diet with high (47%) protein and low (30%) carbohydrate and one with low (7%) protein and 71% carbohydrate for 5 weeks previous to inoculation with standardized tumour emulsion. No inhibition of tumour take was observed but the growth of the tumour was slightly slower in the high-protein diet and much slower in the low-protein diet. The resultant size of tumour in the low-protein group was much smaller than in the controls and the survival of the animals was significantly longer.

Woodhouse - Birmingham (V, 16)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KLIMEK, MIROS

EXCERPTA MEDICA Sec 16 Vol 7/11 Cancer November 59

4622. **The influence of protein content in the diet on radiosensitivity of the BS tumour in rats** KLÍMEK M. Oncol. Res. Inst., Bratislava *Neoplasma* 1959, 6/1 (10–15) Graphs 3 Tables 1

Radiosensitivity of the BS rat tumour, irradiated locally, was compared in 2 groups of rats, of which one, beginning with the 14th day after implantation of the tumour, was given a low-protein diet, containing 7.3 calory % proteins, and the other a middle-protein diet, containing 16.9 calory % proteins. Calories were compensated for by carbohydrates. In rats fed a low-protein diet the effect of irradiation (total dose 10,500 r., in 6 fractions) was considerably smaller than in rats receiving a middle-protein diet; in most of the latter animals, regression occurred, followed in 2 instances by renewed growth. In rats kept on a medium-protein diet the effect of irradiation was greater, even when the total dose applied was only 8,500 r. The explanation of these findings is discussed.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

EXCERPTA MEDICA Sec 2 Vol 12/11 Physiology Nov 59

5056. THE INFLUENCE OF DEOXYRIBONUCLEIC ACID ON ULTRAVIOLET AND VISIBLE LIGHT ABSORPTION OF BERBERINE - Klimek M. and Hnilica L. Oncol. Res. Inst., Bratislava - ARCH. BIOCHEM. 1959, 81/1 (105-110) Graphs 3 Tables 2

Extinction of DNA-berberine mixtures in the range of wavelengths from 2300 to 5000 A. has been measured and compared to the extinction values of the single components. Upon mixing berberine with a DNA solution, the maximum of berberine at 3475 A. shifts to 3500 A. and the height of the extinction maximum markedly diminishes. This diminution is dependent upon the DNA concentration used. It is, however, also dependent on the degree of polymerization of the DNA used, when the concentration remains unchanged. Similar but less pronounced changes also occur in the region of the extinction maximum of berberine at 4250 A., which shifts to 4300 A. upon mixing with DNA. These spectral changes are believed to indicate an interaction between DNA and berberine

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMENKO, G.I. (Prof.); RICHENKO, N.I. (Cand. of Med. Sci.); DUBINSKAYA, Ye. A. (Cand. of Med. Sci.)

"Treatment of Adult Dysentery With Biomycin,"

p. 315 Ministry of Health USSR Proceedings of the Second All-Union Conference on Antibiotics, 31 May - 9 June 1957. p. 405, Moscow, Medgiz, 1957.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

Khimenko, G.S.

PHASE I BOOK EXPLOITATION SOV/4207

Penoplastmassy; sbornik statey (Foam Plastics; Collection of Articles) Moscow, Oborongiz, 1960. 182 p. Errata slip inserted. 5,050 copies printed.

Ed.: A.A. Moiseyev, Candidate of Technical Sciences, V.V. Pavlov, and M.Ya. Borodin; Managing Ed.: A.S. Zaymovskaya, Engineer; Ed. of Publishing House: I.A. Suvorova; Tech. Ed.: V.I. Oreshkina.

PURPOSE: This book is intended for engineers and technicians planning and manufacturing products and structures using lightweight fillers, and for workers of the foam plastic industry.

COVERAGE: The volume contains 13 studies on foam plastics and foaming agents. Some of the studies provide data on the technology of producing foam plastics from polystyrene and polyvinyl chloride, and data on thermosetting polymers (phenol rubber compositions, polyurethane foam, polyepoxy foam, and foam plastic sheets based on organic silicon resins). Other studies contain data on the composition of foam plastics, the effect of technological factors and volumetric weight on the physical, mechanical, and dielectric properties of foam plastics, and on the fields of application of foam plastics. Several studies deal with the production technology of radomes and reflectors for antenna installations in aircraft units. It is stated in the foreword that the Soviet Union produces and uses foam plastic sheets based on thermoplastic and thermosetting polymers of rigid, elastic, foamy, and porous structure. Fifteen such plastics including some of their specifications and applications are listed. There are no bibliographies but the authors cite Soviet and other authorities including A.A. Berlin, the author of Osnovy proizvodstva gazonapolnennykh plastmass i elastomerov (Principles of Production of Gas Filled Plastics and Elastomers) published by Goskhimizdat in 1954.

AVAILABLE: Library of Congress

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMENKO, I. S.

BER'ER, Iosif Noyekhovich; DUBONOS, Nikolay Faddeyevich; KORZHENEVSKIY, I.I., kand.ekon.nauk; KHIMENKO, I.S.; LYUDSKOV, B.P., red.; SUDAK, D.M., tekhn.red.

[Planning economic activities of commercial organizations] Planirovanie khoziaistvennoi deiatel'nosti torgovoi organizatsii. Moskva, Gos. izd-vo torgovoi lit-ry, 1957. 148 p. (MIRA 11:4) (Russia--Commerce)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMENKO, L. P. Cand Med Sci -- (diss) "On the problem of the pre-hypertonic state." Khar'kov, 1957. 12 pp with graphs (Khar'kov Med Inst). (KL, 3-58, 100)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

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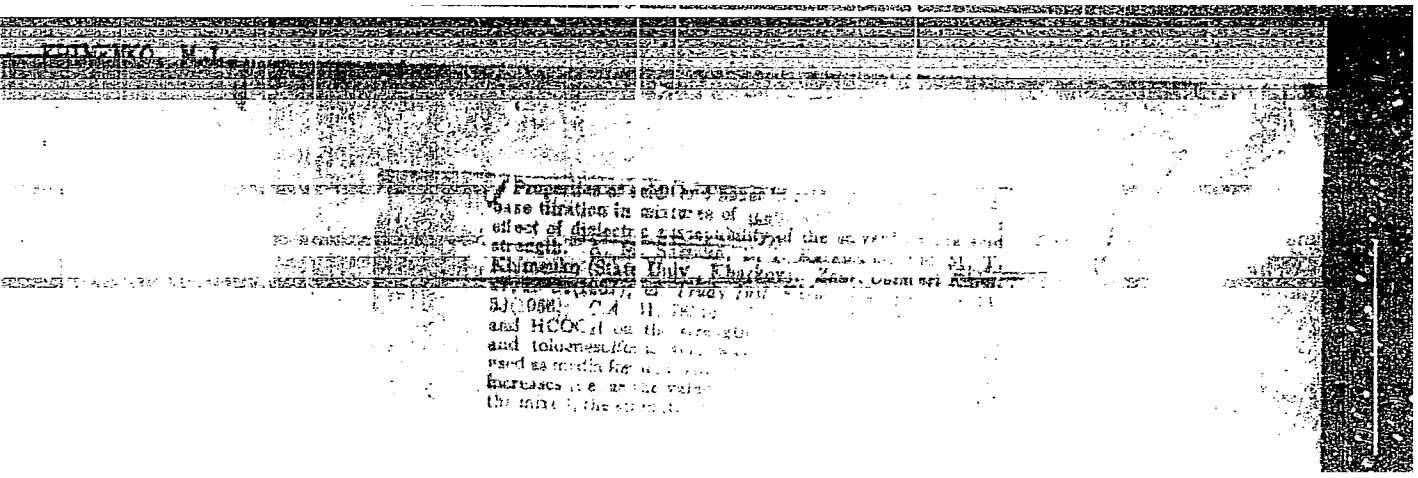

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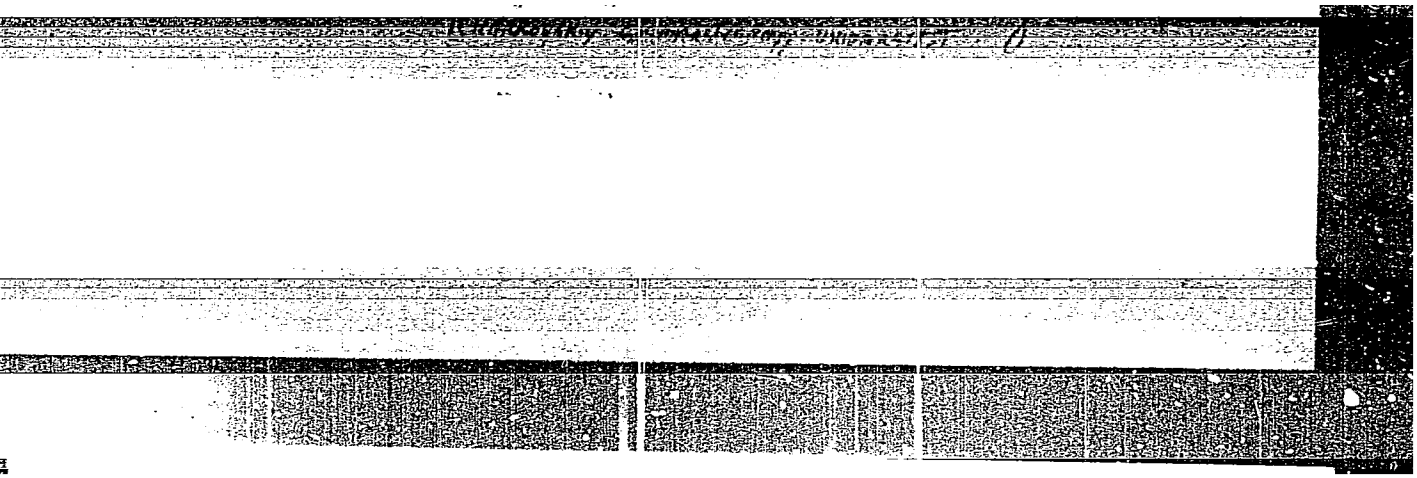

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

IZMAYLOV, N.A. [deceased]; KHIMENKO, M.T.

Concentration dependence of the refraction of acids in various solvents. Part 1: Carboxylic acids. Ukr. khim. zhur. 30 no.12: 1266-1274 '64 (MIRA 18:2)

1. Khar'kovskiy gosudarstvennyy universitet im. A.M. Gor'kogo.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KOPAN', V.S.; KHIMENKO, M.V.

Slip formation in a gold microwire. Ukr.fiz.zhur. 10 no.10: 1154-1157 O '65. (MIRA 19:1)

1. Kiyevskiy gosudarstvennyy universitet im. Shevchenko.
Submitted June 14, 1965.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

TEODOROVICH, E.V. [translator]; KHIMENKOV, Yu.V. [translator]; BRODSKIY, A.M., red.; LARIN, S.I., red.; POTAPENKOV, Ye.V., tekhn.red.

[New method in the theory of strong interactions; double dispersion representations] Novyi metod v teorii sil'nykh vzaimodeistvii; dvoinye dispersionnye predstavleniia. Sbornik statei. Moskva, Izd-vo inostr.lit-ry, 1960. 358 p. Translated from the English. (MIRA 14:4)
(Nuclear reactions)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMERIK, O.V.; DONS'KOY, Ya., redaktor; LAINIY, Yu., tekhnicheskiy redaktor.

[On a sharp rise] Na krutomu pidnesenni. [Kharkiv] Kharkivd'ke knyzhkovo-gazetne vyd-vo, 1954. 65 p. (MLRA 8:2)

1. Starshiy mayster Kharkivs'koi 1-oi derzhavnoi panchishnoi fabriki (for Khimerik).
(Kharkov--Hosiery industry)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMERIK, Yuriy Andreyevich; CHEKHOVOY, N., vedushchiy redaktor; PATSALYUK, P. tekhnicheskiy redaktor

[Hydraulic engineering installations; planning and calculation] Gidrotekhnicheskie sooruzheniia; proektirovanie i raschet. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1957. 190 p. (MLRA 10:4)
(Hydraulic engineering)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMERIK, Yu. A., kand. tekhn. nauk

Operation of irrigation canals and hydraulic installations.
Mekh. sil'. hosp. 9 no. 6:22-23 Je '58. (MIRA 11:7)
(Hydraulic engineering)
(Irrigation canals and flumes)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMERIK, Yuriy Andreyevich, dots., kand. tekhn. nauk; ORLIK, Ye.L., red.; OKOPNAYA, Ye.D., tekhn. red.

[Design of hydraulic structures] Proektirovanie i raschet gidrotekhnicheskikh sooruzhenii. Kiev, Izd-vo Kievskogo univ., 1961. 362 p. (MIRA 15:2)

(Hydraulic structures)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMERIK, Yu.F.; LOZOVSKIY, Z.F.

Calibration stand for electron-tube voltmeters. Avtom. i prib. no.2: 69-71 Ap-Je '65. (MIRA 18:7)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMERIN, Dmitriy Georgiyevich

Razvitiye energetiki SSSR. Moskva, Gosenergoizdat, 1960.
326 p. illus., diagrs., graphs, tables.
Bibliography: p. 324-325.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMICH, A.M.; CHISTIK, V.P.

Automatic machine for welding girth joints in carbon dioxide.
Avtom. svar. 16 no.4:65-66 Ap '63. (MIRA 16:4)

1. Zaporozhskiy transformatornyy zavod.
(Electric welding—Equipment and supplies) (Protective atmosphere)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMICH, B.P.

Drift of ships led by the ice-breaking vessel "Admiral Makarov" through Long Strait in 1956. Probl.Arkt. no.6:121-124 '59.
(MIRA 13:6)

(Long Strait--Ice)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

UKOLOVA, M.A.; KHIMICH, G.G.

Permanent magnet influences the growth of sarcoma. Nauka i zhizn' 28 no.7:84 Jl '61. (MIRA 14:8)

1. Institut rentgenologii, radiologii i onkologii, Rostov-na-Donu.
(Magnetism--Physiological effect)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMICH, G. L., Eng.

"Mechanization & Automation of Rolling Mills" p. 454-462 in book **Increasing the Quality and Efficiency of Machinery**, Moscow, Mashgiz, 1957, 626pp.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMICH, G.L., insh., red.; DUGINA, N.A., tekhn.red.

[Design of metalworking equipment; collection of articles] Konstruirovanie metallurgicheskogo oborudovaniia; sbornik statei. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry. No.1. 1958. 234 p. (MIRA 12:8)

1. Ural'skiy mashinostroitel'nyy zavod, Sverdlovsk.
(Metalworking machinery)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMICH, G.I.

Twenty-five years of designing metallurgical equipment at the Ural Machinery Plant. Sbor.st.UZTM no.1:3-12 '58. (MIRA 11:12)
(Sverdlovsk--Machinery industry) (Metalworking machinery)
(Rolling mills)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

SMIRNITSKIY, Yevgeniy Konstantinovich; KHIMICH, G.L., inzh., retsenzent; PINTUSOV, I.M., inzh., red.; DUGINA, N.A., tekhn.red.

[Economic efficiency of new machinery designs] Ekonomicheskaia effektivnost' novykh konstruktsii. Moskva, Gos.nauchno-tekhn. izd-vo mashinostr.lit-ry, 1959. 150 p. (MIRA 12:10)
(Machinery--Design)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMICH, G., Geroy Sotsialisticheskogo Truda

The main trend of technological development. NTO no.9:7-8 S '59. (MIRA 13:1)

1. Glavnyy konstruktor Uralmashzavoda.
(Sverdlovsk--Technological innovations)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMICH, G.L.; KORYAKIN, K.V.

Use of reinforced concrete in the construction of rolling mills.
Prokat. proizv. no.2:139-146 '60. (MIRA 14:11)
(Rolling mills)
(Reinforced concrete construction)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMICH, Georgiy Lukich, inzh.; GOLUBKOV, Konstantin Alekseyevich; KONDRATOV, Yuriy Nikolayevich; NISKOVSKIKH, Vitaliy Maksimovich; SIDELEV, Nikolay Petrovich; PAL'MOV, Ye.V., doktor tekhn. nauk, retsenzent; DUGINA, N.A., tekhn. red.

[Improving the quality and economic efficiency of machinery] Povyshenie kachestva i ekonomichsnoti mashin. Pod red. G.L. Khomicha. Moskva, Mashgiz, 1962. 124 p. (MIRA 15:7)
(Machinery industry)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMICH, G. L.

Doc Tech Sci - (diss) "Designing and study of high-productivity mechanical equipmentation of rolling mills." Sverdlovsk, 1961. 27 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Ural Polytechnic Inst imeni S. M. Kirov); 150 copies; price not given; list of author's works on pp 26-27 (26 entries); (KL, 10-61 sup, 212)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

SMIRNITSKIY, Yevgeniy Konstantinovich; KHIMICH, G.L., inzh., retsenzent; DUGINA, N.A., tekhn. red.

[Increasing the economic efficiency of new machinery designs] Povyshenie ekonomicheskoi effektivnosti novykhkonstruktsii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1961. 157 p. (MIRA 14:12)

(Machinery--Design)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

AL'SHEVSKIY, L.Ye.; NOSAL', V.V.; KHIMICH, G.L.; GRINSHPUN, M.I.

Mill for the cold rolling of pipe. Biul. TSIICHM no.3:48 '61. (MIRA 14:12)

(Pipe mills--Patents)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

VYDRIN, V.N., kand.tekhn.nauk; BEREZIN, Ye.N., inzh.; KHIMICH, G.L.; TRET'YAKOV, A.V.; FEDOROV, M.I.; VASHCHENKO, Yu.I.

"Mechanical equipment of rolling mills" by A.A. Koroleva. Reviewed by V.N. Vydrin and others. Stal' 22 no.1:61-63 Ja '62. (MIRA 14:12)

1. Chelyabinskiy politekhnicheskiy institut (for Vydrin, Berezin). 2. Nauchno-issledovatel'skiy konstruktorsko-tekhnologicheskiy institut tyazhelogo mashinostroyeniya Uralmashzavoda i Ural'skiy politekhnicheskiy institut (for Khimich, Tret'yakov, Fedorov).

(Rolling mills--Equipment and supplies)
(Koroleva, A.A.)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

L 15578-63 EWT(d)/EWP(k)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pf-4 JD/HW

ACCESSION NR: AP3001664 S/0130/63/000/006/0022/0025

AUTHORS: Khimich, G. L.; Tret'yakov, A. V. 63 62

TITLE: Modern rolling mills and their equipment

SOURCE: Metallurg, no. 6, 1963, 22-25

TOPIC TAGS: rolling mill, mill equipment

ABSTRACT: The authors discuss the present state of the steel rolling technology and the improvements needed for fulfillment of the production plans set by the November 1962 resolution of TsK KPSS (Central Committee of the Communist Party of the USSR). Further technological development would require a wide application of automation and mechanization of rolling mills. The following steps have been made in this direction: 1) the blooming mill 1300 was designed for a fully automatic technological process; 2) the continuous four-stand mill 1700 for cold rolling was installed in two plants (its rolling speed is up to 25 m/sec; it is partially automated); 3) endless feeding systems that deliver heated ingots to blooming and slab mills have been installed in several plants (their delivery cycles are 30-35 seconds) and production of the blooming mill was increased 25% after installation; 4) the design of a system for accurate measurement of the temperature in the rollers of a

Card 1/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

L 15578-63

ACCESSION NR: AP3001664

high-speed cold-rolling mill (10 m/sec) is still in the research stage. Orig. art. has: 1 table and 2 figures.

ASSOCIATION: NIItyazmash Uralmashzavoda (Scientific Research Institute for Heavy Machines, Ural Machine Factory)

SUBMITTED: 00 DATE ACQ: 09Jul63 ENCL: 00

SUB CODE: ML NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

L 16304-65 EWP(e)/EWT(m)/EWP(w)/EWA(d)/EWT(t)/EWP(k)/EWP(b) Pr-4 IJP(c)
ACCESSION NR: AP4045900 MJW/JD S/0021/64/000/009/1168/1172

AUTHOR: Fedorchenko, I. M. (Academician AN UkrSSR); Draygor, D.A. (Deceased) Afanas'yev, V. F.; Filatova, N. O.; Khimich, G. S.; Filatova, N. A.

TITLE: Investigation of the wear of sintered powder materials in different gaseous media

SOURCE: AN UkrRSR. Dopovidi, no. 9, 1964, 1168-1172

TOPIC TAGS: sintered powder material, iron powder material, bronze powder material, friction coefficient, wear

ABSTRACT: Sintered powder materials, two on an iron powder base and two on a bronze powder base, were subjected to friction and wear tests in air, nitrogen, argon, and helium. The counterbody was nitrided 1Kh18N9T [AISI 321] steel hardened to 75 HR_c; testing was done at a specific pressure of $245 \cdot 10$ n/m^2 and a sliding speed varying from 0.5 to 10.5 m/sec. The test results showed that the ambient gaseous medium has a significant bearing on the mechanism of wear, friction coefficient, and temperature of the friction surfaces of all the sintered materials tested. The friction temperature and wear

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

L 15304-65
ACCESSION NR: AP4045900

were much lower in air than in gaseous nitrogen, argon, or helium. Under identical operating conditions, the wear rate of sintered iron-powder materials was appreciably higher than that of the bronze-powder materials. The value of the friction coefficient and its time-dependent changes at a constant speed were determined by the processes which occur on the friction surfaces, and which, in turn, depend on the ambient medium. At a constant sliding speed, the effect of the specific pressure on the friction coefficient is independent of the ambient gaseous medium. Orig. art. has: 3 figures.

ASSOCIATION: Institut problem materialoznavstva AN USSR [Institute of the Problems of the Science of Materials AN USSR]

SUBMITTED: 25Jan64 ENCL: 00 SUB CODE: MM

NO REF SOV: 002 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

L 10325-67 EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) DJ/JD
ACC NR: AP6020919 SOURCE CODE: UR/0369/66/002/002/0209/0212

AUTHORS: Afanas'yev, V. F.; Khimich, G. S. 39

ORG: Institute for the Problems of Materials Science, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: Effects of low temperature, vacuum, and gaseous environment on the friction and wear of materials

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 2, 1966, 209-212

TOPIC TAGS: metal friction, friction, wear resistance

ABSTRACT: The major portion of the report represents a qualitative citing and discussion of references on the effects of temperature, vacuum, and gaseous environment on friction and wear of materials. These include L. A. Plutalova (Sb. Treniye i iznos v mashinakh, M. 1962, vyp. 15) and "Effects of Vacuum on Space Metals", Metal Age, 1962, 20, No. 1, 2. It is concluded that the work (to date) on the effects of environment on friction and wear is insufficient and inadequate because only small ranges of operating parameters have been investigated and most work has not considered the microstructure of the metal and/or oxide surface layers. The last half page of the report briefly describes a friction test apparatus which has been developed to study friction and wear in a vacuum (to 10^{-9} mm Hg) or in a controlled atmosphere (at 100--6000 rpm or 0.2--20 m/sec sliding velocity). Orig. art. has: 2 figures and 1 table.

SUB CODE: 11, 13/ SUBM DATE: 150ct64/ ORIG REF: 006/ OTH REF: 002

Card 1/1 B.S.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KHIMICH, I. V.

S/058/61/000/010/006/100
A001/A101

AUTHORS: Lomsadze, Yu. M., Lend'yel, V. I., Krivskiy, I. Yu., Fushchich, V.I., Khimich, I. V., Lukin, L. P., Ernst, B. M.

TITLE: On applying modified perturbation method to interpretation of nucleon scattering

PERIODICAL: Referativnyy zhurnal. Fizika, no. 10, 1961, 25, abstract 10A257 (V sb. "Probl. sovrem. teorii elementarn. chastits", no. 2, Uzhgorod, 1959, 211-216, Engl. summary)

TEXT: Differential effective cross sections for all types of NN-scattering have been determined in the first non-vanishing approximation of the modified perturbation method (consisting in a special summation over all simplest barion loops inserted into internal $\tilde{\tau}$-meson lines of the Feynman 2nd-order graphs); assumptions are made on existence of scalar $\tilde{\tau}$-mesons and violation of charge independence of nuclear forces at high energies. The cross sections calculated for the range 100 - 600 Mev agree sufficiently well with experimental data. Thereby the results of the preceding study (abstract 10A256) are additionally substantiated. An interesting possibility is discussed that at sufficiently

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S/058/61/000/010/006/100
A001/A101

On applying modified perturbation ... great coupling constant, the scattering cross section may be completely independent of its value.

[Abstracter's note: Complete translation]

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

KRIVSKIY, I. Yu. [Kryvs'kyi, I. IU.]; LOMSADZE, Yu.M.; FUSHCHICH, V.I.; KHIMICH, I.V.

Problem of theradiative decay of a π-meson. Ukr. fiz. zhur. 5 no.6:777-780 N-D '60. (MIRA 14:3)

1. Uzhgorodskiy gosudarstvennyy universitet.
(Mesons—Decay)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

24.4400

S/058/62/000/004/014/160
A058/A101

AUTHORS: Krivskiy, I. Yu., Lomsadze, Yu. M., Khimich, I. V.

TITLE: Concerning the correspondence principle in the theory of the quantized "probability-amplitude field"

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 37, abstract 4A294 ("Dokl. i soobshch. Uzhgorodsk. un-t. Ser. fiz.-matem. n.", 1961 no. 4, 15 - 18)

TEXT: The authors prove a theorem of equivalence between the conventional quantum-field theory and the special case of their proposed theory in which the probability-amplitude field is being quantized (RZhFiz, 1961, 8A214 - 215).

[Abstracter's note: Complete translation]

Card 1/1

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

24.4400

S/058/62/000/004/015/160
A058/A101

AUTHORS: Khimich, I. V., Lomsadze, Yu. M., Krivskiy, I. Yu.

TITLE: U(x)-uN(k) representations in quantum-field theory

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 37, abstract 4A295 ("Dokl. i soobshch. Uzhgorodsk. un-t. Ser. fiz.-matem. n.", 1961, no. 4, 25 - 27)

TEXT: The authors establish a connection between functionals in different representations of the new strong-coupling method proposed earlier by one of the authors (RZhFiz, 1961, 11A247).

[Abstracter's note: Complete translation]

Card 1/1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

S/058/62/000/005/015/119
A001/A101

AUTHORS: Lomsadze, Yu. M., Krivskiy, I. Yu., Khimich, I. V.

TITLE: Some aspects of the new method of "strong" coupling in the theory of quantized fields

PERIODICAL: Referativnyy zhurnal, Fizika, no. 5, 1962, 34, abstract 5A315 ("Dokl. i soobshch. Uzhgorodsk. un-t. Ser. fiz.-matem. n.", 1961, no. 4, 28-32)

TEXT: The method of strong coupling suggested earlier by one of the authors (RZhFiz. 1961, 11A247) is discussed. The possibility is considered of a consequent calculation, within the framework of this method, of Green's functions, in particular, Green's function of a single particle.

[Abstracter's note: Complete translation]

Card 1/1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

LOMSADZE, Yu.M.; LEND'YEL, V.I.; KRIVSKIY, I.Yu. [Kryvs'kyi, I.IU.]
KHIMICH, I.V.

Third All-Union Conference on the Theory of Elementary Particles.
Ukr.fiz.zhur. 7 no.4:448-454 Ap '62. (MIRA 15:8)
(Particles (Nuclear physics))

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

LOMSADZE, Yu.M., dotsent; KRIVSKIY, I.Yu.; KHIMICH, I.V.

Experimental verification of certain implications of the quantum field theory of probability amplitudes. Dokl. i soob. UzhGU. Ser. fiz.-mat. i ist. nauk no.5:8-13 '62. (MIRA 17:9)

1. Otvetstvennyy radaktor zhurnala "Doklady i soobshcheniya Uzhgorodskogo gosudarstvennogo universiteta; seriya fiziko-matematicheskikh i istoricheskikh nauk" (for Lomsadze).

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

24.4400

S/185/62/007/009/002/006
D234/D308

AUTHORS: Khimich, I.V., Lomsadze, Yu.M. and Kryvs'kyy, I.Yu.

TITLE: Some physical consequences of the theory of quantized field of the probability amplitude

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 9, 1962, 967-973

TEXT: The authors refer to their previous papers where the above theory was formulated (Doklady i soobshcheniya Uzhgorodskogo universite-ta, seriya fiz.-mat. nauk, no. 4, 15, 1961; Yu.M. Lomsadze, as above, no. 3, 11, 1960, no. 4, 9, 1961, Nucl. Phys. 36, 1962) and derive an expression connecting the probability of transition from the initial to the final state, defined by this theory, with the experimentally observed probability. It is stated that the matrix element in the new theory can be obtained with any approximation in closed form according to the perturbation method developed in the papers quoted above. The new constant I can have any value. The authors quote the expressions for the matrix element in the case

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

Some physical consequences ...

of I = 2, in the first and second approximation. They conclude that renormalization in the new theory has no additional difficulties in comparison with the usual quantized field theory. If the errors in determining the initial momenta of the particles are sufficiently small, the effective cross section given by the new theory for any process is the same as in the usual theory, up to the second approximation (for I = 2). It is found that for finding I special experiments are necessary, in which the initial state of the system would contain sufficiently distant momenta. The basic ideas forming the basis of the new theory are discussed. An essential feature of the new theory is stated to be the fact that it allows any degree of accuracy in measuring the complete set of physical quantities but no absolutely exact measurement. The authors express their gratitude to Ya.A. Smorodyns'kyy, B.L. Yoffe, M.I. Podhorets'kyy and K.D. Tolstoy for discussion.

ASSOCIATION: Uzhhorods'kyy derzhuniversytet (Uzhhorod State University)

SUBMITTED: January 20, 1962

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020003-5

LOMSADZE, Yu.M.; KRIVSKIY, I.Yu.; KHIMICH, I.V.

General principles of developing a theory of the quantized field of the probability amplitude. Izv. vys. ucheb. zav.; fiz. no.4: 26-33 '63. (MIRA 16:9)

1. Uzhgorodskiy gosudarstvennyy universitet.
(Quantum field theory)

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LOMSADZE, Yu.M.; KRIVSKIY, I.Yu.; KHIMICH, I.V.

Physical nature of the theory of the quantized field of the probability amplitude. Izv. vys. ucheb. zav.; fiz. no.4:113-119 '63. (MIRA 16:9)

1. Uzhgorodskiy gosudarstvennyy universitet.
(Quantum field theory) (Probabilities)

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LOMSADZE, Yu.M.; KRIVSKIY, I.Yu.; KHIMICH, I.V.

Fourth All-Union Conference on the Theory of Elementary Particles. Izv.vys.ucheb.zav.; fiz. no.3:190-191 '63. (MIRA 16:12)

1. Uzhgorodskiy gosudarstvennyy universitet.

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AUTHOR: Lomsadze, Yu. M.; Kryvs'kyy, I. Yu.; Khimich, I. V.

TITLE: Fourth All-Union Conference on the Theory of Elementary Particles /held in Uzhgorod from 26 to 29 November 1962/

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 5, 1963, 601-605

TOPIC TAGS: elementary particle, Regge pole, quantum electrodynamics, quantum field theory, unified theory of relativity, photonuclear reaction, gravitation theory

ABSTRACT: The authors describe the proceedings of the Fourth All-Union Conference on the Theory of Elementary Particles, held in Uzhgorod on 26 to 29 November 1962, and preceded by a four-day (21 to 24 November) seminar of theoretical physicists, specialists in the field of elementary particles. At the seminar eminent specialists lectured on recent developments in the field of strong interaction, high-energy quantum electrodynamics, problems of the spatial-temporal description in the relativistic quantum theory, pseudo-Euclidean space-time at small distances,

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the unified theory of relativity. The discussion during the conference proper was concerned with such topics as Regge poles, strong interactions, weak and electromagnetic interactions, gravitation theory, the group approach to and systematization of elementary particles, and new ideas and generalizations of the quantized field theory. The conference also included a section on photonuclear reactions, a seminar to commemorate the eminent Danish physicist Niels Bohr, and a seminar on the philosophical problems of the contemporary theory of elementary particles. The proceedings of the conference are being prepared for publication.

ASSOCIATION: None

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Card 2/2

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