CA

7

Lignin from lignites S. M. Manskaya, M. S. Bardinskaya, and M. N. Kochneva. *Doklady Akad. Nauk S.S.S.R.* 70, 707-10(1951). Examn. of lignites from geological deposits of varying ages, conducted by consecutive extn. with C_6H_6, Et_2O (extn. of balsams and tars), H_2O, 2% NaOH (acidification to give aromatic aldehydes), hydrolysis with 2% HCl, hydrolysis with 72% H_2SO_4, and alk. $PhNO_2$ oxidation under pressure (yielding aromatic aldehydes), gave the following results. Aromatic aldehydes (vanillin) were found in all specimens, the younger deposits contg. the larger quantities; older specimens from Triassic deposits appear to show evidence of secondary condensation reactions. The MeO number drops with age of the deposits. Humic acids were highest in the older deposits. C. M. K.

MAKSIMOV, N. A. and MANSKAYA, S. M.

"V. I. Palladin and the Significance of His Works for the Development of Biochemistry and Vegetable Physiology of the Fatherland," Biochemistry (Biokhimiya), Vol. 17, Issue No. 2, Press of the AS USSR, Moscow, 1952.

1. MANSKAYA, S.M., BARDINSKAYA, M.S.

2. USSR (600)

4. Lignin

7. Lignin in growing wood. Biokhimiia 17 no.6 1952

9. Monthly List of Russian Accessions, Library of Congress. March 1953. Unclassified.

MANSKAYA, S.M.

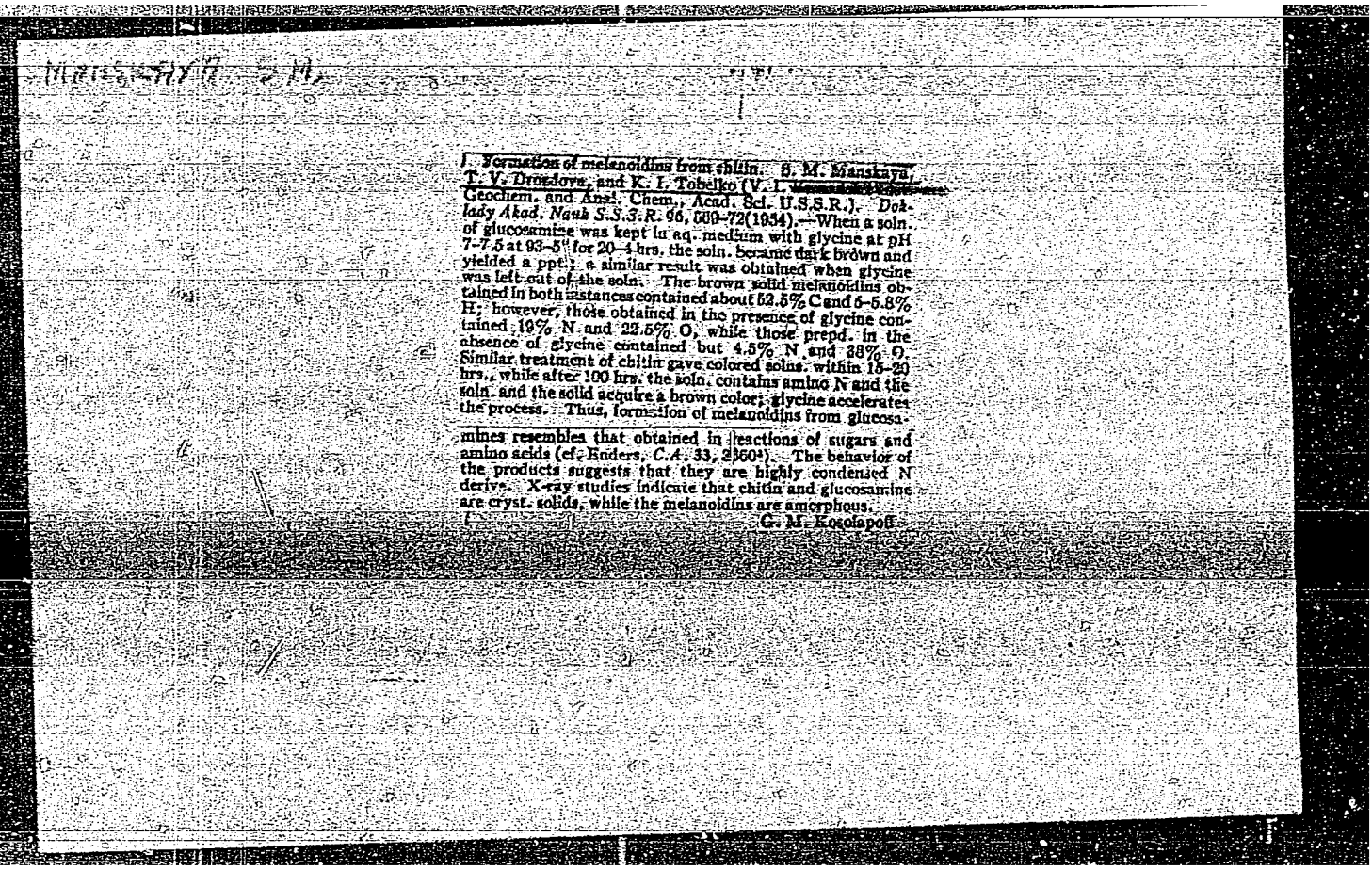
USSR

Lignin of various plant groups. S. M. Manskaya. MD
Trudy Biogeokhim. Lab., Akad. Nauk S.S.S.R. 10, 98–115(1954).—A literature review on the nature of lignin in various plants is followed by the results of examn. of modern and fossil lignin specimens. It is shown that the vanillin form of lignin appears from the earliest geobotanical periods, but its preponderance declines in the more recent eras with a rise of the syringaldehyde derivs. MeO content declines with increasing geol. age of the specimens of isolated lignins. Cf. *C.A.* 47, 5115*i*. G. M. Kosolapoff

MANSKAYA, S.M.; BARDINSKAYA, M.S.

Aromatic compounds in the cellular membrane of peat moss. Biokhimiia 19 no.3:332-335 My-Je '54. (MLRA 7:8)

1. Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo Akademii nauk SSSR. 2. Institut biokhimii im. A.N.Bakha Akademii nauk SSSR, Moskva.
(PLANTS,
peat moss, aromatic cpds. in)



I. Formation of melanoidins from chitin. S. M. Manskaya, T. V. Drozdova, and K. I. Tobelko (V. I. [redacted] Geochem. and Anal. Chem., Acad. Sci. U.S.S.R.). *Doklady Akad. Nauk S.S.S.R.* 96, 569–72(1954).—When a soln. of glucosamine was kept in aq. medium with glycine at pH 7–7.5 at 93–5° for 20–4 hrs. the soln. became dark brown and yielded a ppt.; a similar result was obtained when glycine was left out of the soln. The brown solid melanoidins obtained in both instances contained about 52.5% C and 5–5.8% H; however, those obtained in the presence of glycine contained 10% N and 22.5% O, while those prepd. in the absence of glycine contained but 4.5% N and 38% O. Similar treatment of chitin gave colored solns. within 15–20 hrs., while after 100 hrs. the soln. contains amino N and the soln. and the solid acquire a brown color; glycine accelerates the process. Thus, formation of melanoidins from glucosamines resembles that obtained in reactions of sugars and amino acids (cf. Enders, *C.A.* 33, 2360⁴). The behavior of the products suggests that they are highly condensed N derivs. X-ray studies indicate that chitin and glucosamine are cryst. solids, while the melanoidins are amorphous.

G. M. Kosolapoff

Manskaya, S. M.

Aromatic compounds of the cell walls of sphagnum moss. S. M. Manskaya and T. V. Drozdova (V. I. Vernadskii Inst. Geochem. and Anal. Chem., Moscow). *Fiziol. Rastenii* 2, 533-8(1955).—Chromatographic sepn. on activated C yielded from the cell walls of sphagnum moss a phenolic glucoside, which in paper chromatography with BuOH-AcOH-H_2O has R_f 0.94; this substance is bright yellow, can sublime at high temp., forms yellow ppts. with metal ions. The glucoside is $C_{21}H_{20}O_{11}$; the aglucone is apparently a flavone with 1 MeO group. Also found were: vanillin, *p*-hydroxybenzaldehyde, and syringaldehyde. The above glucoside is similar to that reported by Czapek (*Flora*, 86, 361(1899)).

G. M. Kosolapoff

MD

(1)

MANSKAYA, S. M.

USSR/Biology - Biochemistry

Card 1/1 Pub. 22 - 36/53

Authors : Manskaya, S. M., and Drozdova, T. V.

Title : Phenol glycoside from sphagnum

Periodical : Dok. AN SSSR 102/4, 789-792, Jun 1, 1955

Abstract : The aromatic compounds derived from the cellular shell of sphagnum medium (moss family) were investigated. The aromatic composition of the cellular shell of sphagnum was determined not by lignification but by the presence of its phenol glycoside contents and by the small amounts of aromatic aldehydes and acids existing in active form in the sphagnum. Other physico-chemical properties of the blycoside are described. Eight references: 5 USSR, 1 USA, 1 Swiss and 1 German (1929-1954). Tables; graph.

Institution : Acad. of Sc., USSR, The V. I. Vernadskiy Inst. of Geochem. and Anal. Chem.

Presented by: Academician A. P. Vinogradov, February 24, 1955

MANSKAYA, S.M.; DROZDOVA, T.V.; YEMEL'YANOVA, M.P.

Uranium binding by humic acids and melanoidines [with English summary in insert]. Geokhimiia no.4:10-23 '56. (MLRA 9:11)

1. Institut geokhimii i analiticheskoy khimii imeni V.I. Vernadskogo Akademii nauk SSSR, Moskva.
(Uranium) (Humic acid) (Melanoidins)

USSR/Soil Science. Biology of Soils. J-2

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24719.

Author : Manskaya, S.M.
Inst :
Title : Ways of Transforming Organic Matter in Natural Processes.

Orig Pub: Priroda, 1957, No 1, 26-31.

Abstract: The basic components of lignin are a substance of the phenyl-propane series. From coniferous wood species, vanilin is secretdd, while from the wood of deciduous types, besides vanilin, lilac aldehyde is also secreted. In the lignified walls, n-oxy-benzaldehyde and coniferyl aldehyde are found. Aromatic derivatives of lignin can participate in the

Card : 1/3

USSR/Soil Science. Biology of Soils.

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24719.

formation of condensed humic substances. Vanilin was found in stumps on peat-bogs simultaneously with crystals of the mineral scheererite ($C_{18}H_{18}$) and fichtelite ($C_{18}H_{32}$). These minerals are genetically connected with abietic acid - a component of the sap of conifers. A high-molecular natural compound of chitin, by hydrolysis with acids, gives equivalent quantities of glycosamine and acetic acid. In 1 gm of arable soil there was found 1 million chitin-destroying bacteria, mold and ray funguses, under the action of the enzyme chitinase, secreted by these microorganisms, chitin splits into n-acetyl-glycosamine. Amino acid and sugar products of the decomposition of this substance enter into reaction during heating with the forma-

Card : 2/3

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24719.

tion of dark-colored products - melanoidins. As a result of the biological destruction of lignin, chitin and gums, simple monomeric compounds are formed, which, entering into reaction with various substances, give rise to humic acids, melanoidins, constituting the basis of the organic substances of soils, peats and coals.

Card : 3/3

USSR/Plant Physiology. Respiration and Metabolism I

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58205

Author : Manskaya S. M.
Inst : Not given
Title : Biosynthesis and Decomposition of Lignin

Orig Pub : Uspekhi sovrem. biol., 1957, 44, No 1, 19-36

Abstract : A survey. On the basis of her own research work and data obtained by other research workers, the author assumes that the formation of lignin in plants takes place through shikimolic acid, p-oxyphenyl pyruvic acid, and then by the condensation of compounds of coniferyl alcohol and [illegible] products of its oxidation. Hypotheses are developing also on the possibility of the biological decomposition of lignin and the utilization of its decomposition products in metabolism.

Card 1/1

MANSKAYA, S.M., doktor biologicheskikh nauk.

Transformation of organic matter in natural processes. Priroda 46 no.1:26-31 Ja '57. (MLRA 10:2)

1. Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo Akademii nauk SSSR, Moskva.
(Humid acid) (Chemistry, Organic)

MANSKAYA, S.M.; DROZDOVA, T.V.; YEMEL'YANOVA, M.P.

Binding of copper by various forms of natural organic compounds. [with summary in English]. Pochvovedenie no. 6:41-48 Je '58. (MIRA 11:7)

1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo AN SSSR.
(Copper organic compounds)
(Minerals in soil)

17(3)

AUTHORS: Manskaya, S. M., Kodina, L. A. SOV/20-123-4-45/53

TITLE: Quinic and Shikimic Acids in Plants (Khinnaya i shikimovaya kisloty v rasteniyakh)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 4, pp 733 - 736 (USSR)

ABSTRACT: Shikimic acid occurs in the fruit of the Japanese anise (Shikimi-Noki) Illicium religiosum as well as in the leaves of the Ginkgo tree (Ginkgo biloba) (Refs 1,2). It is structurally related to quinic acid (1,3,4,5-tetra-oxy-cyclo-hexane- 1 - carboxylic acid): 3,4,5-trioxy-cyclohexene-1-carboxylic acid. Quinic acid is genetically related to glucose:in metabolism it forms an intermediate member between carbohydrates and aromatic compounds. In the last years attention was attracted by shikimic acid as predecessor of aromatic compounds in the living cell. It may be considered to be the predecessor of tyrosine, phenyl alanine, tryptophane, and p-amino benzoic acid in bacterium Escherichia coli and other bacteria(Refs 7,9). The transformation of shikimic acid in aromatic units of lignine (Ref 10), as well as further occurrences in plants,

Card 1/3

and the experimental results in this field (Refs 11-14) are of special interest. The investigation of the two acids in question was made difficult by the lack of exact chemical methods of determination, which have been devised in Japan recently (Refs 15 - 17). The authors intended to investigate the distribution of the two acids in the young shoots and cones of pines (Pinus silvestris) during their development and lignification. The quinic acid isolated was identified according to its melting point at 162°, shikimic acid by that at 184°, and also according to the color reactions and according to the position on the chromatograms (Fig 1), and finally according to the absorption spectra in the ultraviolet range. The content of both acids in the young shoots (quinic acid 5.23, shikimic acid 5.5% of dry weight) was considerable. Table 2 shows the determinations of the contents as related to the individual parts: bark, needles, in the wood in its development, and in the cambium as well as in the buds of the next year. Their content was highest in the needles, and lowest in the cambium and in the wood. In the green cones the content, especially of shikimic acid, increases and then decreases

towards the end of July when the cones begin to lignify. Probably both acids are still used for the synthesis of compounds of the lignane type or for tanning materials. The transformation of shikimic acid into quercetin was proved (Ref 19). There are 1 figure, 3 tables, and 19 references, 4 of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, Academy of Sciences, USSR)

PRESENTED: July 10, 1958, by A. P. Vinogradov, Academician

SUBMITTED: June 7, 1958

MANSKAYA, S.M.

Academician Vladimir Ivanovich Palladin; on-hunderth anniversary of his birth. Izv. AN SSSR. Ser.biol. 24 no.6:929-934 N-D '59. (MIRA 13:4)

(PALLADIN, VLADIMIR IVANOVICH, 1859-1922)

VERNADSKIY, Vladimir Ivanovich, akademik; VINOGRADOV, A.P., akademik, otv.red.; MANSKAYA, S.M., doktor biolog.nauk, red.; DROZDOVA, T.V., red.izd-va; NOVICHKOVA, N.D., tekhn.red.

[Selected works] Izbrannye sochineniia. Moskva, Izd-vo Akad. nauk SSSR. Vol.5. 1960. 422 p. (MIRA 13:5)
(GEOCHEMISTRY) (LIFE (BIOLOGY))

MANSKAYA, S. M.

USSR

reports to be pr... at th... 7th Intl Cong... of Ho... land Rese..., Frantiskov... and Prague, Czechoslovakia, 14-19 Sep 60.

BEL[illegible]KIY, (fnu) ...ssibly M. S. BELEN'KIY, Ukrainian Sc...ific Research Institute of Health Re... and Balneology, Odessa) - Paper to be ...nced (Session IV)

[illegible]VICH, A. M., Soil Institute imeni V. V. ...nyev, Academy of Sciences USSR, Moscow - Characteristics of humus materials and their importance for plants" (Session VIII; also Chairman, Session VII)

KOZLOVSKAYA, L. S., Institute of Forestry, Academy of Sciences USSR, Moscow - "The task of biological factors in the decomposition of the organic parts of peats" (Session I)

MANSKAYA, S. M. and DROZDOVA, T. V., both of the Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, Academy of Sciences USSR, Moscow - "Organic components of moors and their relation to metals" (Session I)

POGFILOVA, G. N., Director, State Scientific Research Institute for Health Resort Studies and Physiotherapy, Moscow - paper to be announced (Session III)

P'YAVCHENKO, N. I., Institute of Forestry, Academy of Sciences USSR, Moscow - "Types of wood peat in the USSR" (Session VIII)

TYURENOV, N. "Principles of classification of moor deposits" (Session II)

ZAMYATIN, B. I., Institute of Regional Pathology, Academy of Sciences Kazakh SSR, Alma Ata - "Balneological factors in the Kazakh SSR" (Session IV)

9

MANSKAYA, S.M.; DROZDOVA, T.V.; YEMEL'YANOVA, M.P.

Distribution of copper in peats and peat soils of the White Russian S.S.R. Geokhimiia no.6:529-540 '60. (MIRA 13:10)

1. Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo AN SSSR, Moskva.
(White Russia--Peat--Analysis) (Copper)

MANSKAYA, S.M.; DROZDOVA, T.V.; YEMEL'YANOVA, M.P.

Forms of complex formation between copper and organic matter in peat soils of the White Russian S.S.R. Trudy Biogeokhim. lab. no.11:65-69 '60. (MIRA 14:5)

1. Institut geokhimii i analiticheskoy khimii imeni V.I.Vernadskogo AN SSSR.

(WHITE RUSSIA—PEAT SOILS)
(COPPER ORGANIC COMPOUNDS)

MANSKAYA S.M., DROZDOVA, T.V. (USSR)

"Biogeochemistry of Natural Organic Compounds."

Report presented at the 5th Int'l Biochemistry Congress, Moscow, 10-16 Aug 1961;

MANSKAYA, S.M.; DROZDOVA, T.V.; KRAVTSOVA, R.P.; TOBELKO, K.I.

Biogeochemistry of germanium. Geokhimiia no.5:433-439 '61.
(MIRA 14:5)

1. V. I. Vernadsky Institute of Geochemistry and Analytical Chemistry, Academy of Sciences U.S.S.R., Moscow.
(Germanium)
(Peat)

MANSKAYA, S.M.; KODINA, L.A.

Aromatic monomers of lignin in lignites, their possible role in the concentration of uranium, germanium, vanadium. Geokhimiia no.4:370-382 Ap '63. (MIRA 16:7)

1. Vernadsky Institute of Geochemistry and Analytical Chemistry, Academy of Sciences, U.S.S.R., Moscow.
(Lignin) (Lignite) (Metals)

BARDINSKAYA, Margarita Sergeyevna [deceased]; KURSANOV, A.L., akademik, otv. red.; MANSKAYA, S.M., red.; MOSKALEVA, V.Ye., red.; SHUBERT, T.A., red.; KARIMOVTOV, M.N., red.; PAVLINOVA, O.A., red.

[Plant cell walls and their formation; some problems of the chemistry, biochemistry and physiology of lignification] Rastitel'nye kletochnye stenki i ikh obrazovanie; nekotorye voprosy khimii, biokhimii i fiziologii odrevesneniia. Moskva, Nauka, 1964. 152 p. (MIRA 18:1)

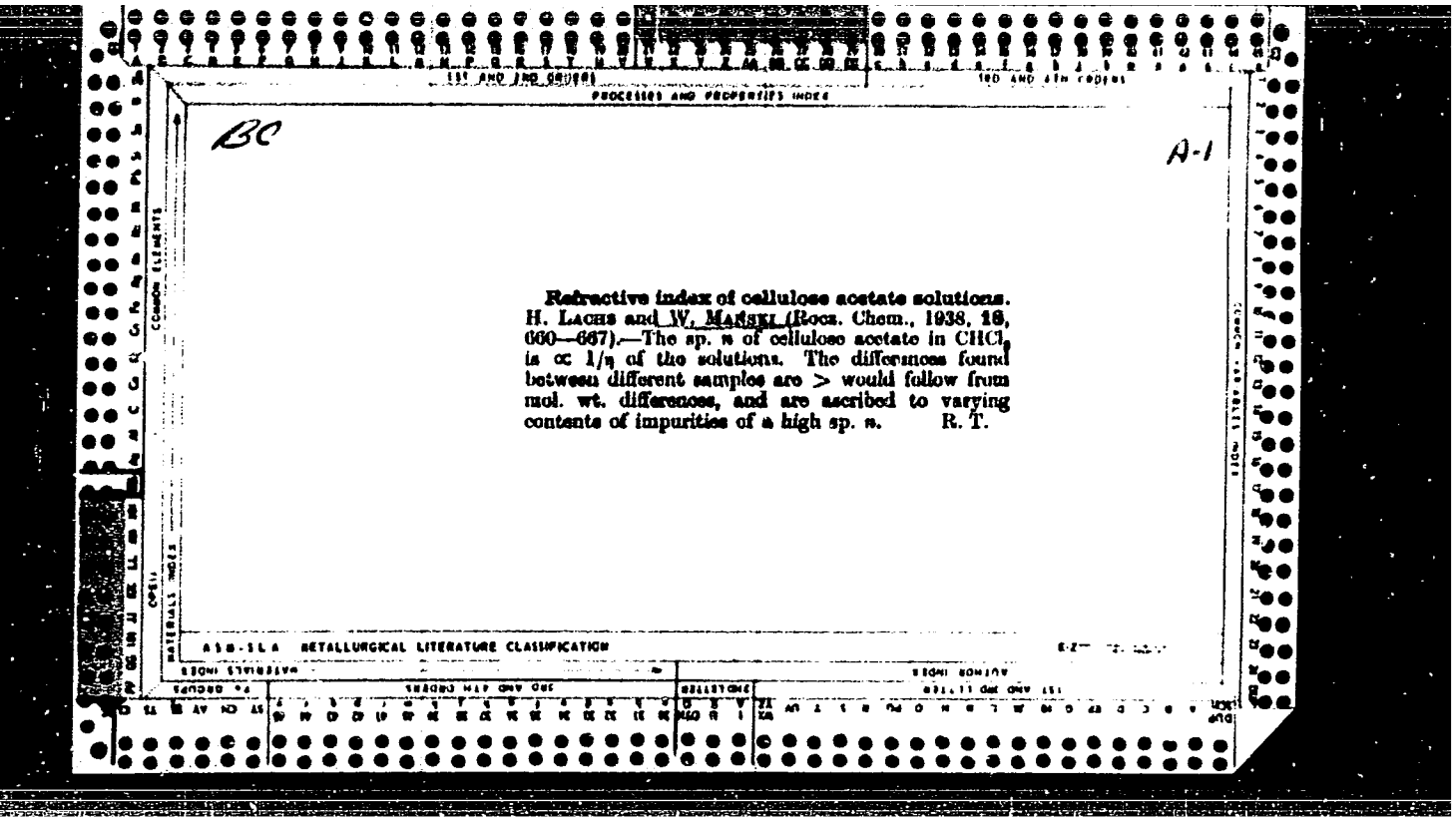
MANSKAYA, Sof'ya Moiseyevna, doktor biol. nauk; MOZEL'OVA, Tat'yana Vasil'yevna, kand. biol. nauk; VINOGRADOV, A.P., akademik, otv. red.

[Geochemistry of organic matter] Geokhimiia organicheskogo veshchestva. Moskva, Nauka, 1964. 314 p. (MIRA 18:1)

MANSKAYA, S.M.; DROSDOVA, T.V.; KRAVTSOVA, R.P.

Forms of germanium compounds with organic matter of coal. Geokhimiia no.2:188-197 F '65. (MIRA 18:6)

1. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo AN SSSR, Moskva.



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A-1

Refractive index of cellulose acetate solutions. H. Lachs and W. Marsh (Roca. Chem., 1938, 18, 660—667).—The sp. n of cellulose acetate in $CHCl_3$ is $\propto 1/\eta$ of the solutions. The differences found between different samples are > would follow from mol. wt. differences, and are ascribed to varying contents of impurities of a high sp. n. R. T.

MANSKI W. Z Zakladu Mikrobiologii Lekarskiej we Wroclawiu. O czestosci wystepowania substancji grupowych na podstawie badania plynow Frequency of appearance of group substances based upon the investigations of body fluids Polski Tygodnik Lekarski, Warsaw 1949, 4/24 (724-726) Tables 3

The author investigated 1,030 gastric juices as to the content of group substances by the method of inhibition of isoagglutination, and found for the group O: 27.3±1,41; A: 40.5± 1.55; B: 21.6±1.30; AB: 10.6±0.9: while in the blood cells it was O: 32.5±0.33; A:38.8±0.34; B: 20.8±0.28; AB: 8.9±0.20

The difference for the group O:5.2±1.44 (between the frequency in the blood and the body fluids) is statistically significant. In other words the properties A and B were found to appear more frequently in gastric juice than in blood.

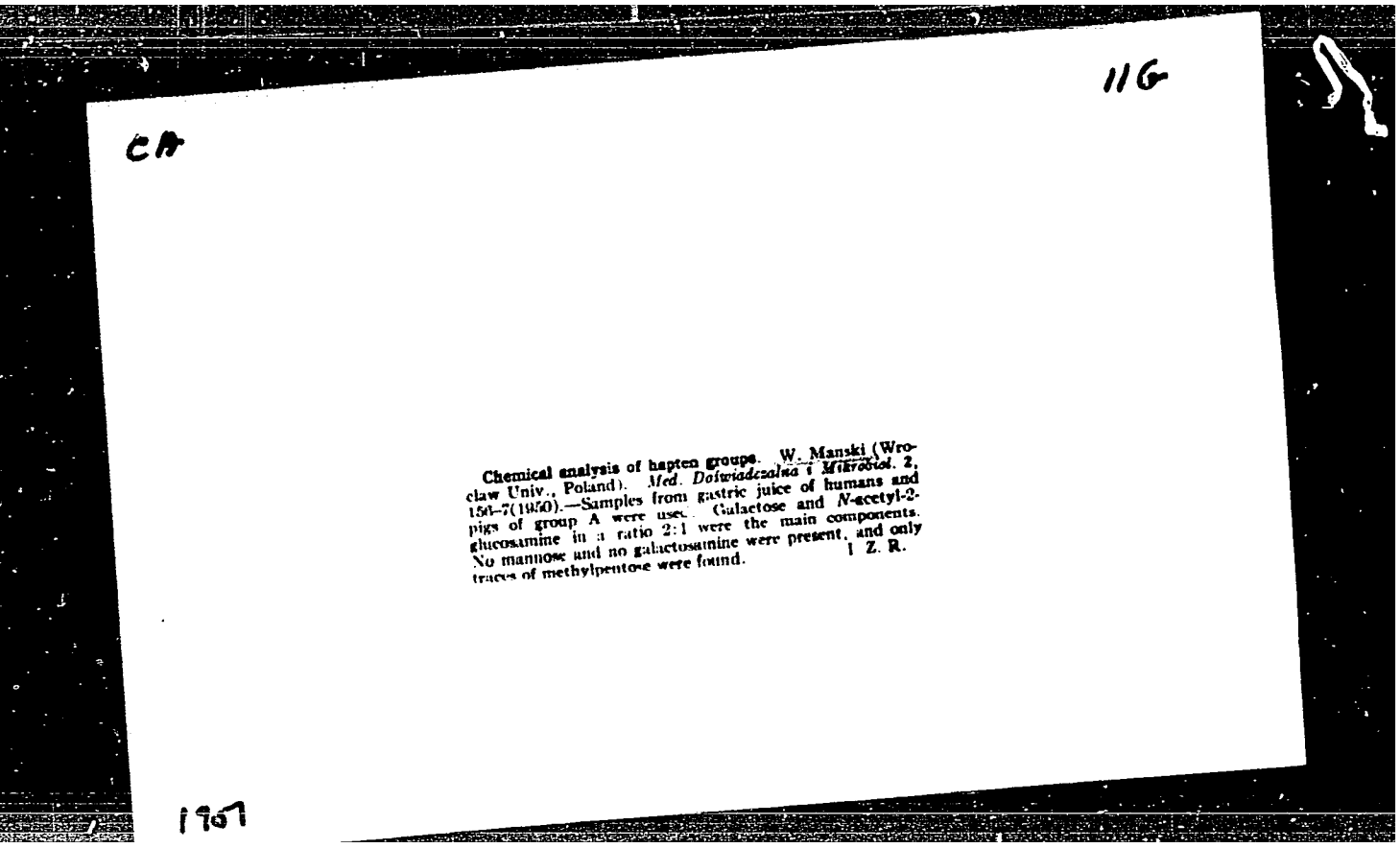
To illustrate this fact the author discusses the following possibilities: (a) Differences in the occurrence of blood group substances in body and in erythrocytes. (b) The blood substances are much more concentrated in gastric juice than in blood, so that 'weak' group substances cannot be detected in blood and can be found easier in body fluids. The existing sero-anthropological data may require correction in this light. The proportion of 'non-secretors' in particular blood groups should be accepted as a basic condition of this discussion. Author (IV,6)

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

MANSKI, W.; SLOMSKA, J.

Preliminary investigations on the biochemistry of Rh factor. Med. dosw.mikrob. 2 no.2:149 1950. (CLML 20:6)

1. Summary of report given at 10th Congress of the Polish Microbiological and Epidemiological Society held in Gdansk, Sept. 1949. (Wroclaw)



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116

Chemical analysis of hapten groups. W. Manski (Wroclaw Univ., Poland). *Med. Doświadczalna i Mikrobiol.* 2, 150–7(1950).—Samples from gastric juice of humans and pigs of group A were used. Galactose and *N*-acetyl-2-glucosamine in a ratio 2:1 were the main components. No mannose and no galactosamine were present, and only traces of methylpentose were found. I. Z. R.

1951

PLAZEK, E.; SKURSKA, Z.; MANSKI, W.

Experimental chemotherapy of typhoid with new sulfonamide-sulfetyne preparation. Med.dosw.mikrob. 2 no.2:216 1950. (CLML 20:6)

1. Summary of the report given at 10th Congress of the Polish Microbiological and Epidemiological Society held in Gdansk, Sept. 1949. (Wroclaw.)

CA

11B

The chemistry of the group substance Le^a. W. Mański and H. Koscielak (Akad. Med., Wroclaw, Poland). Med. Doświadczalna i Mikrobiol. 3, 392-8(1951). Le^a (I) is iso-

lated from the gastric juice (II), by buffering it with NaOAc to 13.5%, heating for 5 min. at 20°, filtering and pptg. with 5 vols. 96% EtOH. The ppt., dissolved in 10 vols. distd. H_2O, is twice frozen, melted and centrifuged, the supernatants are treated with 5 vols. 96% EtOH. After 24 hrs. the ppt. is dissolved in 10 vols. distd. H_2O and the insol. impurities are centrifuged. The soln. is made 50% satd. with $(NH_4)_2SO_4$, the supernatant made 80% satd., and the latter ppt. redissolved in 10 vols. distd. H_2O, dialyzed and electrodialyzed. I is pptd. with 4 vols. 96% EtOH (24 hrs. standing), washed with anhyd. Me_2CO and dried over concd. H_2SO_4. One l. of II gives 0.1-0.4 g. I. I is analyzed according to Militzer's method (C. A. 35, 5520) and its compn. is similar to that of A, B, and O substances. It is decompd. by the same enzymes. I contains C 45.3, H 6.9, total N 6.0, acetyl groups 10 (hydrolyzed after 5 hrs. and acetyl groups 7.1% hydrolyzed after 5 hr.), N-acetylglucosamine 28.7 and galactose 16.1%. A substance from II of "nonsecretors" is isolated and inhibits (dil. 10^{-5}) the agglutination of Le^a erythrocytes by the anti-Le^a serum.

I. Z. Roberts

Inst. Med. Microbiol. Wroclaw Med. Acad.

MANSKI, W.; KOZDROJ, H.

Comparative study of the chemical structure of blood group ABO and Le^a. Polski tygod. lek. 6 nos. 25-26:812-814, 25 June 1951. (CIML 21:1)

1. Of the Institute of Medical Microbiology in Wroclaw.

MANSKI, W.;KOZDROJ, H.

Comparative studies on chemical structure of blood groups ABO and Le^a. Med. dosw. mikrob., Warsz. 4 no. 3:342 1952. (CLML 23:3)

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

MANSKI, WLADYSLAW

Dextran. I. Synthesis of dextran by Leuconostoc mesenteroides. Władysław Mański, Zofia Skarska, and Jerzy Nawrocki (Inst. Immunol. and Exptl. Therap., Wrocław, Poland). *Arch. Immunol. i Terap. Doświadczalnej* 1, 321-34(1953)(English summary).—*Leuconostoc mesenteroides* produces dextran on a standard nutrient medium, incubated at 22°. The production of dextran was measured colorimetrically. It responded favorably to inclusion of yeast autolyzate in the medium, unfavorably to sucrose. NH_4^+, Mg, and Na increase dextran synthesis; Zn, Sn, and Pb decrease it. K and Fe at first increase, and later decrease, the rate of dextran production. Ca has no clear-cut influence; Cu, Ni, Co, and Sb completely inhibit growth. Mn increases most markedly the synthesis of dextran. II. Hydrolysis and fractionation of dextran. Władysław Mański, Helena Kozłroj, and Barbara Klubińska. *Ibid.* 335-52. Hydrolysis and fractionation of dextran were carried out under different exptl. conditions. Polydispersion was tested by nephelometric titration. Differences in the ale. concn. and differences in temp. influence polydispersion and the degree of polymerization of the insol. substances. During hydrolysis the range of mols. stepwise degraded is larger for concd. acids than for dil. ones.

Anna H. Kuffler

MANSKI, Wladyslaw; KOZDROJ, Helena

Investigations on dextran.III.Polydispersion of molecular weights and certain physiological and serological properties of dextran. Arch.immun.ter.dosw. 2:111-126 1954.

1. Instytut Immunologii i Terapii Doswiadczalnej PAN we Wroclawiu.(Dyrektor: prof. dr L. Hirszfeld) Dzial Biochemii (Kierownik: dr W.Manski)
(DEXTRAN,
polydispersion of molecular weight and physiol. & serol.properties)

MANSKI, Wladyslaw; KOZDROJ, Helena

Biochemistry of blood group substances. IX. Preparation of blood group substances from animal material. Arch. immun. ter. dosw. 3:347-358 1955.

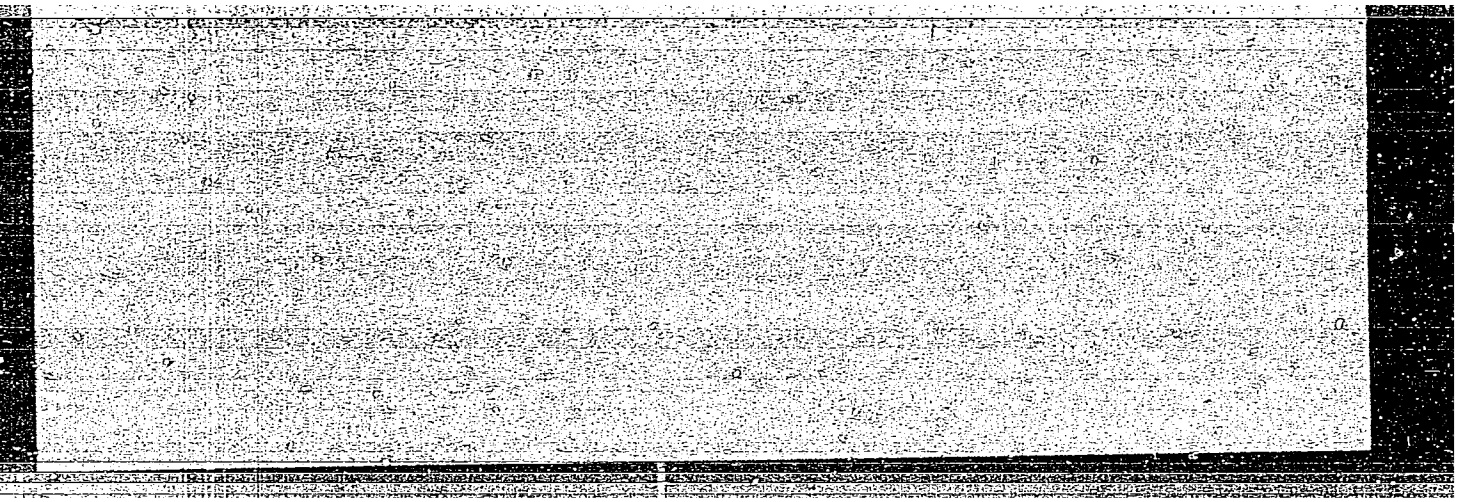
1. Instytut Immunologii i Terapii Doswiadczalnej PAN we Wroclawiu (Dyrektor: prof. dr. L. Hirszfeld) Dzial Biochemii (Kierownik: doc. dr. W. Manski).

(BLOOD GROUPS,
A, B & O substance, prep. from animal organs (Pol))

MANSKI, Wladyslaw; KOZDROJ, Helena; RADOLA, Michal

Biochemistry of blood group substances. X. Studies on inactivation of group substance A. Arch. immun. ter. dosw. 3:359-365 1955.

1. Instytut Immunologii i Terapii Doswiadczalnej PAN we Wroclawiu (Dyrektor: prof. dr. L. Hirszfeld) Dzial Biochemii (Kierownik: doc. dr. W. Manski).
(BLOOD GROUPS,
A substance, inactivation (Pol))



APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001032210003-9"

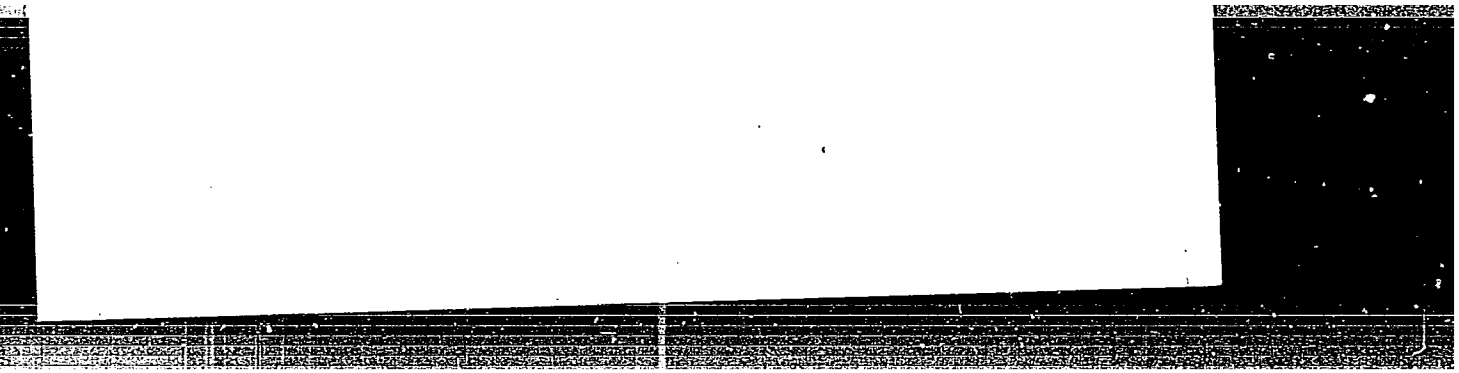
MANSKI, W.

641. Method of preparing A and B blood group substances from animal tissues. W. Manski and H. Kozdroj *Bull. Acad. Polon. Sci.*, 1956, 5, 219—223 (Dept. of Biochemistry, L. Hirszfeld Immunol. Inst., Wroclaw, Poland).—Group A substance was obtained from pig stomachs and group B substance from horse stomachs; in each case 10 kg. of the stomachs were finely minced and heated thermostatically at 50° in 20 l. vessels with 10 l. of hot water acidified with HCl to pH 2·0—2·2. In order to maintain the acidity during the hydrolysis by pepsin 250 ml. of conc. HCl were added for the first hr.; in the 2nd and 3rd hr. 150 and 100 ml. respectively were added and in the 4th and 5th and 6th hr. 50, 25, and 10 ml. The heating was continued for 48—50 hr. in the case of pig stomachs and 60 hr. for horse stomachs. The resulting hydrolysate was pptd. with 70% (w/w) ethanol after the N content of the prep. had fallen below 8%; during the early stages of hydrolysis N constituents cannot be removed by either ethanol or Na_2SO_4 fractionation nor by coagulation at 100°. The most highly active preps. were obtained by pptn. in the range of 48 to 63% ethanol. It is claimed that the method takes about 1/10th. of the time required by the methods hitherto described in the literature. P. Haas

MANSKI, W.

1429. *The effect of some pyridinesulphonamide compounds on in vitro cultures of normal and neoplastic tissues* MANSKI W. and ZAWISZA W. Dept. of Biochem., L. Hirszfeld Inst. of Immunol. and Exp. Ther., Wrocław. *Bull. Acad. polon. Sci.* 1957, 5/7-8 (231-237) (231-237) Tables 3

The authors suppose that compounds having a strong selective effect on neoplastic tissue, ought to be looked for in *para*substituted derivatives of pyridinesulphonamides.
Schwartz – Warren, Pa.



APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001032210003-9"

[illegible] Vol. 11/11 [illegible] Nov [illegible]

3160. COMPLEMENT INACTIVATION IN VIVO AND IN VITRO - [illegible] W., Vogel M. and Zy[illegible] A. - BULL. ACAD. POLON. SCI. [illegible] (287-293) Graphs 1 Tables 1

The following compounds for complement inactivation in vitro [illegible] experiments: germanin (Bayer, Germany), heparin (Sharp, USA) and [illegible] USA), inulin, Congo red (Merck, Germany), [illegible] (Grubler, Germany), zymosan, sulphodextran. The sulphodextran proved [illegible] the most potent inactivator. It inactivated the complement in vitro in concentrations of 0.075 mg./ml. and was used at about 9.0 mg. per kg. of body weight. It followed from the experiments that there is a difference in complement inactivation as between guinea-pigs and rabbits. Complete inactivation is of much longer duration and the time needed to restore original activity is much shorter in guinea-pigs than in rabbits. The time needed to restore complement activity in the experiments was not shorter than that known in the case of bleeding, exchange transfusion, or administration of antigen to actively immunized animals. Of the compounds examined, germanin and sulphodextran proved most innocuous and produced no untoward effects, even when administered to the animals many times and at short intervals.

Kleine - Freiburg

EXCERPTA MEDICA Sec 4 Vol 12/2 Med. Micro. Feb 59

789. A MUCOPROTEIN WITH BLOOD GROUP ACTIVITY - Mański W. and Kozdroj H. - BULL. ACAD. POLON. SCI. 1957, 5/11 (357-363) Graphs 1 Tables 3

A mucoprotein with blood group activity was obtained by peptic digestion of group A pig stomach and by solubilization of human stomach tissues with urea. Both preparations possessed similar physico-chemical properties and were homogenous in solubility tests and in electrophoretic examination. The authors stress the fact that blood group substances can occur not only as mucopolysaccharides and mucolipids, but also as mucoproteins.

Dubiski - Zabrze-Rokitnica

U

POLAND / General Problems of Pathology. Immunity.

Abs Jour : Ref. Zhur - Biologiya, No. 3, 1959, 13425

Author : Manski, W.; Vogel, M. ; Zylberberg, A.
Inst : Polish Academy of Sciences
Title : Complement Inactivation in vivo and in vitro.

Orig Pub : Bull. Acad. polon. sci., 1957, Cl.2, 5, No. 9, 287-293, XXXVII

Abstract : Some polysaccharides and their sulfonated derivations were investigated with the purpose of finding the substances with the greatest anti-complementarity and least toxicity for its possible use in inhibition of immune hemolysis in hemolytic diseases. In vitro the complement (C) of rabbit, guinea pig and man was inactivated: soluble (depolymerized) inulin (I), heparin (II),

Card 1/3

3

POLAND / General Problems of Pathology. Immunity. U

Abs Jour : Ref. Zhur - Biologiya, No. 3, 1959, 13425

Congo red, aqua blue in a concentration of 4.5-5 mg/ml; Germanin (III), II, agar -3 mg/ml; zymozane (IV)- 0.6 mg/ml; 1-0.5 mg/ml; sulfonated dextran (V)- 0.075 - 0.1 mg/ml. They inactivated C'3. In experiments on rabbits and guinea pigs, C was inactivated by V (3mg/ml), III (310 mg/ml), I and IV (100 mg/ml). The duration of complete inactivation of C is larger in guinea pigs (for III 40 min., for V 70 min.), than in rabbits (15 min.); restoration of the initial titer of C is faster in guinea pigs (after 70-125 min.) than in rabbits (after 220 min.). The least toxic in vivo are V and III even with frequent multiple introduction. The most toxic is I. Since the SO_3H group enters

Card 2/3

POLAND / General Problems of Pathology. Immunity. U

Abs Jour : Ref. Zhur - Biologiya, No. 3, 1959, 13525

into the composition of II, V, III, Congo red and aqua blue, which inactivate C, it is assumed that it determines the anticomplementary and anticoagulative properties of the given compounds. Therefore it follows that C'3, similar to prothrombin, is a protein which has in all probability many alkaline reactive groups. -- F. L. Buch

Card 3/3

MAŃSKI, W.; KOZDRÓJ, H.

Studies on polymorphous substances in blood groups. Acta biochem. polon. 5 no.3:245-266 1958.

1. Z Instytutu Biochemii i Biofizyki PAN w Warszawie.
(BLOOD GROUPS,
polymorphous substances (Pol))

MANSKI, Wladyslaw; ZYLBERBERG, Aurelia

Importance of the spleen for the complement & complement components.
Med. dosw. mikrob. 10 no.1:47-52 1958.

1. Z Instytutu Immunologii i Terapii Doswiadczalnej im. Ludwika Hirszfelda P. A. N. we Wroclawiu Dzial Biochemii. Kierownik: doc. dr W. Manski.

(SPLEEN, physiol.
relation to complement titer & complement components (Pol))
(COMPLEMENT
relation of spleen to complement titer & complement components (Pol))

MANSKI, Wladyslaw; VOGEL, Marian; ZYLBERBERG, Aurelia

Effect of various polysaccharides, sulfonic derivatives of polysaccharides & aromatic salts of sulfa-acids on the complement. Med. dosw. mikrob. 10 no.1:53-60 1958.

1. Z Instytutu Immunologii i Terapii Doswiadczalnej im. Ludwika Hirszfelda O. A. N. we Wroclawiu Dzial Biochemii Kierownik: doc. dr W. Manski.

(POLYSACCHARIDES, eff.
on complement (Pol))
(COMPLEMENT, eff. of drugs on
polysaccharides, sulfur-containing polysaccharies & aromatic salts of sulfa-acids (Pol))

MANSKI, Wladyslaw; ZYLBERBERG, Aurelia

Inactivation of the 3d component of complement & the hemolytic processes in vivo. Med. dosw. mikrob. 10 no.1:61-69 1958.

1. Z Instytutu Immunologii i Terapii Doswiadczalnej im. Ludwika Hirszfelda P. A. N. we Wroclawiu Dzial Biochemii Kierownik: doc. dr W. Mansk..

(COMPLEMENT, eff. of drugs on
suramin & sulfodextran on 3d complement component (Pol))
(SURAMIN, eff.
inactivation of 3d complement component & hemolysis (Pol))
(DEXTRAN, eff.
sulfodextran in activation of 3d complement component & hemolysis (Pol))
(HEMOLYSIS
anti-hemolytic eff. of suramin & sulfodextran (Pol))

MANSKI, Wladyslaw; KIELCZEWSKA-RDULTOWSKA, Halina

Compound complement in Wassermann reaction. Med. dosw. mikrob. 10 no.3: 321-326 1958.

1. Z Instytutu Immunologii i Terapii Doswiadczalnej im. Ludwika Hirszfelda.

(WASSERMAN REACTION,
compound complement (Pol))

MANSKI, Wladyslaw; DJACZYSZYN, Henryka; WILIMOWSKI, Marian

Effect of insulin on glycemic curve in hypothermia. Med. dosw. mikrob. 10 no.3:367-376 1958.

1. Z Instytutu Immunologii i Terapii Doswiadczelnej im. Ludwika Hirszfelda.

(HYPOTHERMIA, exper.
eff. of insulin on glycemic curve in rabbits (Pol))
(BLOOD SUGAR,
in hypothermia, eff. of insulin in rabbits (Pol))
(INSULIN, effects,
on blood sugar in hypothermia in rabbits (Pol))

MANSKI, Wladyslaw; ZAWISZA, Wanda

Cytotoxic properties and structure of sulfapyridine compounds. Med. dosw. mikrob. 10 no.3:377-383 1958.

1. Z Instytutu Immunologii i Terapii Doswiadczalnej im. Ludwika Hirszfelda.

(CYTOXIC DRUGS,
sulfapyridines (Pol))
(SULFONAMIDES,
sulfapyridines, cytotoxic eff. & structure (Pol))

MANSKIY, M.

Universal form for making concrete steps. Stroitel' 2 no.3:12 Mr '56. (MLRA 9:12)

(Concrete construction--Formwork)
(Stair building)

IVANSON, V. D.

2

2107. Influence of micro-organisms upon solubility of phosphorus of manures and upon its uptake by crops. V. D. Manson and O. C. Tomashevska. *Dopov. Akad. Nauk, Ukrain. R.S.R., 1939, No. 6, 603–608; Referat. Zh. Biol., 1956, Abstr. No. 54345.*—A procedure is worked out for experimenting with seedlings of maize in U cylinders in sterile conditions. Micro-organisms of the rhizosphere of lupin, sugar-beet, and buckwheat are shown to have the power of taking up phosphorus from difficultly soluble compounds in phosphate fertiliser when sucrose is present in the medium. The sucrose, on decomposing, acidifies the medium. When a vegetable mass of lupin is present in the medium, the dissolution of the phosphorus is marked by its biological combination with micro-organisms developing in great numbers. The alkalisation of the medium arising from this also hinders the migration of phosphorus from fertiliser to soln. The greatest solvent action upon phosphate fertiliser is exerted by nitrogen-fixing (mostly anaerobic), nitrifying bacteria and bacteria that decompose sucrose with formation of acids. (Ukrainian, with Russian summary) C. C. BARNARD

MANSURKHANOVA, L.

USSR

Iodometric and iodochlorometric methods of quantitative estimation of phenolphthalein. A. I. Gengrinovich and L. Mansurkhanova. (Tashkent Pharm. Inst., Ministry of Health, Uzbek. S.S.R.). *Aptechnoe Delo* 3, No. 6, 9-12 (1954).—The ease with which phenolphthalein can be iodized was used as the basis of the methods described. Iodization is best carried out in an alk. soln. with either I or ICl. The latter has certain advantages, i.e. it is more stable, economical, and will react quantitatively in acid medium. Method: Dissolve 0.05-1.5 g. of sample in hot 10% Na_2CO_3 soln., cool, transfer to a glass-stoppered flask, add 15-50 cc. 0.1*N* I, followed, after thorough shaking, by 12 cc. of 2*N* HCl. Add 10 cc. ether and 1.2 cc. starch soln. and titrate with 0.1*N* $Na_2S_2O_3$. When ICl is used 10 cc. of 10% KI must be added before acidification. To prepare ICl, transfer 3.5 g. KIO_3, 5.5 g. KI, 40 cc. HCl (37%), and 40 cc. H_2O to a glass-stoppered flask and shake the mixt. until I has completely dissolved. Add 15 cc. $CHCl_3$ and decolorize the $CHCl_3$ layer by adding dropwise 1% KIO_3 soln. Decant aq. layer and transfer to a 1000-cc. measuring flask and dil. to the mark. Det. the titer by removing 25 cc., adding 10 cc. 10% KI, and titrating with $Na_2S_2O_3$.

A. S. Mitkin

MANSUROV, A.

Meat production based on monthly graphs. Nauka i pered.op.v sel'khoz. 9 no.8:21-22 Ag '59. (MIRA 12:12)

1. Sekretar' Panfilovskogo Rayonnogo komiteta Kommunisticheskoy partii Kazakhstana.
(Stock and stockbreeding)

MANSUROVA, A.F.

Carbohydrate metabolism in cotton seeds in the process of their ripening. Vop. biol. i kraev. med. no.4:5-10 '63.
(MIRA 17:2)

MANSUROV, A.I., inzhener (g. Kiyev)

Integrated crews in assembling and welding pipelines. Stroi. pred.neft.prom. 2 no.5:5-9 My '57. (MLRA 10:7)
(Pipelines) (Electric welding)

Mansurov, A. I.

AUTHOR: Mansurov, A. I., Engineer (Kiyev). 95-11-4/14

TITLE: A Case of Excess in Construction of Trunk Pipelines (Ob odnom izlishestve na stroitel'stve magistral'nykh truboprovodov).

PERIODICAL: Stroitel'stvo Predpriyatiy Neftyanoy Promyshlennosti, 1957, Nr 11, pp. 12-13 (USSR).

ABSTRACT: According to regulations at present in force for the construction of main pipelines it is necessary, for the purpose of controlling the quality of welding, that every welder must weld one weld point for every 2oo butt-joints, which must be subjected to mechanical investigations with respect to cracks and bending. If the expenses for electrodes, operation of welding aggregates, production of samples, cutting out of rollers, etc. are taken into account, the annual expenses for the investigation of test- and control-points will exceed 2,ooo.ooo roubles. Besides, these investigations are carried out in form of random tests and convey no clear impression of the quality of the butt-joints left in the pipeline.
The considerable stresses caused in the pipelines during building make it possible to do without the mechanical random tests of individual weld points, and they may be replaced by an investigation of all butt-joints without any additional costs.

Card 1/3

A Case of Excess in Construction of Trunk Pipelines. 95-11-4/14

The investigations carried out by the research institute as well as the data given fully confirm the existence of considerable tensions in the pipelines in the course of their erection, which are caused by bending etc. When the pipes are laid these tensions attain the yield point.

The investigation of butt-joints by lifting up the pipe-lines is best carried out in the following manner: In the course of the process of welding the tubes an increased control of welding operations connected with mounting must be carried out the separate tube section having a length of 25-30 m, which, before being laid, was welded together, must be subjected to mechanical investigation after overhead welding, after which it is laid. Faulty butt-joints will, on this occasion, show cracks or will break completely. The occurrence of cracks and other damage can easily be ascertained by a sound effect. Faulty butt-joints must be removed and the pipeline must be newly welded. This operation must be carried out by a highly-qualified welder. Butt-joints found by external inspection must be irradiated by means of gamma rays. After removal of the faults found insulation of the pipeline is carried out. After investigation of butt-joints the pipeline is twice investigated with respect to its tightness. In the course of further centering this section of the pipeline will operate normally for 6 years.

Card 2/3

A Case of Excess in Construction of Trunk Pipelines. 95-11-4/14

There are 2 figures.

AVAILABLE: Library of Congress.

Card 3/3

MANSUROV, A.I., inzh.

MPT-1 flexible centering clamp made of steel cable. Stroi. truboprovod. 6 no.8:19 Ag '61. (MIRA 14:8)

1. Stroitel'no-montazhnoye upravleniye No.11 tresta Ukrgazneftestroy, Kiyev.
(Pipe--Welding) (Wire rope)

MANSUROV, A.I.

How can a crew of overhead welders weld 1000 m. of pipe per shift?
Stroi. truboprov. 8 no.3:24 Mr '63. (MIRA 16:5)

1. Glavnyy inzh. stroitel'no-montazhnogo upravleniya No.11 tresta Ukrgazneftestroy, Kiyev.
(Pipelines--Welding)

MANSUROV, A.K.

On the biology of Habrobracon hebetor Say (Plotnikovi Bogo-
lyubov-brevicornis Wesm.), parasite of the bollworm in Andizhan
Province. Vop.biol.i kraev.med. no.3:170-177 '62. (MIRA 16:3)
(ANDIZHAN PROVINCE—ICHNEUMON FLIES)
(ANDIZHAN PROVINCE—BOLLWORM—BIOLOGICAL CONTROL)

MANSUROV, N.M.
Forging, Stamping, Drawing, & Pressing

03

The Production of Forgings by Pressing. A. M. Mansurow. (*Met. u. Giesserei Techn.*, 1952, 2, Oct., 370-371). This paper, translated from *Automobile and Tractor Industry*, (Moscow), 1951, No. 1, briefly describes the making of cams and valves by die forging.—R. A. R.

MANSUROV, A. M.

KLYUCHNIKOV, S.I.; MANSUROV, A.M.; KHRZHANOVSKIY, S.N., doktor tekhnicheskikh nauk, professor, retsenzent; ROZANOV, B.V., kandidat tekhnicheskikh nauk, redaktor.

[Mechanization of forge shops] Mekhanizatsiia v kuznechnykh tsekhakh. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry, 1954. 294 p. (MLRA 7:6)
(Forging)

MANSUROV, A.M.

112-1-1398

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957, Nr 1, p. 214 (USSR)

AUTHOR: Mansurov, A.M.

TITLE: Automation of Production Processes in Forging-and-Stamping Shops (Avtomatizatsiya tekhnologicheskikh protsessov v kuznechno-shtampovykh tsekhakh)

PERIODICAL: Sbornik: Avtomatizatsiya tekhnol. protsessov v mashinostr. Goryachaya obrabotka metallov. Moscow, AN SSSR, 1955, pp.16-21.

ABSTRACT: Bibliographic entry

Card 1/1

MANSUROV, A.M.; ARISTOV, V.M., kandidat tekhnicheskikh nauk, retsenzent; KRIVITSKIY, V.I., inzhener, redaktor; POPOVA, S.M., tekhnicheskiy redaktor.

[Automation of forging] Avtomatizatsiia v kuznechnom proizvodstve. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 158 p. (MLRA 9:4)

(Automation) (Forging machinery)

AID P - 4273

Subject : USA/Engineering

Card 1/1 Pub. 128 - 31/33

Author : Mansurov, A. M., Laureate of the Stalin Prize, Engineer

Title : Automatic forging production lines in the plants of the USA and England.

Periodical : Vest. mash., #1, p. 84-87, Ja 1956

Abstract : The automatic production line installed in the Dodge automobil plant in which steel crankshafts are forged, heat treated and descaled (not by pickling but by the mechanical means of shot blasting) is described. Diagrams.

Institution : None

Submitted : No date

MANSUROV, A.M., laureat Stalinskoy premii.

Mechanization and automatization of production in hot forging shops. Avt. i trakt. prom. no.6:24-27 Je '56. (MLRA 9:9)

1. Giproavtoprom.

(Forging)

MANSUROV, A.M., inzhener.

Modern automatic and mechanized equipment for annealing blanks to be forged. Vest.mash. 36 no.10:77-84 O '56. (MLRA 9:11)
(Forging machinery) (Furnaces, Heat-treating)

MANSUROV, A.M

137-58-5-9573

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 106 (USSR)

AUTHOR: Mansurov, A.M.

TITLE: Mechanization and Automation in Forge Work (Mekhanizatsiya i avtomatizatsiya v kuznechnom proizvodstve)

PERIODICAL: V sb.: Progressivn. metody shtampovki i kovki. Khar'kov, Oblizdat, 1957, pp 43-69

ABSTRACT: Bibliographic entry. Ref. RzhMet, 1957, Nr 11, abstract 21395

1. Forge presses--Operation 2. Metals--Forging

Card 1/1

MANSUROV, A.N.

Economic data of a new type forge shop. Avt.i trakt.prom. no.6:4-7 Je '57. (MLRA 10:8)

1.Giproavtoprom.
(Automobiles) (Forging)

MANSUROV, A.M., inzhener.

Mechanization and automatization of forging operations. Mekh.trud. rab. 11 no.3:6-10 Mr '57. (MLRA 10:5)
(Forging machinery)

SOLOVNEV, Vladimir Fedorovich; MANSUROV, A.M., inzh., retsenzent; MEZHOVA, V.A., inzh., red.; TIKHANOV, A.Ia., tekhn. red.

[Forging and stamping; problems and exercises] Kuznechno-shtampovochnoe proizvodstvo; zadachi i uprazhneniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 150 p.
(Forging) (MIRA 11:7)

YEMEL'YANOV, Mikhail Fedorovich; MANSUROV, A.M., inzh., red.; CHERNYAK, O.V., red.izd-va; EL'KIND, V.D., tekhn.red.

[Mechanization of stamping processes] Mekhanizatsiia shtampovochnykh rabot. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1959. 170 p. (MIRA 13:1)
(Sheet-metal work--Technological innovations)

25(5) PHASE I BOOK EXPLOITATION SOV/2706

Mansurov, Aleksandr Matveyevich

Sovremennyye kuznechno-shtampovochnyye tsekhi (Modern Forging and Stamping Shops) Moscow, Mashgiz, 1959. 299 p. 5,000 copies printed.

Ed.: V.A. Mezhova, Engineer; Ed. of Publishing House: V.A. Mezhova, Engineer; Tech. Ed.: V.D. El'kind, Managing Ed. for Literature on Heavy Machine Building (Mashgiz): S.Ya. Golovin, Engineer.

PURPOSE: The book is intended for engineering and technical personnel in the forging industry and may also be used by students at schools of higher technical education.

COVERAGE: This book reviews problems related to the technology of modern forging shops. It presents a description of Soviet forging shops, plans for which were drawn under the supervision of the author and also some of the more original non-Soviet forging shops. Also included are characteristic features of modern forging equipment and heating devices, descriptions of which have appeared previously in non-Soviet literature and to some extent in Soviet technical

Card 1/5

Modern Forging and Stamping Shops SOV/2706

publications. No personalities are mentioned. There are 52 references: 36 Soviet, 15 English, and 1 German.

TABLE OF CONTENTS:

Card 2/5

MANSUROV, A.M.

25(5) PHASE I BOOK EXPLOITATION SOV/2394

Moscow. Dom nauchno-tekhnicheskoy propagandy imeni F.E. Dzerzhinskogo

Kompleksnaya avtomatizatsiya i mekhanizatsiya v mashinostroyenii; sbornik statey (Overall Automatization and Mechanization in Machine Manufacturing; Collection of Articles) Moscow, Mashgiz, 1959. 312 p. 8,000 copies printed.

Additional Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR.

Ed.: A.N. Malov, Candidate of Technical Sciences; Tech. Ed.: B.I. Model'; Managing Ed. for Literature on Metalworking and Toolmaking (Mashgiz): R.D. Beyzel'man, Engineer.

PURPOSE: This collection of articles is intended for engineering and technical personnel of plants manufacturing machines and instruments.

COVERAGE: This book acquaints industrial workers with devices

Card 1/5

and equipment necessary for the overall mechanization and automatization of technological processes in machine manufacturing. Individual articles deal with general problems of automatization and mechanization of processes in preparatory, machine, and assembly shops, and with problems arising from the introduction of transfer lines. The book also includes examples of devices and equipment tested and used under actual plant conditions. The source of these data was the meeting on overall mechanization and automatization of technological processes held in 1957 by the Moskovskiy Dom nauchno-tekhnicheskoy propagandy imeni F.E. Dzerzhinskogo (Moscow House for Scientific and Technical Propaganda imeni F.E. Dzerzhinskiy). No personalities are mentioned. Several of the articles are followed by references.

TABLE OF CONTENTS:

Overall Automatization (Cont.) SOV/2394

AVAILABLE: Library of Congress JG/ec
10-16-59

Card 5/5

MANSUROV, A.M.

28(1) PHASE I BOOK EXPLOITATION SOV/2156

Soveshchaniye po kompleksnoy mekhanizatsii i avtomatizatsii tekhnologicheskikh protsessov. 2nd, 1956.

Avtomatizatsiya mashinostroitel'nykh protsessov; /trudy soveshchaniya/, 2om. 1: Goryachaya obrabotka metallov (Automation of Machine-Building Processes; Proceedings of the Conference on Over-All Mechanization and Automation of Technological Process, Vol 1: Hot Metal-Forming) Moscow, 1959. 394 p. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya.

Resp. Ed.: V.I. Dikushin, Academician; Compiler: V.M. Raskatov; Ed. of Publishing House: V.A. Kotov; Tech. Ed.: I.P. Kus'min.

PURPOSE: The book is intended for mechanical engineers and metallurgists.

COVERAGE: The transactions of the Second Conference on the Over-All Mechanization and Automation of Industrial Processes, September 25-29, 1956, have been published in three volumes. This book, Vol. I, contains articles under the general title, Hot Working of Metals. The investigations described in the book were conducted by the Sections for Automation and Hot Working of Metals, under the direction of the following scientists: casting - P.N. Aksenov, D.F. Ivanov and G.M. Orlov; forming - A.I. Tselikov, A.D. Tsalenov and V.F. Meshcherin; welding - G.A. Nikolayev, B.I. Frolov and G.A. Maslov. There are 183 references: 142 Soviet, 34 English, 6 German, and 1 French.

TABLE OF CONTENTS:

Card 6/8

MANSUROV, A.M.

25(1) PHASE I BOOK EXPLOITATION SOV/1586

Tekhnologicheskiy spravochnik po kovke i ob"yemnoy shtampovke (Handbook on Open and Closed Die Forging) Moscow, Mashgiz, 1959. 966 p. 15,000 copies printed.

Ed. (Title page): M.V. Storozhev; Ed. (Inside book): S.B. Kirsanova, Engineer; Ed. of Publishing House: B.M. Gliner, Engineer; Tech. Ed.: T. F. Sokolova; Managing Ed. for Information Literature (Mashgiz): V.I. Krylov, Engineer.

PURPOSE: The handbook is intended for engineers and technicians working in forging and die forming shops and in engineering design bureaus. It may also be used by teachers and students of technical schools.

COVERAGE: The handbook contains information on processes of forging and hot closed die forming as carried out on various kinds of forging and pressing machinery. Information is given on initial stock, making blanks, quality inspection of forgings and their heat treatment, and on engineering characteristics of basic machinery and mechanization equipment, on die making and on technical-economic indexes and engineering standardization. The authors state that problems of manufacture by forging and press forming which have only been discussed up to now in periodicals and special~~[illegible]~~ ized literature are given in this handbook. No personalities are mentioned. There are 284 references, all Soviet.

Card 22/24

MANSUROV, A.M.

Development of forging during the seven-year plan. Kuz.-shtam. proizv. 1 no.2:32-35 F '59. (MIRA 12:10)
(Forging)

MANSUROV, A.M.

"Drop forging," by I.I. Krymskii. Reviewed by A.M. Mansurov. Kuz.-shtam. proizv. 1 no.8:3 of cover Ag '59. (MIRA 12:12)
(Forging) (Krymskii, I.I.)

MANSUROV, A.M.

Design of a mechanized forge. Kuz.-shtam. proizv. 1 no.9:31-35 S '59. (MIRA 12:12)
(Forge shops--Equipment and supplies)

PHASE I BOOK EXPLOITATION SOV/4574

Mansurov, Aleksandr Matveyevich

Tekhnologiya goryachey shtampovki (The Hot Die-Forming Processes). Moscow, Mashgiz, 1960. 324 p. 13,000 copies printed.

Ed.: A. V. Rebel'skiy, Candidate of Technical Sciences; Reviewer: S. S. Kunitsa, Engineer; Ed. of Publishing House: O. V. Chernyak; Tech. Eds.: S. M. Popova, and L. P. Gordeyeva; Managing Ed. for Literature on Heavy Machine Building (Mashgiz): S. Ya. Golovin, Engineer

PURPOSE: This book is intended as an auxiliary textbook for students at mechanical-engineering tekhnikums.

COVERAGE: The book is geared to the requirements of the mechanical-engineering course "Manufacture by Die-Forging" which is taught in tekhnikums. The author discusses basic problems of hot die-forming, including finishing operations which are performed on regular and special equipment. He also examines

Card 1/9

initial materials and their preparation for pressworking, and presents fundamental information on forming equipment. No personalities are mentioned. There are 49 references, all Soviet.

TABLE OF CONTENTS:

BYALKOVSKAYA, Vera Sergeyevna; MANSUROV, A.M., inzh., retsenzent; SHEVELEV, A.G., inzh., retsenzent; SALYANSKIY, A.A., red. izd-va; DOBRITSYNA, R.I., tekhn. red.

[Main directions of specialization in forging] Osnovnye napravleniia spetsializatsii kuznechnogo proizvodstva. Moskva, Mashgiz, 1961. 108 p. (MIRA 15:2)
(Forge shops)

S/775/62/002/000/002/011

AUTHOR: Mansurov, A. M.

TITLE: Development of forging production in the Seven-Year Plan.

SOURCE: Avtomatizatsiya protsessov mashinostroyeniya. t. 2: Goryachaya obrabotka metallov. Moscow, Izd-vo AN SSSR, 1962, 129-141.

TEXT: The paper discusses the projected increase in forged-products production stipulated by the resolutions of the 21st Communist-Party Congress for the 1959-1965 period. In the USSR about 8% of the total steel production is forged, as against 5-6% abroad. In the USA 28% of all automative-engine crankshafts are cast; in the USSR 6%. In the USA most small ball-bearing races (Timken) are machined; in the USSR forged. The weight ratios of open-die forgings to closed-die forgings produced are as follows: USSR 43/58; USA 33/67; U.K. 36/64. It is noted, however, that closed-die forging of tooth gears, forging in dismountable dies with lateral extrusion, forging by direct and reverse extrusion, etc., is more highly developed abroad. Organization and technical level of forging plants: 75.2% of the USSR plants produce up to 1,000 tons of forgings per year, predominantly by open-die forging on hammers, 2.7% produce 10-20,000 tons, and 0.3% more than 100,000 tons per year. In the USSR, closed-die forgings are produced in all-purpose forges. Most forgings range from 50 g to 100 kg; some 1,000 different items are thus pro-

Card 1/5

duced. Since all basic equipment parameters must be governed by the largest pieces produced (of which there may be but 2 or 3), the economy of such all-purpose plants suffers. Some critical plant equipments disturb the entire production through their old-fashioned design and inadequate accuracy. Example: Inaccurately cutting shears inhibit the introduction of precision die-forging methods. Sizing and coining is not utilized adequately. Furnace equipment is obsolete; high-speed flame heating, nonoxidizing flame heating, and inductive electric heating are in little use. Mechanization and automatization are inadequate. Even in large forging plants there are no experimental forging labs, hence no means for process improvement. Modern production-forging equipment, such as crank-type forging presses, coining presses, et al., is lacking in the USSR. Forging-production increase in the 7-yr Plan: If present forging methods are retained, the total weight of forgings must be increased by 1.8 relative to 1958. That increase may be reduced to 1.6 if the forging methods are significantly improved, as follows: (1) A 15% change-over from open-die forging to closed-die forging; (2) change-over from forging to rolling of RR-car axles, with a saving of 10%; (3) improved forging-process technology; (4) use of extrusion and other precision-stamping methods in a significant part of press-formed products, with a 10% saving; (5) increased employment of precision casting; and (6) replacement of some forged parts with plastic parts. The respective numerical ratios for 1958 and 1965 are tabulated, showing a substantial projected increase in rolled products and a growing plant specialization which, it is hoped, will facilitate

automation and cost reduction. Details of desirable specialization and geographic location of specialized plants with reference to existing metallurgical plants, also the problem of continued production of replacement parts for old and foreign equipment are discussed. Forging technology: A table summarizes projected changes, comprising a sharp increase in crank-driven forging presses, specialized rolling mills. The total volume of forgings produced on automatic or semiautomatic production lines will attain some 500,000 tons by 1965. Specialized rolling mills are envisioned to conserve metal, increase production, and reduce consumption of labor for ball-mill balls, large ball-bearing balls, stepped shafts, links for various types of large chains, caterpillar-chain links, gears, grooved shafts, etc. Equipment: Projected trends are summarized in a table. Primary increases are in crank-driven presses, horizontally-forging machines, coining presses, specialized rolling mills, anvil-less hammers, and hot-forging presses. Mechanization (M) and automatization (A): Currently some 30 specialized engineering bureaus and research and design institutes are engaged in design-engineering work, and 400 plants are engaged in building M and A equipment: The present absence of coordination must be overcome, and the following consistent steps must be undertaken to bring about actual M and A of the forging industry: (1) Mechanization of open-die forging: Details of needed improvements are outlined for pneumatic hammers, steam-and-air hammers, and forging presses. (2) Mechanization of closed-die forging: Specific recommendation are set forth for hammers, crank-driven presses,

horizontally-forging machines, and trimming and coining presses. Fundamental principles of the organization of automatized forging production are explained. All operations, including handling between operations, must be automatized. While automation may lead to continuous operation of presses (which, in turn, will extend the service life of such elements as clutches), it must remain within the confines of economical and safe operation; it cannot be permitted to become an end in itself. Criteria for the selection of the degree of automation in a given production line are set forth. As an example the heating of billets prior to cutting on shears is examined as a function of the strength of the billet material and the billet diameter. The problem of metallurgical-scale removal is mentioned. The selection of pre-forging heating methods (electricity or natural-gas) must be based on locally available and inexpensive resources. Forging-process details, efficient placing of main presses and flash-trimming presses, etc. are discussed. Flash removal and billet squeezing are reviewed with emphasis on the state of temperature and normalization required for each operation. The structure of automatic forging lines (AFL): AFL are classified as wholly-coordinated, non-coordinated, and combined. The requirement for the maintenance of a continuous rhythm in a wholly-coordinated line-type AFL, and the need for delay elements (with attendant storage requirements) in AFL comprising rhythmically inconsistent operations, is elaborated. Non-coordinated functional-type forging lines comprise groups of machines performing an analogous operation which is not part of a coordinatable sequence of