

17-1050, 20 5210  
DONATH, Tibor; MEREI, Laszlo

Data on the relationship between otogenic sigmoid sinus thrombosis and papillary stasis. Orv. hetil. 98 no.29: 787-792 21 July 57.

1. A Budapesti Orvostudományi Egyetem Anatómiai Intézetének (igazgató: Kiss, Ferenc, dr. egyet. tanár) és a János Korház (igazgató-őorvos: Bakács, Tibor, dr.) Ful-orr-gege Osztályának közleménye.

(SINUS THROMBOSIS

otogenic sigmoid, relation to papilledema (Hun))

(NERVES, OPTIC, dis.

papilledema, relation to otogenic sigmoid sinus thrombosis (Hun))

MEREI, Tibor, F., Dr.

Neurological institutions in Freiburg in Breisgau. Ideg. szemle  
9 no.3:95-96 June 56.

(HOSPITALS, PSYCHIATRIC  
in Freiburg i. Br. In Germany (Hun))

MEREINE JUHASZ, Margit

The Academy membership of Kalman Mikszath. Magy tud 67 no.12:761-764  
D '60. (EEAI 10:3)  
(Mikszath, Kalman)  
(Hungarian Academy of Sciences)

KHOMENKO, P.G., inzhener; YEVSEYEV, M.L., redaktor; MEREKALOV, I.F., redaktor; DROZDOV, B.M., kandidat tekhnicheskikh nauk, retsenzent; LIVCHAK, G.F., inzhener, retsenzent; TIKHONOV, A.Ya., tekhnicheskii redaktor

[Calculating machines] Schetno-analiticheskie mashiny. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1955. 286 p. (Calculating machines) (MLRA 9:4)

*MEREKALOV, I. I.*

GROSHIKOV, Aleksandr Ivanovich; USAN, Aleksandr Iukich; VASILEVSKIY, N.A.,  
retsensent; *MEREKALOV, I.F.*, retsensent; RAPPOPORT, M.G., red.;  
AKIMOVA, A.G., red. izd-va; UVAROVA, A.F., tekhn. red.

[Forty-five column punched card computer; servicing and repair]  
Schetno-perforatsionnye 45-kolonnnye mashiny; tekhnicheskoe obslu-  
zhivanie i remont. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.  
lit-ry, 1958. 270 p. (MIRA 11:10)

(Electronic calculating machines)

Oct 53

MEREKALOVA, Z. I.

USSR/Medicine - Influenza

"Time of Preservation of the Influenza Virus on Surfaces and in the Air," Aspirant Z. I.

Merekalova, Central Sci-Res Disinfection Inst, Min Health USSR

Zhur Mikro i Immun, No 10, pp 68-72

Detd the time of preservation of influenza virus on glass surfaces depending on the vol of the emulsion applied. Found that this time is 5 days with 1 cm<sup>3</sup>, 4 days with 0.5 cm<sup>3</sup>, and 3 days with 0.1 cm<sup>3</sup>. Detd the time of preservation of the virus on wall paper and a surface covered with oil paint. Found that the virus is present in the air of an enclosed box for 4-4½ hrs after dispersion of the emulsion.

266T23

MERKALOVA, Z. I.

Dissertation: "The Ability of the Influenza Virus to Survive in the Air and On Surfaces and Disinfecting Measures in Influenza Infections." Cand Med Sci, Acad Med Sci USSR, 3 Jun 54. Vechernyaya Moskva, Moscow, 21 May 54.

SO: SOI 284, 26 Nov 1954

MEREKALOVA, Z.I. (Moskva, Malaya Bronnaya ul., d. 12, kv.58)

Transplantation of several tumors on man and animals into chorioallantois of chick embryo [with summary in English]. Vop. onk. 3 no.2:174-179 '57. (MLRA 10:6)

1. Laboratoriya virusologii (zav. - kandidat med. nauk G.A.Piskunova) otdela etiologii opukholey (zav. - deystv.chlen Akademii meditsinskikh nauk SSSR prof. A.D.Timofeyevskiy) Instituta eksperimental'noy patologii i terapii raka (dir. - chl.-korr. Akademii meditsinskikh nauk SSSR prof. N.N.Blokhin).

(NEOPLASMS, exper.

transpl. of various animal & human tumors into chorioallantois of chick embryo (Rus))

(YOLK SAC  
same)



LEYKINA, F.I.; MEREKALOVA, Z.I. (Moskva)

Serological detection of the virus of mammary cancer in mice during its cultivation on chick embryos. Pat. fiziol. i eksp. terap. 5 no.2:13-18 Mr-Ap '61. (MIRA 14:5)

1. Iz otdela etiologii i patogeneza (zav. - deystvitel'nyy chlen AMN SSSR prof. A.D.Timofeyevskiy) Instituta eksperimental'noy patologii i terapii raka (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N.Blokhin) AMN SSSR.  
(BREAST—CANCER) (TISSUE CULTURE) (VIRUSES)

MSREKALOVA, Z.I.

Isolation of a viral agent (polyoma virus) from the tissue of hybrid mice. (C57 X C3H). F<sub>1</sub>. Vop.virus. 6 no.2:219-232 Mr-Apr '61.  
(MIRA 14:6)

1. Otdel etiologii opukholey i laboratoriya virusologii Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR.  
(VIRUSES) (TUMORS)

MEREKALOVA, Z.I.; LEYKINA, F.I.

Effect of nonspecific stimuli of the chorioallantoic membrane on the results of the complement fixation reaction. Vop.virus. 7 (MIRA 14:7)  
no.3:360-363 My-Je '61;

1. Laboratoriya virusologii ot dela etiologii i patogenezha Instituta eksperimental'noy i klinicheskoy onkologii, Moskva.  
(COMPLEMENT FIXATION) (VIRUSES)

LEYKINA, F.I.; MEREKALOVA, Z.I.

Isolation of polyoma virus from mouse mammary gland cancer.  
Vop.onk. 7 no.12:8-13 '61. (MIRA 15:1)

1. Iz laboratorii virusologii (zav. - kand.med.nauk G.A. Piskunova)  
otdela etiologii i patogenez opukholey (zav. - deystv. chlen AMN  
SSSR prof. A.D. Timofeyevskiy) Instituta eksperimental'noy i  
klinicheskoy onkologii AMN SSSR (dir. -- deystv. chlen AMN SSSR  
prof. N.N. Blokhin).

(MAMMARY GLANDS--CANCER) (VIRUSES)

PISKUNOVA, G.A.; LEYKINA, F.I.; MEREKALOVA, Z.I.

Some results of studying human tumors by virological methods.  
Vop. virus.7 no.3:321-323 My-Je'62. (MIRA 16:8)

1. Otdel etiologii i patogeneza opukholey Instituta eksperi-  
mental'noy i klinicheskoy onkologii AMN SSSR, Moskva.  
(STOMACH--CANCER) (BREAST--CANCER)  
(VIRUSES)

ZHDANOV, V.M.; MEREKALOVA, Z.I.

Isolation of a virus from rat connective tissue treated with  
a carcinogenic substance. Vop. virus. 7 no.3:339-342 My-Je'62.  
(MIRA 16:8)

1. Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR,  
Moskva.

(VIRUSES) CONNECTIVE TISSUE) (CARCINOGENS)  
(TISSUE CULTURE)

MEREKALOVA, Z. I., (Moskva, Malaya Bronnaya, 12, kv. 58)

Distribution of the polyoma virus among normal mice of various lines. Vop. onk. 8 no.2:3-7 '62. (MIRA 15:2)

1. Iz laboratorii virusologii (zav. - kand. med. nauk G. A. Piskunova) otdela etiologii i patogenezha opukholey (zav. - deystv. chl. AMN SSSR, prof. A. D. Timofeyevskiy) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (dir. - deystv. chl. AMN SSSR, prof. N. N. Blokhin)

(VIRUSES)

MEREKALOVA, Z.I.; ZHDANOV, V.M.

Latent virus of rats isolated in tissue culture. Vop. virus. 10 no.3:  
329-333 My-Je '65. (MIRA 18:7)

1. Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR, i  
Institut virusologii imeni Ivanovskogo AMN SSSR, Moskva.



ACC NR: AP6021591

SOURCE CODE: UR/0402/66/000/003/0374/0374

AUTHOR: Mrekalova, Z. I.

ORG: Virology Laboratory, Institute of Experimental and Clinical Oncology, Academy of Medical Sciences, SSSR (Laboratoriya virusologii Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR)

TITLE: Characteristics of murine encephalomyelitis virus strain GD 7 and its RNA in various tissue cultures

SOURCE: Voprosy virusologii, no. 3, 1966, 374

TOPIC TAGS: virology, virus, RNA, viral RNA, viral characteristics, tissue cultures, encephalomyelitis, HISTOLOGY

ABSTRACT:

Tissue cultures of mouse, chick, and hamster cells were infected with GD 7 encephalomyelitis virus and its RNA obtained from mouse brain tissues. Viral reproduction occurred in these cells but was not observed in human cell cultures whether infected with complete virus or with viral RNA.

[W.A. 50; CBE No. 10]

SUB CODE: 06/ SUBM DATE: none/

Card 1/1

МАШКИН, В. В.

<sup>18</sup>  
Contribution on the Rolling of Rails. B. V. Maschin.  
(Sov. 1956, (9), 803-805). [In Russian]. The turning of the  
head when rolling rails in skew passes could be avoided by  
correct selection of the displacement of the centre of gravity  
of the pass from the rolling centre-line.—S. K.

2  
REC

RS

MEREKIN, B. V.

18  
Rationalization of the Rolling of Channel Beams. B. V. Merkin. (Stal', 1954, (6), 570-571). (In Russian). An improved procedure adopted at the author's suggestion at the Anshan Works in China for producing channels is briefly described. Bending plays an important part in the procedure, the guides requiring re-facing after 2000-3000 tons of channel.

18  
MT

-Меркин, Б. В.

✓1232\* (Russian.) Rolling of Railroad Rails. K prokatka  
rel'sov. B. V. Merkin. *Stal*, v. 16, no. 9, Sept. 1950, p. 803-  
805.

Prevention of rail deformation due to a torsional moment de-  
veloping when the rail leaves the slanted roller groove. Suggests  
a shift of the center of gravity of the groove.

*metal*

SOV/133-59-1-12/23

AUTHORS: Gubert, S.V., Merekin, B.V. and Feygin, G.D., Engineers

TITLE: An Experience in Rolling with Minus Tolerances (Opyt prokatki na minus)

PERIODICAL: Stal', 1959, Nr 1, pp 54 - 58 (USSR)

ABSTRACT: Measures taken at the above works to roll only with minus tolerances are described. It is pointed out that rolling with minus tolerances leads to an increase in the consumption of power <sup>and</sup> rolls and requires special attention from the rolling personnel. Therefore, to stimulate this type of rolling a bonus system for the economy of metal attained should be introduced.

There are 4 figures, 2 tables and 3 Soviet references.

ASSOCIATION: Nizhne-Tagil'skiy metallurgicheskiy kombinat  
(Nizhniy Tagil Metallurgical Combine)

Card1/1

MEREKIN, B.V., inzh.

Shaping of angle steel. Obr. met. davl. no.5:18-30 '59.  
(MIRA 13:3)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat.  
(Rolling (Metalwork))

MEREKIN, B.V., inzh.

Rolling of lightweight I-beams. Biul.TSIICHM no.4:27-33 '61.  
(MIRA 14:10)

(Rolling (Metalwork)) (Beams and girders)

SKRYABIN, M.P.; MEREKIN, B.V.; KORSHCHIKOV, V.D.

Determination of metal economy. Metallurg ~~?~~ no. 6:27-29  
Ag '62. (MIRA 15:9)

1. Ural'skiy institut chernykh metallov i Nizhne-Tagil'skiy metallurgicheskiy kombinat.  
(Rolling (Metalwork))



SHALAYEV, Viktor Vasil'yevich; KALININ, Aleksandr Ivanovich; KOLBIN, Anatoliy Ivanovich; MEREKIN, Boris Vasil'yevich; FEYGIN, Geshel' Davidovich; VINOKUROV, Izrail Yakovlevich; SKAKUN, Vladimir Vasil'yevich; KAPUSTIN, Arkadiy Ivanovich; MOGILEVSKIY, David Markovich; ALEKSEYEVA, Tat'yana Alekseyevna; BABAYLOV, Finopent Ivanovich; SKRYABIN, N.P., red.; KRYZHKOVA, M.L., red.izd-va; KOROL', V.P., tekhn. red.

[Improving procedures and equipment in shape rolling mills]  
Sovershenstvovanie tekhnologii i oborudovaniia v sortoprokat-  
nom tsekhe. Sverdlovsk, Metallurgizdat, 1963. 163 p.

(MIRA 16:1)

(Rolling (Metalwork))--Equipment and supplies)

MEREKIN, Boris Vasil'yevich

[Some problems of the grinding of rolling-mill rolls]  
Nekotorye voprosy kalibrovki prekatnykh valkov. Mo-  
skva, Metallurgiya, 1962. 1-2 p. (MIRA 17:12)

KOZHEVNIKOV, V.P., inzhener; BAKHTINOV, B.P., inzhener; ~~MEREKIN, S.V.,~~  
inzhener; ~~SETERNOV, M.M., inzhener; GRITSUK, H.F., inzhener.~~

Turn-over rollers for continuous billet mills. Stal' 15 no.1:54-58  
Ja '55. (MIRA 8:5)

1. Magnitogorskiy metallurgicheskiy kombinat.  
(Rolling-mill machinery)

S/130/60/000/010/008/009/XX  
A006/A001

AUTHORS: Gritsuk, N. F., Merekin, S. V.

TITLE: Causes for the Skewing of Faces and Twisting of Blooms During Rolling Processes

PERIODICAL: Metallurg, 1960, No. 10, pp. 24-26

TEXT: Causes of the skewing of faces and twisting of blooms during rolling process are studied. An increase in the skewing of blooms may be explained by the geometrical factor of deformation and is analytically determined by the following formula:

$$\Delta d_f = \beta^{2n} \sqrt{\frac{H^2 + B^2}{h^2 + b^2}} \cdot \Delta d_i$$

where  $\Delta d_i$  is the difference in the length of bloom diagonals prior to rolling; [Abstractor's Note: Subscripts f and i are translations from "konechnyy" = final and "nachal'nyy" = initial];  $\Delta d_f$  is the difference in the length of bloom diagonals after rolling on the flat roller section; n is the number of turnings; H, B, h, b, are the initial and final dimensions of the bloom and  $\beta$  is the mean

Card 1/3

S/130/60/000/010/008/009/XX  
A006/A001

Causes for the Skewing of Faces and Twisting of Blooms During Rolling Process

coefficient of widening. ( $\beta = 1.02 - 1.03$ ). An increased skewing of the bloom under the effect of the geometrical factor of deformation during the first passes is accompanied by the reduction of the cross section and may entail at the end of rolling on the flat roller section twisting of the bloom in the rollers, attaining in individual cases 80-120 mm. A dependence was established for edge passes between the bloom width  $B$ , the ratio of its sides  $K$ , and the magnitude of the admissible reduction  $\Delta h$ :  $\Delta h = (0.2 - 0.25) \frac{B}{K}$ . In edge passes with correctly calculated grooves the stability conditions do practically not limit the reduction magnitude. A raised stability of blooms in passes through box grooves is obtained by the reliable clamping in the basic portion of the groove, starting with the first pass. To improve the centering of the bloom the width of the first groove in the bottom portion must be 3 - 5% larger than the width of the bloom. The optimum allowance of box grooves was found to be 22 - 15%. A negative effect of the non-uniform heating of ingots in the pits appears during rolling when the cross section of the ingot has been reduced to a square of about 500 x 500 mm. The skewing and twisting of blooms delivered from the rollers is often a sign of unqualified heating of the ingots. An analysis of such phenomena was previously made by I. M. Pavlov. Besides the aforementioned

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S/130, 0/000/010/008/009/XX  
A006/A 01

Causes for the Skewing of Faces and Twisting of Blooms During Rolling Process

main causes requiring immediate elimination, the twisting and skewing of faces of blooms may also be caused by the following factors: displacement of the blooming rollers toward each other in the axial direction; wearing out and skewing of the first rollers of the operating roller table; skewing of the rollers in the vertical plane: "oblique" delivery of the ingot; the shape of the bloom front edge. Many of the numbered factors may act simultaneously making the detection of the actual causes for unstable rolling rather difficult. There are 4 figures and 1 table.

ASSOCIATION: Magnitogorskiy metallurgicheskiy kombinat (Magnitogorsk Metallurgical Combine)



Card 3/3

MEREKIN, Ya. V.

Solution of probability calculation problems of single-  
networks using an orthogonalization method. *Vopr. sist. n. 10*  
10-21 '63 (USSR: ...)

L 42071-65 EWT(d)/EWT(1)/T/EEC(b)-2/EED-2/EWA(h)/EWP(1) Pm-4/Po-4/Pq-4/Pg-4/  
Feb/Pk-4/Pl-4 LJP(c) BE/GG  
ACCESSION NR: AT5005628

S/3134/63/000/005/0010/0022

AUTHOR: Merekin, Yu. V.

TITLE: Solutions of problems of probability-theory calculations for single-sequence circuits by the orthogonalization method

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut matematiki. Vychislitel'nyye sistemy, no. 5, 1963, 10-21

TOPIC TAGS: computer circuit, logic network, computer reliability, Boolean function

ABSTRACT: This article deals with the same two problems as a companion paper in the same source (S. V. Makarov, Vychislitel'nyye sistemy, Novosibirsk, no. 5, 1963, p. 3; Accession Nr. AT5005627). Problem no. 1, which concerns the loading of the elements of a computer network, is solved by means of a unified algorithm based on the method of orthogonalization of Boolean expressions. It is also shown that problem no. 2, which treats the probability of occurrence of an error at the output when one element breaks down, is reducible to problem no. 1 by a simple method,

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L 42071-65

ACCESSION NR: AT5005628

with a resultant simplification of the solution. Orig. art. has: 9 formulas.

ASSOCIATION: Institut matematiki SO AN SSSR (Institute of Mathematics, SO AN SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: DP, MA

NR REF SOV: 003

OTHER: 001

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Card 2/2

ACCESSION NR: AR4039313

S/0044/64/000/003/V056/V056

SOURCE: Ref. zh. Matematika, Abs. 3V241

AUTHOR: Merekin, Yu. V.

TITLE: Arithmetic forms for recording Boolean expressions and their application for computing the reliability of schemes

CITED SOURCE: Sb. Vy\*chisl. sistemy\*. Vy\*p. 7. Novosibirsk, 1963, 13-23

TOPIC TAGS: arithmetic form, Boolean expression, scheme reliability, Boolean function, arithmetic normal form, arithmetic form graphic representation, single-time scheme, regular arithmetic normal form

TRANSLATION: For each formula realizing a Boolean function  $f$ , the author indicates a method of constructing an arithmetic function which coincides with  $f$  on the set of arguments  $\{0, 1\}$ . The concepts of normal forms of the arithmetic formulas are introduced, which define Boolean functions. The correspondence is shown between terms of a complete d.n.f. of a Boolean function and (terms) of its complete arith-

Card 1/2

ACCESSION NR: AR4039313

metic normal form. The author discusses methods of graphically representing arithmetic forms of recording Boolean expressions. In a probability estimate of single-time schemes, the problem arises of determining the probability that the given Boolean function equals the identity, if the independently distributed probabilities that the arguments are equal to the identity are known. The author demonstrates a method of reducing this problem to an analysis of the corresponding regular arithmetic normal form. V. Marty\*nyuk.

DATE ACQ: 22Apr64

SUB CODE: MA

ENCL: 00

Card 2/2

MEREKIN, Yu.V.

Arithmetic forms of writing Boolean expressions and their use in  
calculating network reliability. Vych. sist. no. 7:13-23 '63.  
(MIRA 17:9)

MEREKINA, V-V

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~~Abstract~~  
~~1942~~  
~~1942~~

13537 <sup>26</sup> Method of Recording True Stress-Strain Diagrams <sup>18</sup>  
at Elevated Temperatures <sup>26</sup> V. Alarukina, Henry Bratcher  
Translation No. 3915, 3 p. (From Zavodskaya Laboratoriya, v.  
22, no. 12, 1956; p. 1491-1492.) Henry Bratcher, Alameda,  
Calif.

Example of a true stress-strain diagram recorded on a ductile  
alloy at 68 and 390 F.

JM

RC any

AUTHOR: LICHACHEV, V.M., MEREKOV, JU.P. PA - 2104  
TITLE: Charge and momentum analysis of relativistic particles by the  
nuclear emulsion technique in pulsed magnetic fields. (Russian).  
PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol 32, Nr 1, pp 31-38  
(U.S.S.R.)  
Received: 3 / 1957 Reviewed: 4 / 1957

ABSTRACT: Here electron-sensitive NIKFI-emulsions of the type P are fitted in a device generating a pulse-like magnetic field and are irradiated in a magnetic field with  $1,2 \cdot 10^5$  Gauss by  $\gamma$ -quanta. The analysis of electron-positron pairs carried out in this way was used for the investigation of the problem of the annihilation of protons during flight and for the energy spectra of the bremsstrahlung of the synchrotron of the FIAN (=Physical Institute of the Academy of Science).

Methodical investigations: First, the method of the measurements of magnetic curvature and of the multiple scattering of the particles in the emulsion are discussed. For these measurements there are several methods, but the authors made use of a variety of the angle method worked out by themselves: The trace of the particle in the photoemulsion was, like in the case of other methods, divided into equal parts of a length of  $100\mu$ ; hereupon the angles between the chords following one another were measured by means of the ocular eyepiece-scale. The procedure

Card 1/3

PA - 2104

Charge and momentum analysis of relativistic particles by the nuclear emulsion technique in pulse magnetic fields.

of measuring is discussed. There follows a discussion of the distortions of "false scattering" and of the analysis of particles with respect to the sign of the charge. In conclusion, several conclusions in connection with method are discussed.

The spectrum of brems trahlung and the annihilation of positrons during flight: The results obtained by computing the energy spectrum of the bremsstrahlung of the FIAN-synchrotron are demonstrated by means of a diagram. As a target of the synchrotron a tungsten rod with 1 mm diameter was used. For computation the formulae worked out by BETHE and HEITLER were used, and the absorption of the  $\gamma$ -quanta in the target as well as the twofold emission of electrons was taken into account. On the occasion of the construction of the histograms of the spectral distribution of electron-positron pairs only those pairs were selected of which each component in the emulsion had a trace of more than 540  $\mu$  length. The theoretically and experimentally determined histogram agrees within the limits of measuring errors. Also the experimental data for the determination of intensity from the dependence of electron-positron pairs on the

Card 2/3

PA - 2104

Charge and momentum analysis of relativistic particles by the nuclear emulsion technique in pulsed magnetic fields. energy of the  $\gamma$ -quanta are shown in form of a diagram. Accordingly intensity decreases with growing energy  $E_\gamma$ , and at  $E_\gamma \sim 200$  MeV it becomes equal to zero.

On the occasion of the inspection of photoemulsions 4 cases of the annihilation of a particle during flight were found to occur, and the particles concerned were found to be positrons. The probability of annihilation was estimated at  $\sim 1,7 \cdot 10^{-3}$ , while experimental estimation of this process amounted to  $1,5 \cdot 10^{-3}$ .

ASSOCIATION: Physical Institute "P.N.Lebedev" of the Academy of Science of the U.S.S.R.

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress

Card 3/3



MEREKOV, Yu. P.

Analysis of relativistic particles on the basis of the sign of the charge and the impulse by the method of nuclear photographic emulsions in pulsed magnetic fields. V. M. Litvinchev and Yu. P. Merkov. *Zhur. Eksp. i Teor. Fiz.* 32, 31-8 (1957), cf. *C.A.* 51, 6573k. The possibility of using strong, pulsed magnetic fields ( $1.2 \times 10^5$  gauss) for work with nuclear emulsions in electronic accelerators was discussed. The sign and impulse analysis which was carried out for electron-positron pairs was used in studying the question of the annihilation of positrons in flight and in detg. the energy spectrum of bremsstrahlung from a synchrotron target. Also in *Soviet Phys. JETP* 5, 31-7 (1957) (Engl. translation). J. Rovtar Lead.

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7/16/41 Rev. 1/10/41  
AUTHORS:

Bogachev, N. P., Van Shu-Fen", Gramenitskiy, I. M.,  
Kirillova, L. F., Lebedev, R. M., Lyubimov, V. B.,  
Markov, P. K., Merakoy, Yu. P., Podgoretskiy, M. I.  
Sidorov, V. M., Toastov, K. D., Shafranov, M. G.,

TITLE:

The Interaction of 9 Bev Protons with Nuclei in Photo-Emulsion  
(Vzaimodeystviye protonov s energiyey 9 Bev s yadrami forot-  
emul'sii)

PERIODICAL:

Atomnaya Energiya, 1958, Vol. 4, Nr 3, pp. 281 - 284 (USSR)

ABSTRACT:

The photoemulsion  $EM\ K\phi\ M-P$  with a layer of about  $450\ \mu$  was irradiated with protons within and out of the vacuum chamber of the 9 Bev synchrotron. The mean range of 9 Bev protons for an interaction is  $34,7 \pm 1,5$  cm. (The scattering for angles below  $5^\circ$  was not taken into account). 258 cases of a nuclear interaction were observed. The mean number of fast particles  $n$  generated in a process of interaction amounts to  $3,4 \pm 0,7$ . The angular distribution of these particles shows a clearly preferred forward motion. The mean number of black and grey traces  $N_n$  - the recoil nuclei not being considered - is  $8,3 \pm 0,5$ .

From 249 found stars 18 can be considered to constitute an

interaction of the initial protons with "free" or "quasifree" protons.  
13 stars can be considered to represent an interaction between protons and  
quasifree" neutrons. All of them have an odd number of traces, and in the  $\beta$   
point of formation of the star  $\beta$ -traces, can be observed. The mean number of  
fast particles in these 13 star traces is  $3,1 \pm 0,3$ . ~~There are particles in~~  
~~these 13 star traces is  $3,1 \pm 0,3$ .~~ There are 5 figures, 1 table, and 7 references,  
1 of which is Slavic.

21(7)

SOV/20-121-4-12/54

AUTHORS:

Bogachev, N. P., Bunyatov, S. A., Merekov, Yu. P., Sidorov, V. M.

TITLE:

The Interaction of Protons With an Energy of 9 BeV With Free and Bound Nucleons in a Photoemulsion (Vzaimodeystviye protonov s energiyey 9 BeV so svobodnymi i svyazannymi nuklonami v fotoemul'sii)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 121, Nr 4, pp 617-620 (USSR)

ABSTRACT:

An emulsion chamber with 100 layers of the type **NIKFI-F**<sup>2</sup> (with a thickness of  $\sim 450 \mu$  and with an area of  $10.10 \text{ cm}^2$ ) was irradiated by 9 BeV protons of a synchrophasotron. The emulsion layers were investigated along the tracks of the primary protons. On a length of 185 m 1308 interactions of protons with nuclei were found. The processes of scattering into an angle of less than  $5^\circ$  are not included in this number. 178 of these 1308 interactions are interactions of protons with nucleons in the photoemulsion. The authors found 115 cases which are similar to (p - p)-interactions and 63 cases similar to (p - n)-interactions. The cross section of the

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SOV/20-121-4-12/54

## The Interaction of Protons With an Energy of 9 BeV With Free and Bound Nucleons in a Photoemulsion

inelastic ( $\gamma - p$ )-interaction at 9 BeV amounts to 30 millibarn. Within the interval 1 - 9 BeV, the cross section of the inelastic ( $p - p$ )-interaction is practically constant, and apparently it is constant also in the region of higher energies. 11 of the 115 ( $p - p$ )-interactions are due to the elastic ( $p - p$ )-scattering on hydrogen in the emulsion. The differential cross sections of the elastic ( $p - p$ )-scattering cannot be estimated because the experimental data are insufficient. The total cross section of the elastic ( $p - p$ )-scattering at 9 BeV (with respect to the necessary corrections and of the background due to the quasielastic ( $p - p$ )-scattering ( $\sim 10\%$ )) amounts to

$\sigma_{pp}^{\text{elastic}} = (10 \pm 4)$  millibarn. This total cross section is constant (within the limits of experimental errors) in the interval 6 - 9 BeV. An estimation of the total cross section of the ( $p - p$ )-interaction at an energy of 9 BeV (the sum of the elastic and of the inelastic cross sections) gives the value  $\sim 40$  millibarn. A diagram gives the angular distributions

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SCV/26-10'-1-12 54

The Interaction of Protons With an Energy of 9 BeV With Free and Bound Nucleons in a Photoemulsion

of the charged particles due to the (p - p)- and (p - n)-interactions are equal within the limits of experimental errors. Also the angular distributions of the fast charged particles due to the (p - p)- and (p - n)-interactions have the same values. The average free path for the nuclear interaction of the fast secondary particles due to the (p - p)-interactions and (p - n)-interactions is equal to  $(34 \pm 6)$  cm and  $(28 \pm 7)$  cm, respectively. These values are not different from the free paths for the interaction of protons and pions with energies of 1 - 6 BeV and they also agree with the results obtained by other authors. According to the results of this paper the average free length of path for the interaction of 9 BeV protons with the nuclei of a photoemulsion amounts to  $(37.4 \pm 1.0)$  cm. In a following paper, the above-given results will be compared with the results of the calculations according to the statistical theory of the multiple production of particles. The authors thank Professor V. I. Veksler for his interest in this paper and also Professor V. P. Dzhelepov and R. M. Ryndin for the discussion of the results. There

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SOV/26 1204-2,71

The Interaction of Protons With an Energy of 9 BeV With Free and Bound Nucleons in a Photoemulsion.

are 1 figure, 1 table, and 20 references 9 of which are Soviet.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (United Institute of Nuclear Research)

PRESENTED: June 5, 1958, by L. A. Artsimovich Academician

SUBMITTED: June 3, 1958

Card 4/4

82017  
S/056/60/038/02/18/061  
B006/B011

24.6600  
21.5200  
AUTHORS:

Bogachev, N. P., Bunyatov, S. A., Vishki, T., Merekov, Yu.P.,  
Sidorov, V. M., Yarba, V. A.

TITLE: Production of Charged  $\pi$ -Mesons in the Interaction of 9-Bev Protons With Photoemulsion Nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 2, pp 432-440

TEXT: The authors investigated the energy spectrum and the angular distribution of pions arising in the interaction of 9-Bev protons with photoemulsion nuclei. An emulsion chamber with 100 layers of the type НИКФИ-Р (NIKFI-R) (thickness: 450 $\mu$ , area: 10:10 cm<sup>2</sup>) was exposed to the inner proton beam of the proton synchrotron of the Laboratoriya vysokikh energiy OIYaI (High-energy Laboratory of the OIYaI). Such events were selected for analysis, in which 3 or more fast particles occurred. This selection permitted the separation of events in which several pions were produced. Among the 204 tracks selected for the analysis there were 78 with momenta

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44 (3)

Production of Charged  $\pi$ -Mesons in the Interaction of 9-Bev Protons With Photoemulsion Nuclei

82017  
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B006/B011

$p\beta \leq 650$  Mev/c and 126 with  $p\beta > 650$  Mev/c; ionization was determined by a method described in Ref. 12. Fig. 1 shows ionization as a function of  $p\beta$ . A table supplies data concerning the K-mesons produced in proton-nucleus collisions. The energy distribution is discussed next. Fig. 2 shows the empirical energy spectrum of particles with  $p\beta \leq 650$  Mev/c (which corresponds to a pion energy of 540 Mev), and the curve calculated theoretically according to data from Ref. 13 for the spectrum of pions originating from NN-collisions. Fig. 3 shows the angular distribution of fast pions (ionization  $J \leq 1.4 J_0$ ;  $J_0$  - ionization on the tracks of primary protons) in the laboratory system. Fig. 4 shows the pion energy as a function of the departure angle, and Fig. 5 shows the angular distribution of fast protons ( $J \leq 1.4 J_0$ ). The results of investigation are finally summarized as follows: 1) The energy spectrum of charged pions originating from the reaction investigated here can be described by the empirical formula  $N(E_k) = E_k / (a + bE_k^2)$ , where  $E_k$  denotes the kinetic energy of pions in Mv. The coefficients were found to be  $a = 0.17 \pm 0.07$ ,  $b = (1.2 \pm 1.4) \cdot 10^{-6}$ ,

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Production of Charged  $\pi$ -Mesons in the  
Interaction of 9-Bev Protons With Photo-  
emulsion Nuclei

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B006/B011

$\alpha = 2.60 \pm 0.35$  by the method of least squares. 2) The mean total pion energy was  $\bar{E} = (0.70 \pm 0.2)$  Bev, the mean total energy of fast pions was  $(0.8 \pm 0.2)$  Bev. 3) The mean numbers of fast pions and protons per event were equal to  $3.3 \pm 0.5$  and  $1.0 \pm 0.5$ .  $0.6 \pm 0.2$  was obtained for the mean number of pions with energies lower than 80 Mev. 4) The total energy emitted by pions (taking account of  $\pi^0$ -mesons) amounted to  $(45 \pm 14)\%$ . 5) The ratio of charged  $\pi$ -mesons to K-mesons was  $5.0 \pm 2.5$  in the velocity range  $\beta = (0.5 - 0.8)$ . 6) The resulting experimental data do not contradict the assumption that the interaction considered here can be regarded as a consequence of collisions. The authors finally thank Professor V. P. Dzhelepov and Professor Kh. Khulubey for interest displayed as well as G. I. Bogorovskaya, L. F. Zakharova, K. D. Sverdlina, and D. A. Flyagina for their assistance, T. Vishki thanks Professor I. Auslender and E. Fridlender for their discussions. Furthermore, gratitude is expressed to N. N. Govorun for computations carried out on the "Ural" computer, and to V. A. Meshcheryakov for his aid. L. T. Baradzey, N. I. Kostanashvili, and C. A. Shakhulashvili are mentioned. There are 5 figures, 1 table, and 17 references: 9 Soviet, 1 Italian, 1 Indian, 3 English, and 3 American.

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Production of Charged  $\pi$ -Mesons in the  
Interaction of 9-Bev Protons With Photo-  
emulsion Nuclei

S/056/60/038/02/18/061<sup>R2017</sup>  
B006/B011

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy  
(Joint Institute of Nuclear Research)

SUBMITTED: August 30, 1959

UK

Card 4/4

83750

S/056/60/038/004/043/048  
B006/B056

24.6900

AUTHORS: Bogachev, N. P., Bunyatov, S. A., Merekov, Yu. P.,  
Sidorov, V. M., Yarba, V. A.

TITLE: Inelastic Interaction<sup>19</sup> of 9-Bev Protons With Free and Bound  
Nucleons in Photoemulsions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,  
Vol. 38, No. 4, pp. 1346 - 1348

TEXT: The authors recorded 243 inelastic interactions, viz., 140 pp and 103 pn events in an emulsion chamber irradiated with 9-Bev protons on the proton synchrotron of the Laboratoriya vysokikh energiy Ob"-yedinennogo instituta yadernykh issledovaniy (High-energy Laboratory of the Joint Institute of Nuclear Research). For the purpose of determining the energy- and angular distributions of the secondary particles, measurements of the multiple Coulomb scattering and ionization were carried out; the results obtained are briefly discussed. The angular distributions of the charged pions and protons in the rear semi-space (c.m.s.) occurring in pp-interaction are shown in Fig. 1. Both angular

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Inelastic Interaction of 9-Bev Protons With S/056/60/038/004/043/048  
Free and Bound Nucleons in Photoemulsions B006/B056

distributions are anisotropic as is the case also with 6.2-Bev. This is in contradiction to the assumptions of the statistical theory on the isotropy of the angular distribution of secondary particles in the c.m.s. The mean proton and pion numbers ( $n_p$  and  $n_\pi$ ) occurring per inelastic pp-scattering event in the rear semi-space in the c.m.s. is  $1.3 \pm 0.3$  and  $1.9 \pm 0.3$ , respectively. The corresponding values following from the statistical theory are 1.2 and 2.3. The following n-values are obtained for the two kinds of charged pions:  $n_{\pi^+} = 1.3 \pm 0.3$  and  $n_{\pi^-} = 0.61 \pm 0.06$ . Fig. 2 shows the momentum distributions of protons and charged pions from pp interactions. It is shown that the pion spectrum with respect to the theoretical distribution is shifted toward smaller, and the proton spectrum toward greater momenta. The average momenta in the c.m.s. are calculated to be  $P_p^* = (1.2 \pm 0.1)$  Bev/c and  $P_{\pi^+}^* = (0.4 \pm 0.1)$  Bev/c. The statistical theory gives  $P_p^* = 0.79$  Bev/c and  $P_{\pi^-}^* = 0.51$  Bev/c. The primary proton in pp collisions loses  $(36 \pm 2)\%$  of

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Inelastic Interaction of 9-Bev Protons With S/056/60/038/004/043/048  
Free and Bound Nucleons in Photoemulsions B006/B056

its energy to the pion production (the statistical theory gives a value of 58%). Fig. 3 shows the angular distributions of the charged secondary particles, taking the correction for geometry into account. The angular distributions (pp interaction) are symmetric in the c.m.s. The angular distributions of the secondary particles from pn scattering are asymmetric, which cannot be explained by the statistical theory. The authors thank Academician V. I. Veksler and Professor V. P. Dzhelelov for their interest in this investigation. There are 3 figures and 7 references: 6 Soviet and 1 Dutch.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research) X

SUBMITTED: January 27, 1960

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BOGACHEV, N. P., GRIGORYEV, Ye. L., MEHEMOV, Yu. P.

"Inelastic Proton-Nucleon Interaction at 9 MeV"

report presented at the Intl. Conference on High Energy Physics, Geneva,  
4-11 July 1962

Joint Inst. for Nuclear Research  
Lab. of Nuclear Problems

8/056/63/044/002/018/065  
B102/B186

AUTHORS: Bogachev, N. P., Grigor'yev, Ye. L., Merekov, Yu. F.,  
Mitin, N. A.

TITLE: Emission of  $\text{Li}^6$  fragments in Ag and Br nuclear disintegrations induced by 9-Bev proton bombardment

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 2, 1963, 493-497

TEXT: Nuclear emulsions of the type НИКФИ-Р (NIKFI-R) were exposed to proton bombardment in a synchrotron. Among the total of 15,744 stars with  $N_b \geq 8$  found on microscopic scanning, 344 contained one and 7 two  $\text{Li}^6$  tracks;  $N_b$  is the number of black prongs. After a correction for the  $\text{Li}^6$  fragments not stopped inside the layer, the total number of stars containing  $\text{Li}^6$  tracks amounts to 428. The  $\text{Li}^6$  yield was found to increase with  $N_b$  (from 6 to 30) from  $0.012 \pm 0.002$  to  $0.072 \pm 0.021$ . The energy distribution of the  $\text{Li}^6$  fragments is compared with the curves calculated on the basis of the evaporation model for (1)  $T = 10$  Mev,  $V = 5$  Mev, Card 1/2

Emission of  $\text{Li}^8$  fragments ...

S/056/63/044/002/018/065  
B102/B166

$v = 0.015 c$ , and (2)  $T = 10 \text{ Mev}$ ,  $V = 5 \text{ Mev}$ ,  $v = 0$ ;  $T$  is the temperature,  $V$  the Coulomb barrier and  $v$  the velocity of the nucleus hit by the proton. Curve (1) agrees closely with the distribution measured; the latter has, however, a tail at high energies. The angular distributions plotted for  $E \geq 21 \text{ Mev}$  and  $E < 21 \text{ Mev}$  show a considerable difference: the low-energy group of  $\text{Li}^8$  fragments in the lab system is almost isotropic (forward-backward ratio =  $1.37 \pm 0.30$ ) that of the fast group is anisotropic ( $2.18 \pm 0.48$ ). The energy distribution as well as the angular distribution (characterized by the forward-backward ratio) are both virtually independent of  $N_0$ . Except for the large width of the energy spectrum all characteristics agree with the theory of  $\text{Li}^8$  evaporation from a highly excited nucleus. There are 5 figures and 1 table.

ASSOCIATION: 18"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: September 24, 1962

Card 2/2



I 13645-63 EWT(m)/BDS AFETC/ASD  
 ACCESSION NR: AP3003113

S/0056/63/044/006/1869/1.112 57  
 36

AUTHOR: Bogachev, N. P.; Volod'ko, A. G.; Grigor'yev, Ye. L.; Merekov, Yu. P.

TITLE: Emission of Li sup 8 fragments in the disintegration of Ag and Br nuclei by 19 BeV protons

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 1869-1872

TOPIC TAGS: emission of lithium fragments, disintegration of Ag nuclei, disintegration of Br nuclei, evaporation model

ABSTRACT: The main characteristics of the emission of Li sup 8 in disintegrations with more than 8 black prongs, such as the yield per disintegration, the energy and angular distributions, and some information concerning the emission of two fragments in one disintegration, are presented as results of a study which continues similar earlier work (ZhETF v. 44, 493, 1963) at lower proton energy. The compatibility with the evaporation scheme, which was found in the earlier experiments, is found to apply in the present range of energies, too. "The authors thank Prof. V. P. Dzhelepov for continuous interest and attention to the work, and also Prof. I. I. Gurevich and B. A. nikol'skiy, who graciously furnished emulsions irradiated in the CERN proton

Card 1/1 Joint Inst. of Nuclear Research

S/020/63/148/004/010/025  
B141/B102

AUTHORS: Bogachev, N. P., Grigor'yev, Ye. L., Merekov, Yu. P.  
TITLE: Inelastic proton-nucleon interaction at an energy of 9 Bev  
PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 4, 1963,  
793-795

TEXT: In an emulsion chamber irradiated with 9-Bev protons 760 events of inelastic (pN) interactions (432(p-p) and 268(p-n)) were recorded and analyzed. The mean multiplicity for (p-p) reactions was  $3.34 \pm 0.06$ , for (p-n) reactions  $2.76 \pm 0.09$ . The secondary particles were identified in multiple-scattering and ionization-density measurements. The c.m.s. angular distribution of the charged pions was slightly anisotropic and this was traced to the fast  $\pi^+$  component. In both reactions the angular distributions of the secondary protons were strongly anisotropic. The anisotropy decreased with the proton momentum. The results are analyzed from the standpoint of the charge-symmetry hypothesis. The momentum spectra of the charged pions are much softer than those of the secondary protons. The momentum spectra of the pions as well as of the protons

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Inelastic proton-nucleon interaction ...

5/025/63/148/004/010/025  
B141/B102

become softer as the number of secondary particles increases. If the multiplicity increases, the anisotropy of the angular distribution should be reduced, but no such reduction could be observed. The experimental data obtained on secondary protons are not consistent with the statistical theory of multiple production. The model of peripheral collision gives a good description of the experiment. If  $\Delta^+$  particles are produced the model of single meson exchange is sufficient to explain the interactions. At higher multiplicities it is, however, not sufficient. There are 4 figures and 1 table. ✓

ASSOCIATION: Ob'yedinenny institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

PRESENTED: September 26, 1962, by N. N. Bogolyubov, Academician

SUBMITTED: September 22, 1962

Card 2/2

S/020/63/148/005/009/029  
B112/B186

AUTHORS: Bogachev, N. P., Grigor'yev, Ye. L., Merekov, Yu. P.

TITLE: Cross-section for the formation of  $\text{Li}^8$  in a nuclear emulsion by 9-Bev protons

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 5, 1963, 1046

TEXT: N. A. Perfilov, N. S. Ivanova et al. (ZhETF, 38, 345 (1960)) gave an estimate (3 millibarn) for the formation cross-section of  $\text{Li}^8$  and  $\text{B}^8$ . The author improves this estimate by investigating the formation of  $\text{Li}^8$  in a НИИКИ-Р (NIKFI-R) emulsion by 9-Bev protons. His value obtained is  $2.4 \pm 0.6$  millibarn. A further result is that the formation cross-section of  $\text{Li}^8$  is practically constant over the energy range from 1 Bev to 9 Bev.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

PRESENTED: October 26, 1962, by N. N. Bogolyubov, Academician

Card 1/2

Cross-section for the formation of  $\text{Li}^8$  ... S/020/63/148/005/009/029  
B112/B186

SUBMITTED: September 22, 1962

MEREL, GY.

Felix Benheim's From Huang-ti to Harvey; a book review. p. 455.

A MAGYAR TUDOMANYOS AKADEMIA V. OSZTALYA BIOLÓGIAI CSOPORTJANAK KOZLEMENYEI.  
Budapest, Hungary. Vol. 1, No. 3/4, 1958.

Monthly List of East European Accessions (EEAI). LC, Vol. 9, No. 1, Jan. 1960  
Uncl.

MEREL, GY.

Sandor Balazs and Jozsef Spielmann's Karoly Lechner; a book review. p.456.

A MAGYAR TUDOMANYOS AKADEMIA V. OSZTALYA BIOLOGIAI CSOPORTJANAK KOZLEMENYEI.  
Budapest, Hungary. Vol. 1, No. 3/4, 1958.

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Uncl.

MEREL, GY ; ACSADI, GJORGY, AND OTHERS.

Az öregedés (Aging); a book review. p. 457.

A MAGYAR TUDOMÁNYOS AKADEMIA V. OSZTÁLYA BIOLÓGIAI CSOPORTJÁNAK KÖZLEMÉNYEI.  
Budapest, Hungary. Vol. 1, No. 3/4, 1958.

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Uncl.

MERELIDZE, K. V.

"The Technology of the Wines of the Nagorno-Karabakhskaya  
Autonomous Oblast, Azerbaydzhan SSR." Cand Tech Sci, Georgian  
Agricultural Inst, 30 Nov 54. (ZV, 16 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR  
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SO: Sum. No.521, 2 Jun 55



MEHEL'MAN, Ya. I.; CHUMACHENKO, T. [translator]; AFONINA, G., veduchiy  
redaktor; GOLOVCHENKO, G., tekhnichnyy redaktor

[Mechanics made interesting] TSikava mekhanika. Kyiv, Derzh.  
vyd-vo tekhnichnoi lit-ry URSR, 1956. 163 p. (MLRA 9:12)  
(Mechanics)

VEREMAI, I. A.

Some problems in four-term relations of variables. (1974) by  
mathematical methods. Vyss. shkola, Moskva. (1974). (VIRA 18:19)  
no. 1:44-46 '64.

1. Batonskiy filial Inst. matemat. i mekhan. SSSR.

SOROKIN, A.N.; ANDRYUSHCHENKO, V.V.; MEREMINSKIY, A.I.

Effect of raising calves in stalls on the drop in the incidence of dictyocaulosis. Veterinariia 35 no.5:57-58 My '58. (MIRA 12:1)

1. Vetotdel Rovenskogo obl'sel'khozupravleniya (for Andryushchenko).
2. Rovenskaya oblastnaya vetbaklaboratoriya (for Mereminskiy).  
(Calves--Diseases and pests) (Lungs--Parasites)

NEREMINSKY A. I. (Junior Scientific Co-worker) and HELNICHUK (Junior Scientific Co-worker) and POGORELYI A. I. (Candidate of Veterinary Science.) and VOITESKOVSKAYA T. V. (Senior Laboratory Worker, Rovno VVS)

"Paramphistomiasis of mernad cattle."

Veterinariya, Vol. 30, No. 12, December 1961, p. 25

MEREMINSKIY, V.A. (gor. Ilanskiy, Krasnoyarskogo kraya, Pochtovaya ul., d.6)

Treatment of tetanus with neuroplegic and ganglion-blocking preparations. Vest. khir. 82 no.5:116-117 Iy '59. (MIRA 12:7)

1. Iz khirurgicheskogo otdeleniya (zav. - V. A. Mereminskiy)  
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(TETANUS) (AUTONOMIC DRUGS)

SKRYABIN, G.S.; KOSHCHYENKO, S.A.; MEREMKULOVA, S.N.; SAPEVA, V.P.

Hydrolysis of steroid esters by actinomyces. Dokl. biochim.  
i mikrobiol. 1 no.5:513-517 1965.

1. Institut mikrobiologii AN SSSR.

(MIRA 18:11)

MEREMSON, Yakov Leonidovich; STEPANOVA, Lyubov' Gerasimovna;  
KHAYKIN, Ya.L., inzh., retsenzent; NOVIKAS, M.N., inzh.,  
red.; VOROTNIKOVA, L.F., tekhn. red

[Experience in operating the ZhR-4 transmitter-receiver]  
Opyt ekspluatatsii radiostantsii tipa ZhR-4. Moskva, Trans-  
zheldorizdat, 1962. 51 p. (MIRA 15:10)  
(Radio) (Railroads--Communication systems)

ROMANOV, G.P.: MEREM'YANIN, A.N.

Three-spindle milling head. Stan. 1 instr. 36 no.4338 Sp 165.  
(MIRA 1835)



MERENCHUK, A.M., elektrosvarshchik (Stryy L'vovskoy obl.)

Changing the design of the feed roller on the PT-56 and A-547  
semiautomatic welding units. Stroi. truboprov. 8 no.6:29  
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1. Stroitel'noye upravleniye No.14 tresta Ukgazneftestroy.  
(No subject headings)

MIAN, Pavel, Ing., MHRNVA, Jan.

New method of production of monolithic and prefabricated  
concrete structures. Poz stavby 12 no.11 473-477 '64.

1. Viskovicka stary, Ostrava-Kunice.

MERENENKOV, P.N.

Replacement of packing rings in the water cylinder of the Worthington  
steam pump. Prom.energ. 14 no.3:26 Mr '59. (MIRA 12:4)  
(Pumping machinery--Equipment and supplies)

*И. И. МЕРЕНИШЧЕВА*

IPATOV, N.K., kandidat tekhnicheskikh nauk; MERENISHCHEVA, I.I., inzhener.

Effect of cooling during annealing on the corrosion cracking of brass.  
TSvet.met. 28 no.1:65-68 Ja-F '55. (MIRA 10:10)  
(Brass)

M. R. NISHEVA, I. I.

18  
 4520  
 2

✓ The problem of pearlite-austenite transformation. M. M. Zamyatin and L. I. Merzhancheva. *Trudy Leningrad. Politekhn. Inst.* 1955, No. 180, 99-104; *Referat. Zhur., Met.* 1956, No. 1622. — The influence of object dimensions on duration of induction period and the entire isothermic process of transformation of pearlite into austenite was investigated. The specimens, of C steel close to eutectoid compn. (C 0.75, Si 0.34, Mn 0.20%), initially had a lamellar and micro-lamellar pearlitic and sorbitic structure. The specimens were put in a salt bath heated to 20, 40, and 60° above  $A_{c1}$  (770°C) and after the required time quenched in water. The degree of pearlite-austenite transformation was evaluated by hardness. Increase of thickness increased the duration of the induction period and of the pearlite-austenite process at all temps. investigated. Duration of the induction period and pearlite-austenite transformation rises proportionately to the ratio of vol./area of an object. V. N. Fedoraki

729  
11/15

MERONISHCHEVA, I. I.

(4)

S/133/63/000/004/002/011  
A054/A126

AUTHORS: Kapel'nitskiy, V. G., Shved, F. I., Yartsev, M. A., Tulin, N. A.,  
Pozdeyev, N. P., Sergeev, A. B. Meronishcheva, I. I., Kalinina,  
Z. M., Pozdnyakov, M. V.

TITLE: Melting of steel and alloys in vacuum furnaces

PERIODICAL: Stal', no. 4, 1963, 325 - 328

TEXT: IX 15 (ShKh15) and X20H80 (Xh20H80) grade steels often display spotty liquation, bright streaks, and bright skins. Tests for eliminating these defects were carried out by V. N. Kuzovatov, R. F. Maksutov, G. Ye. Mysina, A. V. Shelgayeva, L. A. Zhivichkin, Yu. A. Gayduk, V. S. Galyan, D. A. Soskov, I. I. Khmelev, G. I. Parabina et al. To prevent the rotating movement of the liquid metal, the circuit scheme was modified (under the control of I. S. Pinchuk, Candidate of Technical Sciences) and upon the suggestion of the NIM (Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii/Chelyabinsk Scientific Research Institute of Metallurgy) all ferromagnetic parts were eliminated from the electric system which then was redesigned on a bifilar-coaxial scheme. In

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Melting of steel and alloys in vacuum furnaces

S/133/62/000/004/002/011  
AG54/A126

the current system of the arc a negative reversed connection was realized for generator-induction. The arc was kept constant by a NIIM-pulse generator. The steel for the self-baking electrodes was produced according to the standard method, while care was taken to limit the content of S to 0.000% and that of P to 0.015%. The induction type vacuum furnace (CKB-571B /OKB-571B) with a capacity of 0.5 ton and a vacuum of  $1 \mu$  Hg, supplied by a high frequency

BFO -250-2500/VGO-250-2500 type generator, with an inductor voltage of 1,000 (formerly 2,000) and a frequency of 2,500 cps was also revised. The vacuum system consisted of 5 mechanical (И-5Г/VN-6G) and 3 oil-vapor (BH-4500/EN-4500) pumps. The furnace construction was improved (in co-operation with the Vsesoyuznyy nauchno-issledovatel'skiy institut elektrotekhnicheskogo oborudovaniya/All-Soviet Scientific Research Institute of Electrotechnical Apparatus and the Chelyabinsk Scientific Research Institute of Metallurgy) by fixing the inductor more rigidly, by applying lever-type vacuum seals, suitable for application in the mnemonic furnace control system, by redesigning the feeding, tilting apparatus, etc. The crucible material - having a marked effect on the metal quality - was also tested. The most uniform macrostructure was obtained with a crucible of melted magnesite, and  $30 \mu$  Hg was found to be the optimum vacuum. The effect

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Melting of steel and alloys in vacuum furnaces

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A054/A125

of the reduction of the alloys on their ductility in forging was also studied. The forging properties were improved by adding a nickel-magnesium masteralloy and calcium silicate to the bath prior to tapping, calculating 0.12 - 0.15% magnesium for the finished metal. Wires with a 30  $\mu$  thickness could be drawn from the metal produced under the modified conditions. There are 4 figures.

Card 3/3



MERENKOV, A.; PATANOV, I.

Excavating Machinery

Lighter excavator. Za ekon. mat., No. 1, 1952.

Monthly List of Russian Accessions. Library of Congress. December 1952. Unclassified.

MERENKOV, A.I., aspirant

Device for binding rolled metal with wire. Izv.vys.ucheb.  
zav.; mashinostr. no.5:188-194 '59. (MIRA 13:4)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche im. Baumana  
(MVTU).

(Rolling mills--Equipment and supplies)

MERENKOV, A.I., aspirant

Theoretical bases for designing and constructing a machine for  
binding rolled metals with wire, *Izv.vys.ucheb.zav.; mashinostr.*  
no.6:82-94 '59. (MIRA 13:5)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni  
N.E.Baumana.

(Rolling(Metalwork))

MEBEMKOV, A. I.

Continuous casting of steel. *Biul.tekh.-ekon.inform.*  
no.3:80-85 '60. (MIRA 13:6)  
(Continuous casting)

82558

S/130/60/000/005/003/004  
A006/A002

18.5100

AUTHORS: Shor, E.R., Candidate of Technical Sciences, Merenkov, A.I.,  
EngineerTITLE: The Manufacture of Bent Shapes 20

PERIODICAL: Metallurg, 1960, No. 5, pp. 26-29

TEXT: Information is given on the manufacture of bent shapes on a roll bending mill by passing a sheet or strip through a series of rollers bending the blank progressively to the desired shape. Bent shapes may be produced from 0.2 - 20 mm thick and up to 2,000 mm wide sheets of various materials (steel, ferrous metals and their alloys etc), for use in the automobile industry, in agricultural machinebuilding, etc. The roll bending process is continuous and can be performed at speeds of up to 200 m/min. The rollers are mounted on one bed and are driven by one motor (Figure 2). They are fixed on the upper and lower drive shafts of the roll bending mill stands. Keys on the drive shafts and key way on the roller hubs, are used for transmitting the required torque to the rollers. The number of rollers depends on the shape of the profile to be bent. A higher number of rollers reduces wear and provides a better quality!

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A006/A002

The Manufacture of Bent Shapes

of the product, but raises the equipment costs. The rollers may consist of a single piece or may be composite. They are made of structural steel or alloyed cast iron for bending plain shapes without acute angles. High-carbon or high-chromium [9% and 12M (9Kh and Kh12M)] steel rollers are used for hot rolled sheets because of their resistance to abrasive wear. High-strength rollers are made of heat-treated instrument steel " 10 " (U10A) and " 8 " (U8A). The gap between the rollers is adjusted by the vertical displacement of the upper rollers in respect to the fixed lower rollers. Entering guides are mounted in front of the first roller pair. Lateral vertical idle rollers are placed between the mill stands to prevent the vertical or horizontal bending of the blank; they are also employed for producing side pressure when additional bending is required. The final forming of semi-closed or closed shapes is performed by bronze roller or slide mandrels. The delivery end of the last stand is equipped with guides. The amount of accessory equipment of the mill depends on the shape to be bent. An example is given, showing the roll bending of a shape for sashes from 135 mm wide and 1 mm thick strips. The use of roll bending mills has not yet been sufficiently developed in the USSR, and the equipment has not been mechanized. It is planned to construct seven standard types of roll bending

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82558

The Manufacture of Bent Shapes

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A006/A002

units on which a wide range of bent shapes will be produced. The units will be mounted at the metallurgical plants. Two roll bending mills were put into operation at the "Zaporozhstal" Plant in 1959. There are 3 figures.

ASSOCIATION: VNIIMETMASH

Card 3/3

MERENKOV, A.I.

Mechanization of auxiliary operations on small-section, skelp, and  
wire mills. *Biul.tekh.-ekon.inform.* no.5:87-91 '60. (MIRA 14:3)  
(Rolling mills--Technological innovations)



MERENKOV, A. I.

Manufacture of bent sections. Biul.tekh.-ekon.inform. no.8:83-88  
'60.

(MIRA 13:9)

(Steel, Structural)

S/130/60/000/011/001/011  
A006/A001

AUTHORS: Solov'yev, P. I., Merenkov, A. I.

TITLE: Over-All Mechanization and Automation of the Finishing Section of a Continuous "300" Strip Mill <sup>14</sup>

PERIODICAL: Metallurg, 1960, No. 11, pp. 24-28

TEXT: Information is given on the operation of the fully mechanized and automated finishing section of a continuous "300" strip mill designed by VNIIMEIMASH for the Krivoy Rog Metallurgical Combine. The design was made under the supervision of A. I. Tselikov, Corresponding Member of AS USSR, A. D. Kuz'min, Candidate of Technical Sciences, P. I. Solov'yev, A. A. Sarychev, engineers, and with the participation of A. I. Merenkov, Aspirant at MVTU imeni Bauman. The strip mill is intended for rolling up to 460 mm wide strips of 2.0 mm minimum thickness and blanks of weld pipes. The finishing section of the mill includes two coiling machines winding up the strips which are then transported by conveyers, removed by a stripping device, and delivered to the binding machine. The bound rolls are placed onto automotive packeting trolleys mounted on a rail track. During the loading of one trolley another one at the end of the track is unloaded.

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A006/A001

Over-All Mechanization and Automation of the Finishing Section of a Continuous  
"300" Strip Mill

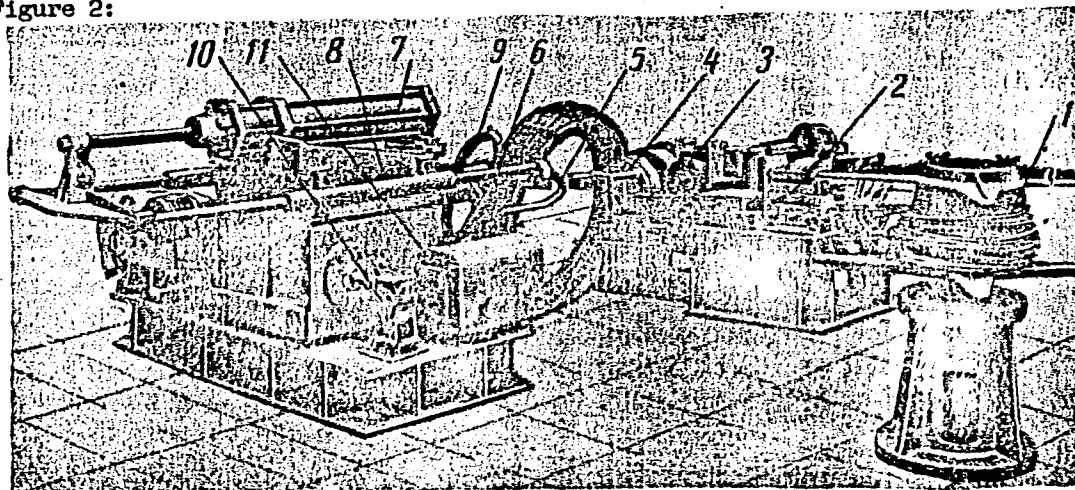
An experimental model of a binding machine, designed at VNIITMETMASH, is used for the binding with 6.5 - 3.5 mm binding wire of rectangular strip and roll fagots with a maximum cross section of 460 x 300 mm. The machine includes the following components: a part carrying the binding wire; a master device supplying the gauged length of the wire; a threading device tightening the work and shaping the right angles of the binding wire, and a device for the twisting of wire ends. The operation of the components is fully automated and mechanized. At the storehouse of the finished stock a unit is mounted producing the gauged length of strips (8-5 m) from the rolls. The line is composed of a loading device, a decoiling machine; a nine-roller straightening machine; flying crank-lever-shears cutting the strip moving at a speed of 1-3 m/sec; a stripping device removing the strips of non-gauged length from the roller table to collecting containers with the aid of pneumatic-cylinder-driven levers controlled by photoelements; a fagoting device and a binding roller table with a dragging receiver and scales (Fig. 4). All the operations are mechanized and automated.

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9/130/60/000/011/007/011  
A006/A001

Over-All Mechanization and Automation of the Finishing Section of a Continuous  
"300" Strip Mill

Figure 2:



Card 3/4

S/130/60/000/011/007/011  
A006/A001

Over-All Mechanization and Automation of the Finishing Section of a Continuous  
"300" Strip Mill

Figure 2. General view of a strip roll binding machine

1 - part carrying the binding wire; 2 - straightening race; 3 - master rollers;  
4 - pneumatic shears; 5 - forming shackles; 6 - threading device shaft;  
7 - pneumatic cylinder; 8 - differential reductor; 9 - clamps; 10 - kinematic  
reductor; 11 - instruction apparatus of the twisting mechanism.  
There are 4 figures.

ASSOCIATIONS: VNIIMEIMASH, and MVTU imeni Bauman

Card 4/4

MEREN'KOV, A. I., CAND TECH SCI, <sup>study</sup> "INVESTIGATION AND  
DEVELOPMENT OF A MECHANIZED METHOD OF BINDING ROLLED  
IRON." MOSCOW, 1961. (FBI) [CENTRAL SCI RES INST]  
OF NON-FERROUS METALLURGY IM I. P. BARDIN). (KL, 3-61,  
218).

S/145/61/000/008/005/008  
 D262/D304

AUTHOR: Merenkov, A. I., Candidate of Technical Sciences  
 TITLE: Effect of speed and degree of deformation on resistance to plastic deformation at rolling  
 PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy Mashino-stroyeniye, no. 8, 1961, 135-146

TEXT: In this work the author analyzes the methods of calculating the resistance to deformation at hot rolling elaborated by S. Ekeland (Ref. 11: Nekotoryye dinamicheskiye usloviya prokatki, Metallurg., no. 2, 3, 4, 1933) and by Yu. M. Chizhikov (Ref. 12: Prokatnoye priozvodstvo (Rolling Industry), Metallurgizdat, 1958) in the light of the latest experiments in this field by P. M. Cook (Ref. 9: The Institution of Mechanical Eng., 1957). Several examples are worked out and the results obtained by these two methods are compared with the results calculated by the methods applying the values of  $K_f$  (resistance to deformation) evaluated experimen-

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Effect of speed and degree ...

S/145/61/000/005/005,005  
D262/D304

tally by P. M. Cook. The results show that the formulas used by Chizhikov and Ekelund give very often incorrect numerical values for resistance to deformation especially at temperatures 900°C - 1200°C. The author concludes that Chizhikov's method of calculation is not suitable for practical purposes as it gives lowered values, whose application in the design and operation of the rolling mills may be dangerous. There are 2 tables, 4 figures and 31 references: 14 Soviet-bloc and 9 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: P. M. Cook, Institution of Mechanical Eng., 1957; G. Walker, I. Iron and Steel Inst., Part 1, 1954, p. 142; J. P. Ailler & V. A. Philippa, J. Inst. Met., 83, 1954, p. 20; R. E. Sims, Inst. Mech. Eng., 1954, p. 19.

ASSOCIATION: MVTU im. N. E. Bauman (MVTU im. N.E. Bauman)

SUBMITTED: April 20, 1961

Card 2/2



MERENKOV, A.I.

Determining the mean rate of deformation caused by rolling in  
relation to the peripheral speed of rolls. *Izv.vys.ucheb.zav.;*  
*mashinostr. no.10:160-167 '61.* (MIRA 14:12)

1. Moskovskoye vysshaye tekhnicheskoye uchilishche imeni Baumana.  
(Rolling(Metalwork))

MERENKOV, A.I., kand.tekhn.nauk

Rigidity of prestressed rolling-mill stands. *Izv.vys.ucheb.*  
zav.; mashinostr. no.4:10-19 '62. (MIRA 15:7)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni  
Baumana.

(Rolling mills)

MERENKOV, A.I., kand. tekhn. nauk

Increasing the rigidity of rolling-mill stands by preliminary loading of rolls. Izv. vys. ucheb. zav.; mashinostr. no. 8:98-103 (MIRA 15:12)  
'62.

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.

(Rolling mills)

KUZNETSOV, Yu.A., inzh.; MERENKOV, A.P., inzh.; MELENT'YEV, L.A.;  
NEKRASOV, A.S., kand.ekon.nauk

Using electronic calculating machines for analyzing the optimum  
structure of a promising power balance. Teploenergetika 9 no.5:  
3-10 My '62. (MIRA 15:4)

1. Energeticheskiy institut Sibirskogo otdeleniya AN SSSR.
2. Chlen-korrespondent AN SSSR (for Melent'yev).  
(Power resources)