RABINOVICH, Ya.M.

Improve production technology. Kozh.-obuv.prom. no.7:37 Jl '59. (MIRA 12:11)
(Leather industry)

BABKINA, V.G.; ZURABYAN, K.M.; OSTROVSKIY, V.S.; RABINOVICH, Ya.M.; BELOTSERKOVSKIY, M.Ye.

Liming of pig skins with a reduced quantity of sodium sulfide. (MIRA 16:5)
Kozh.-obuv.prom. 5 no.2:21-22 F '63.
(Leather)

RABINOVICH, Ya. S.

"Data on the Pathogenesis and Clinical Observation of Hypoproteinemia and Hypoalbuminemia." Thesis for degree of Dr. Medical Sci. Sub 12 Jun 50, Moscow Medical Inst, Ministry of Health RSFSR

Summary 71, 4 Sep 52. Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

RABINOVICH, Ya. S.

"Hypoproteinemia and Hypoalbuminemia in the Clinical Course of Diseases of the Internal Organs." Dr Med Sci, Ryazan' Medical Inst, Ryazan', 1954. (RZhBiolKhim, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

RABINOVICH, YA. S. Doc Med Sci -- (diss) "Some aspects of anaesthesia in gynecological ~~surgery~~ certain types operations" (Clinical observations). Mos,1957. 20 pp 20 cm. (Second Mos State Med Inst im I.V. Stalin). 120 copies (KL,9-57, 102)

RABINOVICH, Ya.S., dotsent; DRAZNINA, S.K. (Arkhangel'sk)

Late results of conservative treatment of suppurative processes in the lungs. Klin.med. 35 no.4:82-84 Ap '57. (MLRA 10:7)

1. Iz kafedry gospital'noy terapii (zav. - dotsent Ya.S.Rabinovich) Arkhangel'skogo meditsinskogo instituta (dir. - dotsent A.A.Kirov)

(LUNG DISEASES, ther.
suppuration, drug the., comparison with surg.)

LAYKHTMAN, D.L., doktor fiz.-mat. nauk, prof.; RABINOVICH, Ya.S.

Spraying toxic chemicals and fertilizers from airplanes. Meteor. i gidrol. no.11:12-15 N '64. (MIRA 17:12)

1. Leningradskiy gidrometeorologicheskiy institut.

RABINOVICH, Ya.S.

Methods for determining surface concentrations from an altitude point source in the stratified atmosphere. Trudy Len.gidromet.inst. no.18: 34-43 '63. (MIRA 18:1)

Algorithms for determining the field of the passive concentration of contamination in the stratified atmosphere using electronic digital computers. Ibid.:44-54

L 15043-65 EWT(1)/EPF(c)/EPF(n)-2/EPR/T/EPA(bb)-2/EWA(1) Pr-4/Ps-4/Pu-4
AEDC(a)/AFWL WW

ACCESSION NR: AP4048853 S/0170/64/000/011/0067/0072

AUTHOR: Rabinovich, Ya. S.

TITLE: Mathematical problem in heat mass transfer theory

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 11, 1964, 67-72

TOPIC TAGS: mass transfer, boundary value problem, Green function

ABSTRACT: The author treats

$$u(z)\frac{\partial\varphi}{\partial x}=\frac{\partial}{\partial z}k(z)\frac{\partial\varphi}{\partial z}, \qquad (1)$$

$$\varphi(0,z)=f_0(z)$$

$$\left[a_i k(z)\frac{\partial\varphi}{\partial z}+b_i\varphi\right]_{z=l_i}=f_i(x),\ i=1,2\Big\}, \qquad (2)$$

$$f_0=\sum_i^n\frac{\gamma_i\delta(z-h_i)}{u(h_i)}, \qquad (3)$$

where k is a power or exponential function. The problem is solved by the method of conjugate operators and use of the Green's formula. By a change of variable the

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ACCESSION NR: AP4048853

problem is reduced to one of the form

$$L_1(\varphi) = \frac{\partial^2 \varphi}{\partial \xi^2} + \frac{1+\nu_1}{\xi}\frac{\partial \varphi}{\partial \xi} - \frac{1}{\xi}\frac{\partial \varphi}{\partial x} = 0, \qquad (4)$$

in both cases. Solutions are glued together. Physically, the problem corresponds to turbulent scattering of a mixture entering stratified atmosphere from a high-altitude point source. Orig. art. has: 21 formulas.

ASSOCIATION: Gidrometeorologicheskiy institut, g. Leningrad (Leningrad Hydrometeorological Institute)

SUBMITTED: 18Nov63 ENCL: 00

SUB CODE: MA NO REF SOV: 003 OTHER: 001

Card 2/2

LAYKHTMAN, D.L.; RABINOVICH, Ya.S.

A problem of thermal conductivity. Trudy Len. gidromet. inst. no.17:113-117 '64. (MIRA 18:6)

RABINOVICH, A.F.

Crystallization of a liquid of infinite depth under generalized conditions at the boundary of conjugate phases. Trudy Len. gidromet. inst. no.17:157-162 '64. (MIRA 18:6)

L 2175-66 EWT(1)/FCC GW

ACCESSION NR: AP5022917 UR/0362/65/001/009/0920/0928
551.551.8

39
36
B

AUTHOR: Rabinovich, Ya. S.

TITLE: Diffusion of a heavy contaminant from a point source in the atmosphere

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 9, 1965, 920-928

TOPIC TAGS: atmospheric turbulence, atmospheric diffusion, atmospheric stratification, wind profile

ABSTRACT: An analytical solution is worked out for the turbulent diffusion of a heavy impurity reaching the atmosphere from a stationary point source located at some distance h above the earth. The assumption of the point character of the source is not essential, as all the results can be easily extended to cases of linear, planar, or three-dimensional sources. It is also assumed that the vertical wind profile u(z) and the coefficient of turbulent diffusion in the vertical direction k(z) vary with the altitude according to exponential laws

$$u(z) = u_1\left(\frac{z}{z_1}\right)^m, \quad k(z) = k_1\left(\frac{z}{z_1}\right)^{1-\varepsilon}, \quad \varepsilon \leqslant 0. \quad (1)$$

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ACCESSION NR: AP5022917

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The incidence rate of the particles in gravitational field w is considered independent of coordinates x, y, z, since it rapidly reaches critical values at short distances from the source. Concentration calculations performed show that heavy impurities are characterized by: (1) approach to the source along coordinate x of the concentration maximum relative to the maximum for the weightless gas (for a source with height h = 100 m, this shift amounts to 25%, more for higher sources); (2) presence of critical coordinate x_{cr} such that for $x < x_{cr}$, the concentration of the heavy impurity is greater, and for $x > x_{cr}$ less than the gas concentration. As the settling rate of the particles increases or the height h decreases, x_{cr} decreases. The same may be said for the influence of atmospheric stratification on the position of the critical point: for example, when w = 0.3 m/sec and h = 100 m, the stratification being unstable, x_{cr} is at a distance of 3 to 3.5 km from the source; for a neutral stratification, x_{cr} = 6 km; for an inversion (ε = 0.1), the critical point becomes removed to a distance of 8 km from the source. Orig. art. has: 4 figures and 42 formulas.

ASSOCIATION: Leningradskiy gidrometeorologicheskiy institut (Leningrad Hydrometeorological Institute)

SUBMITTED: 12Feb65 ENCL: 00 SUB CODE: ES

NO REF SOV: 006 OTHER: 001

44,55

Card 2/2 dg

SOV/100-58-8-2/13

AUTHOR: Rabinovich, Ya. Ye., Engineer

TITLE: Reduction in the Cost of Buildings Due to Improvement in the Utilization of Building Machines. (Snizheniye stoimosti stroitel'stva za schet uluchsheniya ispol'zovaniya stroitel'nykh mashin)

PERIODICAL: Mekhanizatsiya Stroitel'stva, 1958, Nr.8. pp 5 - 6 (USSR)

ABSTRACT: Expenses incurred when using building cranes are mainly connected with the construction of railways, assembly, dismantling, and transportation of the crane from one site to another. In 1955 the expenses so incurred were studied and analysed. As a result of improved working of the cranes, better organisation of maintenance, speedy assembly and dismantling, the running costs of cranes fell by 30% - 40% in 1957. Table enclosed gives values of cranes' output. The increase in the output of crane E-153 allowed mechanisation of excavation in confined spaces. Out of the total amount of excavation work carried out by the Trust Stroymekhanizatsiya 60.3% was excavated in 1955 and 76.4% in 1957, using the mechanised method of Glavkiyevstroy. Experience gained during the erection of flats in Kiyev showed that when advanced

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Reduction in the Cost of Building Due to Improvement in the Utilization of Building Machines.

technological methods are used in conjunction with maximal use of precast constructions, the employment of a crane on the site could be reduced to 100 - 120 days. For example, on the erection of the Chokolovskiy Scheme, for every 1,000 m² of dwelling area 32.4 machine-day of a crane was required. The Kiyevzhilstroy Trust increased the labour output during 1957 by 37.5% compared with 1956. There is 1 Table.

1. Construction--Costs 2. Construction equipment--Performance

Card 2/2

RABINOVICH, Ye. [Rabinowitch, Eugene]; VLADIMIROV, Yu.A. [translator]; LITVIN, F.F. [translator]

Primary photochemical and photophysical processes in photosynthesis. Usp.fiz.nauk 74 no.2:289-302 Je '61. (MIRA 14:6)
(Photochemistry) (Physics) (Photosynthesis)

NOVIKOV, A.N., prof.; MIANOV, B.V., dotsent; RABINOVICH, Ze.A.

Minutes of the Society of Oncologists of the City of Moscow and Moscow Province for meeting No.80 on January 31, 1963. Vop. onk. 9 no.11:117-119 '63. (MIRA 18:2)

RABINOVICH, Ye.A.

Primary tumors of the salivary glands. Khirurgiia 40 no.12: 108-112 D '64. (MIRA 18:3)

1. Moskovskiy gorodskoy onkologicheskiy dispanser (glavnyy vrach P.Ye. Vakhevich, vedushchiy spetsialist - dotsent B.V. Milonov).

RABINOVICH, Ye.A.

Clinical aspects and treatment of recurring tumors of the salivary glands. Vop. onk. 11 no.1:67-72 '65. (MIRA 18:6)

1. Iz Moskovskogo gorodskogo onkologicheskogo dispansera (glavnyy vrach - P.Ye.Vakkhevich, vedushchiy spetsialist - doktor B.V. Milonov).

MILONOV, B.V.; RABINOVICH, Ye.A.

Electrosurgical intervention in mixed tumors of the salivary glands. Khirurgiia 41 no.4:44-47 Ap '65. (MIRA 18:5)

1. Moskovskiy gorodskoy onkologicheskiy dispanser (vedushchiy spetsialist - dotsent B.V. Milonov).

SHABAD, L.M., prof.; RABINOVICH, Ye.A.

Proceedings of the 102d Conference of the Scientific Society of Oncologists of Moscow and Moscow Province, January 28, 1965. Vop. onk. 11 no.12:101-102 '65. (MIRA 19:1)

1. Deystvitel'nyy chlen AMN SSSR (for Shabad).

BORODIN, F.; LAPTEV, N.; RABINOVICH, Ye.; KOSTELYANETS, S.

On establishing a norm plan. Sots.trud 5 no.3:90-95 Mr '60.
(MIRA 13:6)

1. Nachal'nik otdela orgaizatsii truda Chelyabinskogo ferrosplavnogo zavoda (for Borodin). 2. Nachal'nik otdela organizatsii truda Magnitogorskogo metallurgicheskogo kombinata (for Laptev). 3. Nachal'nik otdela truda i zarabotnoy platy Upravleniya khimicheskoy i koksokhimicheskoy promyshlennosti i ugleobogashcheniya Stalinskogo sovnarkhoza (for Rabinovich). 4. Rukovoditel' gruppy normativno-issledovatel'skoy laboratorii Upravleniya khimicheskoy i koksokhimicheskoy promyshlennosti i ugleobogashcheniya Stalinskogo sovnarkhoza (for Kostelyanets).
(Metallugical plants--Production standards)

5(4)
AUTHORS: Shatenshteyn, A. I., Vyrskiy, Yu. P., Rabinovich, Ye. A. SOV/20-124-1-41/69

TITLE: On the Salt Effect in Deuteron Exchange in Liquid Ammonia (O solevom effekte pri deyteroobmene v zhidkom ammiake)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 1, pp 146-149 (USSR)

ABSTRACT: The salt effect in deuteron exchange has hitherto hardly been investigated at all. A suitable means of investigating it is liquid ammonia, because it has a low dielectric constant and because it is a good solvent for numerous organic substances and salts. The characteristic features of the influence exercised by salts on the kinetics of the dissolution of lactones, ethers, and halide compounds have already been determined (Ref 1), and the results obtained were also confirmed by other authors. Neutral salts accelerate these reactions all the more, the higher the charge and the smaller the radius of the ions. ($Ca^{++} > Sr^{++} > Ba^{++}$; $Li^{+} > Na^{+}$; $Cl^{-} > Br^{-} > NO_3^{-} > J^{-} > ClO_4^{-}$). The energy E and the entropy ΔS^{*} of activation are increased. The authors assume that the rules

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governing the salt effect in electron exchange and in solvolytic reactions in liquid ammonia are similar to each other. Provisional experiments were carried out with indene and acetophenone, and also systematic experiments were carried out with methyl-β-naphthyl-ketone. 0.2 g of this substance were dissoved in ~2.5 g ammonia in the presence of a carefully dried salt. The concentration of the salt was ~2.5n, and frequently different salt preparations were used. The experiments carried out without salt lasted 0.5 - 2 hours, but those with salt lasted half an hour. The experiments carried out for the purpose of determining activation energy and activation entropy were carried out with methyl-β-naphthyl-ketone, which was partly deuterized in the methyl group. The authors further investigated the manner in which the equilibrium of the production of the colored complexes of 3,5 dinitrobenzoinic acid (I) and phenolphtalein (II) with ammonia shifts in the case of the addition of salts. Also the results obtained by kinetic measurements carried out in the case of the presence of 2.5 n ammonium salts are given. The reactions of deuteron exchange are accelerated by salts,

and, in general, such series of anions and cations continue to hold as have already been found previously in reactions of dissolution in ammonia. Similar series of anions and cations were found also by measuring the equilibrium shift of complex formation. The problem is then investigated as to how the parameters of the Arrhenius equation vary by the addition of a salt. The here discussed deliberations agree well with the rules governing the salt effect in the reactions of deuteron exchange and ammonolysis in liquid ammonia, and they also explain their common features. Further investigations will contribute towards interpreting the phenomena discussed here.
The authors thank Corresponding Member, AS USSR, Ya. K. Syrkin and Professor M. B. Neyman for discussions.
There are 5 tables and 12 references, 9 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-Chemical Scientific Research Institute imeni L. Ya. Karpov)

S/190/61/003/004/006/014
B101/B207

AUTHORS: Astaf'yev, I. V., Rabinovich, Ye. A., Shatenshteyn, A. I.

TITLE: The mechanism of initiating styrene polymerization by means of potassium amide in liquid ammonia

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 4, 1961, 555-559

TEXT: The production of polymers by means of anionic polymerization necessitates the clarification of this process. The present study aimed at determining the structure of the carbanions resulting from the initiation of styrene polymerization by means of NH_2^- ions in liquid NH_3. The color of 10^{-2}-10^{-4} mole styrene in liquid ammonia was spectrophotometrically examined in the presence of 3 N KNH_2 and compared with the spectra of α- and β-phenyl-ethyl amine recorded under the same conditions. Styrene and β-phenyl-ethyl amine showed similar spectra with the maximum at 550 mμ. Thus, it is concluded that both substances form the same product. The α-phenyl-ethyl amine spectrum, however, differed only little from that of the KNH_2 solution.

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The mechanism of

Benzyl amine showed under the same conditions a spectrum with λ_{max} = 550 mμ. The styrene spectrum changed only little by reducing the KNH_2 concentration to 0.01-0.02 N, and increasing the styrene concentration to 0.1 mole. This result is discussed, and the following equation given as probable reaction of styrene polymerization initiation: $C_6H_5CH{=}CH_2 + NH_2^- \rightarrow C_6H_5\bar{C}HCH_2NH_2$ (1). Accordingly, NH_2^- adds to the β-carbon atom of the vinyl group. Fig. 3 lists the results of the spectrophotometric study of the reaction of 1,1-diphenyl ethylene and triphenyl ethylene in liquid NH_3 and in the presence of 0.01-0.02 N KNH_2. The absorption curve with λ_{max} = 440 mμ was identical to that for diphenyl-methyl anions $(C_6H_5)_2CH^-$. The intensity of absorption correspond to a quantitative splitting of the double bond of di- and triphenyl ethylene. Diphenyl-methyl anions were proved by diphenyl methane separation. In the presence of 3 N KNH_2 after a longer period of standing, the spectrum of triphenyl ethylene dissolved in NH_3 showed the formation of a second colored substance (Fig. 3). On the basis of the absorption maximum

The mechanism of ...

at 550 mμ, the substance is assumed to be the same as developed in the reaction between benzyl amine and KNH_2. The authors thank D. N. Kursanov, S. V. Vitt, and S. G. Entelis for the preparations provided, and V. I. Chicherina for his cooperation. There are 3 figures and 12 references: 3 Soviet-bloc and 9 non-Soviet-bloc. The 3 references to English-language publications read as follows: J. J. Sanderson, C. R. Hauser, J. Amer. Chem. Soc., 71, 1595, 1949; C. R. Hauser et al., J. Amer. Chem. Soc., 71, 294, 1949, J. Amer. Chem. Soc., 78, 1653, 1956; P. J. Hamrick, C. R. Hauser, J. Amer. Chem. Soc., 81, 3144, 1959.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute im. L. Ya. Karpov)

SUBMITTED: July 9, 1960

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The mechanism of ...

Fig. 3: Spectra of the interaction products of 1,1-diphenyl ethylene and triphenyl ethylene with KNH_2 in liquid ammonia.

Legend: 1) 1,1-diphenyl ethylene, triphenyl ethylene, and diphenyl methane (10^{-3}-10^{-4} mole) in 0.02 N KNH_2; 2) triphenyl ethylene (after four days) in 3 N KNH_2.

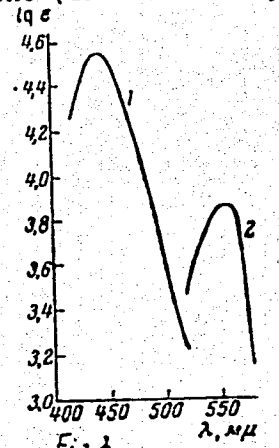

Fig. 3

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RABINOVICH, Ye.A.; ASTAF'YEV, I.V.; SHATENSHTEYN, A.I.

Carbanion mechanism of isomerization of unsaturated hydrocarbons. Zhur.ob.khim. 32 no.3:748-750 Mr '62. (MIRA 15:3)

1. Fiziko-khimicheskiy institut imeni L.Ya.Karpova.
(Hydrocarbons) (Carbanions)

SHATENSHTEYN, A.I.; RABINOVICH, Ye.A.; PAVLOV, V.A.

Study of thicanisole reactivity by the deutero-exchange method.
Zhur. ob. khim. 34 no.12:3991-3998 D '64 (MIRA 18:1)

1. Fiziko-khimicheskiy institut imeni L. Ya. Karpova.

RABINOVICH, [illegible]e. A.; SHATENSHTEYN, A.I.

Mobility of hydrogen in the methoxy group of aromatic compounds as dependent on other substitutents. Dokl. AN SSSR 155 no. 5: 1134-1136 Ap '64. (MIRA 17:5)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Predstavleno akademikom M.I.Kabachnikom.

RABINOVICH, Ye. A.

Technology

Problem-Book for general electrotekhnology Moskva, Gos. energ. izd. vo, 1951.

9. Monthly List of Russian Accessions, Library of Congress, August 1952 1953, Uncl.

KHAYMOVSKIY, D.I., starshiy nauchnyy sotrudnik; SAIPOV, S.L.; SMOLENSKAYA, L.K., vrach; RABINOVICH, Ye.A., vrach

Ecmonovocillin for treating syphilis in outpatients. Vest.ven. i derm. 30 no.4:59 Jl-Ag '56. (MLRA 9:10)

1. Iz Uzbekistanskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta.
(SYPHILIS) (ANTIBIOTICS) (NOVOCAINE)

MILONOV, B.V., dotsent; RABINOVICH, Ye.A.

Minutes of the Scientific Society of Oncologists of Moscow and of Moscow Province for the meeting No.73 on April 26, 1962. Vopr. onk. 9 no.4:112-114 '63. (MIRA 17:9)

SHABAD, L.M., prof.; MILONOV, B.V., dotsent; RABINOVICH, Ye.A.

Minutes of the Scientific Society of Moscow and Moscow Province Oncologists for Meeting No.76 on September 27, 1962. Vop. onk. 9 no.7:118-120 '63 (MIRA 16:12)

MILOHOV, B.V., dotsent; RABINOVICH, Ye.A.

Minutes of the Scientific Society of Oncologists of Moscow and Moscow Province for meeting No.77 on October 25, 1962. Vop. onk. 9 no.8:117-119'63 (MIRA 17:4)

SHABAD, L.M., prof.; MILONOV, B.V., dotsent; RABINOVICH, Ye.A.

Minutes of the Scientific Society of Moscow and Moscow Province Oncologists for meeting No.77 on October 29, 1962. Vop. Onk. 9 no.9:117-119 '63. (MIRA 17:9)

NOVIKOV, A.N.; MILANOV, B.V., doktor; RABINOVICH, Ye.A.

Minutes of the Scientific Society of Obstetricians of Murmansk and Archangel Provinces for the meeting No. 79 on December 27, 1962. Vrach. delo no.10:118-120 '63. (MIRA 16:12)

MILONOV, B.V., dotsent; RABINOVICH, Ye.L.

Minutes of the 85th meeting of the Scientific Society of Oncologists of Moscow and Moscow Province held jointly with the Section of Hematologists of the Moscow Therapeutical Society on May 28, 1963. Vop. onk. 10 no.4:110-112 '64. (MIRA 17:11)

SHABAD, L.M., prof.; RABINOVICH, Ye.A.; RATNER, Yu.A., prof.; LYUBINA, N.I.

Brief news. Vop. onk. 11 no.7:109-111 '65. (MIRA 18:9)

1. Deystvitel'nyy chlen AMN SSSR (for Shabad).

RABINOVICH, Ye. I.

Rabinovich, Ye. I. - "Experimental verification of a method of broad band amplification having negative feedback," Trudy Studench. nauch.-tekhn. o-va (Mosk. energet. in-t im. Molotova), Issue 2, 1948, p. 24-30

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

ZBOROVSKIY, A.A., inzhener; STRELKOV, L.K., inzhener; SKUL'SKIY, M.K., inzhener; RABINOVICH, Ye.I., kandidat tekhnicheskikh nauk.

Hydrodynamics of liquid steel in the mold. Stal' 17 no.1:24-30 Ja '57. (MLRA 10:3)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Steel--Metallurgy) (Solidification)

SOV/133-58-10-11/31

AUTHORS: Uziyenko, A.M., Tkachenko, I.A., Varshavskiy, A.P., Engineers and Rabinovich, Ye.I., Candidate of Technical Sciences, Zayakin, B.I., Zarzhitskaya, N.G., Engineers

TITLE: Improvement in the Structure of the Top Part of Rimmed Steel Ingots (Uluchsheniye struktury golovnoy chasti slitka kipyashchey stali)

PERIODICAL: Stal', 1958, Nr 10, pp 899 - 905 (USSR)

ABSTRACT: A study of the mechanism of formation of the microstructure of the head part of rimming steel ingots and an investigation of methods of decreasing the height of the concentrated segregation zone are described. The influence of the following factors on the structure of ingots was studied: a) the duration of boiling of the metal in ingot moulds; b) addition to moulds of fluxes, and c) additions onto the top of the metal in the moulds of various deoxidants. Investigations were carried out on heats of steels 08kp, St1, St2 and St3, chemical compositions of which are given in the table. The influence of the duration of boiling of the metal in moulds on the distribution of carbon (A), sulphur (B) and phosphorus (V) along the ingot axis is shown in Figure 2 - that on the indices of mechanical properties (yield point, tensile

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strength and relative elongation) of metal from the head part of the ingots of St3kp steel in Figure 3 and the influence of the duration of boiling with and without the use of deoxidants on the distribution of carbon, sulphur and phosphorus in the axial zone along the height of ingots of St3 steel .. shown in Figure 4, changes of mechanical properties of metal from the axial zone along the height of ingots and of rolled plate (with various boiling times and with the application of deoxidants) are shown in Figures 5 and 6, respectively. Variation in the distribution of non-metallic inclusions (SiO_2, MnO and MnS) in the axial zone along the height of ingots of St3kp steel, with various boiling times and with the application of deoxidants are shown in Figure 7. It was found that in order to obtain dense structure of the top part of ingots of steels with low and higher carbon contents, different methods are necessary. An increase of the duration of boiling in ingot moulds and an addition of fluxes on the surface of metal decrease the depth of the position of axial porosity but improve the distribution of segregating elements and plastic properties of the

of the ingots
axial zone of the head part/of low-carbon steels 08kp, St1 and St 2. On prolonged boiling of St3 steel, the structure of the head part of ingots improves but simultaneously its external state deteriorates. The use of deoxidants, e.g. 45% ferrosilicon (0.15 - 0.2 kg/t steel) gives in this case satisfactory results. Ingots deoxidised with ferrosilicon possess dense structure and increased plasticity in the head part. During rolling sheets, no laminations are formed. The use of a prolonged boiling and additions of microgranite for low-carbon rimming steel and killing of St3 steel with ferrosilicon permits decreasing standard crop head of ingots by 3-5% without decreasing the quality of the metal in the top part of ingots. There are 7 figures, 1 table and 3 Soviet references.

Improvement in the Structure of the Top Part of Rimmed Steel Ingots

It is stated in the editorial note that the above findings should be additionally confirmed by experiments on a large scale.

ASSOCIATION: Magnitogorskiy metallurgicheskiy kombinat (Magnitogorsk Metallurgical Combine)

SOV/129-59-3-6/16

AUTHORS: Rabinovich, Ye.I., Candidate of Technical Sciences and Skul'skiy, M.K. and Biktagirov, K.K., Engineers

TITLE: Influence of Residual Aluminium on the Impact Strength of Steel at Low Temperatures (Vliyaniye ostatochnogo alyuminiya na udarnuyu vyazkost' stali pri nizkikh temperaturakh)

PERIODICAL: Metallovedeniye i Termicheskaya Obrabotka Metallov, 1959, Nr 3, pp 25 - 28 + 2 plates (USSR)

ABSTRACT: So far, the influence on cold-shortness of nitrogen, oxygen and other elements which are contained in steel in very small quantities has been little studied. The authors have investigated the influence of aluminium, which is usually contained in steel in very small quantities (up to 0.02%) and changes as a function of the quality of the preliminary deoxidation, the method of introducing aluminium and various other factors. They also studied the influence of various heat-treatment regimes and of the microstructure on the cold-shortness of steel. The investigations were made on basic open-hearth steel, 15K, produced by the scrap-ore process in accordance with current practice applied at the

Card1/4

Influence of Residual Aluminium on the Impact Strength of Steel at Low Temperatures

Magnitogorsk Metallurgical Combine. The preliminary deoxidation was effected in the furnace by means of ferromanganese and ferrosilicon, whilst the final deoxidation was effected with silicocalcium and aluminium or ferrosilicon and aluminium. The content of residual aluminium in the steel was regulated by supplementary addition of aluminium into the ingot moulds. The experimental ingots were rolled into 40 mm thick sheet and then cut into specimens. The chemical composition of the metal was as follows: 0.14-0.17% C, 0.16-0.22% Si, 0.38-0.47% Mn, 0.027-0.036% S, 0.016-0.024% P. The influence was studied of the aluminium on the impact strength of a non-heat-treated and heat-treated steel. The following heat treatments were applied: quenching from 880, 920, 960 and 1 000 °C in water followed by tempering at 660-680 °C; normalisation annealing at the enumerated temperatures; annealing at the same temperatures followed by cooling at a speed of 40-50 °C/sec. In addition, the influence was also investigated of the

Influence of Residual Aluminium on the Impact Strength of Steel at Low Temperatures

microstructure on the impact strength at +20, 0, -20 and -40 °C. The contents of residual aluminium were determined by spectrum analysis. On the basis of the results, which are graphed, the following conclusions are arrived at.
1) Cold-shortness of low-carbon steel depends on the content of residual aluminium and the size of the real grain.
2) The higher the cooling speed of the steel from the austenitic range, the finer will be the grain and the lower will be the cold-shortness. The degree of overheating (up to 960 °C) has less influence on the grain size and the cold-shortness than the cooling speed.
3) After annealing, steel with traces of residual aluminium has a very pronounced cold-shortness at -40, -20 and 0 °C; at these temperatures, the impact strength is negligible, amounting to about 1 kg/mm^2.
4) With increasing content of residual aluminium, the critical cold-shortness temperatures decrease. For a content of residual aluminium of about 0.02%, the impact strength is satisfactory at -20 and 0 °C, irrespective

Influence of Residual Aluminium on the Impact Strength of Steel at Low Temperatures

of the cooling speed and of the degree of over-heating (up to 960 °C).
5) For reducing the cold-shortness of components with large cross-sections made of low-carbon steel, it is desirable that there should be a residual aluminium content of 0.02-0.03%. There are 7 figures and 4 Soviet references.

ASSOCIATION: Magnitogorskiy metallurgicheskiy kombinat (Magnitogorsk Metallurgical Combine)

RABINOVICH, YE. I.

18.3200

77444
SOV/133-60-1-5/30

AUTHORS: Babarykin, N. N., Zborovskiy, A. A., Potapov, A. I. (Engineers), Rabinovich, Ye. I. (Candidate of Technical Sciences)

TITLE: Investigation of Movement of Cast Iron and Slag in the Blast Furnace Hearth

PERIODICAL: Stal', 1960, Nr 1, pp 19-23 (USSR)

ABSTRACT: This is an investigation of physicochemical and mechanical processes taking place in the blast furnace hearth, with the purpose of improving the technological control of the blast furnace process and for the development of reliable methods of control of the hearth and hearth bottom condition. A. A. Agashin, L. K. Strelkov, and A. G. Rogovoy (Engineers) participated in the work. The tests were conducted in 1958 on a 1,371 m^3 blast furnace with 16 tuyeres, a hearth 8 m in diameter, producing the low-manganese conversion cast iron from a charge containing 93% of fluxed sinter. The radioactive isotopes P^{32} and Fe^{59}, of 150-200 and 50-60

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microcurie respectively (in steel ampules) were used. The radiation sources were introduced through an iron tube into the oxidizing zone of tuyeres Nr 2, 5, and 8 (through the inspection hole), 15, 60, and 120 minutes after the closing of cast iron notch. The metal was tapped every 3 hours. The duration of tapping was 35 to 45 minutes. The investigation was based on the assumption that (in the presence of substantial convective flows of cast iron and slag) the radioactive indicator introduced into the hearth should distribute relatively uniformly, over the entire volume of metal.

Therefore, in the course of tapping no essential variations of composition of cast iron or slag should be expected. The radioactivity of samples was measured by a block of eight counters connected with an installation of B-2 type (Ref. 4: V. Ye. Iudin, M. L. Sazonov, and A. I. Ogipov, Zavodskaya laboratoriya, 1955, Nr 11). An 11 m^3 ladle was used. The change in radioactivity of cast iron after the introduction of radioactive indicator into the 8th tuyere is given in Fig. 1.

Investigation of Movement of Cast Iron and Slag in the Blast Furnace Hearth

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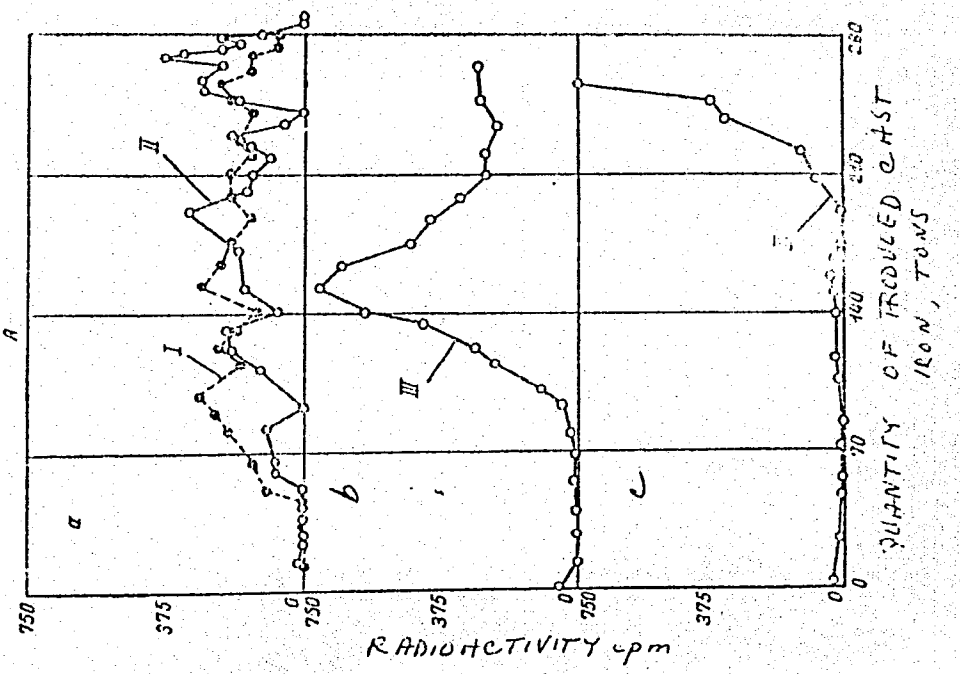
SOV/133-60-1-5/30



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Investigation of Movement of Cast Iron and Slag in the Blast Furnace Hearth

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SOV/133-60-1-5/30

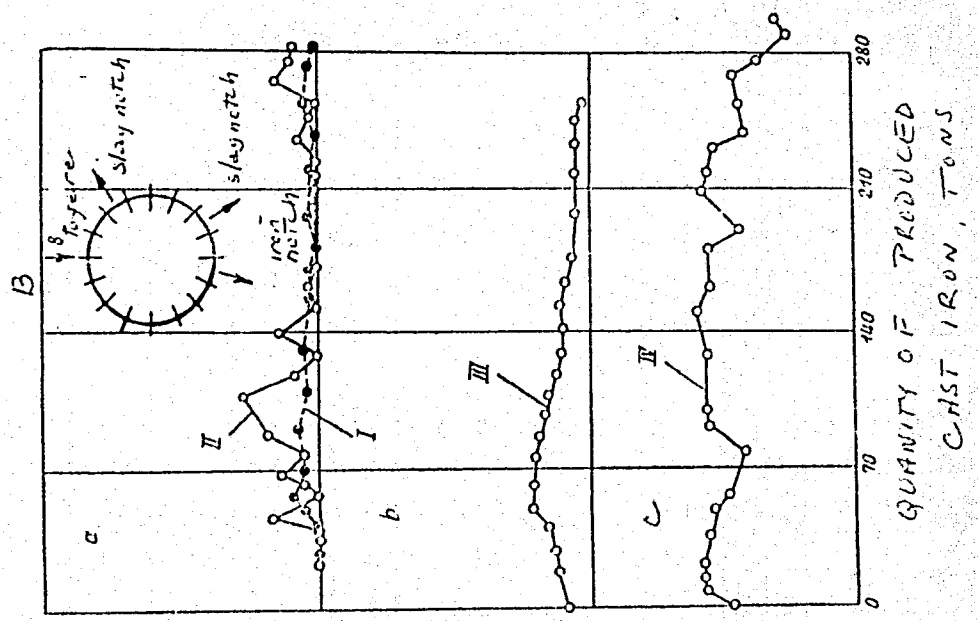

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Fig. 1. Change in radioactivity of cast iron at first (A) and second (B) tapping after the introduction of radioactive indicator through the 8th tuyere. (a) Fe^{59} was introduced 15 minutes after closing of tap hole (curves I and II); (b) P^{32} was introduced 1 hour after closing of tap hole (curve III); (c) Fe^{59} was introduced 2 hours after closing of tap hole (curve IV).

Caption for Fig. 1, shown on Cards 3/7 and 4/7.

Similar curves are given for the tests when the radioactive indicator was introduced to the 5th and 2nd tuyeres. The change of temperature of upper slag; the change of basicity of upper and lower slag; the change of temperature of case iron during tapping; and the change of sulfur content in upper and lower slag were recorded. The change of chemical composition of cast iron during tapping is given in Fig. 7. The authors arrived at the following conclusions. The data of

Investigation of Movement of Cast Iron and Slag in the Blast Furnace Hearth

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SOV/133-60-1-5/30

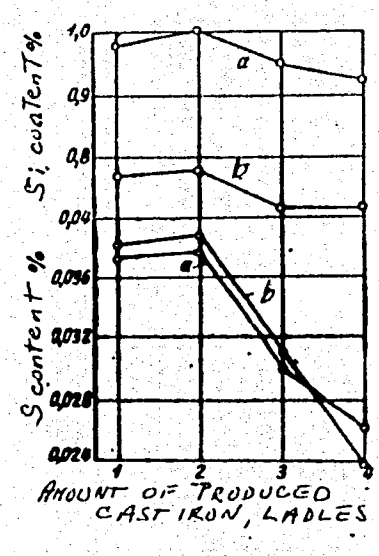

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Fig. 7. Change in chemical composition of cast iron during tapping according to experiments: (a) February 1959; (b) September 1957.

present investigation, as well as a number of previous studies, show that there is no significant mixing during the period of accumulation of metal (and slag) in the hearth of blast furnace. As a result, the metal and the slag accumulate and are discharged as separate layers, which should be taken into account in conducting the blast furnace process. The conclusions of I. G. Polovchenko (Ref 2: I. G. Polovchenko, Stal', 1957, Nr 12) regarding the considerable mixing of metal in blast furnaces were not confirmed. There are 8 figures; and 9 references, 6 Soviet, 2 German, 1 U.K. The U.K. reference is: A. T. Burgess and B. Baldwin, Journal of the Iron and Steel Institute, Vol 186, June 1957, pp 227-235.

S/737/61/000/000/002/010

AUTHORS: Rabinovich, Ye.I., (1), Lazarev, L.A., (2), Zarzhitskaya, N.G., (2), Skul'skiy, M.K., (2), Kravchenko, V.F., (1). [(1) = Candidate of Technical Sciences; (2) = Engineer].

TITLE: Influence of vibration on the formation and quality of a rimmed-steel ingot.

SOURCE: Stal', sbornik statey. Ed. by A.M. Yampol'skiy. Moscow. 1961, 258-273.

TEXT: It is important to obtain a rimmed ingot with an external skin > 8 mm thick to protect the honeycomb blowholes from oxidation during soaking in pits. High-grade ingots with up to 0.2%C were obtained at plants in the Urals. To accelerate the rate of pouring and to improve the quality further, a vibrator designed by the Moscow Steel Institute was used in experimental castings. An a.c.-motor-driven eccentric vibrator was mounted on the platform of a 50-ton casting car and was operated at approximately 1,500 cpm and at amplitudes which varied from 0.4-0.8 mm to 1.5-1.8 mm, depending on the elasticity of the track and the change in load on the car. Vibration times varied from 2'45" to 24'20"; test runs were timed at various stages of the casting process, and the capping of the ingots was done

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either immediately after cessation of vibration or some time later. Longitudinal sections were photographed, and samples were cut from the 3, 5, 8, 12, 13, 15, 17, 20, and 25% horizons, as measured from the top of the ingot. Templets were cut for metallography; the templets were deep-etched, sulphur-printed, and chemically analyzed. A detailed description is given of the casting process, and the composition of the test melts is tabulated. The results of the casting of 7-ton ingots at various time rates, with and without vibration, are also tabulated. The character of the rimming of ingots subjected to vibration is shown to be greatly altered, and shortly after commencement of the vibration the rimming becomes violent, to the point of gushing and spraying. Instead of the ordinary peripheral rimming of steel Ст.3 (St.3) along the interface of the liquid and solid phase, the vibrated steel rims all over. Contrary to the continuous growth of ordinary ingots, which begins 1-2 min after the pouring is stopped, vibrated ingots sag 30-50 mm, and even up to 100 mm, within 7-8 min and then grow slightly, but never back to their initial level, unless the vibration is stopped prematurely. As to structure, vibration eliminates the ordinarily observed difference between the upper and the lower part of the ingot; however, some tendency toward the formation of cracks in the lower part of the ingot is observed. 'In the ordinary ingots at the plant, the dense external skin is 8-15 mm thick (thicker with slower pouring and with lower Mn content). The length of the honeycomb blowholes is about 80-100 mm; the

secondary blowholes are spherical and lie at 100-125 mm from the outer surface, forming a vertical lace up to the rising part of the ingot. Vibration causes disappearance of the blowholes, going from the periphery toward the center and thickening the skin. 10-12 min of vibration result in a total disappearance of the blowholes. However, the zone formerly occupied by the primary honeycomb blowholes is always occupied by sparse small, circular, bubbles, 1 - 4.5 mm dia, some 5-10 mm apart. Macrostructurally, vibration is conducive to a displacement of the shrinkage porosity into the depth of the ingot. Vibration affects the distribution of sulfides only very little. Vibrated ingots have sulfide veins that are the remnants of the now-filled blowholes. Spot-sample analysis at various depths shows that the liquating-element content in the outer zone remains equal or is even increased by the vibration. C, S, and P contents in the outer zone are not appreciably affected by vibration. Both the zone of concentrated liquation and the zone of porosity are located more deeply in vibrated ingots, as shown by chemical analysis. In summary, vibration affords production and faster pouring of a rimmed steel with a higher C content and an improved production of semikilled steel. There are 9 figures and 2 tables; no references.

ASSOCIATION: None given.

ZAYAKIN, B.I.; BIGEYEV, A.M.; UZIYENKO, A.M.; Prinimali uchastiye: TKACHENKO, I.A., inzh.; RABINOVICH, Ye.I., kand.tekhn.nauk; IVANOVA, N.G., inzh.; BIGTAGIROV, K.K., inzh.

Sulfur liquation in large rimmed steel ingots. Izv. vys. ucheb. zav.; chern. met. 5 no.7:62-70 '62. (MIRA 15:8)

1. Magnitogorskiy metallurgicheskiy kombinat i Magnitogorskiy gornometallurgicheskiy institut.
(Steel ingots--Sulfur content)

VORONOV, F.D., prof.; SELIVANOV, N.M., kand.tekhn.nauk; RABINOVICH, Ye.I., kand.tekhn.nauk; UZIYENKO, A.M., inzh.; TKACHENKO, I.A., inzh.; KUSTOBAYEV, G.G., inzh.; IVANOVA, N.G., inzh.; RYABCHIKOV, F.D., inzh.; GRUZNOV, A.K., inzh.

Developing a technology for the casting and quality investigation of 21-ton rimmed steel ingots. Stal' 22 no.8:709-713 Ag '62. (MIRA 15:7)

(Steel ingots)

VORONOV, F.D., prof.; MOROZOV, A.N., prof., doktor tekhn.nauk; SELIVANOV, N.M., kand.tekhn.nauk; SMIRNOV, Yu.D., kand.tekhn.nauk; RABINOVICH, Ya.I., kand.tekhn.nauk; CHERNOV, G.I., inzh.; TKACHENKO, I.A., inzh.; BIKTAGIROV, K.K., inzh.; FILIPPOV, V.M., inzh.; KUSTOBAYEV, G.G., inzh.

Making St. 3ps capped steel in Magnitogorsk Metallurgical Combine open-hearth furnaces. Stal' 22 no.8:716-718 Ag '62. (MIRA 15:7)

1. Magnitogorskiy metallurgicheskiy kombinat i Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.
(Magnitogorsk—Open-hearth process)

ANTONOV, S.P., inzh.; BOYARSHINOV, M.I., prof.; UZIYENKO, A.M., inzh.; KUSTOBAYEV, G.G., inzh.; RABINOVICH, Ye.I., kand.tekhn.nauk; RYABCHIKOV, F.D., inzh.

Improving the quality of rolled metal surfaces made of large ingots. Stal' 22 no.8:728-732 Ag '62. (MIRA 15:7)

1. Magnitogorskiy metallurgicheskiy kombinat i Magnitogorskiy gornometallurgicheskiy institut.

(Steel ingots)
(Rolling (Metalwork)--Quality control)

L 40798-65 EWT(m)/EWP(w)/EPF(c)/EWA(d)/EPR/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/
EWA(c) Pf-4/Pr-4/Ps-4 IJP(c) MJW/JD/HW/JG
ACCESSION NR: AP4048658 S/0133/64/000/011/1030/1033

AUTHOR: Rabinovich, Ye. L. (Candidate of technical sciences); Selivanov, N. M. (Candidate of technical sciences); Biktagirov, K. K. (Engineer)

TITLE: Effect of the rare earth elements on the properties of low-carbon killed steel

SOURCE: Stal', no. 11, 1964, 1030-1033

TOPIC TAGS: low carbon steel, rare earth element additive, mischmetal addition, grain refinement, desulfurization, impact strength, tensile property, St 3sp steel

ABSTRACT: The effects of adding mischmetal to basic open hearth steel were examined in this study using 2 kg/T mischmetal in the ingot mold or ladle of type St. 3sp steel. The sulfur concentration was reduced 2-5 times from the original 0.03-0.036%. The amount of nonmetallic inclusions was reduced; the remaining

ature at which the grain started to become coarser was raised. The rare earth elements bound nitrogen into stable nitrides. The plastic and ductile properties

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L 40298-65

ACCESSION NR: AP4048658

of sheet from the treated steel improved. The degree of anisotropy of the tensile temperature and at low temperatures increased and the sensitivity to mechanical

ZBOROVSKIY, A.A.; RABINOVICH, Ye.I.

Mechanism of the formation of blisters in rimmed steel ingots. Izv. vys. ucheb. zav.; chern. met. 7 no.6:56-61 '64. (MIRA 17:7)

1. Magnitogorskiy metallurgicheskiy kombinat.

RABINOVICH, Ye.L., (Minsk)

Variability of organic response to intra-arterial and intravenous administration of bile. Arkh.pat.17 no.3:62 Jl-S '55. (MLRA 8:12)

1. Iz kafedry patologicheskoy fiziologii (zav.-zaslushennyy deyatel' nauki BSSR prof. F.A.Yakhimovich) Minskogo meditsinskogo instituta.

(BILE, effects,
variability of responses to intra-arterial admin.)

[redacted], Ye. I.

[redacted], Ye. I.: "The characteristics of the vascular reaction and the phenomena of mediation in patients with pulmonary tuberculosis." Minsk State Medical Inst. Minsk, 1956. (Dissertation for the Degree of Candidate in Medical Sciences).

Source: Knizhnaya letopis' No. 20 1956 Moscow

RABINOVICH, Ye.M.

56-6-36/56

AUTHOR RABINOVICH, Ye.M.

TITLE Production of Electron-Positron Pairs in Collisions Between Fast π-Mesons and Nucleons.
(Obrazovaniye elektronno-pozitronnykh par pri stolknovenii bystrykh π-mezonov s nuklonami - Russian)

PERIODICAL Zhurnal Eksperim. i Teoret.Fiziki,1957,Vol 32, Nr 6,pp 1563-1566, (U.S.S.R.)

ABSTRACT In the present paper the cross section of the production of pairs on the occasion of the collision of pions of high energy with nucleons is computed.The method of computation used here is based upon the fact that at high energies of the pion the nucleon is a black sphere for the pion. The Ψ-function of the meson outside of the effective radius of the nuclear forces is therefore a superposition of a plane and a bent wave. The knowledge of the wave function of the meson outside the effective radius of the force is sufficient for the computation of the production cross section of the γ-quanta or the cross section of the production of pairs.The production of a pair which occurs on the occasion of the bending of a meson and at absorption of a meson, is to be investigated separately.For the second case the final state of the pion is a converging wave, i.e. a "confluence" of particles takes place. The present paper used the method of the transition fluxes,because by means of this method the "vanishing of the charge" can easily be taken into account. The following applies for the interaction of the mesons with

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Production of Electron-Positron-Pairs in Collision Between Fast π-Mesons and Nucleons. 56-6-36/56

the electron-positron field: $V = e\left[(\vec{\alpha},\vec{A}(\vec{r})) - \varphi(\vec{r})\right]$, where $\vec{A}$ and φ denote the transition potential of the meson. Next, the matrix element corresponding to the production of a pair is written down. Also for the transition potential and for the probability of the production of a pair formulae are written down. At first the diffraction production of pairs is computed. A formula is derived for the spectral composition of the produced pairs. In conclusion, the total cross section of the diffraction production of pairs is determined. Next, the production of pairs at rest is investigated. The model used hereleads to exactly the same results for the case of the production of γ-quanta as computation by means of GREEN'S function. The differential production cross section is explicitly written down.
(No illustrations)

ASSOCIATION Not Given.
PRESENTED BY
SUBMITTED 12.6.1956
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Card 2/2

NEBESNOV, Viktor Ivanovich; RABINOVICH, Ye.M., red.; SKOBELING, L.V., red. izd-va; LAVRENOVA, N.B., tekhn.red.

[Estimate of the operating conditions of marine power plants on motorships]Raschet ekspluatatsionnykh rezhimov raboty silovoi ustanovki teplokhoda. Moskva, Izd-vo "Morskoi transport," 1962. 141 p. (MIRA 15:11)
(Motorships) (Marine gas turbines)

RABINOVICH, Yefim Markovich; STRONGIN, V.L., red.; BABICHEVA, V.V., tekhn.red.

[Commercial chemicals, paint materials, and various related products] Khimicheskie i moskatel'nye tovary. Moskva, Gos.izd-vo torg.lit-ry, 1960. 113 p. (MIRA 14:6)
(Paint materials) (Chemicals)

RABINOVICH, Ye.M.

Ways of increasing labor productivity in the coal chemicals plants in Donetsk Province. Koks i khim. no.2:57-61 '63. (MIRA 16:2)

1. Donetskiy sovet narodnogo khozyaystva.
(Donetsk Province—Coke industry--Labor productivity)

GORBACHEV, S.S., inzh.; KHANIN, Ye.M., inzh.; MOROZOV, N.F., inzh.; RABINOVICH, Ye.M., inzh.; STROYEV, A.Ye., inzh.; FEL'MAN, Ya.M., inzh.; DOLGIKH, V.N., inzh.; ROGACHEV, S.A., inzh.; YAKUSHEV, A.A.

Dismountable plant for making and assembling house made of large aerated concrete blocks. Mats.i izobr.predl.v stroi. no.12:11-18 '59. (MIRA 13:5)

1. Glavnyy inzhener Konstruktorskogo byuro po zhelezobetonu Glavmosoblstroymaterialov pri Mosoblispolkome (for Yakushev). 2. Konstruktorskoye byuro po zhelezobetonu Glavmosoblstroymaterialov, Moskva, D'yakov per., d.4 (for all).
(Lightweight concrete) (Concrete blocks)

ACC NR: AR6035416 SOURCE CODE: UR/0137/66/000/009/G023/G023

AUTHOR: Shishkhanov, T. S.; Rabinovich, Ye. M.; Kudinova, K. G.; Sariadi, F. S.; Kazanskaya, L. N.

TITLE: Reduction of titanium-hydride with increased hydrogen content

SOURCE: Ref. zh. Metallurgiya, Abs. 9G167

REF. SOURCE: Sb. Proiz-vo stali i splavov i vliyaniye obrabotki na nikh svoystva. Tula, 1965, 31-35

TOPIC TAGS: titanium compound, metal hydride, chemical reduction, hydration

ABSTRACT: Titanium powder reduced by Ca hydride (IMTU 987-63), titanium sponge TG-00 produced by a magnesium-thermal process (MRTU-14 no. 19-64), and electrolytic iron produced by the method of dissolved anodes, were all hydrated with H_2 of 99.99% purity containing $\leq$ 0.003% of O_2 and $\leq$ 0.2 g/m^3 of moisture. The optimal hydration condition was determined, namely hydration temperature 650°, soaking at this temperature, flow of H_2 of 8m^2/hr until the end of absorption, and cooling in air at a flow of $H_2 \leq 0.5$ m^3/hr. Introduction of these conditions in industry has ensured production of titanium hydride with a stable hydrogen content of 3.8 -- 3.98%, and has improved the productivity of the plant. A. Shmeleva. [Translation of abstract]

SUB CODE: 11, 07

Card 1/1 UDC: 669.295.4

ACC NR: AR7004853 SOURCE CODE: UR/0137/66/000/010/G032/G032

AUTHOR: Kudinova, K. G.; Kazanskaya, L. N.; Rabinovich, Ye. M.; Korchagin, M. I.; Mishnayevskiy, Ye. N.

TITLE: Investigation of possibility of coarsening the grain size of titanium powder by gas absorption

SOURCE: Ref. zh. Metallurgiya, Abs. 10G230

REF SOURCE: Sb. Proiz-vo stali i splavov i vliyeniye obrabotki na ikh svoystva. Tula, 1965, 50-53

TOPIC TAGS: titanium, titanium powder, grain size, reduction

ABSTRACT: Titanium powder with a grain size of $\geq 45\mu$ has the optimum gas absorbing capacity. In order to coarsen titanium powder by reducing titanium oxide with calcium, a finished powder of titanium metal with a grain size of $\leq 10\ \mu$ was added to the charge as the finished crystallization centers. By adding up to 8% titanium powder to the charge, the yield of the coarse-grained fraction of the reduced titanium increases up to 48%; further additions of titanium

UDC: 621.762.2.001:669.295

Card 1/2

ACC NR: AR7004856

metal to the charge will only slightly increase the coarse-grained fraction. The titanium powder obtained meets the requirements of the State Technical Specifications for Ferrous Metallurgy, (ChMTU-987—63. Orig. art. has: 1 figure and 1 table. B. Neshpor. [Translation of abstract] [NT]

SUB CODE: 11/

Card 2/2

AFANAS'YEV, Aleksandr Afanas'yevich; RABINOVICH, Yakov Mikhaylovich; VINOGRADOV, V.K., retsenzent; LIOKUMOVICH, Kh.Kh., kand. tekhn. nauk, retsenzent; NOVOKHATSKIY, K.I., nauchnyy red.[deceased]; MINAYEVA, T.M., red.; TRISHINA, L.A., tekhn. red.

[Safety engineering in shoe manufacture]Tekhnika bezopasnosti v obuvnom proizvodstve. Moskva, Rostekhizdat, 1962. 225 p. (MIRA 16:2)

(Shoe industry--Safety measures)

RABINOVICH, Ye.N. (Izmail'skaya oblast')

Diagnosis and therapy of congenital pyloric stenosis. Fel'd. i akush. no.8:23-25 Ag '54. (MLRA 7:8)
(PYLORUS, stenosis congen., diag. & ther.)

RABINOVICH, Ye.N. (Odesskaya oblast')

Bladder calculi in children. Fel'd.i akush. no.4:14-17 Ap '55. (MLRA 8:7)
(BLADDER, calculi,
in child., diag. & ther.)
(CALCULI,
bladder, in child., diag. & ther.)

RABINOVICH, Ye.N.

Intrasternal alcohol-ether-morphine narcosis in gastric surgery. Khirurgiia no.7:85-86 Jl '55. (MLRA 8:12)

1. Iz Kiliyskoy rayonnoy bol'nitsy Izmail'skoy oblasti.
(STOMACH--SURGERY) (ANESTHETICS)

RABINOVICH, Ye.N., (Odesskaya oblast')

Treatment of perforating peptic ulcers of the stomach and duodenum in a district hospital. Fel'd.i akush.no.8:12-15 Ag '55. (MLRA 8:10)

(PEPTIC ULCER, perforation ther.)

RABINOVICH, Yo. M. (selo Tuzly)

Two observations of echinococcal cysts of the kidneys. Nov. khir.ark. no.2:71-72 Mr-Ap '58 (MIRA 11:6)

1. Tuzlovskaya rayonnaya bol'nitsa Odesskoy oblasti.
(KIDNEYS--HYDATIDS)

RABINOVICH, Ye.N. (Izmail, Odesskoy obl., ul. Kirova, d.58)

Bilateral multiple hydatid cysts of the lungs. Nov.khir. arkh. no.1:109-110 Ja-F '59. (MIRA 12:6)

1. Khirurgicheskoye otdeleniye (zav. - Ye.N.Rabinovich) Tuzlovskoy rayonnoy bol'nitsy Odesskoy oblasti.
(LUNGS--HYDATIDS)

RABINOVICH, Ye. S.

2

USSR.

The Calculation of the Coefficient of Resistance to Flow of Molten Metals. E. S. Rabinowitsch. (*Doklady Akademii Nauk, U.S.S.R.*, 1946, 395: *Met. u. Giesserei-techn.*, 1934, 4, Sept., 411). W. Ruff's formula for calculating the coefficient of resistance to flow is quoted; an alternative formula, based on Bernoulli's equation, is derived: the results of calculations by the two formulæ are compared and Ruff's is rejected, his results being too low.—L. J. L.

RABINOVICH, Ye.S. [Rabinovych, E.S.]; LANDA, I.M. [deceased]; DUBINSKAYA, TS.D. [Dubyns'ka, TS.D.]

Possibility of using the butadiene-nitrile rubber "Krainak-803" in the manufacture of artificial leather with a fibrous base. (MIRA 16:5)
Leh.prom. no.4:25-28 O-D '62.

1. Kiyevskiy regeneratno-rezinovyy zavod.
(Leather, Artificial) (Rubber, Synthetic)

RABINOVICH, Ye.S. [Rabinovych, E.S.]

Efficient formula for the decorative polyvinyl chloride welt coating providing for the optimum spraying conditions. Leh. prom. no.1:46-47 Ja-Mr '63. (MIRA 16:4)

1. Kiyevskiy regeneratno-rezinovyy zavod.

RABINOVICH Y S

USSR/Human and Animal Physiology. Blood. T

Abs Jour: Ref Zhur-Biol., No 8, 1958, 36261.

Author : Rabinovich, Y S
Inst : Arkhangelsk Medical Institute.
Title : Blood Serum Proteins in Hypertensive Disease and Their Changes Under the Effect of Sleep Therapy.

Orig Pub: Sb. tr Arkhangelsk med. in-ta, 1957 vyp 15, 95-103.

Abstract: One hundred one patients with hypertensive disease (HD) aged 20-61 and older, and 24 controls 20-60 years old were observed. The normal average blood proteins were 8.45%. The average in HD was higher than 8.45%. In the first stage 8-8.4%, in the second, 9.21%, in the third, 9.08%. In the majority of patients following therapy with hypertensive drugs and therapeutic sleep (14 patients) the arterial blood pressure decreased,

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USSR/Human and Animal Physiology. Blood.

Abs Jour: Ref Zhur-Biol., No 8, 1958, 36261.

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the general condition improved, but the protein content of the blood increased. This was attributed to the decreased metabolism and increased assimilation during the therapeutic sleep. The mechanism of the increase of the blood proteins in HD remains unexplained. The increase of the blood proteins is not associated with the rise in the arterial pressure, since, after its decrease, the protein content remains elevated.

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RABINOVICH, Ye.Sh.; LIPOVA, V.A.

Effect of cyclophosphane and thiotepa on the ascitic form of a transplanted strain of an ovarian tumor in rats. Vop. onk. 11 no.6:68-74 '65. (MIRA 18:8)

1. Iz ginekologicheskogo otdeleniya (zav. - prof. V.P.Tobilevich, nauchnyy rukovoditel' - doktor med.nauk I.D.Nechayeva) i laboratorii eksperimental'noy morfologii (zav. - doktor med.nauk M.P.Ptokhov) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I.Serebrov).

RABINOVICH, Ye.Ya., inzh.; PETROV, O.D., inzh.; ZIL'BERBERG, A.M., inzh.

The new D-451 bucket loader. Stroi. i dor.mashinostr. 4 no.6:15-19 Je '59. (MIRA 12:8)
(Road machinery)

S/181/63/005/003/012/046
B102/B180

AUTHORS: Samoylovich, A. G., and Rabinovich, Ye. Ya.

TITLE: Diamagnetism of conduction electrons in weak-coupling approximation

PERIODICAL: Fizika tverdogo tela, v. 5, no. 3, 1963, 778-782

TEXT: The diamagnetic susceptibility of conduction electrons in alkaline metals is calculated in weak-coupling approximation (cf. also D. Pines, Solid State Physics, 1, 425, N. Y. 1955). The statistical sum of the conduction electrons in a permanent magnetic field is given by $Z = \mathrm{Sp}\left[\exp - \beta(\mathcal{H}_0+V(\vec{r})\right]$, where $\mathcal{H}_0$ is the free-electron Hamiltonian in the magnetic field and $V(\vec{r})$ the periodic lattice potential, considered as perturbation. Z is calculated in second approximation with respect to $V(\vec{r})$: $Z = Z_0+Z_2$, where

$$Z_0 = \mathrm{Sp}\left[e^{-\beta\mathcal{H}_0}\right], \quad (3)$$

$$Z_2 = \frac{\beta^2}{2}\int_0^1 d\sigma\,\mathrm{Sp}\left[V(\vec{r})e^{-\beta\mathcal{H}_0(1-\sigma)}V(\vec{r})e^{-\beta\mathcal{H}_0\sigma}\right]. \quad (4)$$

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From the expression obtained for $Z(\beta)$ the thermodynamic potential is determined by means of

$$-\Omega = \frac{1}{2\pi i}\int_{\sigma-i\infty}^{\sigma+i\infty} \frac{e^{\beta\vartheta}}{\beta^2} Z(\beta)\, d\beta. \qquad (12)$$

(approximation for strongly degenerate electron gas), and therefrom the magnetic susceptibility is obtained, using the relation $\chi = -\frac{1}{H}(\partial\Omega/\partial H)_{\mu}$. When the chemical potential is calculated from the electron concentration $N=-(\partial\Omega/\partial\mu)_{T,V}$ the final result reads

$$\chi = -\left(\frac{m}{2\pi\hbar^2}\right)^{3/2}\frac{1}{\sqrt{\pi}}\frac{\hbar^2\omega^2}{6m\vartheta^{1/2}}\left\{2\mu_0^{3/2} + \frac{1}{4}\sum_{\sigma}|V_{\sigma}|^2\left[\frac{1}{\mu_0\sqrt{\eta}}\ln\frac{\sqrt{\eta-\mu_0}}{\sqrt{\eta}+\sqrt{\mu_0}} + \right.\right. \qquad (20)$$
$$\left.\left. + \frac{1}{\sqrt{\mu_0(\eta-\mu_0)}} - \frac{\pi^2\hbar^2(\sigma_x^2+\sigma_y^2)}{2m\sqrt{\mu_0}(\eta-\mu_0)^2}\right]\right\}.$$

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$\mu_0 = \frac{\hbar^2}{8\pi^2 m}\left(\frac{3N}{8\pi}\right)^{2/3}$. For an alkaline metal, where $N = 2/a^3$, and $g_i = n_i/a$, $i=x,y,z$,

$$\chi = \chi_0\left\{1 + \left(\frac{ma^2}{2\pi\hbar^2}\right)^2 \sum_{\mathbf{n}} |V_{\mathbf{n}}|^2 \left[\frac{\frac{4}{3}|\mathbf{n}|^4\left(\frac{\pi}{6}\right)^{4/3}}{\left[|\mathbf{n}|^2 - \left(\frac{6}{\pi}\right)^{2/3}\right]^3} + \right.\right.$$

$$\left.\left. + \frac{\pi}{6}\frac{|\mathbf{n}|^4}{|\mathbf{n}|}\ln\frac{|\mathbf{n}| + \left(\frac{6}{\pi}\right)^{1/3}}{|\mathbf{n}| - \left(\frac{6}{\pi}\right)^{1/3}} - \frac{2\left(\frac{\pi}{6}\right)^{4/3}}{|\mathbf{n}|^2 - \left(\frac{6}{\pi}\right)^{2/3}}\right]\right\}, \qquad (21)$$

where χ_0 is the diamagnetic susceptibility of the free electrons; the second term is the contribution due to the action of the lattice field, and takes the Van Vleck paramagnetism and all other effects of the lattice field into account. For alkaline metals this contribution is a positive one. Numerical estimates are given for metallic lithium.

Diamagnetism of conduction electrons... S/181/63/005/003/012/046
B102/B180

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors AS USSR, Leningrad)

SUBMITTED: October 1, 1962

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L 17566-65 EWT(L)/EWA(h) Peb/Pa-4 SSD/AEWL/AFETR/ESD(t) GW
ACCESSION NR: AP4049240 S/0049/64/000/010/1462/0471

AUTHOR: Bubnova, V. I., Bulin, N. K., Pronyayeva, Ye. A., Rabinovich, Ye. Ya

TITLE: Structure of the earth's crust in northern Turkmeniya as determined from transformed earthquake waves

SOURCE: AN SSSR* Izvestiya. Seriya geofizicheskaya, no. 10, 1964, 1462-1471

TOPIC TAGS: seismology, earthquake, seismic wave, geology, transformed seismic wave, Mohorovicic discontinuity, earth crust

ABSTRACT: This study, based on 1961 field work, discusses the results of investigations of the earth's crust carried out along a profile extending from Karashor to Tashauz, about 350 km long, situated in northern Turkmeniya. Earthquakes were recorded by mobile three-component seismic stations of the regional type (simultaneous recording by three seismic stations situated at distances of 5-15 km). Seismic observations at each station lasted 7-10 days and an average of 30-40 earthquakes was recorded during this time. The upper part of the cross section (illustrated in the text) consists of metamorphic rocks overlain by sedimentary rocks of the platform type. Seismic observations were made at 47

were recorded during 240 of these events. On the basis of the collected data it was

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established that the earth's crust in this area has a layered structure. The depth and topography of seismic boundaries corresponding to the "basalt" and "granite" surfaces and the Mohorovicic discontinuity were determined. It was found that there is a horizontal

formed earthquake waves can now be used to study zones of deep faulting. Orig. art. has: 4 figures.

ASSOCIATION: Vsesoyuzny*y nauchno-issledovatel'skiy geologicheskiy institut (All-Union Geological Scientific Research Institute); Upravleniye geologii i okhrany* nedr TurkmSSR (Administration of Geology and Conservation of Mineral Resources, Turkmen SSR)

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