

DERYABINA, U. I.

TITLE: Conference on Autoclaves Processes  
PERIODICAL: Tsvetnyy Metally, 1959, Nr 7, pp 84-87 (USSR)

ABSTRACT: On 23-26 February 1959 a conference was held in Moscow for summing-up and coordinating work on autoclave processes in the metallurgy of heavy non-ferrous, rare and noble metals.

The conference heard reports as follows: D.M. Tuktanov, Gintsvetmet, on progress throughout the world on the use of hydrometallurgical, particularly autoclave, methods for non-ferrous and rare metal production; G. N. Dobrokhov, Gipronikel', on nickel leaching practice at some Soviet works; N. I. Munchkina and G. N. Dobrokhov, on the thermodynamics and kinetics of the selective reduction by hydrogen and carbon monoxide under pressure of nickel and cobalt from solution; A.G. Ginzvetmet, on the application of autoclave technology to the treatment of the spent liquors of the nickel works; G. N. Dobrokhov, at the Yuzburalnikel' and Severonikel' combines and the Vpaleyskiy (Ural) nickel works; I. N. Maslennik, on the advantages of a combined flotation-autoclave method for nickel-electrolysis of slimes containing platinum-group metals; Y. B. Zhilkin, Severonikel' combine, on the method of oxidizing leaching of nickel concentrate from converter-matte flotation; S. I. Sobol', on preliminary investigations on the development of a tubular autoclave based on leaching of nickel concentrate from spent liquors; M. N. Maslennik, on the main results of investigations of the autoclave-soda process for treating tungsten-ore beneficiation products; A. A. Krasovskiy, Krasnoyarskiy Institut tsvetnykh metallov (Krasnoyarsk Non-Ferrous Metals Institute) on the treatment of tungsten concentrates in hammer mills, ball mills with acids of osmium dioxide; Berlin, G. K. Kozlov, S. I. Sobol', G. G. Ginzvetmet, on the treatment of spent liquors with concentrated sulphide molybdenum raw material by oxidizing autoclave alkaline leaching; I. M. Melanin and S. I. Sobol', on the kinetics of oxidizing autoclave leaching; A. N. Zelikman and M. M. Lyayna, Krasnoyarsk Non-Ferrous Metals Institute, on the results of a study of conditions for the selective separation of lower oxides of tungsten and molybdenum from their salt solutions by hydrogen under pressure; M. V. Darbyagin, Sverdlovskiy metalurgicheskiy institut (Sverdlovskiy metalurgicheskiy Institut) of the Sovetskoy (Soviet) Republic (Armenian SSR), on his investigations of the autoclave-soda process for treating spent liquors of molybdenum concentrates; A. I. Sinyol'nikova and I. N. Plakalin, Krasnoyarsk Non-Ferrous Metals Institute, on an oxidizing autoclave process for gold-containing raw material; M. G. Tyulina, Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute) on the behaviour of noble metals in oxidizing autoclave leaching in sulphate solutions; A. L. Terent'ev and D. A. Tazaki and A. Yu. Dedyukhin, Institut metallov i obogateniya (Institute of Metallurgy and Beneficiation) of the AS Kazakh SSR (Kazakhstan), on the physicochemical and metallurgical aspects of autoclave leaching of spent liquors on the unavailability of autoclave leaching for lime-containing materials; V. A. Barshteyn, VAMI, on industrial experience of a continuous autoclave leaching process for bauxites; V. G. Tronov, IONEN AN SSSR (IONEN AN USSR), on compounds of some rare elements in various valency states under oxygen and hydrogen pressure in the presence of anhydrous ammonia; Z. L. Berlin, Gintsvetmet, on autoclave design and operation; J. G. Kerkovlev, Gipronikel', and M. Ye. Vlasovskiy, on the development of novel studies on autoclave B. Gintsvetmet, on the use of autoclave technology in the treatment of spent liquors; V. I. Arshakov, VNIINeftkhim, on corrosion of types IKhA87, IKhA88, IKhA89 and IONEN steels in soda and alkaline solutions in the presence of metal salts and oxygen at 5 - 15 kg/cm<sup>2</sup>; V. I. Deryabina, N. M. Kaluzhina, VNIINeftkhim, separately on technical properties of hydrocarbonated steels; M. V. Deryabina and G. N. Dobrokhov, on the extraction and recovery

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Card 4/5

GLIKMAN, L.A., doktor tekhn.nauk, prof.; KOLGATIN, N.N., inzh.; TEODOROVICH,  
V.P., kand.khimicheskikh nauk; DERYABINA, V.I., inzh.

Changes in the mechanical properties of certain steels under  
the effect of hydrogen at high temperatures and pressures.  
Metallovedenie 3:58-73 '59. (MIRA 14:3)  
(Steel—Hydrogen content)  
(Metals at high temperature)

18 8200

20051  
8/23/61/000/007/058/072  
A060/A101

AUTHORS: Glikman, L. A.; Fedorovitch, V. M.; Kolgaitch, N. K.; Deryabina, V. E.

TITLE: Mechanical properties at room temperature of Armao iron and certain steels hydrogenated at high temperatures

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1961, 6, abstract 7133  
(In the collection: "Khimiya sera- i azotorgan. soedineniy, soderzhashchikh v neftyakh i nefteproduktakh". v. 3, Ufa, 1960, 431-438)

TEXT: The influence of hydrogen was investigated upon Armao iron with composition (in %): C 0.03, Si 0.19, Mn 0.25; St 20 at 400 and 450°C - C 0.23, Si 0.34, Mn 0.47, Cr 0.15, Ni 0.15 and on alloy steels X12BMΦ (Kh12VMF) - C 0.17, Si 0.22, Mn 0.64, Cr 13.5, V 0.2, W 0.86, Mo 0.46; X18H9T (Kh18N9T) - C 0.12, Si 0.74, Mn 1.15, Cr 17.25, Ni 10.35, Ti 0.45 and 45Г8К3 (45Г8К2) - C 0.45, Si 0.53, Mn 17.8, As 3.17. Besides, 6 pc St steel with additional traces of V, W, Mo and Nb (X6BMΦБ [Kh6VMFB]) was investigated. Almost in all H saturated specimens of Armao iron and St.20 the  $\sigma_s$  (flow surface) is absent at tension.

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26051  
S/137/61/000/007/068/072  
A060/A10. X

Mechanical properties at room temperature ...

Subsequent normalizing restores the flow surface.  $\sigma_p$  for St. 20 is reduced by half as result of the hydrogen action, and ductility is almost completely absent. As result of the heat aftertreatment,  $\sigma_{bp}$ ,  $\delta$ ,  $\psi$  are increased but their values remain below the original values. After the hydrogen saturation  $a_k$  is greatly lowered. The crushing of hydrogen saturated Armo iron and St. 20 occurs with manifestation of a brittleness effect at the grain boundaries without noticeable traces of plastic deformation. Steel 45018Yu is particularly subject to hydrogen crushing:  $\sigma_p$  decreases from 88.8 to 45 kg/cm<sup>2</sup>,  $\sigma_s$  - from 65.0 to 38.0 kg/cm<sup>2</sup>,  $\delta$  - from 39.2 to 7.2 %,  $\psi$  - from 62.0 to 9.0%, and  $a_k$  - from 12.9 to 2.2 kg-m/cm<sup>2</sup>. The strength properties of 5 ps 3r steel, Khl20MF and Khl8N9T decrease slightly but the ductility properties decrease noticeably.

I. Pomyantseva

[Abstracter's note: Complete translation]

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GLIKMAN, L.A.; TEODOROVICH, V.P.; KOLGATIN, N.N.; DERYABINA, V.I.

Long-duration strength of some steels in the testing of tubular specimens under internal pressure of hydrogen at high temperatures. Khim.sera-i azotorg.sod.v nefteprod. 3:439-450 '60.

(MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

(Steel--Testing)

(Hydrogen)

SHAPIRO, I. I.; GVOZDEVA, A. N.; DERYABINA, Y. I.; KOZLOVA, V. I.; MATOVA,  
A. D.; PEROVA, A. S.; KHEOMOV, Yu. N.; TISHIN, S. D., kand. tekhn. nauk,  
red.; DOBRITSYNA, R. I., tekhn. red.

[General norms of cutting conditions and time used in the machinery  
industry for technical standardization of preparatory operations;  
cutting of metal with disk saws, presses and shaped-stock shears]  
Obshchেমашиностроител'nye normativy reshimov rezaniia i vremeni  
dlia tekhnicheskogo normirovaniia zagotovitel'nykh rabot; reska  
metalla na diskovykh pilakh, pressakh i sortovykh nashnitsakh.  
Moskva, Mashgiz, 1961. 75 p. (MIRA 14:12)

1. Moscow. Tsentral'noye byuro promyshlennykh normativov po trudu.
2. Zaveduyushchiy etdelom mashinostroyeniia Tsentral'noye byuro ~~po~~  
myshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute  
truda (for Shapiro). 3. Tsentral'noye byuro promyshlennykh normativov  
po trudu pri Nauchno-issledovatel'skom institute truda (for all, except  
Tishin, Dobritsyna). (Cutting machines)

KOLGATIN, N.N.; VANSHENKER, V.R.; TEODOROVICH, V.P.; DERYABINA, V.I.

Device for recording stress-deformation for attachment to the  
P-5 universal machine. Zav.lab. 27 no.5:616-617 '61.

(MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh  
professov.

(Testing machines)

DERYABINA, V.I., inzh.; MOROZOV, D.A.; TSARITSENKO, N.I.; STROCHILIN,  
F.A.; VOL'SKIY, V.S., inzh., VLADIMIROVA, L.A., tekhn.  
red.

[General time norms used in the machinery industry for technical standardization of free hammer forging processes; small lot and piece production] Obshchemashinostroitel'nye normativy vremeni dlia tekhnicheskogo normirovaniia rabot po svobodnoi kovke pod molotami; melkoseriinoe i edinichnoe proizvodstvo. Moskva, Mashgiz, 1962. 107 p. (MIRA 15:7)

1. Moscow. Tsentral'noye byuro promyshlennykh normativov po trudu. 2. Vsesoyuznyy proyektno-tekhnologicheskii institut tyazhelogo mashinostroyeniya (for Deryabina, Morozov, TSaritsenko, Strochilin, Vol'skiy). 3. Nachal'nik otdela tekhnicheskikh normativov po trudu Nauchno-issledovatel'skogo instituta truda (for Vol'skiy).  
(Forging--Production standards)



S/184/62/000/003/001/004  
D040/D113

*IP. P300*  
AUTHORS: Deryabina, V.I., Engineer; Kolgatin, N.N., Candidate of Technical Sciences; and Teodorovich, V.P., Candidate of Chemical Sciences

TITLE: The effect of hydrogen on the long-term strength of steel tubes

PERIODICAL: Khimicheskoye mashinostroyeniye, no.3, 1962, 22-26

TEXT: Heated tubular specimens of iron and 10 steel grades were tested for 1,000 and 10,000 hrs under a 47-780 kgf/cm<sup>2</sup> stress produced by hydrogen pumped into specimens at different pressure. Tests were conducted in view of hydrogen embrittlement of chemical and petroleum-processing equipment and insufficient data on the combined effect of stresses and hydrogen. The test results are illustrated and described. The long-term strength dropped 70-85% in iron and steel 20 at 400 and 450°C, 30-60% at 600°C in 30 XMA(30KhMA), 12 XМФ (12KhMF), ХМ 1 (NML), X 3 B M Ф (Kh3VMF) and X 6 B M Ф (Kh6VMFB) medium-alloy steels, but much less in X 12 B M Ф (Kh12VMF), 1Г 18 X 8 T (1G18Kh8T) and 1 X 18 H 9 T (1Kh18N9T) high-alloy steels. The detrimental effect of hydrogen on all the studied steels

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The effect of hydrogen ...

S/184/62/000/003/001/004  
D040/D113

increased as the test time increased. The fracture was intercrystalline and brittle when the strength was strongly affected by inner hydrogen pressure; gradual "loosening" of the grain boundaries was visible under a microscope. Tests with nitrogen resulted in stretched metal grains and intercrystalline cracks. The Kh12VMF, 1G18Kh8T and 1Kh18N9T steels had intercrystalline fractures and micro- and macroscopic deformation in tests with both hydrogen and nitrogen. It is expected that the effect on these steels will be greater during longer tests. There are 10 figures and 3 tables.

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ACCESSION NR: AT4007033

S/2598/63/000/010/0116/0130

AUTHOR: Glikman, L.A.; Deryabina, V.I.; Kolgatin, N.N.; By\*tenkiy, I.A.;  
Teodorovich, V.P.; Teplov, N.S.

TITLE: Effect of gas-saturated layer on the strength and ductility characteristics of titanium alloys

SOURCE: AN SSSR. Institut metallurgii. Titan i yego splavy\*, no. 10, 1963.  
Issledovaniya titanovy\*kh splavov, 116-130

TOPIC TAGS: titanium alloy strength, titanium alloy ductility, VT-14 titanium alloy, VT-3-1 titanium alloy, VT-8 titanium alloy, gas saturated layer, titanium alloy

ABSTRACT: Contamination of titanium by air and its effect on strength and ductility was investigated following exposure of five alloys: VT-14 (Ti-Al-Mo-V), VT-3-1 (Ti-Al-Mo-Cr), VT-8 (Ti-Al-Mo) and Experimental Alloy No. 1 (4.95 Al, 2.18 V, 3.50 Sn, balance Ti), at 800-1100C for 0.5 to 4 hours. Microscopic examination showed that in air, above an  $O_2$  concentration of 5%, oxygen diffuses into Ti and a superficial alpha-Ti phase forms which is characterized by increased hardness and reduced ductility. The strength of the specimens, however, was

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ACCESSION NR: AT4007033

markedly reduced. Thus, at 1100C, yield point and strength decreased 40-60%, notch toughness decreased 70-80%, and ductility dropped to zero in about 4 hours. At 800C, on the other hand, there was little change. All alloy specimens investigated exhibited high notch sensitivity in both static and dynamic tests, especially those saturated at 800C. The original mechanical properties could be restored by removal of the gas-contaminated surfaces. Orig. art. has: 7 tables and 7 figures.

ASSOCIATION: Institut metallurgii AN SSSR (Metallurgical Institute AN SSSR)

SUBMITTED: 00

DATE ACQ: 27Dec63.

ENCL: 00

SUB CODE: MM

NO REF SOV: 003

OTHER: 001

Card 2/2

MOROZ, L.S.; KOLGATIN, N.N.; TEODOROVICH, V.P.; DERYABINA, V.I.

Effect of hydrogen on the mechanical properties of nickel and copper. Fiz. met. i metalloved. 16 no.5:737-742 N '63.

(MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

TEODOPOVICH, V.P.; KOLGATIN, N.N.; DERYABINA, V.I.

Results of an examination of the metal parts of a catalytic  
reforming apparatus. Mash. i nef. obor. no.3:15-20 '64.  
(MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut  
neftekhimicheskikh protsessov.

L 62946-65 EWP(m)/EWP(w)/EPP(c)/EWA(d)/T/EWF(t)/EWP(z)/EWP(b)/EWA(h)  
HJW/JD

ACCESSION NR: AR5019145

UR/0137/65/000/007/1061/1061

SOURCE: Ref. zh. Metallurgiya, Abs. 71394

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34  
e

AUTHOR: Deryabina, V. I.; Kolgatin, N. N.; Teodorovich, V. P.

TITLE: Investigation of the hydrogen resistance of 15Kh2MF and 12Kh2MFT steels

CITED SOURCE: Mashiny neft. oborud. nauchno-tekhn. sb., no. 4, 1965, 12-14

TOPIC TAGS: steel, hydrogenation, nitrogenation, corrosion resistant steel, solid mechanical property, 15Kh2MF steel, 12Kh2MFT steel

TRANSLATION: Samples of 12Kh2MF and 12KhMFT steels were held in autoclaves under hydrogen pressure of 200 and 500 kg/cm<sup>2</sup> at 300 and 450C for 1000, 3000, and 10,000 hours. The samples were tested at room temperature in the hydrogenated state and after preliminary heating at 600C in a vacuum. After holding in hydrogen,  $\sigma_{\text{max}}$  and  $\sigma_{\text{B}}$  of the steels were not lowered; delta and phi were decreased respectively by 5-15 and 15-30%,  $a_k$  by 5-15%.  $\sigma_{\text{length}}$  of the metal in solid and welded samples (automatic welding) was practically identical.

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L 62946-65

ACCESSION NR: AR5019145

tical. Failure in nitrogen and hydrogen takes place along the grains. Steels 12Kh2MF and 12Kh2MFT are recommended for hydrogenation columns and other equipment operating in hydrogen containing media at high temperatures and pressures. I. Tulupova

SUB CODE: MM

ENCL: 00

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L 43304-55 EWT(d)/EWT(m)/EWT(u)/EWP(w)/EPE/EWA(d)/EWP(v)/r/EWP(t)/EWP(k)/  
 EWP(h)/EWP(b)/EWP(l)/EWA(c) PC-4/Pf-4/Pr-4/Ps-4 IJP(c) IT/IM/HM/WB/EM

ACCESSION NR: AF5012503

UR/0032/65/031/005/0612/0613

AUTHOR: Glikman, L. A.; Deryabina, V. I.; Kolgatin, N. N.; Teodorovich, V. P.

TITLE: Testing for tensile strength in hydrogen and other corrosive media at high temperatures and high pressures

SOURCE: Zavodskaya laboratoriya, v. 31, no. 5, 1965, 612-613

TOPIC TAGS: tensile strength testing device, corrosive medium, hydrogen, high temperature, high pressure

ABSTRACT: The design and operating characteristics are given for an apparatus for testing the tensile strength of metals in hydrogen or other corrosive media at high pressures (up to 300 kg/cm<sup>2</sup>) and temperatures up to 700C. The proposed apparatus (see Fig. 1 of the Enclosure) consists of a vessel (3) in an electrically heated oven (4) and a valve (5) for the introduction of the corrosive gas. One end of the reactor is sealed with a cone (7), a nut (6), and a ball joint (8); the other end is connected to a conventional device for measuring tensile strength (P-5, IM-8P, or others) through a water-cooled polyfluoroethylene gasket (9). Two rods (2) are provided to hold the specimen (1) in the reactor. The temperature of the specimen is measured with thermocouples. Orig. art. has: 1 figure. [PS]

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L 48304-65

ACCESSION NR: AP5012503

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh  
processov (All-Union Scientific Research Institute of Petrochemical Processes)

SUBMITTED: 00

ENCL: 01

SUB CODE: MM

NO REF SOV: 005

OTHER: 002

ATD PRESS: 3254

Card 2/3

ACC NR: AP7001232

(N)

SOURCE CODE: UR/0314/66/000/012/0021/0026

AUTHOR: Teodorovich, V. P. (Candidate of chemical sciences); Kolgatin, M. N. (Candidate of technical sciences); Deryabina, V. I. (Engineer)

ORG: none

TITLE: The effect of hydrogen on the mechanical properties of metals at high temperature and pressure

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 12, 1966, 21-26

TOPIC TAGS: ~~metal~~ hydrogenation, steel, iron, nickel, copper, aluminum, low alloy steel, ~~chromium~~ stainless steel, chromium ~~nickel~~ ~~stainless~~ steel, ~~chromium~~ manganese stainless steel, hydrogen containing steel, ~~high temperature metal property~~, high pressure metal property *high temperature effect*

ABSTRACT: Specimens of 20, 12Kh2MFT, 15Kh2MF, Kh3VMF, Kh6VMFB, Kh12VMF, Kh18N9, 1G18Kh8T, 45G18Yu3, 35G12Kh8T, 4Kh12N8GMFB steel, commercial-grade iron, nickel, copper and aluminum have been tested for the effect of hydrogen on their mechanical properties. It was found that at 400-450C, hydrogen decreases the strength and ductility of 20 steel and iron, particularly during the first 60 hr. Annealing partially restores the ductility. Hydrogen at 500C and 50 kg/cm<sup>2</sup> pressure in 1000 hr caused decarburization, loosened grain boundaries and decreased the yield and tensile strengths by 32%, the elongation by 54%, the reduction of area by 72%, and the notch toughness by 92%.

UDC: 669.1.002.612:546.11

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ACC NR: AP7001232

There was no decarburization at 400 or 350C, and subsequently vacuum annealing completely restored the mechanical properties, with the exception of notch toughness. 15Kh2MF and 12Kh2MFT steels tested under 500 kg/cm<sup>2</sup> pressure at 300 and 450C for 1000, 3000 and 10,000 hr did not show any changes in their structure or mechanical properties. The amount of hydrogen absorbed by these steels did not exceed 12 cm<sup>2</sup>/100 g. The other steels, on the basis of results obtained by tests at 600C under 700 kg/cm<sup>2</sup> pressure, can be divided into two groups. The first group includes Kh12VMF, 1G18Kh8T and Kh6VMFB steels in which hydrogen caused a decrease of mechanical properties, particularly of elongation and notch toughness. However, vacuum annealing at 600C completely restored the mechanical properties to the original level. The second group of alloy steels included 35G12Kh8T and 45G18Yu3 austenitic steels, and Kh3VMF perlitic steel, whose mechanical properties are reduced by hydrogen and are not restored by vacuum annealing. It is believed that this is caused by the action of methane formed by the reaction of absorbed hydrogen with carbon. The mechanical properties of nickel and copper, which were exposed to hydrogen at 700 kg/cm<sup>2</sup> pressure and at 600C for 100 and 250 hr, dropped and their structure was effected by loosening of the grain boundaries. Aluminum properties and structure were not affected by exposures up to 250 hr to hydrogen under 700 kg/cm<sup>2</sup> pressure at 300C. Orig. art. has: 8 figures and 4 tables. [TD]

SUB CODE: 11/ SUBM DATE none/ ORIG REF: 001/ ATD PRESS: 5110

Card 2/2

DERYABINA, V.L.

Qualitative index of the activity of the anatomicopathological section. Sovet.zdravookhr. no.2:43-49 Mr-Apr '50. (GIML 19:2)

1. Of the Department of Public Health Organization (Head -- N.A.Vinogradov) Central Institute for the Advanced Training of Physicians (Director -- V.P.Lebedeva).

*D. 11*  
ASTAF'YEVA, T.M.; DERYABINA, V.L.

Unification of hospitals and polyclinics and dispensary services for  
the population. Sovet. zdavookhr. 11 no.1:15-25 Jan-Feb 52. (CJML 21:4)

1. Of the Institute of Public Health Organization and History of  
Medicine of the Academy of Medical Sciences USSR.

DERYALINA, V. L.

DERYABINA, V. L. - "Development and Organization of Pathologic-Anatomical Services in Cities of the USSR." Sub 6 Jan 53, Central Inst for the Advanced Training of Physicians. (Dissertation for the Degree of Candidate in Medical Sciences).

SO: Vechernaya Moskva January-December 1952

DERYABINA, V.L.

Scientific conference of young research workers. Vest. AMN SSSR  
no. 3:44-46 '53. (MLRA 7:1)  
(Medicine)



DERYABINA, V.L., kandidat meditsinskikh nauk. (Review)

"Certain methods of introducing I.P.Pavlov's theories into practical medicine." L.S.Gambarian, V.I.Sazontov. Reviewed by V.L.Deriabina.  
Sov.zdrav. 13 no.2:56-57 Mr-Apr '54. (MLRA 7:4)  
(Hospitals) (Gambarian, L.S.) (Sazontov, V.I.)

USSR/Medicine - Scientific session

FD-2191

Card 1/1

Pub 102-11/15

Author : Deryabina, V. L., Aleksandrov, O. A., and Biryukov, R. N.

Title : Scientific session of the Institute for Organization of Public Health and History of Medicine imeni N. A. Semashko, Academy of Medical Sciences USSR

Periodical : Sov. zdrav., 3, 53-57, May-June 1955

Abstract : Second scientific session of the Institute was held on January 27-February 5, 1955. Minister of Health USSR, M. D. Kovrigina, Minister of Health RSFSR, S. V. Kurashov, and other high ranking personnel of various ministries and Academy of Medical Sciences USSR took part in the proceedings. Minister of Health of the Rumanian People's Republic, Marinescu, was also present. Proceedings indicated that great advance was made in USSR on scientific-theoretical front of health service organization as well as in medical statistics and history of medicine. It was pointed out that application of results of scientific research are numerous. It was also stated that struggle against excessive paper work and bureaucracy must go on.

Institution : —

Submitted : —

DERYABINA, V.L.

ZAKHAROV, F.G.; DERYABINA, V.L.

Results and prospects in consolidating polyclinics and hospitals.  
Sov. zdrav. 14 no.6:26-32 N-D '55. (MLRA 9:2)

1. Iz Instituta organizatsii zdavookhraneniya i istorii meditsiny imeni N.A. Semashko ANN SSSR (dir. Ye. D. Ashurkov)  
(HOSPITALS,  
unification of hosp. & polyclinics in Russia)

DERYABINA, V.L.

www.industrydocuments.ucsf.edu/docs

The magazine "Zdorov'e", 1955, no.1-12. Reviewed by V.L.  
Deriabina. Sov. zdrav. 15 no.1:61-63 Ja-F '56. (MLRA 9:6)

(PUBLIC HEALTH--PERIODICALS)

ALEKSANDROV, Oleg Alekseyevich; DERYABINA, V.L.; MATSKO, B.M.; ZAKHAROV,  
F.G., red.

[Organization of operations in consolidated hospitals] Ob organi-  
zatsii raboty v ob"edinennykh bol'nitsakh, pod red. F.G.Zakharova.  
Moskva, Medgiz, 1958. 82 p. (MIRA 12:4)  
(HOSPITALS--ADMINISTRATION)

ANAN'YEV, M.G., DERYABINA, V.L., KONNET, V.S.

Some problems in the development of the medical supplies industry.  
Med.prom. 12, no.11:6-10 N '58 (MIRA 11:12)  
(MEDICAL INSTRUMENTS AND APPARATUS)

ANAN'YEV, M.G., kand.med.nauk., DERYABINA, V.L., kand.med.nauk

Medical equipment and public health. Sov.zdrav. 17 no.10  
10-15 0 '58 (MIRA 11:11)

1. Iz nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy apparatury i instrumentov (dir. M.G. Anan'yev).  
(SURGERY, OPERATIVE, appar. & instruments  
advances (Rus))

DERYABINA, V.L.; KALININA, V.A.; MEL'NIKOVA, G.K.; SEMENOVA, A.V.

Rubber articles used in anesthesiology. Nov. med. tekhn. no.3:  
29-44 '65. (MIRA 19:1)



DERYABINA, V. M., Cand Med Sci -- (diss) "Effect of certain salino-  
alkaline waters of the ~~health resorts of~~ <sup>Ussr</sup> Caucasian Mineral Waters  
the secretory function of the stomach. (Experimental study.)" Mos,  
1958. 12 pp (Min of Health RSFSR, Central Inst of Health Resort<sup>(Sci)</sup>),  
200 copies (KL, 16-58, 123)

DERYABINA, V.M.; KOPYTIN, B.M.

Significance of the time factor in the ingestion of mineral waters.  
Vop.kur., fizioter. i lech. fiz. kul't. 25 no.1:20-24 '60.

(MIRA 13:5)

1. Iz otdela eksperimental'noy bal'neologii (zav. - doktor med.  
nauk A.K. Pislegin) Bal'neologicheskogo instituta na Kavkazskikh  
Mineral'nykh Vodakh (dir. - dotsent I.S. Savoshchenko).  
(MINERAL WATERS) (STOMACH--SECRETIONS)

KOPYTIN, V.M.; DERYABINA, V.M.

Importance of the temperature factor in drinking mineral waters.  
Vop. kur., fizioter. i lech. fiz. kul't. 24 no.6:521-524 N-D '59.  
(MIRA 15:1)

1. Iz otdela eksperimental'noy bal'neologii (zav. -- doktor med.  
nauk A.K.Pislegin) Bal'neologicheskogo instituta na Kavkazskikh  
Mineral'nykh Vodakh (dir. - dotsent I.S.Savoshchenko).  
(MINERAL WATERS)

DERYABINA, V.M., kand.med.nauk

Effect of radon water with a high radon content on the normal  
secretory function of the stomach and in experimental (burn)  
gastritis. Uch.zap.Pyat.gos.nauch.-issl.bal'n.inst. 3:38-47 '60.

(MIRA 15:10)

(STOMACH--SECRETIONS)

(RADON--THERAPEUTIC USE)

(STOMACH--INFLAMMATION)

DERYABINA, V.M.; KAGAN, M.S.; LEGEN'KAYA, L.M.; KHURTINA, Ye.V.

Physiological and dosimetric studies of the effect of radon water administered internally on the secretory function of the stomach. Med.rad. no.3:39-45 '62. (MIRA 15:3)

1. Iz eksperimental'nogo otdela (zav. - prof. A.K. Pislegin) i radiologicheskoy laboratorii (zav. - kand.med.nauk M.S. Kagan) Pyatigorskogo nauchno-issledovatel'skogo bal'neologicheskogo instituta.

(RADON)

(STOMACH--SECRETIONS)

DERYABINA, V.M.; SHAKYAN, A.G.

Conference on the internal use of mineral waters in diseases  
of the digestive organs and metabolism. Vop. kur., fizioter.  
i lech. fiz. kul't. 28 no.4:373-377 JI-Ag '63.

(MIRA 17:9)

KUZ'MINA, N.N.; GALKINA, A.N.; LALETIN, L.V.; SUROVA, G.A.; IGNAT'YEVA, V.V.;  
DERYABINA, V.P.; CHOVNYYK, N.G., kand. khim. nauk, red.; MIKHHEYEV,  
N.I., red.; ANTONOV, V.P., tekhn. red.

[Methods for the analysis of electrolytes and solutions of galvanic  
and chemical coatings; a manual for workers in industrial laboratories]  
Metody analiza elektrolitov i rastvorov gal'vanicheskikh i khimicheskikh  
pokrytii; spravochnoe posobie dlia rabotnikov zavodskikh laboratorii.  
Kuibyshev, TSentr. biuro tekhn. informatsii, 1960. 215 p.

(MIRA 14:7)

1. Kuybyshev (Province)  
(Protective coatings) (Chemistry--Laboratory manuals)

DERYABINA, Ye. I

DERYABINA, Ye. I--"Prophylaxis and Struggle against Shock in Through-the-Ribs Operations Due to Cancer of the Alimentary Tract and Heart."\*(Dissertation for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions.) Gorki State Medical Inst imeni S. M. Kirov, Gorki, 1955

SO:Knizhnaya Letopis', No. 25, 18 Jun 55

\* For Degree of Doctor of Medical Sciences



DERYABINA, Ye.I., kand.med.nauk

A case of isolated gastric lymphogranulomatosis. *Khirurgia*  
35 no.2:105-106 F '59. (MIRA 12:5)

1. Iz kliniki obshchey khirurgii (dir. - prof. V.A.Ivanov)
- II Moskovskogo meditsinskogo instituta im. N.I.Pirogova.  
(HODGKIN'S DISEASE, case reports,  
stomach (Rus))  
(STOMACH NEOPLASMS, case reports,  
Hodgkin's dis. (Rus))

DELYABINA, Ye. I., *Cond Med Sci* "Data on the study of the neurology  
of craniospinal anomalies," Leningrad, 1960, 18 pp (Leningrad State  
Institute for the Advanced Training of Physicians im S. M. Kirov)  
(KL, 35-60, 125-126)

DERYABINA, Ye.I.

Diagnosis of craniospinal anomalies. Och.klin.nevr. no.1:71-78 '62.  
(MIRA 15:9)

(SPINE--ABNORMITIES AND DEFORMITIES)  
(SKULL--ABNORMITIES AND DEFORMITIES)

DAVIDENKOV, S.N.; DERYABINA, Ye.I.

Atypical forms of Friedreich's disease. Ozh. klin. nevr. no.2:  
44-54 '64 (MIRA 18:1)

KOROLEV, B.A.; OKHOTIN, I.K.; SHVARTS, T.F.; DERYABINA, Ye.I.; YEZHOVA, T.N.;  
GUTENKO, V.I.

Clinical course of the defects of the interventricular septum  
and their surgical treatment under conditions of extracorporeal  
blood circulation. Uch. trudy GMI no.19:99-107 '65.

(MIRA 18:8)

1. Iz kliniki gospital'noy khirurgii Gor'kovskogo gosudarstvennogo  
meditsinskogo instituta imeni S.M.Kirova.

DERYABINA, Ye.I.; YEZHOVA, T.N.

Changes in the electrocardiogram and phonocardiogram in defects  
of Fallot's group. Uch. trudy GMI no.19:206-215 '65.

(MIRA 18:8)

1. Iz kliniki gosptal'noy khirurgii Gor'kovskogo gosudarstvennogo  
meditsinskogo instituta imeni S.M.Kirova.

DERYABINA, Ye.I.

Causes of death due to Brock operation in patients with defects of the Fallot group. Uch. trudy GMI no.19:221-226 '65.

(MIRA 18:8)

1. Iz kliniki gospital'noy khirurgii Gor'kovskogo gosudarstvennogo meditsinskogo instituta imeni S.M.Kirova.

DERYABINA, Ye.I.; TROITSKIY, K.I.

Reanimation in myocardial infarction. Uch. trudy GMI no.19:264-  
270 '65. (MIRA 18:8)

1. Iz kliniki gosspital'ncy khirurgii i fakul'tetskoy terapii  
Ger'kovskogo gosudarstvennogo meditsinskogo instituta imeni S.M.  
Kirova.



DE-YABINA, YE. N.

42596: GIBSHMAN, M. DE-YABINA, YE. Spechifichost' banteriofagov molochnokislykh streptokokkov. moloch. prom-stv, 1948, No. 11, s 38-39.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948

7. Obtaining phage-resistant strains of lactic streptococci with high production capacity. E. N. Deryabina (Sci. Research Inst. Cheese Ind., U.S.S.R. *Mikrobiologiya* 24, 452-5 (1953).—Yeast-like cultures of *Streptococcus diacetylatus*, which form diacetyl and volatile acids, are important in butter-making but too sensitive to bacteriophage. Loss of cultures and of flavor and aroma in the product has been lessened by acclimatizing selected strains (high in output of diacetyl). Phage-resistant strains were obtained without sacrificing biochem. activity. The resistance weakens with time and must be renewed by retreatment with bacteriophage. Julian F. Smith.

DERYABINA, Ye. N.

Med  
Effects of *Streptococcus lactis* and its filtrates on growth of *Leuconostoc dextranicum* in milk. Ye. N. Deryabina (All-Union Sci. Research Inst. Meat and Cheese Ind., Uglich). *Mikrobiologiya* 25, 72-8 (1958).—Filtrates of *S. lactis* contain substances which favor growth of *L. dextranicum* in milk; different cultures of *L. dextranicum* react differently, usually but not always with increased growth as one result. Either addn. of filtrate (5-10%) or inoculating the milk simultaneously with *S. lactis* accelerates growth (sometimes sharply), activates oxidation and favors formation of CO<sub>2</sub> and org. acids. *L. dextranicum* is very sensitive to seasonal changes; winter greatly impairs growth and capacity to form org. acids. Julian P. Smith

1

DERYABINA Ye. N.

USSR / Microbiology. Industrial Microbiology.

F-3

Abs Jour : Ref Zhur - Biol., No 20, 1958, No. 90795

Author : Gibshman, M. R.; Aristova, V. A.; Deryabina, Ye. N.

Inst : The All-Union Scientific Research Institute for the  
Butter and Cheese Producing Industries

Title : Variation in the Activity of Lactic Acid Streptococci  
with their Cultivation in Milk at Different Seasons of  
the Year

Orig Pub : Sb. ref. nauchn. rabot. Vses. n-i. in-t maslodel'n. i  
syrodel'n. prom-sti, 1957, vyp. 4, 62-66

Abstract : The characteristics of lactic acid streptococci (energy  
of multiplication and acid formation, ability to ferment  
hydrocarbons, formation of volatile acids, and sensitivity  
to bacteriophage) underwent considerable variation with  
cultivation in milk during the stall and pasture periods  
of feeding. Of the strains of lactic acid streptococci

Card 1/2

DERYABINA, Ye. P.

Deryabina, Ye. P. - "Research expedition of the Forest Institute (USSR Academy of Sciences Summary)," Les. Khoz-vo, 1948, No. 3, p. 76-77

SO: U-3600, 10 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).

DERYABINA, Ye.Ya., zasluzhennyy vrach RSFSR (Murmansk, ul. Volodarskogo,  
d. 4, kv.5)

Peritoneoscopy. Vest. khir. 91 no.8:131-134 Ag'63  
(MIRA 17:3)

1. Iz kliniki obshchey khirurgii ( zav. - prof. G.A. Orlov)  
Arkhangel'skogo meditsinskogo instituta.

DERYABINA, Ye.Ya., zasluzhenny vrach RSFSR

Peritoneoscopy in the diagnosis of extrauterine pregnancy. Akush.  
i gin. 40 no.2:100-101 Mr-Ap '64. (MIRA 17:11)

1. Klinika obshchey khirurgii Arkhangel'skogo meditsinskogo insti-  
tuta.

DERYABINA, Z. I.

Chemical Abstracts  
Vol. 48 No. 5  
Mar. 10, 1954  
Biological Chemistry

*Z. I. Deryabina*  
Effect of moderate concentrations of carbon dioxide on gas exchange in cattle. *Z. I. Deryabina. Veterinariya* 30, No. 10, 55-8(1953). Cattle kept in ~~rooms~~ with CO<sub>2</sub> content up to 2% for 4 hrs. display a lowered level of gas exchange with the surroundings; the decline of gas and energy exchange by some 2-8% is observed. No detectable changes in compn. of exhaled air are found, but an increased level of CO<sub>2</sub> in the blood and alveolar air is observed.  
G. M. Kosolapov

1. Vsesoyuznyy institut eksperimental'noy veberinarii.



DOROGOV, A.V.,kand.vet.nauk; DERYABINA, Z.I.,kand.biol.nauk

Effect of fraction 2 of Dorogov's antiseptic stimulator on  
oxidation processes in the body. Trudy VNIIVSE 11:406-412  
'57. (MIRA 11:12)

(TISSUE EXTRACTS) (METABOLISM)

USSR/Farm Animals - Cattle.

Q-2

Abs Jour : B. P. Jour - Biol., No 1, 1957, 2560

Author : Deryagina, Z.I.

Inst : All-Union Institute of Experimental Veterinary Medicine

Title : Relationship Between Variations in Gaseous Interchange  
in Cattle and the Functional State of the Animal.

Orig Pub : Tr. Vses. in-ta eksperim. veterinarii, 1957, 20, 251-256.

Abstract : No abstract.

Card 1/1

KAZANSKIY, I. I., KARNEYEVA, V. E. and DERYABINA, Z. I.

"Gamma-globulines for prophylaxis and treatment of foot-and-mouth and Oujeski diseases in animals."

Veterinariya, Vol. 37, No. 7, 1960, p. 35

*Deryabina - Caud. Biol. Sci. -*

*all-Union Inst. Exp. Vet.*

KAZANSKIY, I.I., prof.; KARNEYEVA, V.Ye., starshiy nauchnyy sotrudnik;  
DERYABINA, Z.I., kand.biolog.nauk

Gamma globulins used in the prophylaxis and treatment of foot-  
and-mouth and Anjesky's disease in animals. Veterinariia 37  
no.7:35-39 JI '60. (MIRA 16:2)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.  
(Gamma globulin) (Foot-and-mouth disease)  
(Pseudorabies)

DERYABINA, Z.I., kand.biolog.nauk

Preparation of anti-foot-and-mouth disease gamma globulin by the ammonium sulfate precipitation method (by means of acidifying) and its use in the prophylaxis of animals suffering from foot-and-mouth disease. Trudy VIEV 26:75-81 '62. (MIRA 16:2)

1. Laboratoriya farmakologii, khimioterapii i toksikologii Vsesoyuznogo instituta eksperimental'noy veterinarii.  
(Gamma globulin) (Foot-and-mouth disease)

RASSOLOV, M. (Simferepol'); DERYABKIN, V., inzh. (Simferepol')

Helicopter above vineyards in Crimea. Grazhd.av. 18 no.8:5  
Ag '61. (MIRA 14:8)  
(Crimea--Aeronautics in agriculture)

CHURIKOV, N.S.; DERYABKIN, V.I., inzh. aviatsii spetsprinemeniya (Simferopol')

Toward the 22d Congress of the CPSU. Zashch. rast. ot vred. i bol.  
6 no.9:3 S '61. (MIRA 16:5)

1. Direktor Zapadno-Kazakhstanskoy stantsii zashchity rasteniy,  
Ural'sk (for Churikov).

(Plants, Protection of)

L 49012-65 EWT(m)/EPP(c)/EWP(j)/EWA(c) Po-1/Pr-1 RM

ACCESSION NR: AR5012158

UR/0282/65/000/003/0057/0057

SOURCE: Ref. zh. Khimicheskoye i kholodil'noye mashinostroyeniye. Otdel'nyy vypusk, Abs. 3.47.389 22  
B

AUTHOR: Nosach, N. S.; Jeryabo, D. G.

TITLE: Special KVDs and KNDs throttling valves for urea production 7

CITED SOURCE: Sb. Avtomatiz. khim. proiz-v. Vyp. 2. II., 1964, 39

TOPIC TAGS: throttling process, valves, urea

TRANSLATION: The article is a report on the development and sample production of two new throttling valves: the KNDs ( $D=32$  mm,  $P=25$  kg/cm<sup>2</sup>) and the KVDs ( $D=32$  mm,  $P=320$  kg/cm<sup>2</sup>). The valves consist of a regulating unit and a pneumatic actuator. To keep the urea solution from crystallizing during throttling, there are a number of channels in the housing for heating using steam at a pressure of 17 gauge atm. and a temperature of 203°C. The pneumatic actuator has a head diameter of 410 mm.

SUB CODE: IE, GC

ENCL: 00

Card 1/1 *int*



DERYAGA, P.

Spent oil reclaimer. Khol.tekh. 37 no.2:50-51 My-Ap'60.  
(Maykop -- Compressors) (Oil reclamation)

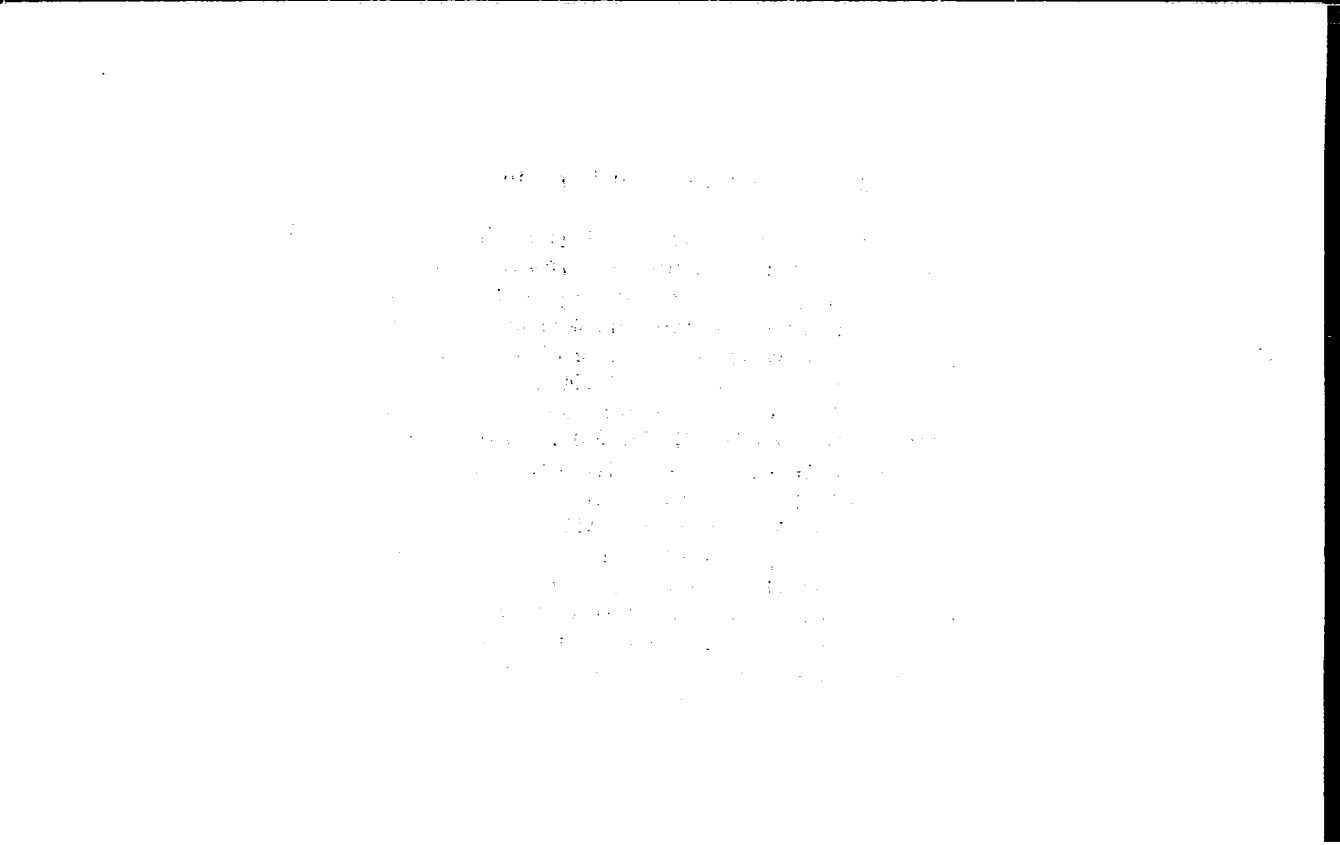
(MIRA 13:10)

1. The Committee on the Assassinations of President John F. Kennedy  
has been established by the President of the United States.

2. The Committee shall be composed of five members, to be appointed by the President.

3. The Committee shall report to the President on or before the date specified in the order of appointment.

4. The Committee shall have access to all records, reports, and information in the possession of the Executive Branch of the Government, and shall have the authority to request and receive such information from any Federal agency, State, or local government, or from any individual, as it may deem necessary for the performance of its duties.



LATSKIY, V.I.; DEMYAGIN, A.P.

New machines for the mining industry from the "NIPGormash" Institute.  
Gor. zhur. no.7:47-49 JI '64. (MIRA 17:10)

1. Nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut  
gornogo i obogatitel'nogo mashinostroyeniya, Sverdlovsk.

~~D~~ERYAGIN, B.N.

USSR/Physics - T-particles

Card 1/1 Pub. 22 - 6/40

Authors : Alikhonyan, A. I., member correspondent of the Acad. of Scs. of USSR;  
Dayon, M.I.; Shostakovich, N. V.; Kirillov-Ugoyumov, V. G. and Deryagin, B.N.  
Title : Unstable charged particles heavier than protons.

Periodical : Dok. AN SSSR 99/3, 361-364, Nov 21, 1954

Abstract : Four cases of charges particles heavier than protons, observed in Wilson's camera, are described. These particles were designated T-particles and their mass, sign, durations and energy were estimated. They are considered as being particles of a decomposition process at the end of which the formation of  $\tilde{\pi}$ -mesons was observed. A scheme of the decomposition process can be written as follows:  $T \rightarrow n^0 + \tilde{\pi}^0 (\pi^0) + Q$ , where Q is energy carried away by the neutron and the meson, from the T-particle when the latter is in a state of rest. Six references; 2-USSR and 4-Foreign (1953-1954). Table; illustrations.

Institutions: Physical Institute of the Acad. of Scs. of the Arm SSR  
Physical Institute of the Acad. of Scs. of the USSR

Submitted : .....

*DERYAGIN, B.N.*

USSR/Nuclear Physics - Wilson chamber

FD-2206

Card 1/1

Pub. 146-11/25

Author : Kirillov-Ugryumov, V. G.; Fedorov, V. M.; Deryagin, B. N.

Title : Rectangular Wilson chamber with two-sided expansion

Periodical : Zhur. eksp. i teor. fiz. 28, 603-607, May 1955

Abstract : The authors describe a rectangular Wilson cloud chamber with two-sided expansions which is convenient for use in conjunction with the masspectrometer. They thank Professor A. I. Alikhanyan for his guidance, and also M. M. Veremeyeva, V. A. Nikolayeva, G. D. Davinusa, S. G. Ryumina, and N. A. Golubchikova for their assistance. Two photographs are given of tracks of cosmic rays recorded in their chamber. [One photograph has been mutilated after insertion in the magazine.] Five references, including one USSR: A. A. Alikhanyan, V. G. Kirillov-Ugryumov, N. V. Shostakovich, and V. M. Fedorov, DAN SSSR, 92, 1953.

Institution : Physics Institute im. P. N. Lebedev, Academy of Sciences USSR

Submitted : April 27, 1954

DERJAGIN, B.N. PA - 2004  
AUTHOR: ALICHAJAN, A.I., SOSTAKOVIC, N.V., LADAJAN, A.T.,  
FEDOROV, V.M., DERJAGIN, B.N.  
TITLE: On the Spectrum of the Masses of the Charged Particles of Cosmic  
Radiation.  
PERIODICAL: Zhurnal Eksperimental'noi i Teoret.Fiziki, 1956, Vol 31, Nr 6,  
pp 955-970 (U.S.S.R.)  
Received: 1 / 1957  
Reviewed: 3 / 1957

ABSTRACT: The present work deals with the results of the measurements of this mass spectrum which were carried out in an altitude of 3200 m. These measurements were carried out with a magnetic spectrometer in connection with two WILSON chambers. In the stars which were produced above the measuring device protons, deuterons, pions, and K-particles were observed. Work is arranged as follows: Determination of the mass spectrum of the particles from momentum and range, measurements of the masses of cosmic particles in a magnetic spectrometer with a many-plate WILSON chamber, selection of trajectories, accuracy of the measurements of the masses of particles, light intensity, the mass spectrum, the determination of particle mass from scattering and range.

Summary: Two groups of particles are observed in the mass spectrum between pion and proton: K-particles with  $\sim 1000 m_e$  and a group of particles with  $m_e \sim 550 m_e$ . If only those particles are selected which were produced in the matter above the device, the group of particles with the mass  $\sim 550 m_e$  vanishes completely and the mass spectrum then consists of pions, K-particles, protons and deuterons. In  
CARD 1 / 2

On the Spectrum of the Masses of the Charged  
Particles of Cosmic Radiation.

PA - 2004

this connection the ratio of the abundance of K-particles and pions in the same interval of the ranges is 0,08. In the mass spectrum the authors observed a group of 11 particles the mass of which, determined from the range (as well as from range and scattering) amounts to 500 - 600  $m_e$ . This is in contradiction to all measurements of the masses of cosmic particles hitherto carried out by means of a WILSON chamber and photoplates. The particles which belong to this anomalous group incide into the recording system from the outside just like myons. The fact that hitherto particles with  $\sim 500 m_e$  have been lacking may be connected with the conditions for the selection of particles. As further data concerning 500  $m_e$  particles have hitherto been lacking, a very careful interpretation of the aforementioned 11 traces is necessary. - According to the authors' opinion it is necessary, besides from determining mass from momentum, range, and scattering, to determine also the ionizing capacity of individual particles with great accuracy. It is then possible to determine the mass of particles by means of methods that are independent of one another, namely from momentum and ionization. It is only by such measurements that a definite decision concerning the existence of such 500  $m_e$  particles is possible. The authors already started a new series of experiments in the course of which the ionizing capacity of the particle is determined before incidence into the WILSON chamber by means of multi-layer proportionality counters.

ASSOCIATION: Physical Institute "P.N.LEBEDEV" of the Acad.of Sciences, USSR  
Physical Institute of the Acad.of Sciences of the Armenian SSR

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress



Deryagin, B.N.

1957-3-3/40

AUTHORS: Kirillov-Ugryumov, V.G., Deryagin, B.N., Merson, G.I.

TITLE: A Rectangular Wilson Chamber with Side Illumination  
(Pryamougol'naya kamera Vil'sona s bokovym osveshcheniyem)

PERIODICAL: Priroda i Tekhnika Eksperimenta, 1957, Nr 3, pp.15-18.  
(and 1 plate) (USSR)

ABSTRACT: The working volume of the chamber is 32 litres and its depth 148 mm. Its rectangular shape makes it easier to use it with other experimental apparatuses (mass spectrometer of Alikhanov-Alikhanyan, another chamber, etc.). Side illumination gives a uniformity in the images of tracks passing through the chamber. A sectional drawing of the chamber is shown in Fig.1. The chamber is made from duralumin coated with bakelite on the inside. 5 beryllium plates each 10 mm thick and placed in aluminium frames could be introduced into the sensitive volume. The plates were coated with thin layers of aluminium (used to introduce a clearing field) and covered with bakelite varnish which was then polymerised. The expansion was carried out using two spark valves described in (Refs.2 and 3) except that they were now made of organic glass

Card 1/2

120-3-3/40

A Rectangular Wilson Chamber with Side Illumination.

(designed for pressures up to 1.5 atm. in the expansion volume). For slow expansions, the valve described in (Ref.4) was used. The temperature was stabilised to  $\pm 0.5^{\circ}\text{C}$  by placing the chamber in a special thermostating case. Typical photographs of fast particles are shown in Fig.7. A special investigation was carried out of the performance of the chamber in a magnetic field. Scattering of  $\mu$ -mesons in lead has also been investigated and results will be published later. M.M.Veremeyev, V.A.Nikolayev and A.M.Moskvichev collaborated. There are 7 diagrams, no tables and 5 references, of which 1 is Russian, 1 is Italian and 3 are English.

ASSOCIATION: **Institute of Physics imeni P. N. Lebedev.**  
(Fizicheskiy institut im. P.N.Lebedeva)

SUBMITTED: October 13, 1956.

AVAILABLE: Library of Congress.

Doc 1/1 1. Cloud chambers-Operation

3782  
 ON THE MASS SPECTRUM OF CHARGED COSMIC RAY PARTICLES  
 A. I. Aibkhanian, N. V. Shostakovich, A. T. Dadasian, V. K. Fedorov, and E. N. Deriagin (Academy of Sciences, USSR and Academy of Sciences, Armenian SSR).  
 Soviet Phys. JETP 4, 817-30 (1967) July.

13  
 1967  
 2

Results of an investigation of the cosmic ray particle mass spectrum at 3200 m are reported. The measurements were carried out by means of a magnetic spectrometer used in conjunction with two cloud chambers. Protons,  $\alpha$  particles,  $\mu$  mesons, and K particles were observed among the particles locally generated in stars above the experimental arrangement. The cases of 11 particles with masses of about 500 to 600  $m_e$  stopping in the lower chamber are discussed. In all these events, neither a star nor a shower was observed in the upper chamber. It was found that some of these particles entered the apparatus from the outside in a singular manner to the  $\mu$  mesons. (auth)

Distr: 4Ehc/4E3d

JK [signature]

DEBYAGEN, B. N., ZAIMOVSKIY, A. S., LINOVIKOV, V. P., KAZACHENKOVSKIY, O. D.,

KRAZNOYATOV, N. V., LEYBINSKIYA, A. I., MALIKH, V. A., MAZAROV, P. M.,  
NIKOLAYEV, S. K., STAVISSKIY, Y. Y., UKHARINSKIY, E. I., FRANK, I. M.,  
SHAPIRO, FL L., YAZVITSKIY, Y. S., BLOK LINTSEV, D. I., BLOK IV, G. P.,  
PLYUSKINA, Y. A., SCHDAPENKO, I. I.

"A Pulsed Fast reactor."

report submitted for the IAEA seminar on the Physics of Fast and  
Intermediate Reactors, Vienna, 3-11 Aug 1961.

Acad Sci. USSR Moscow

13

22873  
S/089/61/010/005/001/015  
B102/B214

21.1910 21.4210  
26.2200

AUTHORS: Blokhin, G. Ye., Blokhintsev, D. I., Blyumkina, Yu. A.,  
Bondarenko, I. I., Deryagin, B. N., Zaymovskiy, A. S.,  
Zinov'yev, V. P., KAZACHKOVSKIY, O. D., Kim Khen Bon,  
Krasnoyarov, N. V., Leypunskiy, A. I., Malykh, V. A.,  
Mazarov, P. M., Nikolayev, S. K., Stavisskiy, V. Ya.,  
Ukrainitsev, F. I., Frank, J. M., Shapiro, F. L.,  
Yazvitskiy, Yu. S.

TITLE: A pulsed fast reactor

PERIODICAL: Atomnaya energiya, v. 10, no. 5, 1961, 437-446

TEXT: The present paper gives a description of the pulsed fast reactor of the Ob'yedinennyi institut yadernykh issledovaniy (Joint Institute of Nuclear Research) which became critical in June, 1960. This reactor, called W6P (IBR) reactor, serves as pulsed fast neutron source (mean power 21 kw) for physical investigations, particularly for time-of-flight experiments. Its most distinguishing feature is the very small contribution ( $\sim 10^{-4}$ ) of the delayed neutrons in its normal operation; it is about

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X

22873

S/089/61/010/005/001/015  
B102/B214

A pulsed fast reactor

one hundredth of that of the usual steady uranium reactor. The pulses appear because whenever the reactor becomes overcritical a burst of prompt neutrons results. The half width of these pulses is 36  $\mu$ sec. The frequency with which the pulses are repeated can be varied between 8 and 80 pulses/sec. Fig. 2 shows the construction of this reactor. The periodic change in the reactivity is brought about by the displacement of the two  $U^{235}$  blocks placed in two disks that can be rotated. The main block is pressed in the form of a disk, 1100 mm in diameter, and can be rotated with a peripheral velocity of 276 m/sec (at 6000 rpm) during which it passes through the core center. The reactivity change obtainable from the motion of the main block is 7.4 %, that obtainable from the motion of the auxiliary block is 0.4 %. The stationary part of the core consists of plutonium lumps in steel jackets. The reactor is started by a rough regulator, in this case a movable part of the reflector. It gives a reactivity change at the rate of  $13 \cdot 10^{-5} - 1.3 \cdot 10^{-5} \text{ sec}^{-1}$ . The manually operated rod is also a part of the reflector. Two plutonium rods in electromagnetic suspension serve as scram. They can be separated from the core with an acceleration of 20 g. Their separation causes a reactivity

Card 2/24

22R73

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B102/B214

A pulsed fast reactor

decrease of 2-1.1 %; the rough regulator allows a reactivity change of 2.4 %, the manual regulator 0.1 %, and the automatic regulator 0.036 %. The reactor possesses also a re-ctivity booster for the production of one intensive pulse. The control and shield system is an automatically functioning electronic arrangement with  $BF_3$  counters and ionization

chambers. The whole reactor is placed in a room of size 10.10.7 m whose concrete walls allow complete protection from radiation. The most important experimental arrangement consists of a 1000 m long neutron conductor, a metal tube, 400 mm in diameter in the first part and 800 mm in the second part in which a pressure of 0.1 mm Hg is maintained. This conductor connects a chain of so-called "intermediate pavilions" (at distances of 70, 250, 500, 750, and 1000 m from the reactor) in which experiments can be carried out. There is also an additional neutron conductor of 100 m length. The reactor chamber is joined to an experimental chamber in which four neutron beams of up to 800 mm diameter are available. There us such an experimental chamber also above the reactor chamber. Various experiments were carried out with the reactor and they are described in the present paper. These are experiments with stand

Card 3/11 4

A pulsed fast reactor

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B102/B214

assemblies and slowly moving main block for the determination of the most important parameters of the reactor; experiments with a core assembly (unmoved), experiments with rotating (5000 rpm) main block and a Ra- $\alpha$ -Be source in the core for the investigation of the effect of the multiplication factor, etc. The most important results are represented graphically. For example, Fig. 8 shows the dependence of the half width  $\theta$  of a pulse on the reactivity; the dashed line holds for the quasistationary case, the dot-dash line for the case of  $\theta = K(\tau/\alpha)^{1/3}v^{-2/3}$ , where  $v$  is the velocity of motion of the (rotating) main block; in the quasistationary case  $\theta = 2\sqrt{\epsilon_m}/av^2$ , where  $\epsilon_m$  is the reactivity at the maximal multiplication factor;  $\epsilon = \epsilon_m - ax^2$ , where  $x$  is the displacement of the main block. The reactor has been actually used for the measurement of the total, scattering, capture, and fission cross sections by the time-of-flight method. Further experiments will be carried out with a view to obtaining increase of power and decrease of the pulse duration. There are 15 figures and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: J. Orndorf, Nucl. Sci. and Engng, 2, No. 4, 450 (1957).

Card 4/14



DERYAGIN, B.V.; KARASEV, V.V.; MEDVEDOVA, A.M.; ZHREBROV, S.N.

Electron emission on the loosening of vulcanized rubber from metal  
and glass in a vacuum. Koll. zhur. 27 no.1:35-41 Ja-F '65.

(MIRA 18:3)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti  
i Institut fizicheskoy khimii AN SSSR, Moskva.

LYASHEV, K.F.; DUKHIN, S.S.; DERYAGIN, B.V.

Effect of adsorption layers of soluble surface-active agents on the evaporation rate of fine water droplets. Koll. zhur. 27 no.1:64-69 Ja-F '65. (MIRA 18:3)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR, Kiyev i Institut fizicheskoy khimii AN SSSR, Moskva.

DERYAGIN, B.V.; NERPIN, S.V.; ARUTYUNYAN, M.A.

Mechanocaloric effect at ordinary temperatures. Dokl. AN SSSR 160  
no.2:387-389 (a '65. (MIRA 18:2)

1. Institut fizicheskoy khimii AN SSSR, Agrofizicheskiy institut  
Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I. Lenina  
i Institut pustyn' AN Turkmenskoy SSR. 2. Chlen-korrespondent  
AN SSSR (for Deryagin).

VOYUTSKIY, S.S.; DERYAGIN, B.V.; RAYEVSKIY, V.G.

Nature of the adhesive bond between polymers. Dokl. AN SSSR 161  
no.2:377-379 Mr '65. (MIRA 18:4)

1. Chlen-korrespondent AN SSSR (for Deryagin).

5

PROPERTIES AND PROPERTIES INDEX

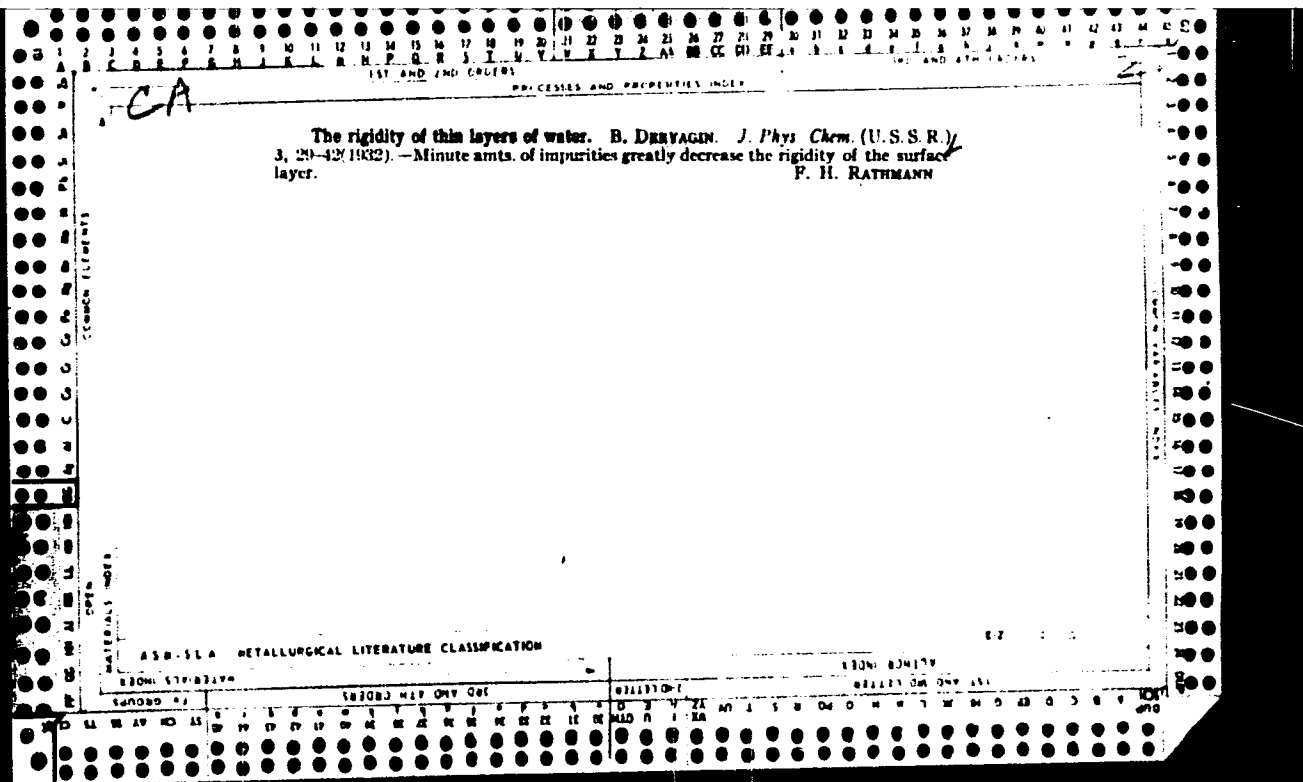
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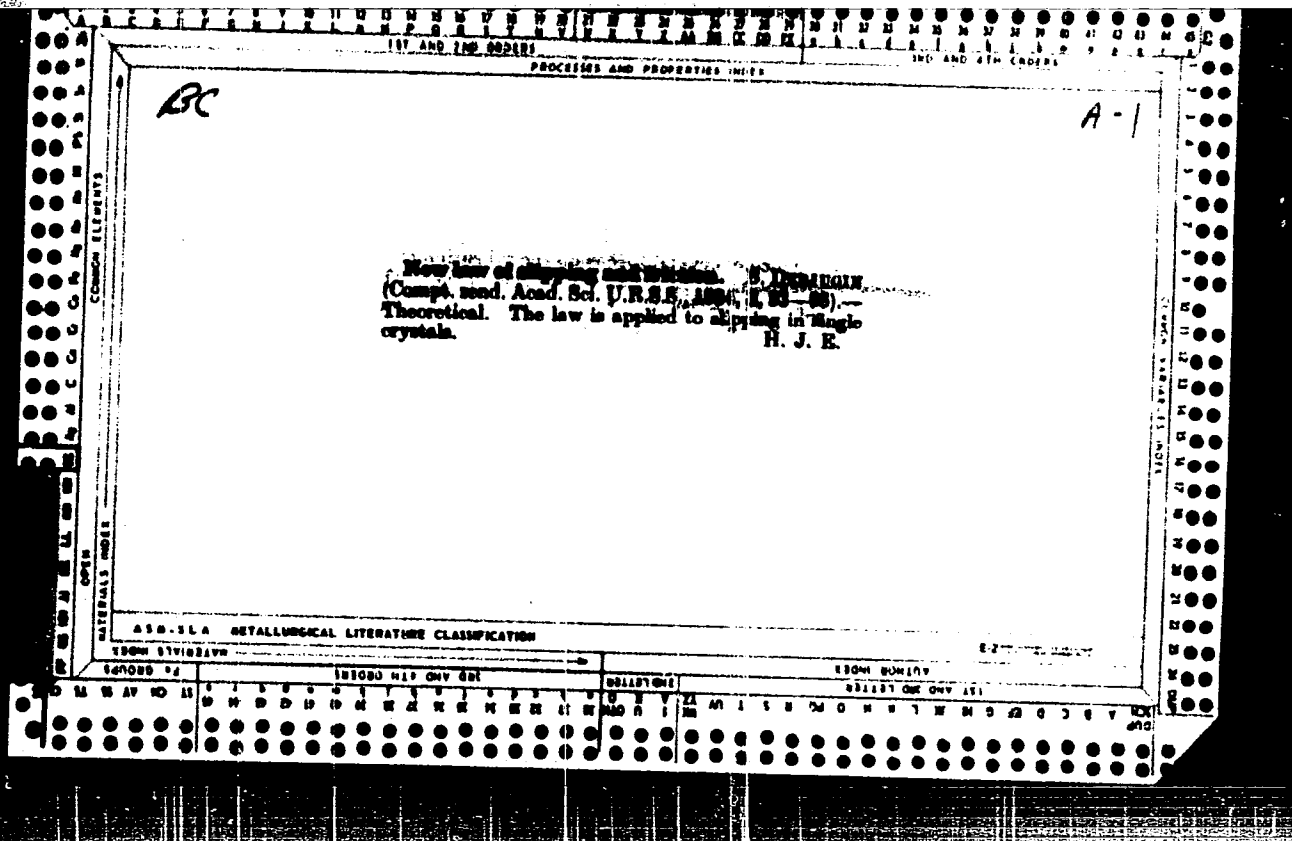
**В. В. ДУВАНОВ, И. В. ДУВАНОВ и Л. М. КРАЯНОВ**  
Исследование свойств металлов и сплавов. Москва, 1958, 8, 681-684.

The properties of metals and alloys and of some steels were determined over the range 14-70° by the falling-phane method.

METALLURGICAL LITERATURE CLASSIFICATION

METALLURGICAL LITERATURE CLASSIFICATION		METALLURGICAL LITERATURE CLASSIFICATION	
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DERYAGIN, B. V.

The external friction of crystalline surfaces. Preliminary communication. B. V. Deryagin and V. P. Lashov. *J. Phys. Chem.* (U.S.S.R.) 5, 416-22(1934).  
--The coeff. of static friction of a fresh clean mica surface was 1.0, after polishing 0.4 and with water lubricant 0.16-0.20. Exposure to air did not alter the value for the fresh unpolished surface. An app. for making the measurements is described. F. H. Rathmann

Molecular theory of friction and gliding. B. Deryagin. *J. Phys. Chem.* (U. S. S. R.) 5, 1105-70(1934).--With the assumption that the mol. repulsive forces between adjacent surfaces are equiv. to rigid bonds due to the rapid increase of these forces, the formula  $F = \mu (N + N_0)$ , where  $F$  = force of friction,  $\mu$  = coeff. of friction, and  $N$  is the load and  $N_0$  is a const. for the contact surfaces, is developed and shown to be a generalization of the Amontons-Coulomb laws. The equation is applicable to internal gliding in crystals. F. H. Rathmann



PROCESSING AND PRIORITY MARKS

FIRST AND SECOND ORDERS

ca

γγ

The application of the H. Le Chatelier and the Fulcher-Tammann viscosity formulas to tractor oils at various temperatures. B. Deryagin and M. Kusakov. *Neftyanoe Khasystvo* 26, No. 12, 85-9(1934).—The temp.-viscosity relationship of oils can be expressed (within 0-140°) by the Fulcher-Tammann equation  $\log \eta/\eta_0 = C/(T - t_0)$  and with some approximation by the Le Chatelier equation  $\log \log \eta/\eta_0 = A - Bt$ , where  $\eta_0$ ,  $A$  and  $B$  are empirical consts., and  $\log \log \eta = A - Bt$ . This conclusion is drawn on the basis of expts. carried out with 12 different oils.

A. A. Bochtlingk

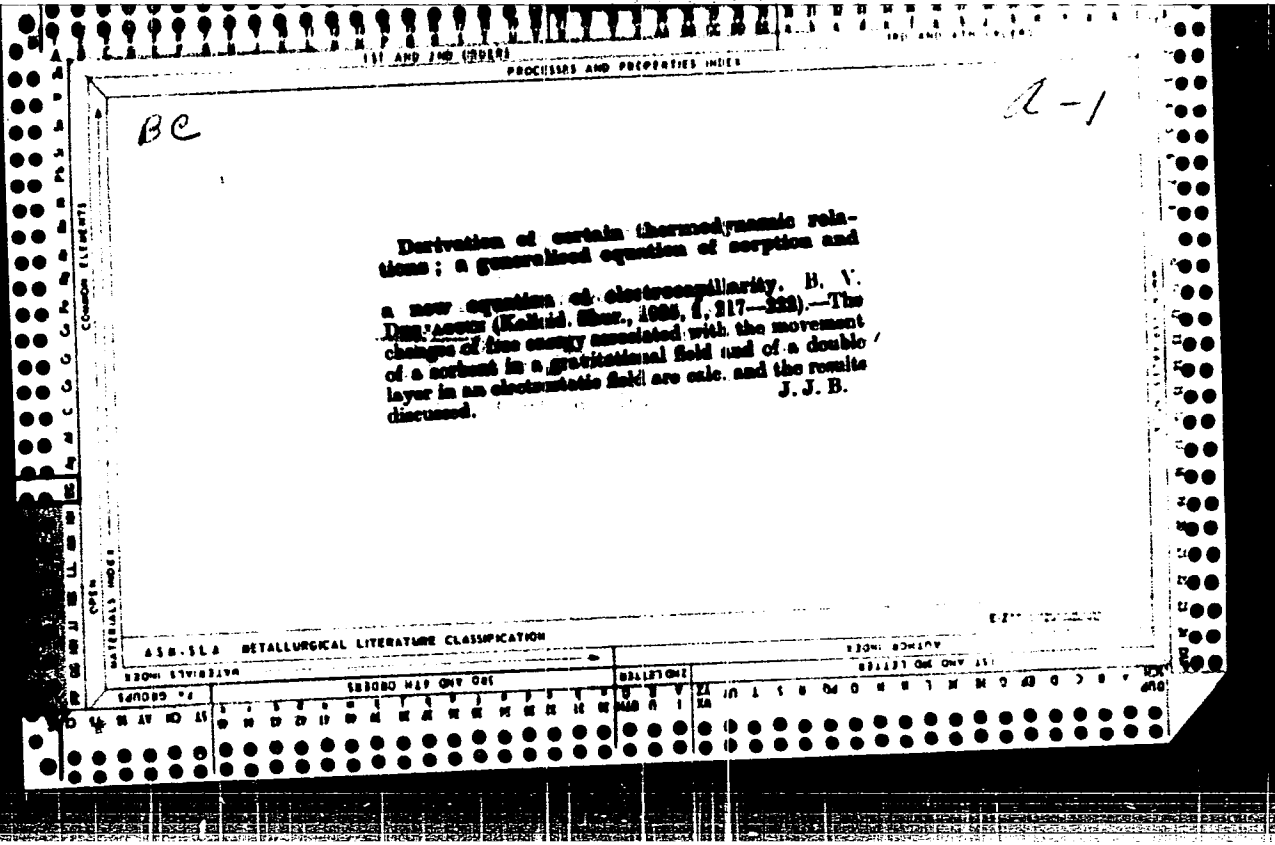
ASS. S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

E-2

RECORD WITH ONLY USE

REVISIONS

RECORD WITH ONLY USE



DERYAGIN, B. V.

A new law of friction and its experimental verification and application to the study of the friction of mineral dispersions. B. Deryagin and V. Lashnev. *Colloid J.* (U. S. S. R.) 1, 318-351 (1938).—The law of friction  $F = \mu(N + \rho S)$  or  $f = \mu(\rho + \rho_0)$  (where  $F$  = frictional force,  $N$  = load or force holding 2 bodies together,  $\mu$  = coeff. of friction,  $S$  = area of contact surfaces,  $\rho_0$  = const. for the given surface,  $\rho$  = pressure per unit contact surface,  $f$  =  $F/S$ ) is derived and verified by exptl. data for talc on glass, brass and iron, for quartz on glass, for graphite on glass, brass and iron, and for chalk on glass in dry and moist air. F. H. Rathmann

Asymmetry properties of thin layers of liquids. III. Ultramicroscopic studies of the lyosphere and of the elementary act of swelling. B. Deryagin and E. Otakhov. *Colloid J.* (U. S. S. R.) 1, 368-44 (1938); cf. *C. A.* 28, 7111<sup>4</sup>.—Data are given for mica and steel surfaces in water, dil. NaOH, CCl<sub>4</sub>, and paraffin oil. The surface contains a multimol. adsorbing shell. F. H. Rathmann

1ST AND 2ND ORDERS      PROCESSED AND PROPERTIES INDEX      3RD AND 4TH ORDERS

SA ASY  
d

**4428. Generalized Sorption and New Electrocapilarity Equations.** B. Dorjagala. *Acta Physicochimica*, 2, 2, pp. 377-384, 1955. *In German.*—By considering the change in free energy occurring when a known volume of gas is in thermal equilibrium in a gravitational field is brought into contact with a sorbent, general volume-sorption equations (applicable, e.g., to porous absorbents) are derived. The only assumption made is the reversibility of the sorption process, this expression being used in its widest sense, so as to include such processes as capillary condensation in pores, occlusion, absorption, etc. By replacement of gas pressure and density by osmotic pressure and concentration, the equations become applicable to sorption from a solution or mixture. From these equations, a whole series of special relationships, particularly Gibbs' equation for adsorption at phase boundaries, may be derived. By introduction of an electrostatic field in place of the gravitational field, a new electrocapilarity equation is also derivable. T.H.P.

A 50-55 A METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS																																																							
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ca																									External friction and cohesion. V. Theory of cohesion. B. Derjaguin. <i>J. Phys. Chem. (U. S. S. R.)</i> <b>6</b> , 1788-1797(1952). Formulas are derived for both the cases of deformation and of nondeformation of the points of contact. Theoretical. F. H. Rathmann																														
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ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION																																																							
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ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION  
STANDARD

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1ST AND 2ND GROUPS

PROCESSES AND PROPERTIES INDEX

100 AND 101 GROUPS

Common Elements

OPEN MATERIALS INDEX

Properties of thin liquid layers and their effect upon the exchange process at solid surfaces. B. Deryagin and M. Kuzakov. *Bull. Acad. Sci. U. R. S. S. Classe sci. math. nat. Sér. chim.* 1959, 741-62 (in German 733). - A method for detg. the relation and thickness of the layers, and thickness and energy characteristics of their solvate sheaths is described. For the case of a hydrophilic micaceous layer the thickness is of the order of  $1 \mu$ ; electrolytes cause radical variations therein. Theoretical explanations follow for stabilization and coagulation of disperse systems, swelling of lyophilic colloids, and sediment vol. and filtration action of aq. solns. Gregg M. Evans

2

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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PROCESSING AND PROPERTIES INDEX

A-1

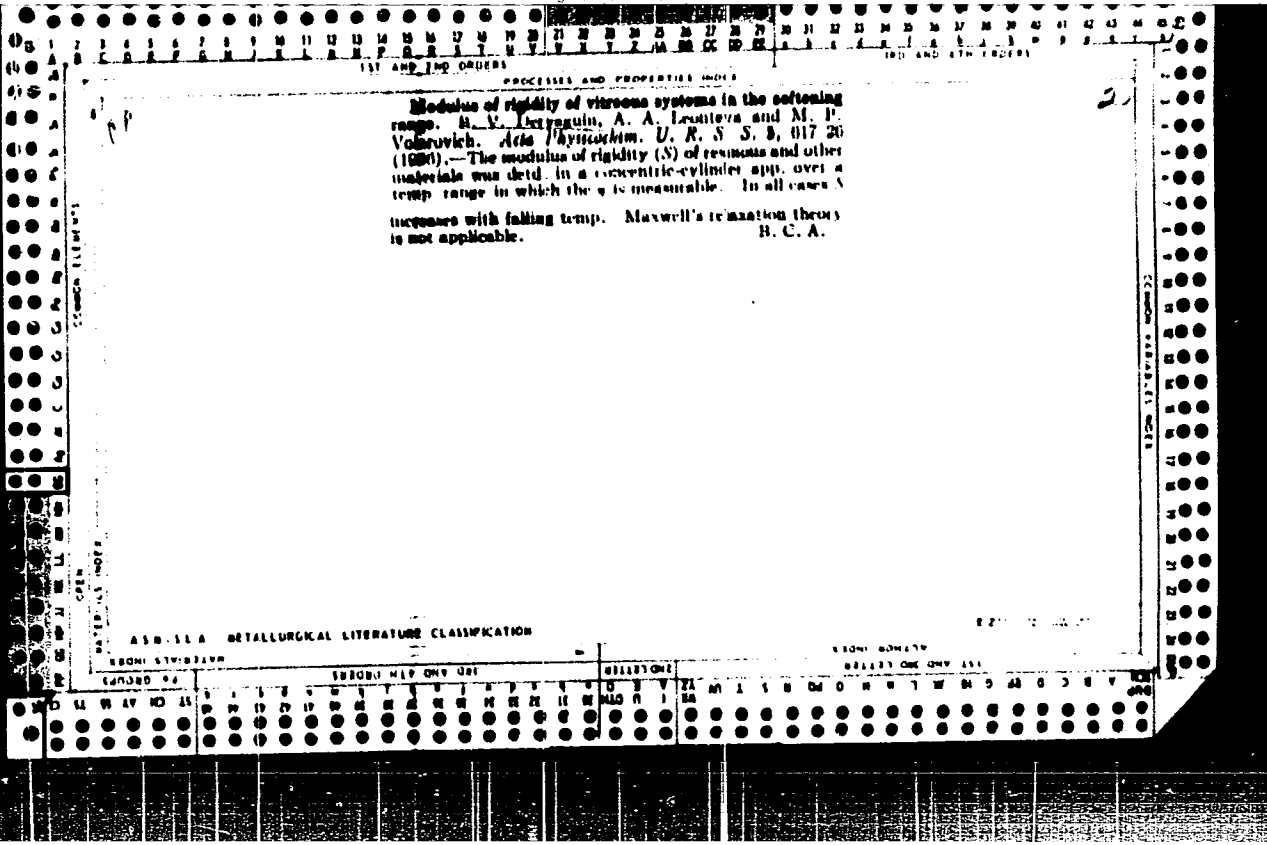
BC

**Anomalies of thin liquid layers. III. Ultra-micrometric study of solvent envelopes and of the fundamental swelling process. B. DENJAQUIN (with K. OUDONOV) (Acta Physicochim. U.R.S.S., 1958, 5, 1-23; cf. A., 1954, 1068).—A method is described for determining, by means of an optical lever, the pressure exerted by a thin film of liquid in contact with lyophilic surfaces. When H<sub>2</sub>O penetrates between plane parallel plates of mica, the resulting linear separation of the plates varies inversely with the pressure opposing separation, e.g., 2.1 μ at 4-g, and 0.85 μ at 16-g per sq. cm. CCl<sub>4</sub> produces no effect with mica, but when saturated with H<sub>2</sub>O gives the same val. as does pure H<sub>2</sub>O. At a steel surface H<sub>2</sub>O is inactive, whilst paraffin oil gives an effect which is increased by addition of oleic acid. The observed effect is invoked to explain the swelling of pptn. and colloids. The subject is discussed theoretically.**

F. L. U.

ASM-AIA METALLURGICAL LITERATURE CLASSIFICATION

1958-59





CA

2

Elastic properties of foams and thin films. II. Experimental verification of the theory. B. Deryagin and E. Oshukhov, *J. Phys. Chem. (U. S. S. R.)* 7: 207 (1936).—An app., by means of which the previously derived (cf. *C. A.* 27, 4462) formula  $\mu = 2.5 \cdot P \cdot \rho$  (where  $\mu$  = modulus of displacement for an elastic foam,  $P$  the av. pressure within the foam bubbles and  $\rho$  the external pressure) can be tested, is described. The app. measures the increase in internal pressure after compression and the quenching of the vibration of a metallic rod immersed in the foam. For aq. soaps, contg. 0.02% of saponin  $\mu$  varied from 0.23 to 0.70 with an av. at 0.50 (theoretical value =  $\mu = 0.40$ ). For 0.1% soaps, of saponin the captl. value is up to 15 times the theoretical. The deviation in stronger soaps, is held to be due to not taking into account the surface tension of the foam cells.  
P. H. Rathmann

ASB-SEA METALLURGICAL LITERATURE CLASSIFICATION

1500-151000

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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PROCESSES AND PROPERTIES INDEX

MEASUREMENT OF THE DISPLACEMENT MODULI OF GLASS-LIKE SYSTEMS IN THE RANGE OF THEIR SOFTENING. P. Solovovich, B.V. Deryagin and A.A. Leont'eva. J. Phys. Chem. (U.S.S.R.) 8, 479-86 (1936).- By means of a torsion vibrational app., the temp. of the initial elastic oscillations in melts of waxes, tars, collophony, rosin, glucose, paraffin, etol, were detd. during cooling. For collophony this temp. is 7.2° above the Tammann lg temp. The shearing moduli are of the order of 10<sup>8</sup> dyn/cm<sup>2</sup>. V., B. and L. hold that the temp. of inelastic oscillation indicates the moment of transition from the viscous liquid to the solid amorphous state. F.H. Rathmann

ASM-A-L-A METALLURGICAL LITERATURE CLASSIFICATION

1936-1937

PROCESSES AND PROPERTIES INDEX

1ST AND 2ND ORDERS      3RD AND 4TH ORDERS

1

**Mechanical properties of dispersed systems and surface layers. B. V. Deryagin. *Ann. sekvor anal. phys. khim., Inst. khim. gov. (U.S.S.R.)* 9, 55-61(1936).—**  
**From a review of previous studies (cf. C. A. 29, 397<sup>1</sup>, 130<sup>2</sup>) and the exptl. results of Bruner and Talmud (C. A. 29, 1018<sup>3</sup>), it is concluded that only an inconsiderable part of the properties of dispersed systems can be explained on the basis of known facts. Other important phenomena related to the special anomalous properties of liquids in thin layers are little known and require further study.**  
 Chas. Blanc

A 18-55A METALLURGICAL LITERATURE CLASSIFICATION

22

3RD AND 4TH ORDERS      1ST AND 2ND ORDERS

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

