

TELIS, Moisey Yakovlevich; ZHEVTUNOV, P.P., nauchn. red.; SIROTIINA,
S.L., red.; ABOLEMOV, V.P., red.

[Melting of nonferrous metals and alloys] Plavka tsvetnykh
metallov i splavov. Moskva, Vysshaya shkola, 1964. 318 p.
(MIRA 17:5)

GRUZDEV, Aleksey Nikolayevich; KOLOSOV, V.N., red.; ABOLETOV,
V.P., red.

[Mechanized coremaking for foundry molds] Mekhanizirovan-
noe izgotovlenie sterzhnei dlia liteinykh form. Moskva,
Vysshiaia shkola, 1965. 293 p. (MIRA 18:2)

ABOLENSKAYA, A.V.

Functional disorders of the higher and vegetative nervous function in the clinical course of certain diseases in children. *Pediatrics*, Moskva No.4:24-31 July-Aug 51. (CML 21:4)

1. Of Gor'kiy Oblast Scientific-Research Pediatric Institute (Director--A.A. Prokof'yeva; Director's Scientific Assistant--Prof. F.D. Agafonov; Scientific Supervisor--Candidate Medical Sciences N.I. Kozin.

ABOLENSKAYA, A.V.; KOZIN, N.I.; KOLOMENSKAYA, O.A.

Use of novocaine in a prolonged attack of paroxysmal tachycardia
in an infant. Vop. okh. mat. i det. 3 no.1:91-93 Ja-F '59. (MIRA 12:2)

1. Iz Gor'kovskogo pediatricheskogo nauchno-issledovatel'skii instituta
Ministerstva zdavookhraneniya RSFSR (dir. A.A. Prokof'yev).
(ARRHYTHMIA) (NOVOCAINE)

ABOLENSKAYA, A.V.; KOZIN, N.I.; KOLOMENSKAYA, O.A.

Use of novocaine in a lingering attack of paroxysmal tachycardia
in a child. *Pediatrics* 37 no.9:90 S '59. (MIRA 13:2)

1. Iz Gor'kovskogo pediatricheskogo nauchno-issledovatel'skogo instituta Ministerstva zdavookhraneniya RSFSR.
(NOVOCAINE) (ARRHYTHMIA)

ABOLIKHIN, I.P., inzh.; BORISENKO, G.S., inzh.

Machine for marking hot pipes. Makh.1 avtom.proizv. 18 no.3:
14-16 Mr '64. (MIRA 17:4)

ABOLIN', A. [Abolina, A.]

Mosses of the Latvian S.S.R. Izv. AN Latv. SSR no3:94-101 '63.
(MIRA 16:5)

1. Institut lesokhozyaystvennykh problem i khimii drevesiny AN
Latviyskoy SSR.
(Latvia---Mosses)

ABOLIN, G. F.

ABOLIN, G. F., PLANDER, YE. K., ANDREYEVA, G. A.

"Investigating the Action of "IN-73" During Experimental Tuberculosis",
Izv. AN Latv. SSR, No 5, 1953, 51-56.

Investigated the action of "IN-73" on experimental animals infected with tuberculosis. Found that the preparation (isonicotinic acid hydrazide with additions of nicotinic acid hydrazide, cinchomeric acid hydrazide, and 2,6-piperidinecarboxylic acid hydrazide) inhibits the development of tuberculosis in the internal organs. (RZhKhim, No 11, 1954).
SO: Sum No. 443, 5 Apr. 55

ABOLIN, J., otv. za vypusk; VIGDORCHIK, V.A., tekhn. red.

[National economy of the Latvian S.S.R.; statistical collection] Latvijas PSR tautas saimnieciba; statistisko datu krajums. Narodnoe khoziaistvo Latviiskoi SSR; statisticheskii sbornik. Riga, Valsts statistikas izdevnieciba, 1957. 229 p.
(MIRA 15:4)

1. Latvian S.S.R. Statistikas parvalde.
(Latvia--Statistics)

ABOLIN, R.I.

ABOLIN, R.I. Osnovy estestvenno-istoricheskogo raionirovaniia sovetskoi Srednei Azii. Tashkent, Izd. Sredne-Aziatskogo gosudarstvennogo universiteta, 1929. (Its Trudy. Seriiia XII-a. Geografiia. Vyp. 2.) 75 p. DLC: Unclass.

SO: LC, Soviet Geography, Part II, 1951/Unclassified.

ABOLIN, Robert Ivanovich

ABOLIN, Robert Ivanovich...Voprosy zemledeliia Turkmenskoi SSR; trudy pervoi konferentsii po izucheniiu proizvoditel'nykh sil Turkmenskoi SS . Leningrad, AN SSSR, 1934. 45 p. (Akademiia Nauk SSSR. Sovet po izucheniiu proizvoditel'nykh sil. Sovet Narodnykh Komissarov Turkmenskoi SSR). DLC: S471.R9A55

SO: LC, Soviet Geography, Part II, 1951, Unclassified

ABOLIN, Ya. T. In Latvian

ABOLIN, Ya. T. -- "Gasification of High-Ash and Moist Local Fuel in Tractor Gas Generators." Latvian Agricultural Academy, 1951, In Latvian (Dissertation for the Degree of Candidate of Technical Sciences)

SO: Izvestiya Ak. Nauk Latvyskov SSR, No. 9, Sept. 1955

ABOLIN', YA. T

7720. Abolin', Ya. I Tserps, I. Spravochnik traktorista. Piga, letgosizdat,
1954. 359s. s ill. 20sm. 10,000 ek z. 6r. 30K. v per.-Gost. ukazany v vyp.
dan.-na latysh. Yaz.-(55-3605) 631.37:629.114.2(08)

SO: Knizhnaya Letopis', Vol. 7, 1955

ABOLIN, Yu.Ya.. inzh.

Dispatcher station of an interconnected electric power system.
Elek. sta. 36 no.10:53-56 0 '65.

(MIRA 18:10)

ABCLIK, Yu.Ya., inzhener.

Reducing personnel in fuel supply and boiler room operations of
electric power stations. Energetik 5 no.6:8 Je '57. (MLRA 10:7)
(Electric power plant)

ABOLINA, A.Ye. (Kuybyshev)

Rehabilitation of the nonambulatory in poliomyelitis. Klin.med.,
33 no.11:65-69 N '55. (MIRA 9:7)

1. Iz ortopedicheskogo otdeleniya (zav.-prof. A.P.Yevstropov)
kliniki gosptal'noy khirurgii (dir.-prof. A.A.Aminev) Kuyby-
shevskogo meditsinskogo instituta.

(POLIOMYELITIS,

rehabil.)

(REHABILITATION, in various diseases,
polio.)

AEOLINA, A.

New and rare species of musci in the Latvian S.S.R. Vestis Latv ak
no.8:63-69 '61.

1. Latvijas PSR Zinatnu akademijs, Botaniskais darzs.

ABOLINA, A. Ia.

ABOLINA, A. Ia.: "Dealing with various symptoms of poliomyelitis."
Kuybyshev State Medical Inst. Kuybyshev, 1956
(Dissertation for the Degree of Candidate in Medical Sciences).

SO: Knizhnaya letopis', No 23, 1956

ABOLINA, A. Ye., kand. med. nauk; ZHUKOVA, A. M.

Conservative treatment of congenital clubfoot in children. Ortop.,
travm. i protez. 22 no. 8:31-33 (MIRA 14:12)

1. Iz ortopedicheskogo otdeleniya (zav. - prof. A. P. Yevstropov)
kafedry gosspital'noy khirurgii (zav. - prof. A. M. Aminev)
Kuybyshevskogo meditsinskogo instituta.

(FOOT--ABNORMALITIES AND DEFORMITIES)

NEOLINA, A.Yo.; ZHUKOVA, A.M.

Use of exercise therapy during the postoperative period following the removal of the lacerated meniscus of the knee joint. Vop. kur., fizioter. i lech. fiz. kul't. 30 no.1:21-22 Jan '65. (MIRA 18:8)

1. Ortopedicheskoye otdeleniye kafedry gospi'tal'noy khirurgii (zav.- prof. A.M. Aminov) Kuybyshevskogo meditsinskogo instituta.

ABOLINA, S. I.		PROCESS AND PROPERTIES INDEX	
<p>Optimum correlation of calcium, potassium and magnesium and their effect on crop yields. G. I. Abolina. <i>Chemisation Sotsialisticheskoy Agr.</i> 1953, No. 2, 123-7. Abolina reports the results of experiments on the proper balance of Ca, K and Mg in water and sand cultures with oats. The best yield was obtained with 45-60% of Ca and K and 10-20% Mg. A high Mg content is injurious. Too high a content of Ca and K—about 80%—was also injurious, but not as injurious as when 80% of Mg was introduced. With the increase of nutrients in the medium, the same elements increased correspondingly in the ash.</p> <p>J. B. Joffe.</p>		15	
<p>ASR-11.4 METALLURGICAL LITERATURE CLASSIFICATION</p>			

ABOLINA, G. [1]

Significance of mineral elements in the yarovization process. G. Abolina. *Comp. rend. acad. sci. U. R. S. S. 18, 100 (1961)*. Yarovization of wheat for 82 days in nutrient soils, especially those contg. K, accelerated the subsequent development and ripening of the plants. Seeds similarly treated but yarovized for only 35 days showed a much smaller response. B. C. P. A.

ASB 51.4 METALLURGICAL LITERATURE CLASSIFICATION

ABOLINA, G. I.

36302

Fiziologiya raivitiya osimoy pshehitsyna paru i na sterne. Selektsiya
i semenovodstvo, 1949, No. 11, s 37-41

SO: Letoia' Zhurnal'nykh Statey, No. 49, 1949

BA
BID

ABOLINA, S. I.

Section 1

Growth and structure of leaves of cereals, in relation to their mineral nutrition and to soil-moisture. G. I. Abolina (G. R. of Sci. USSR, 1949, 68, 172—178).—Stunted growth of low winter wheat, with a micro-morphous structure, are found when

plants are grown in soil of low water and high NH_4NO_3 content; these effects are not observed with high levels of P-manuring. R. Tauson.

ABOLINA, G. I.

27231. ABOLINA, G. I. - Rost i stroenie list'ev u zlakov v svyazi s mineral'nym pitaniem i vlazhnost'yu pochvy. Doklady akad. Nauk sssr, novaya seriya, t. LXVIII, No. 1, 1949, s.173-76

SO: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949

ABOLINA, G. I.

"Physiological Reaction of Spring Wheat to the Length of the Day,"
Dok. AN., 67, No. 6, 1949.

Karagandin Agricultural Experimental Station.

ABOLINA, G. I.

"The Growth and Structure of Grain Leaves in Connection with Mineral
Nurtiment and Moisture in the Soil," Dok. AN., 67, No. 1, 1949.

Karagandin Agriculatural Experimental Station.

ABOLINA, G.I.

OTSIK, V. I. No. 45

Abolina, G.I., The significance of increased phosphorous feeding during the vernalisation of wheat, 161-4

Akademiya Nauk, S.S.S. R., Doklady, vol. 79, No. 1, 1951

USSR/Biology (Agriculture) - Vernaliza- 1 Jul 51
tion

"Effect of Increased Phosphorous Nutrition on
Passage of the Vernalization Stage By Wheat,"
G. I. Abolina

"Dok Ak Nauk SSSR" Vol XXIX, No 1, pp 161-164

Following similar expts set up in 1948 at the Div-
of Plant Physiol, Karskanda Agr Exptl Sta, vernal-
ization of wheat in dil phosphoric acid salt soles
was investigated in 1949. Results indicate that
vernalization in these soles brings about qual
changes producing accelerated development of plants
21075

USSR/ Biology (Agriculture) - Vernaliza- 1 Jul 51
tion
(Contd)

and earlier start of various phases of develop-
ment. The number of grains per ear and the
size of grains are improved.

21075

ABOLINA, G. I.

USSR/Cultivated Plants. Grains.

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20238.

Author : G.I. Abolina.

Inst : Not given.

Title : Physiological Peculiarities in the Development of Winter Wheat and the Dynamics of Nutriments in the Soil When Sowing in August on Non-Irrigated Land. (Fiziologicheskiye osobennosti razvitiya ozimoy pshenitsy i dinamika pitatel'nykh veshchestv v pochve pri avgustovskom poseve na bogare).

Orig Pub: Izv. AN Uz SSR, 1956, No 7, 19-23.

Abstract: Under the conditions prevailing on non-irrigated terrain in Uzbekistan during 1953-1954, a study was made of the effect of different sowing periods for winter wheat on the morphological characteristics, the make-

Card : 1, 2

USSR/Cultivated Plants. Grains.

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20238.

up of the harvest, water content, sugar accumulation in the root cellar and changes in the nitrate and humus contents in the soil. The August sowing of winter wheat creates conditions favorable for the extensive development of vegetative mass; it increases the number of stems, the root length, leaf growth and wheat-ear formation. Winter hardening took place most intensively in these plants. An increased sugar content and lessened water content in the nodose root processes was observed. The yield was higher in the winter wheat sown in August. A large accumulation of humus was discovered in the soil horizons of the fallow land prepared for August sowing. Intensive nitrate transformations were noted in soils which were well supplied with water.

Card : 2/2

USSR / Cultivated Plants. General Problems.

M-1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24930

Author : ~~Abolina, G. I.~~

Inst : Academy of Sciences, UzSSR

Title : The Effect of Dorogov's Biological Preparation on
Seed Germination and Plant Growth and Development

Orig Pub: Dokl. AN UzSSR, 1956, No 11, 49-53 (Resume Uzbek)

Abstract: For the objects of the experiment one used soft summer wheat of the Karagandinskaya (Velyutinum), Mil'turum 321 varieties, durum-Gordeiforme 189, branched-Kakhetinskaya, the winter wheat was Alabasskaya and Erythrospermum 22297, as well as Persicum 64 barley, Lokhovskiy and Zolotaya Dozhd' oats, Poltavskaya 1774 and Bakhmal'skaya alfalfa and zhitnyak No. 15 wheat grass. Aqueous solutions of the second and third fractions of Doro-

Card 1/3

USSR / Cultivated Plants. General Problems.

M-1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24930

Abstract: gov's preparation were used in concentrations of 0.002, 0.001 and 0.0002. Besides this the liquid of the third fraction was first diluted in 96° [%(?)] ethyl alcohol (0.01). The soaking of the seeds in solutions of the preparation (momentarily, 1, 5 or 10 minutes) increased germination in wheat and oats, and had a positive effect on leaf and root growth in wheat. The Gordeiforme 189 was the most responsive variety. It was established that in the Gordeiforme 189 and Karagandinskaya wheat varieties which were raised in the hothouse and in Alabasskaya winter wheat taken from the field in January, irrigating and spraying the plants with these solutions in the tillering stage brought about increased growth in the leaves and plant height, as well as in the length and number of

Card 2/3

10

USSR / Cultivated Plants. General Problems.

M-1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24930

Abstract: spikes and grains. Five minute soaking of alfalfa and wheatgrass seeds in solutions of the preparation brought about increased germination. This study was made at the Milyutinskaya Selection Station in 1953-1954. -- B. Ye. Kravtsova

Card 3/3

ABOLINA, G.I.

~~ABOLINA, G.I.~~
Studying causes of variations in the ripening of wheat kernels.
Fiziolrast. 6 no.1:102-104 Ja-F '59. (MIRA 12:2)

1. Milyutin State Selection Station Uzbek S.S.R.
(Wheat) (Seeds)

APOLINA, G. I., Dr Bio Sci — (diss) "Characteristics of the growth and development of wheat crop and its physiological and ecological conditions existing in Central Kazakhstan (Kazakhstan, Asia)," Tashkent, 1960, 29 pp (Institute of Unirrigated Cultivation, Academy of Agricultural Sciences Uzbek SSR) (PL 33-60, 144)

ABOLINA, G.I.

Role of certain factors in the formation of grain in different
parts of the spring wheat ear. Izv. AN SSSR. Ser.biol. no.2:
287-290 Mr-Apr '60. (MIRA 13:6)

1. The Milyutin State Selection Station, Samarkand Region of
the Uzbek S.S.R.

(WHEAT)

ABOLINA, G.I., kand.sel'skokhozyaystvennykh nauk; FATKHULLAYEV, D.Z.

Manure-soil composts for potatoes and vegetables in Uzbekistan.
Agrobiologiya no.6:821-826 N.D '61. (MIRA 15:2)

1. Institut ovoshche-bakhchevykh kul'tur i kartofelya, Tashkent.
(Uzbekistan--Potatoes--Fertilizers and manures)
(Uzbekistan--Vegetables--Fertilizers and manures)
(Compost)

S/275/63/000/001/033/035
D413/D308

AUTHORS: Ataulloyev, N. A., Abolina, G. I., Tursunov, S. and Abdurashitov, K.

TITLE: The effect of ultrasonic vibration on the development of melons

PERIODICAL: Referativnyy zhurnal, Elektronika i yeye primeneniye, no. 1, 1963, 18, abstract 1V 131 (Uzb. biol. zh., no. 2, 1962, 25-29 (summary in Uzb.))

TEXT: The authors have studied the effect of ultrasonic waves on the seeds of the Kokcha type of melon. The melon seeds were first steeped in water for 24 hours at room temperature. The ultrasonic treatment of the seeds was carried out at frequencies of 1 Mc/s, 1.25 Mc/s and 23 kc/s with exposures of 1, 3, 6, 9 and 12 minutes. The experimental results showed for example, that ultrasonic treatment of the seeds at 1 Mc/s for an exposure of 3 - 4 minutes stimulates the growth and development of the plants, and in individual cases raises the productivity by 20-40%. [Abstracter's note: Complete translation.]
Card 1/1

ABOLINA, G.I., doktor biologicheskikh nauk; ATAULLAYEV, N.A., kand. biolog.
nauk; KHAKIMOV, A.

Effect of water balance and fertilization on the physiological
processes and yield of melons in Uzbekistan. Agrobiologiya
no.3:437-441 My-Je '63. (MIRA 16:7)

1. Uzbekskiy nauchno-issledovatel'skiy institut ovoshche-bakhchevykh
kul'tur i kartofelya, Tashkent.
(Uzbekistan--Melons--Fertilizers and manures)
(Uzbekistan--Melons--Water requirements)

ABDOLINA, G.I., doktor biologicheskikh nauk; FATKHULLAYEV, D.Z.

Effectiveness of manure-soil composts in the Sierozems of Uzbekistan. Zemledelie 25 no.10:66-68 O '63. (MIRA 16:11)

1. Institut ovoshche-bakhchevykh kul'tur i kartofelya.

ABOLINA, G.I.; BEREZHNOVA, V.V.

Effect of a growth promoting substance of petroleum origin on the growth, development, physiological changes in plants and the yield of potatoes in Uzbekistan. Izv. AN SSSR. Ser. biol. no.6:862-870 N-D '63. (MIRA 17:2)

1. The Uzbek Research Institute of Vegetable-Melon Field and Potato Cultures, Tashkent.

ABOLINA, I.; PRASHCHIKIN, V.

The R and RS new-design tires. Avt.transp. 40 no.11:38-41
N '62. (MIRA 15:12)

1. Nauchno-issledovatel'skiy institut shinnoy
promyshlennosti.

(Tires, Rubber)

LABUTIN, A.L.; KLEBANSKIY, A.L.; TSUKERMAN, N. Ya.; KARTSEV, V.N.; TRENKE, Yu.V.;
MAL'SHINA, L.P.; BOROVIKOVA, N.A.; KARELINA, G.G.; ROZHKOV, Yu. P.;
Prinimali uchastiye: SHMUREY, K.S.; ABOLINA, O.P.; KONSTANTINOVA, A.L.;
SELIVANOVSKAYA, G.A.

"Liquid nairit," a new material for rubberizing. Kauch. i rez. 20
no.6:5-8 Je '61. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka im. S. V. Lebedeva.

(Neoprene)
(Rubberized fabrics)

SIVCHIK, B.S.; KAININ, A.I.; ABOLINA, S.Ya.; RAZUMOV, A.I.

[Red Latvian cattle] Buryi latviiskii skot. Moskva,
Kolos, 1965. 197 p. (MIRA 19:1)

CEKULINA, A.; LASIS, A.; SKARDS, V.; TILAKS, S.; INTAITIS, E.;
KELPIS, E.; SAIMANIS, A.; REINIKOVIS, I.; KARKLINS, J.;
ABOLINS, J.; KULA, P. TINSANS, S.; JESPERINS, L.;
FRUSTIS, R.; KLAVINS, E., red.

[Overall mechanization of dairy farms] Piena lopu farmu
kompleksa mehanizacija. Riga, Latvijas Valsts izdev-
nieciba, 1964. 309 p. [in Latvian] (MIRA 18:7)

ABOLIN'SH, Ya.

Abolin'sh, Ya. - "A certain study on the question of using peat and wood tailings as fuel for (motor and truck) gas generators," Izvestiya Akad. nauk Latv. SSR, 1948. No. 12, p. 91-100, (In Latvian, resume in Russian)

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

ABOLIN'SH, YA.

27786. ABOLIN'SH, YA. — Primeneniye elektropil na lesozagotovkakh v usloviyakh latviyskoy SSR. Trudy in-ta lesokhoz. Problem (Akad. Nauk latv. SSR). Vyp. 1, 1949, C. 110-40. Na latysh. i rus. yaz.— Bibliogr: 7 nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949.

Abolins Hya

FU Carbonization of peat and wood. J. Abolins. Latvian
PSR Zinatnu Akad., Mežsaimniecības Pētījumu Inst.
Raksti 4, 213-17(1953)(in Latvian; Russian summary,
217-20).—A procedure and arrangements for intermittent
carbonization of peat and wood is described. The car-
bonizing cylinder (length 3.5 m., diam. 0.85 m., wall thick-
ness 8 mm.) was made of steel and fixed in an oblique posi-
tion. The lower portion of the cylinder was covered with
fire bricks (thickness 3 cm.) with the object of protecting
against the action of fine-pointed flames. The volatile
products of carbonization were passed through a tar sep-
arator and 3 scrubbers filled with woodens screens, coke,
and limestone, resp., while water was rinsed countercur-
rently in the 1st and 2nd scrubber. Thus a wood gas in a
yield of 0.4 cu. m./kg. moisture-free birchwood or peat was
produced with a caloric value of 3000-3400 kcal./cu. m. at
standard temp. and pressure. I. A. Nunes.

MCCLINTON, J. ; EADWINS, A.

Vitamin coniferous needle flour for adding to the feed of agricultural animals.
p. 177.

BIOLOGICHESKAJA NAUKA; SEISKUMU I LESNOMU KHOZJAISTVU. (Latvijas PSR
Zinatnu akademijs. Biologijas Zinatnu nodala) Riga, Latvia, No. 3, 1957.

Monthly list of East European Accessions (FEAI), IC, Vol. 8, No. 8,
August 1959.
Uncle.

H, Ya
ABOLINS, H.

Flour from fir needles and its preparation.

p. 12 (Padomju Latvijas Kolchoznieks) Vol. 9, No. 8, Aug. 1957, Riga, Latvia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LG, VOL. 7, NO. 1, JAN. 1958

AFOLINS, J. ; KALNINS, A.

Vitamin coniferous-needle and hay flour for fattening domestic animals and poultry. p. 36

BIOLOGICHESKAIA NAUKA; SELSKOMU I LESNOMU KHOCZIAISTVU. (Latvijas PSR Zinatnu akademijs. Bioloģijas Zinatnu nodala) Riga, Latvia, No. 15, 1958. In Russian.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

AFOLINS, J.

Pneumatic drier constructed by the Institute of Forestry Problems for quick drying of some wood and plant products. p. 7.

BIOLOGICHESKAIA NAUKA; SELSKOMU I LESNOMU KHOZIAISTVU. (Latvijas PSR Zinatnu akademijs. Biologijas Zinatnu nodala) Riga, Latvia, No. 15, 1958. In Russian.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

ABOLINS, J. ; IRVINS, I.

Amount of the clearing refuse in Latvia and possibilities of its utilization.
p. 177.

BIOLOGICHESKAIA NAUKA; SELSKOMU I LPSNOMU KHOZIAISTVU. (Latvijas PSR
Zinatnu akademijs. Biologijas Zinatnu nodala) Riga, Latvia, No. 15,
1958. In Russian.

Monthly list of East European Accessions (HEAI), LC, Vol. 8, No. 8,
August 1959.
Uncla.

Abolins, J.

Pneumatic drier constructed by the Institute of Forestry Problems for quick drying of some wood and plant products. p. 191.

BIOLOGICHESKAIA NAUKA: SELSHONTU L LASNOMU. (LATVIJAS PSR Zinatnu Akademijs Biologijas Zinatnu nodala) Riga, Latvia, No. 16, 1958. In Russian.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 8, August 1959.
Uncl.

BRAKSS, N.; (Riga); ALKSNE, L.; ABOLINS, J.; KALNINS, A.

Humic acids of sapropels and peat as adhesives in utilization of wood waste. Vestis Latv ak no.10:101-106 '60.

(EEAI 10:9:10)

1. Latvijas PSR Zinatnu akademijs, Mezsaimniecibas problemu un koksnes kimijs instituts.

(Sapropels) (Peat) (Humic acids) (Adhesives)

ABOLINS, Janis; IEVINS, Imants; SKLENNIKS, C., red.; PILADZE, Z.,
tekh. red.

[Processing of slash at lumbering camps] Siko cirsanas at-
lieku sastradasana mežrupniecības saimniecības. Rīga, Latvijas
PSR Zinatnu akadēmijas izdevniecība, 1961. 45 p. (MIRA 15:3)
(Latvia—Slash (Logging))

AUTHORS: Gross, Ye. F. , Abolin'sh, Ya. Ya. , Shultin, A. A. 57-28-4-26/39

TITLE: On the Observation of the Optico-Acoustic Effect in a Liquid (O nablyudenii optiko-akusticheskogo effekta v zhidkosti)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 4, pp. 832-835 (USSR)

ABSTRACT: The authors here started from the idea whether it was not possible to utilize the optico-acoustic phenomenon for the determination of the duration of existing states of excitation in the molecules of liquids and solids and to work out a method of investigation for condensed systems on the basis of this phenomenon. From these considerations experiments were performed in the authors' laboratory. In these experiments the optico-acoustic phenomena in liquids and solids were observed. In the course of these experiments in the year 1952, which were repeated in 1957 such phenomena were observed in water, methyl alcohol and ethyl alcohol. A perceptible signal was only obtained in a small

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On the Observation of the Optico-Acoustic Effect in a Liquid

range of the modulation frequencies at about 200 cycles. The optimum modulation frequency at which the acoustic signal attains its maximum value depends on the geometric dimensions of the chamber and on the frequency-characteristic of the microphone whose membrane touches the liquid. The spectral dependence of the optico-acoustic signal was observed in liquid ethyl alcohol. The signal was observed in the domain of from $\lambda = 0.95 \mu$ to 4μ , where the maximum amplitude was attained at $\lambda = 2 \mu$. A comparison of the experiment with analogous ones in which a gas had been investigated shows that the acoustic signal forming in liquids is many times weaker than that forming in gases. By a certain perfection of the scheme it will be possible to use the principle of the gas analyzer by Veyngérov also for an analysis of liquids. At present the experiments for the observation of optico-acoustic phenomena in crystals are continued. There are 3 figures, and 7 references, 5 of which are Soviet.

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On the Observation of the Optico-Acoustic Effect in a Liquid 57-28-4-26/39

ASSOCIATION: Leningradskiy gosudarstvennyy universitet
(Leningrad State University)

SUBMITTED: October 29, '957

Card. 3/3

24(6)
 AUTHOR: Gross, Ye. P., Abolin'sh, Ya. Ya., Shultin, A. A. SOV 57-23-10-22/40
 TITLE: Optical-acoustic Effect in Crystals (Optiko-akusticheskiy effekt v kristallakh)
 PERIODICAL: Zhurnal tekhnicheskoy fiziki Vol 28, Nr 10, pp 2255-2258 (USSR) 1959
 ABSTRACT: The experiments, of which this paper gives an account, for the determination of the optical-acoustic effect were performed according to a scheme used in work with fluid substances (Ref 1). These experiments substantiated the existence of such an effect in crystal. It appears from the information gained that a utilization of this effect in the investigation of the solid state of a substance is dependent on whether ways and means are found of improving the experimental technique and the instrument sensitivity. This paper also covers experiments on piezoelectric properties, a Rochelle-salt crystal serving as a sample. The oscillograms obtained demonstrate that the optical-acoustic effect in Rochelle-salt crystals is very intensive and comparable to the optic-acoustic effect in gases. It was found that the optic-acoustic effect also occurs in a free Rochelle-salt crystal, which is not clamped down. The intensity in both cases,

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Optical-acoustic effect in Crystals

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the clamped down and the free one, is the same. An explanation of this effect is advanced and it is assumed that the effect in both cases is due to the same causes. It was also found that the intensity of the optical-acoustic effect gradually decreases after connecting the light source. This is considered to be due to a general increase in temperature of the whole crystal and the gradual approach of the upper Curie point. The optical-acoustic effect in the crystal of Rochelle-salt is so intensive that it can be used for the solution of a number of problems. The experiments described in this paper are at present continued by investigating the spectral distribution of the optical-acoustic effect in Rochelle-salt crystals and in other ferroelectric substances. The experiments presented in this paper are only the first stage of investigations of the optical-acoustic effect in crystals. There are 3 figures and 7 references, 6 of which are Soviet.

RECEIVED: July 7, 1958

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Optical-Acoustic Effect in Crystals

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37909

S/054/62/000/002/005/012
B163/B138

9,2180

AUTHORS: Abolin'sh, Ya. Ya., Sokolova, M. M., Shultin, A. A.

TITLE: The spectral distribution of the opto-acoustic effect in Seignette's salt in the region $2000-6000 \text{ cm}^{-1}$

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 2, 1962, 66-68

TEXT: Earlier experiments by Cross, Abolin'sh, and Shultin (ZhTF, 28, 2255, 1958) on the observation of the opto-acoustic effect with intermittent white light are extended to an investigation of its spectral distribution. A crystal plate (X-cut) of Seignette's salt is irradiated with modulated infrared radiation from a global radiation source through a prism-spectrometer WXC-6 (IKS-6) with a rock salt prism as monochromator. Electric charges appear on the faces perpendicular to the X-section when the crystal is irradiated. The corresponding voltage, which varies with the modulation frequency, is amplified and the spectrum of the opto-acoustic signal is recorded with a potentiometer MCP 1-01 (PSR 1-01). The spectrum is corrected for the spectral intensity distribution of

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The spectral distribution of the ...

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the radiation source. It has some distinct maxima which correspond to optical excitations of intramolecular oscillations. This interpretation is consistent with the assumption that the opto-acoustic effect is due to non-radiative transitions from optically excited intramolecular oscillations to the lattice. The table gives an interpretation of the maxima in the spectrum of the opto-acoustic signal. There are 2 figures and 1 table.

SUBMITTED: January 29, 1962

Card 2/4. 2

Abolinya, V. E.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress, Moscow, Jun-Jul '56,
Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.

Myshkis, A. D. (Minsk). Abolinya, V. E. (Riga), Zhdanovich, V. F.
(Minsk), Kostyukovich, Ye. Kh. (Minsk), Lepin, A. Ye. (Minsk),
Kharitonenko, P. I. (Minsk) and Shlopak, A. S. (Moscow). Mixed
Problem for Linear Hyperbolic Systems in a Plane.

61-63

ABOLINYA, V.E. (Riga); MYSHKIS, A.D. (Khar'kov)

Mixed problem for an almost hyperbolic system on a plane. Mat.
sbor. 50 no.4:423-442 Ap '60. (MIRA 13:8)
(Differential equations, Partial)

ABOLISHIN, P.

"Some Questions on Antiatomic Defense of Ships," by Captain P. Abolishin and Engineer-Captain-Lieutenant B. Perkanov, Problemy Ispol'zovaniya Atomnoy Energii (Problems of the use of Atomic Energy), Moscow, Voennoye Izdatel'stvo Ministerstva Oborony Soyuza SSR, 1956, pp 481-499

The following are discussed: characteristics of air, surface, and underwater bursts of atomic bombs; the effect of shock wave, light radiation, penetrating radiation, and radioactive contamination on ships and personnel; and proposed protective design changes in ships, such as reinforcement, hermetic sealing, remote control apparatus, and sprinkler systems. Numerous references are made to the damaging effects on ships of the atomic explosion at Bikini and to data appearing in the "foreign press." (U)

Sum in 1951

AB 0.1-5 H.W. P.

21(2) FRAME I BOOK EXPLOITATION 807/27/86

Atomnaya energiya i flot; sbornik statey (Atomic Energy and the Navy) Collection of Articles) Moscow, Voenizdat, 1959. 252 p. (Series: Nauchno-populyarnaya biblioteka) Number of copies printed not given.

Ed.: Dr. M. Radepi Steh. Inv.: A.M. Gavrilova; Ed. and Compiler: L. D. Chernomir, Engineer, Captain.

PURPOSE: This book is intended for the general reader.

CONTENTS: The papers in this collection discuss in popular style, and on the basis of data published in the Soviet and non-Soviet press, problems of the use of atomic and hydrogen weapons in combat operations at sea. The collection includes reports on the damaging factors of a nuclear explosion and on the means power of this weapon of mass destruction. A number of articles deal with the construction of nuclear-powered ships and submarines, and to the introduction of nuclear power plants in naval vessels. Also included in the collection are papers dealing with the future prospects for naval use of nuclear energy; and with the construction of the world's first atomic submarine, the "Lenin", which is expected to play an important part in the further conquest of the Arctic regions. The collection also contains papers published in the journal Sovetskii flot in 1955 - 1958, in revised and supplemented form.

Editor, I., Engineer Commander. Penetrating Radiation

Alexandrov, A., Engineer Lieutenant Colonel, and O. Engler, Engineer Major. New Ships and Its Great Effect	53
Pravov, I., Engineer Commander. Radiative Contamination	58
Abramov, P., Captain, and V. Vladimirov, Engineer Captain. Antinuclear Scheme of a Ship	66
Mirzayev, O., Professor, Doctor of Technical Sciences, Engineer Captain. Defense of Ships Against Explosions	75
Shchegolev, P., Captain. Means of Antinuclear Protection of Ships of Foreign Navies	82
Shchegolev, P., Candidate of Technical Sciences, Engineer Commander. Antinuclear Defense of Light Ships	89
Gelis, V., Engineer Colonel. Antinuclear Defense of Objects Ashore	96
Pravov, I., Engineer Commander. Radiation Decontamination	110
Alibayev, M., Engineer Colonel. Decontamination on a Ship	121
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Shlov, A., Doctor, Candidate of Technical Sciences, Engineer Lieutenant Colonel. Battle Damages in Testing of Nuclear Weapons	134
Dobbinov, P., Candidate of Technical Sciences, Engineer-Commander. Microclimates on Ships	147
Gilichnikov, M., Lieutenant Colonel of Medical Service. Sanitary Protection on a Ship	153
Bumala, A., Doctor, Candidate of Historical Sciences, Captain. Atomic Weapons and Some Problems of Naval Tactics (According to Data from the Foreign Press)	158
Dvornov, A., Doctor, Candidate of Technical Sciences, Engineer Sub-Commander. American Submarines With Atomic Engines (According to Data from the Foreign Press)	170
Elizavetina, E., Candidate of Technical Sciences, Engineer Lieutenant Colonel. Atomic Depth Bomb (According to Data from the Foreign Press)	194
Raditskii, K., Engineer Rear Admiral. Atomic Power Plants on Ships	177
Solov'ev, M., Doctor, Candidate of Technical Sciences, Engineer Captain. Use of Atomic Engines in Ships	207
Zvonkov, I., Corresponding Member of the Academy of Sciences of the USSR, Honored Worker in the Field of Science and Technology of the USSR. Atom-Powered Ships	211
Narutov, E., Guards Colonel. Atomic Engines of the Future (According to Data from the Foreign Press)	217
Chernoukhin, J., Engineer Captain. The World's First Atomic Submarine "Lenin"	223

AVAILABLE: Library of Congress (DT761.039)

ABOLISHIN, P.

25-

PHASE I BOOK EXPLOITATION

SOV/6261

Kernenergie und Flotte; Artikelsammlung (Nuclear Energy and the Navy; Collection of Articles) [Berlin] Deutscher Militärverlag [1961]. 232 p. Errata slip inserted. 2000 copies printed.

Translation from the Russian of: Atomnaya energiya i flot.

Translator: Erika Steuk, Lieutenant Commander. Responsibility for German edition: Claus Gruszka, Engineer; Ed.: Klaus Krumsieg.

PURPOSE: This collection of articles is intended for officers of the army, coast guard, and merchant marine.

COVERAGE: The book, a translation from the Russian, contains 25 articles dealing with the application of nuclear power to naval combat operations. Chapters 19 and 25 include illustrations with additional data for this edition. The characteristics of nuclear explosions are discussed. Attention is also given to the protection of personnel, ships, and coastal facilities against nuclear weapons, and to the present and future applications of nuclear power plants to shipping. No personalities are mentioned. There are 16 references: 10 Russian (including 3 translations from English-language sources), 1 French, 1 German, 1 English, 1 American, and 2 either English or American.

Nuclear Energy and the Navy (Cont.)

SOV/6261

5. I. Frolov, Engineer Commander (Navy). Primary Penetrating Radiation 58
6. A. Aleksandrov, Engineer Lieutenant Colonel, and O. Koztev, Major Engineer. The "Foot Wave" and Its Damaging Effect 66
7. I. Frolov. Ionizing Contamination 70
8. P. Abrosimov, Captain (Navy), and V. Vladimirov, Engineer Captain (Navy). Protecting a Ship Against Nuclear Weapons 78
9. G. Migirenko, Captain (Navy), Professor, Doctor of Engineering. Protecting a Ship Against Explosions 86
10. P. Abelichin, Captain (Navy). Means of Protection Against Nuclear Weapons in Foreign Navies 93
11. P. Khokhlov, Engineer Captain (Navy), Candidate of Technical Sciences. Nuclear Protection of Light-Class Ships 100

Card 3/6

2/2

ABOLITS, I. A., Engr --

"Analysis of Some Frequency Changing Circuits." Cand Tech Sci, Moscow Electrical Engineering Inst of Communications, Faculty of Telephone and Telegraph Communications, 1953-1954 (VS, Feb 55). (Brief abstract available)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: Sum. No. 556, 24 Jun 55

GUROV, Vadim Sergeyevich; ABOLITS, I.A., redaktor; BELIKOV, B.S., redaktor
SOLOV'YEVA, L.P., tekhnicheskii redaktor.

[Automatic control of power level on long distance communication
lines] Avtomaticheskoe regulirovanie urovnia peredachi na liniakh
dal'nei svyazi. Moskva, Gos. izd-vo lit-ry po voprosam svyazi i
radio, 1954. 47 p. (MLRA 8:8)
(Telecommunications)

ABOLITS, I. A.

Analysis of the regenerative frequency divider with a ring converter.
Elektresvian' 10 no.3:21-31 Mr '56. (MIRA 9:7)
(Electric current converters)

ABOLITS, Israil' Abramovich. Prinimal uchastnye KIM, L.T., inzh.
SOLOVTSKY, B.K., otv.red.; PETROVA, V.Ye., red.; SHEFER, G.I.,
tekhn.red.

[Generator devices and apparatus for long-distance communications]

Generatornye ustroystva v apparature dal'nei aviazii. Moskva,

Gos.izd-vo lit-ry po voprosam aviazii i radio, 1960. 47 p.

(MIRA 13:9)

(Telecommunication)

(Oscillators (Electric))

ABOLITS, Izrail' Abramovich, dots.; BASIK, Il'ya Vasil'evich,
starshiy nauchnyy sotr.; REZVYAKOV, Aleksandr Petrovich,
dots.; YUDIN, Anatoliy Ivanovich, dots. Prinsipal uchastiye
BENEDIKTOV, G.A.; KOSHECHYEV, I.A., otv. red.; POPOVA, N.E.,
otv. red.; DIKAREVA, A.I., red.; MARKOCH, K.G., tekhn. red.

[Long-distance communications] Dal'niaia sviaz'. [By] I.A.Abolits
i dr. Moskva, Sviaz'izdat, 1962. 621 p. (MIRA 15:7)
(Telecommunication)

MILEYKOVSKIY, Solomon Gerasimovich; MOROZOV, Arkadiy Petrovich;
POLYAK, M.U., retsenzent; KHERN, K.D., retsenzent;
ABOLITS, I.A., otv. red.; ULANOVSKAYA, N.M., red.

[Long-distance communication and multiplexing of municipal
telephone networks] Dal'niaia sviaz' i uplotnenie gorod-
skikh telefonnykh tsepoi. Moskva, Izd-vo "Sviaz'," 1964.
357 p. (MIRA 17:10)

LUR'YE, Boris Yakovlevich; ABOLITS, I.A., otv. red.; OBRATNIKOVA,
Ye.A., red.

[Design of transistor amplifiers with direct feedback]
Proektirovanie tranzistornyykh usilitelei s glubokoi ob-
ratnoi svyaz'iu. Moskva, Svyaz', 1965. 149 p.
(MIRA 18:5)

1. AMELIAKES, J.
2. USSR (600)
4. Saulkalns, Latvia - Dolenite
7. Geological structure of the Saulkalns Plateau. Latvian Geol. Surv. Rep. no. 10, 1953.
9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

ABOLKALNS, J.(Riga); MAJORE, M.(Riga); STELLE, V.(Riga)

Remains of Dryas flora in the deposits of the third over-river terrace
in the valley of Gauja. Vestis Latv ak no.8:99-106 '60.

(KEAI 10:9)

1. Latvijas PSR Zinatnu akademijs, Geologijas un derigu israktenu
instituts.

(Geology)

ABOLMASOV, Anatoliy Petrovich; NEMZER, Lev Anatol'yevich; KONSTANTINOVA,
Ye.A., red.; NESTEROVA, I.M.; SOBOLEVSKAYA, Z.S., tekhn.red.

[Dictionary of Japanese geographical names; 60,000 words]
Slovar' iaponskikh geograficheskikh nazvaniy. 60000 slov.
Moskva, Gos.izd-vo inostr.i natsional'nykh slovarей, 1959.
577 p. (MIRA 12:11)
(Japan--Names, Geographical--Dictionaries)
(Japanese language--Transliteration)

ABOLMASOV, A.P. [translator]; TOLKACHEV, P.F. [translator];
TOPORKOV, G.N., red.; GRUSHIN, A.V., tekhn. red.

[Typhoon is coming!] Idet. talifoni. ~~XXXXXXXXXX~~ A.S.
Zhurnal. ~~XXXXXXXXXX~~ 14-ry, 1943. 218 p.
(MIRA 17:1)

ABOLMASOV, G., inzhener.

Operation of pasteurizing apparatus. Moloch. prom. 17 no.6;
15-18 '56.

(MLRA 9:10)

(Pasteurizers)

ABOLMASOV, G., inzhener.

Separator drive wear due to improper rotation of the starting
coupling. Moloch. prom. 18 no.6:17-18 '57. (MLRA 10:6)

1. Leningradskiy tekhnologicheskii institut kholodil'noy promysh-
lennosti.

(Cream separators--Electric driving) (Couplings)

ABOL'MASOV, G.F.

Starting period of the assembly engine - centrifuge. Trust
LTIKHP 15:141-149 '58. (MIRA 13:4)

1. Predstavlena Kafedroy tekhnologicheskogo otorudovaniya
pishchevykh proizvodstv Leningradskogo tekhnologicheskogo
instituta kholodil'noy promyshlennosti.
(Centrifuges)

5(1) 5:1120

66162

SOV/184-59-4-6/18

AUTHOR: Abolmasov, G.F., Engineer

TITLE: On the Problem of Aerodynamic Resistances of the Drums of Fluid Super-centrifuges

PERIODICAL: Khimicheskoye mashinostroyeniye, 1959, Nr 4, pp 13 - 19 (USSR)

ABSTRACT: In fluid supercentrifuges, working with high-speed rotation of drums, the overcoming of the air resistance consumes 40 - 50% of the electromotor's power. The article gives some information on the physical nature of aerodynamic losses in fluid supercentrifuges and reports on the main results of experiments carried out by the author. Usually, the drums of centrifuges rotate in a housing, therefore resistance can be caused by the air only within this closed system. Had the air in the housing a laminar flow, its resistance were dependent on its viscosity only and could be determined by the formula of Petrov [Ref 5]. However, when a cylinder rotates inside a stationary cylinder, the turbulence increases, and the air flow in the gap between drum and housing becomes unstable already in the laminar stage and whirls arise, with their axes parallel to the peripheral speed, which rotate alternately right and left. The critical speed at which such whirls arise can be determined by the formula of Taylor [Ref 6]. In separators with an

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On the Problem of Aerodynamic Resistances of the Drums of Fluid Supercentrifuges

efficiency of 2,000 - 5,000 l/h, with a drum radius of 20 cm, a gap of 1 cm and kinematic air viscosity of $0.16 \text{ cm}^2/\text{sec}$, air turbulence occurs even at 15 rpm of the drum. By the same formula the safe gap, still securing the laminar air flow between drum and housing can be determined, namely 0.2 mm at a peripheral speed of 115 m/sec. Yet, in praxis such a gap is impossible, first of all because the deviation of the drum from the geometric rotational axis exceeds this value at the critical number of revolutions. Besides that, various protuberances on the drum and in the housing interfere with the laminar air flow. Thus the aerodynamic resistance of the drum depends essentially on the air viscosity and the intensity of the formation of whirls. The centrifugal forces of the air arising with the rotation are not counterbalanced by internal pressure of the main flow, with the result that the air particles are being forced from the center to the periphery. Because of the continuous flow along the stationary walls of the housing a return flow towards the center arises and the intermixing of air particles follows curved trajectories (Figure 1). As Figure 1 shows, the peripheral air speed drops from 1 on the drum circumference to zero on the housing circumference, reaching some average value of $1/2$ in the main flow. Consequently there is a simultaneous friction

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On the Problem of Aerodynamic Resistance of the Drums of Fluid Supercentrifuges

between the air and the rotating drum ($i - i_s$) and between the air and the stationary housing (i). The amount of motion which the air gains through friction against the drum is lost through friction against the housing. The aerodynamic losses concentrate in this boundary layer. Since the coefficients of friction increase with the roughness, the drum and the housing surfaces should have the same clean finishing in order to reduce the aerodynamic losses. The mounting of the housing on the drum reduces the aerodynamic losses. This is caused by reduction of the drum speed in relation to that of the air rotating in the housing, as well as by the limiting of the air mass set to turbulent motion. This air mass is proportional to the size of the gap, therefore a narrowing of the gap leads to reduction of the losses. Numerous studies [Refs 7 - 13] on resistance of the gas medium to rotors in turbines, electromotors and ventilators have shown the dependence of the friction coefficient on many factors, such as Reynolds Number, roughness of the surface, number of revolutions and form of the rotor and its dimensional relations, form of the housing and the character of the medium flowing in it, the size of the gap etc. It is evident that at such a complexity of factors the friction coefficient can be determined only experimentally. The tests were carried out on milk separators with a capacity of

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On the Problem of Aerodynamic Resistance of the Drums of Fluid Supercentrifuges

2,000 - 5,000 1/hour. Figure 2 shows typical drums of equal efficiency. The tendency is with type a) to secure the capacity at a smaller diameter and a larger height, with type b) to lower the center of gravity (larger diameter and smaller height). Characteristics of experimental drums are given in Table 1. The air resistance was determined by the "run out" method. The experimental arrangement is shown on Photograph 3 with separator (1), electromotor (2), electromagnetic oscillograph (3), photo-tachometer (4), tuning fork frequency electrogenerator (5), amplifier (6), rectifier (7), gas consumption meter (8), and stroboscope (9). After the drum had been speeded up the driving belt was removed and an oscillogram was taken. The loss of kinetic energy E in the time t during which the drum speed decreased from n_1 rev/sec to n_2 rev/sec gave the total frictional force at average speed. The vertical shaft was first tested alone, then loaded with a drum. Results are given (Figure 6, Curves 6 and 4). It proved that the aerodynamic resistances of the vertical shaft assembly and friction in bearings (Curve 5) amounted to 50% of the aerodynamic resistances of the drum (Curve 3) and to 33% of the total losses (Curve 2). Painting influenced the losses more than other kinds of surface finishing, since the unevenness of paint was about 0.5 mm. To determine the losses at speeds

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On the Problem of Aerodynamic Resistance of the Drum of Fluid Supercentrifuges

exceeding the working speeds, the drum was speeded up to 9,000 rpm. Diagram 7 represents the influence of the housing and its roughness. Curve 1 gives total power losses (aerodynamic, mechanical and hydraulic) in a drum without a hood (Figure 2b, 3), Curves 4, 3 and 2 give same for a hood without ribs, with narrow ribs (10 mm) and with broad ribs respectively. Curve 6 gives total losses in mechanical gear. Hoods without ribs and with narrow ribs reduce the losses, compared with a drum without a hood by 50 and 37% respectively. On Graph 10 the resistance coefficient of air is plotted against the Reynolds number. Evidently here, too, the same regularities are observed as were discovered by Nikuradze for round pipes. The author arrives at the following conclusions: 1. The general opinion that the aerodynamic resistances of drums in modern fluid supercentrifuges consume 50 - 40% of working power is a 2 - 3 fold exaggeration. 2. Aerodynamic losses essentially influenced by the shape of drum and housing. At equal efficiency the losses decrease with the increase of the relation $\frac{H}{D}$. 3. The aerodynamic and mechanical resistances of the vertical shaft can amount to 20 - 30, and even more, percent of the drum losses. 4. Aerodynamic, mechanical and hydraulic losses of the horizontal shaft assembly can exceed the drum losses; therefore the number of revolutions of the

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On the Problem of Aerodynamic Resistance of the Drum of Fluid Supercentrifuges

driving shaft of a centrifuge is not without importance for the aggregate efficiency of the gear.

There are: 1 photo, 2 graphs, 5 diagrams, 1 oscillogram, 3 tables and 14 references, 12 of which are Soviet and 2 foreign (translated). *4*

Card 6/6

ABOLMASOVA, A. [translator]

Incomprehensible generosity of nature (from "Kagaku-Asakhi," no. 12,
1961). Nauka i shizn' 29 no. 5: 84-85 My '62. (MIRA 1961)
(Nettles)

ABOLNICK, S.A.

Abolnick S.A. La prevention de la tuberculose par le B.C.G. en U.S.S.R.
The prevention of tuberculosis by B.C.G. in the U.S.S.R. Annales de l'Institut Pasteur,
Paris, 1947, 73/4 (373-378) Tables 6

Of 56,961 children vaccinated at birth with B.C.G. in 1938 and 17,669 controls, the mortality from tuberculosis during the first six months of life was about five per 10,000 for both groups. During the second six months the mortality in the vaccinated group was eight per 10,000 and during the second year it was 10 per 10,000. The corresponding rates in the unvaccinated group were about double those figures. With the introduction of large-scale vaccination in big cities the mortality rate of infants from tuberculosis declined by 40 per cent between the years 1936 and 1940.

Wyss-Austin

So: Medical Microbiology and Hygiene, Section IV, Vol. I, #1-6

ABOL'NIK, S.A.

Mutual activity of various carcinogenic agents. Vop.onk. 6 no.2:
102-112 F '60'. (MIRA 14:2)

(CARCINOGENS)

ABOL'NIK, S. A.

Surgical and radiological castration in cancer of the mammary
gland. Vop. onk. 8 no.4:97-106 '62. (MIRA 15:4)

(BREAST—CANCER) (CASTRATION)

Abol'nikov, S. Ya., ed.

The Kazakh SSR at the All-Union Agricultural Exhibition, 1979

DK903.M67

I. Kazakhstan. I. Rusanov, I.K. II. Hecht, Semen Grigor'evich.
III. Abol'nikov, S.IA. ed.

STRAZDINA, Pauline, kand. ekon. nauk; AVEKSE, R., otv. za vypusk;
OSIS, R. [translator]; SVEIDE, V. [translator]; ABOLS, J.
[translator]; VOLFS, L., tekhn. red.

[Development of public dining facilities in Soviet Latvia]
Sabiedriskas edinasanas attistiba Padomju Latvija. Riga,
"Padomju Latvijas kooperators" 1960. 55 p. (MIRA 16:4)
(Latvia--Restaurants, lunchrooms, etc.)

SOURCE: Ref. zh. Dvigateli-vnutrennego sgoraniya. Oni Mirov. voennyi. Aka. 2 22 88

gaskets are placed in the joint plane. A shield is placed between the super-charger air tank
and the gas tank to prevent heating by thermal emission. A study of problems

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of air heating due to turbine heat emission at a given level of turbocompressor operation. Naturally, that value will equal isentropic efficiency in the absence of heating. Three turbocompressors of various designs were tested to evaluate ideality of turbocompressor layout of excess air heating on supercharger operation. Methods permitting analysis of are not available at the present time. The author presents simplified procedure for testing ing turbocompressors with consideration given to excess air heating. An equation is evolved

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